2ND EDITION

UNDERSTANDING
NEW MEDIA

EUGENIA SIAPERA

Understanding New Media

Praise for the first edition

Eugenia Siapera's *Understanding New Media* offers an admirably clear-sighted and engaging analysis of contemporary forms of mediation, illuminating the dynamics of new media across social, political and cultural spheres while skilfully avoiding the many traps that abound in this field – of hyperbole, obfuscation, partiality and lack of empirical grounding. She provokes her reader to think afresh about familiar phenomena, to synthesise diverse theoretical positions, and to stretch their imaginations to anticipate what is coming.

Professor Sonia Livingstone
Department of Media and Communication, London School of Economics and Political Science

An excellent introduction to the past, present and future of the electronic, networked media world. By carefully examining the complex interactions between society and media, Siapera insightfully illuminates the social, political, economic and cultural consequences of our increasingly electronically networked and mediated world. This book will be a highly useful teaching tool and an engaging read for students, teachers and scholars.

Steve Jones
University of Illinois, Chicago

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Preface

When the first edition of *Understanding New Media* was conceived, around 2008, the new media landscape was very different. So much so that today's internet users would hardly recognize it. The term 'social media' hadn't yet entered our vocabularies, but the rising importance of these media was already apparent. By the time the book was actually published in 2011 there was another sea of change: this time precipitated by political developments centring on the Tunisian and Egyptian revolutions and the events known as the Arab Spring. At the time of writing this, in late 2015, there are more changes but also consolidation: the power and dominance of Facebook and Google is beyond dispute. Protest, empowerment and participation are still at the forefront, but tempered by increased surveillance, corporate domination, and also by user actions such as shaming, malicious trolling and cyberbullying. In this context of change and consolidation, the challenge is not only to provide up-to-date information and correctly identified trends, but also to develop a specific theoretical and analytical perspective or lens by which to read these developments and trends. There are a lot of new media and technology gurus and futurologists out there, but what this book aspires to is something different: not to predict, but to read, analyse and understand current trends, based on empirical research and social scientific theories, and, at the same time, to offer students an analytical template through which to make sense of the present and future developments in new and social media.

The main aim of this book therefore is to provide a means by which to decipher the complex relationships between technologies, media and social fields. The disciplinary lens used here is social scientific, meaning that priority is given to research that has produced findings on these relationships, using a variety of methods, quantitative and qualitative, and drawing on theories from sociology, psychology, political science, and media studies. *Understanding New Media* from this point of view involves understanding what research has told us about new media and various fields of life. At the same time, however, research does not speak for itself: it already involves certain assumptions regarding these relationships, assumptions which may come from previous studies or which may develop from the ground up;

moreover, it actively interprets findings and data in ways commensurable with these assumptions. Social scientists do not always agree on these assumptions and their validity, nor do they always agree on the interpretation of findings. Mapping these disagreements is also a part of this book. It is in and through these disagreements that the complexity of the issues involved can be made clear.

While the emphasis is on social scientific research, the book is equally concerned with the role of history and with a social historical understanding of new media developments. It is not unusual in social science to proceed as if there is no history, no learning, no building upon previous developments. As if everything is perpetually new. This is occasionally found in new media approaches as well, which tend to focus on innovation and novelty, overlooking continuities and the role of path dependency: often, new developments take place along a path that has opened up some time in the past, and this to an extent shapes and prefigures their present and future. Tracing continuities and understanding the past of current innovations and current media is important, and this book will do this whenever the opportunity arises.

But do we still need to refer to new media, now that the internet has been around for over 46 years (since 1969's ARPANET), the Web for 25 years (since Tim Berners-Lee's World Wide Web invention in 1993) and social media at least for 11 years (since Facebook's launch in 2004)? Understanding *new* media frames these media in very specific terms: to refer to new media even as the internet is already 45 years old and the Web around 25 may raise questions. Why new? Where does the novelty lie? Why not digital or social media? The next section explains how the various terms have been conceived and applied here. This will be followed by a summary of the key debates that have structured the field of studying the new media, as these will also emerge in various points across the book. The final section here will provide brief summaries for the chapters to follow and a guide to the pedagogical features of the book.

Why *New* Media?

'What's in a name?' wondered Shakespeare's Juliet. 'A rose by any other name would smell as sweet' (*Romeo and Juliet*, II, ii, 1–2). Indeed, although we use several names, the question remains: does anything change if we call them new media, online media, or digital media? Do they not refer to the same media? Well, Juliet may actually be wrong: different names bring to the fore different attributes, and by prioritizing different elements, they focus attention on some aspects and overlook others. The result is that to all intents and purposes they end up 'smelling differently', to use Shakespeare's analogy. In other words, their outlook, attributes and uses shift as a result of the names used to define them. In this manner, names do not merely describe them, but construct them as particular kinds of media. A decision on which name to use is therefore quite an important one. In this section we will explain why the term 'new media' was adopted in this book, by discussing the three main alternative terms: digital media, online media and social media.

Digital Media

One of the defining characteristics of the kinds of media under study is that they are digital (Lister, Dovey, Giddings, Grant and Kelly, 2009). This means that all the information or data in these media is encoded in numbers. The most common numerical system used is the binary code of 0 and 1: all information is therefore converted in a series of 0s and 1s. Information such as, for instance, a name, can be represented by any arbitrary combination of numbers. From this point of view, the interpretation of the digital code is independent of its representation. On the other hand, analogue media encode and store information in corresponding physical objects. Thus, sound, text and images elicit analogous responses in vinyl, paper or film. This is a relationship of more or less direct correspondence of encoded information and physical objects, in which information is interpreted in an equally direct manner. For example, words are encoded in a book by pressing metallic letters on paper, and once printed they cannot change. Recorded music is encoded by carving grooves in vinyl.

Lister et al. (2009: 18) refer to four main outcomes of the turn towards digital media. First, media texts become de-linked from particular media. We can now read books on the internet or on Kindle, watch television or films online or on our mobiles, and upload photographs on our blog or hang them on digital frames. This attribute leads to the much-talked-about media convergence (e.g., Jenkins, 2006b). Second, information can be compressed and fitted into very small spaces or even accessed remotely: portable devices, USB sticks and external hard drives can store astonishing amounts of information, while the 'cloud' (i.e., servers to which users can connect remotely through the internet) can offer almost unlimited storage and can be accessed any time and anywhere. A third outcome of digitalization is that access to data can be very fast and also does not have to be linear. Imagine that you have stored all your books in a flash drive or on your computer's hard disk or in the cloud. You can access any book in this collection in a matter of seconds, and also information within this book without having to flip through all the pages one by one. Finally, a more ambivalent outcome of digitalization is that data can be manipulated in ways unimaginable in the analogue media age. In the Stalinist Soviet Union, disgraced Party members

would disappear from official photographs and records through painstaking retouching by photography experts (see King, 1997). Careful examination could easily reveal the falsification of the photographs. Digital photographs have reversed the situation: retouching is available to all of us at a click of a few buttons. While this may be a useful tool for removing 'red eyes' from pictures, it can clearly have more sinister uses.

There is no doubt that the process of digitalizing the media has had profound effects. In the European Union, the 2012 digital switchover has put a formal end to analogue media. The process of digitalization has turned all media into digital media. But how does this term fare when it comes to understanding the media? With its emphasis on the mode of encoding and converting data and information, the term 'digital media' seems to focus primarily on the technological element of the media. To talk of digital media therefore appears to prioritize aspects that relate to the technology that made them possible. While the technological element is without doubt important, we have to ask here whether it is the defining characteristic of these media. A possible objection concerns the implicit technological determinism associated with such a position. To posit that the technology is the defining dimension of the media overlooks the ways in which users shape them, or the broader socio-cultural and economic environment which produced them in the first place. We can therefore keep from the term 'digital' the importance of technological attributes, but we also need to add other elements as well.

Online Media

A second term for understanding the media is to refer or construct them as online media. This is a direct reference to the internet, which is in many ways the prototypical new medium. The term 'online media' prioritizes the element of connectivity, or the ways in which they connect with other media, mainly computers, but also more recently mobile telephones. Connectivity is certainly a crucial attribute of the media under study: the ability to link to distant (and sometimes near) others, one or many at the same time, has had wide consequences. For one, it introduces a shift within modernity, which is typically associated with isolation and individuation (see Giddens, 1991). In addition, it introduces, or perhaps continues and accelerates, shifts in the relatively separate and distinct socio-cultural and politico-economic organization of the nation-state; such shifts are associated with the process of globalization (see Robertson, 1992). To refer to the media under study as online media constructs them as primarily connected media. But is this attribute the defining characteristic of the media? To be sure, connectivity is a crucial element, but focusing on it overlooks the other ways in which we relate to the media. Moreover, connections to distant others were already possible with the telegraph and later the telephone. Online connectivity does not seem to point to a kind of replacement or rupture in the same way that the digital replaced analogue, and from this point of view, the shifts it introduces are more in terms of the quality and degree of connection. In short, the term 'online media' captures another important dimension, but one which needs to be thought about alongside others.

Social Media

In the first edition of this book, the term 'social media' had not yet acquired the currency it has today. But what exactly does the term cover? In the widely cited definition by Kaplan and Haenlein (2010: 61), social media are defined as 'a group of Internet-based applications that build on the ideological and technological foundations of Web 2.0, and that allow the creation and exchange of User Generated Content'. This clearly prioritizes the social and bottom-up elements, the active participants, and centrality of users. This shift, which is paradigmatically captured in *The Times* 'Person of the year 2006' – which was 'you', the generic user – points to the increasing popularity of these media, their wide diffusion and the prioritization of user experiences. On the other hand, the term seems to omit crucial details, especially the rise in the power of social media corporations, the underlying control of user behaviour and experiences through surveillance techniques, constant data collection and algorithmic ordering and sorting techniques. Moreover, the term seems to be quite exclusive, not looking at other kinds of new media articulations, for example games, mobile phones and locative media, which may have a social component but are not limited to that. However, as more and more applications are developed and downloaded, the term is losing its specificity; are we to understand all apps as social media? While no doubt the term 'social media' has usefully highlighted the shift towards a more participatory relationship with the media, it may be too limited to comprehend a wide range of social, political, cultural and economic shifts, which are associated with this shift but not limited to it.

New Media

We therefore end up with the term 'new media'. There are a lot of issues with this term: it introduces a somewhat arbitrary split between 'old' and 'new' media, it overlooks that 'new' media such as the internet already have a 40-year history, while it also fails to denote any of the dimensions along which the 'new' differ from the 'old' other than their age difference. Yet, these problems, especially the failure to specify what may qualify as a new medium, actually allow us to include attributes such as digital, online and others as well without limiting or prioritizing any single one. In addition, although for some critics the reference to 'new' may appear to disregard the ways in which more mature media have evolved in recent years (Bell, 2009), it denotes a dynamism and penchant for constant change. The term can therefore include all kinds of media formats as long as they are indeed evolving.

But the term 'new media' further signifies a shift in media logic, which denotes a certain degree of novelty. Discussing the new media, Lev Manovich (2001) argued that thinking of them as digital is only half the story: for Manovich these elements may be present in older media forms as well. The new element that points to a significant change in the media is that they are the result of a convergence between the computational logic characteristic of computers and the communicative logic characteristic of the media. While for Manovich this has the result of the dominance of a specific logic, that of the database, over the communicative logic of the media, we would like here to leave open the question of a dominant logic. We can retain Manovich's idea of the convergence between computational and communicative logic as characteristic of the new media, as this shows the uniqueness of these kinds of media. To these we can add the logics of connectivity and sociality that seem to underlie these media. But rather than talking about prevailing logics, it may be better to point out, as argued above, that the term 'new' signifies precisely this openness and struggle between different ideas, users, logics and so on, which seem to be part and parcel of the new media, at least at this relatively early stage of their existence.

From this point of view, the use of the term new media constructs them as

novel, innovative and dynamic. Furthermore, its reluctance to commit to any single attribute or logic as the defining one means that they can all be included as necessary but not sufficient criteria for understanding the new media. At the same time, it recognizes the specificity and uniqueness of the type of media we are looking at. The choice of this term is therefore more appropriate for a book that seeks to outline the dynamic introduced by these kinds of media and the wider consequences they may have for everyday life. This book is therefore concerned with providing a sketch of some of these consequences on discrete fields of life.

Chapter 1 examines this proposition in some detail. It looks at the theories, suppositions and arguments regarding this complex relationship. The main objective of this chapter is to understand how technology has been viewed by different theorists and how these understandings fed into an understanding of the relationship between technologies, media, societies and individuals. Chapter 2 focuses on a crucial field, that of the economy, and examines the ways in which new technologies and media are connected with the economy and with shifts in patterns of labour and employment. Furthermore, this chapter looks at the political economy of the new media themselves, and the changes they introduce to the production, contents and uses or reception of the new media. In Chapter 3, we assess the articulations of politics, both formal and informal, with the new media. The evolution of net native forms of politics and political interventions, such as hacking and distributed denial-of-service attacks but also clicktivism, feeds into the idea that the coupling of the new media with the political sphere has created new modes of political being. Chapter 4 looks at one of the perennial issues of thinking about the new media: that of persisting divides and inequalities. Though considerable progress has been made in closing gaps of access, there are emerging gaps in use and participation, and ultimately in what we gain out of the new media: some appear to gain much more than others, and often these divides are mapped onto persisting socio-economic divides. Chapter 5 is new to this edition, and looks more closely at the issue of media adoption and use. Looking at theories of new media diffusion, we argue that more often than not the decision to adopt is more a social one rather than an individual or personal choice. After adopting a new technology, people adapt it to their own lives, needs and requirements, while they also themselves adapt to it, developing new habits and practices. Some of them may be problematic, as

the issues of addiction, cyberbullying and trolling show. Chapter 6 explores the 'dark side' further, looking at excessive surveillance, war and conflict, scams and cybercrime, and extreme porn. While indeed there are reasons to worry about these problematic aspects enabled by the new media, one of the most negative developments is the dilemma between safety and liberty that seems to be posited in and by the new media. In Chapter 7 we look at journalism, and to the changes in this field, which have been massively reshaped on the basis of developments in the new media. Journalism is in dire need to reinvent itself in the light of cataclysmic changes in how contents are produced, distributed and consumed, and which have severely affected its main business model. Chapter 8 focuses on changes within the field of new media itself: the shift towards mobile is evident and it is associated with a host of other changes, as in terms of media consumption. Overall, the element of mobility has intensified aspects of individuation but also of surveillance and the ubiquity of the internet. In Chapters 9 and 10 we shift attention towards the self and the individual and towards the social domain and sociality, or how we relate to each other. Is the online self more emancipated? While the new media offer unique possibilities for self-creation and autonomy, they are also subjected to logics of competition and impression management that seek to accumulate social capital and reputation in the form of likes and follows. The new value of authenticity that is emerging in contexts of self-presentation indicates an increasing awareness of the contrivance involved in such contexts. In terms of how we relate to each other, we have discussed the logic of networked individualism, which points to one of the most fundamental shifts in society: the shift from a group or community organization to one that revolves around networks established by individuals on the basis of their shared background and interests. In Chapter 11 we analyse online and video games as new media, and as an emblematic industry of informational capitalism. The blurring of work and play is typical of the shift to neoliberal informational capitalism and the way in which work has crept into private moments. The links of the games industry to the military–entertainment–industrial complex are significant and point to the intricate connections between various kinds of media (corporations) and the apparatus of the state. On the other hand, gamers and gaming communities provide ample evidence of human creativity in accommodating but also resisting top-down-imposed moulds that attempt to control and limit them. Chapter 12 finally pulls all the threads together and provides a sketch of how

to think of the future of the new media. We identify three dilemmas emerging out the various chapters: individualism versus collaboration, security versus liberty and openness, and the internet in the service of profit making or as a public good. The future of the internet and the new media will depend on the ways in which our societies address and resolve these dilemmas.

The book contains three kinds of pedagogical features, aimed to encourage readers to delve a bit further or deeper into the themes covered. The first one of these is what we have called a case study. Each chapter looks at a specific case which exemplifies or illustrates some aspect of the discussion in the chapter. In some instances, the case study addresses a somewhat parallel theme that couldn't be part of the main discussion. The case studies are meant to offer readers another part of the picture and to use specific instances to engage with broader problems or issues. Second, each chapter offers a research activity, which addresses specific problems and asks readers to engage with these in a practical, empirical manner. Readers may also find interesting running variations of these rather than exact replications, to reflect their own circumstances, context and interests. Finally, each chapter offers an annotated Further Reading section with journal articles that contain theoretical insights, empirical findings and methodological contributions which help address some of the issues discussed in the chapter.

Writing this book was a hugely rewarding experience for me, as I have challenged myself, and learned a lot more about the topics covered, about the fascinating research conducted by amazing researchers, and about the theoretical and conceptual conundrums involved in trying to pin down an extremely dynamic field such as that of new media. Inevitably, this book will have important omissions: I cannot include everything. But hopefully, it will make readers curious enough to go and search for these omissions elsewhere, and enjoy this book (and its errors and omissions) as much as I enjoyed writing it!

April 2017

1 Understanding New Media

Learning Objectives

- To learn about different approaches to the study of the new media
- To critically understand the relationship between technology, new media and society
- To learn the main positions of important theorists of technology and media

Today, after more than a century of electric technology, we have extended our central nervous system itself in a global embrace, abolishing both space and time […]. Rapidly, we approach the final phase […] when the creative process of knowing will be collectively and corporately extended to the whole of human society […].

Marshall McLuhan, *Understanding Media: The Extensions of Man*, 2001 [1964]: 3

The media determine our situation.

Friedrich Kittler, *Gramophone, Film, Typewriter*, 1999: xxxix

The first excerpt, from the introduction of *Understanding Media*, reveals McLuhan's vision of the electronic media world: that through the media, humanity – fully connected – will collaboratively build and share a global world. The fragmentation and alienation associated with the 'mechanical age', or the age of the industrial revolution, is now replaced with a compulsion to participate and become involved. Kittler's statement is more succinct: all that we are, he claims, is determined by the media. The crucial argument for both theorists is that the media play a central explanatory role in the shifts and transformations in human history. Understanding media therefore means understanding humanity. We shall examine McLuhan's and Kittler's work in more detail later, but for now, the important issue is that understanding media brings an insight not only into the technologies or devices themselves, but also into societal changes. Understanding new media

is expected to lead to an understanding of changes and transformations in social processes, norms, ideas and practices. The media are inextricably bound to society: the study of one requires the study of the other.

The exact nature of the relationship between the media and society is a subject of much debate. But even without reaching any definite conclusions, the increasing centrality of the media, and especially of the *new* media, is clear to all of us. Televisions and radio sets have had a long presence in households in at least the developed world. But the rise of the new media is associated with their ubiquity; they are found everywhere: in living rooms, offices and schools, in the streets, in playrooms and bedrooms. And what's more they are found not only in the so-called developed world, but in developing countries as well. A recent study reports that mobile phones are now as common in certain parts of Africa as they are in the United States (Pew Research Center, 2015). This spread poses a series of important questions regarding society, but also about economic, political and cultural institutions, as well as our experiences. We may want to see these as increasingly, or perhaps even inevitably, mediated (Livingstone, 2009). In other words, the involvement of the new media in society, the economy, politics, culture, the self and experiences is such that none of these escape unscathed. Understanding new media, in this sense, means understanding how they interact with a series of social, economic, political, cultural and psychological processes, giving rise to a new kind of world. As we shall see, this world may not resemble very closely the one in McLuhan's vision, but it can nevertheless be thought of as a new media world.

This chapter is concerned with providing the lens through which our interrogation of the new media can take place. Theory, in its original Greek etymological roots, literally means view or sight; as such, theory constitutes a particular way of seeing and examining something. Social phenomena do not reveal themselves to us in their entirety but we look at them from specific viewpoints and analyse them from certain perspectives, commensurable with our expertise, level of knowledge, and historical positioning. It is necessary therefore to clarify the viewpoints and perspectives adopted here and the main assumptions and arguments they make. Two distinct but related theoretical lenses are required in our current interrogation of the new media: one that concerns the relationship between technology and society, and one

that concerns the new media as media. The first section will cover the former and the second section will discuss the latter.

Technology and Society

We can begin our interrogation of the relationship between society, media and the technologies that underlie them by posing the question, in the first instance, as a question of the relationship between technology and society. If new media are new precisely because they rely on new technologies, then before looking at their actual mediation, it may be worth considering the relationship between technology and society. Does technology determine society? Or does society determine technology? What are the effects of technology on society? Is technology good or bad? There are three possible answers to this question, which mobilize a different version of what technology is. This is based on Darin Barney's (2004) classification of theories of technology into three categories: instrumentalism, substantivism and social constructivism.

Instrumentalism views technology as neutral, a tool that is employed by people in ways that reflect each society's goals and values but also its problems and limitations. Technology itself cannot be assessed on moral or political terms, as it is seen as a neutral device. While we can examine and judge the ways in which technology is used, technology as such can only be judged on the basis of how efficient it is. Following this logic, as long as technology is efficient, then it is also in a sense 'good'. This logic underlies the kind of technological optimism referred to above, which holds that technological innovation signifies progress and must be thought of as good (Barney, 2004). If technology is made to serve bad ends, then it is not technology that should be blamed, but rather those who used it in these ways. Positive or negative outcomes are the result of appropriate or inappropriate uses of technology.

In contrast, substantivism holds that technology is ruled by a certain logic, which implicates not only our societies, but also our subjectivities and our very being. For this school of thought, represented by the works of the sociologist Max Weber (1958) and the philosopher Martin Heidegger (1977), technological outcomes reveal the logic and essence of technology. This, in turn, is considered to be that of instrumental rationality, involving the logic of

standardization, homogenization, and the mastery of nature and society (see also Barney, 2004: 38–39). For substantivism, using technology also implies using human beings, or rather producing a certain kind of human being and a certain kind of society. All technological outcomes entail this logic, and there is no way to distinguish between 'bad' and 'good' ones: they are all more or less equivalent and all display the dominant technological logic of instrumental rationality and efficiency.

Finally, social constructivism questions the focus of substantivism on technology alone, arguing that it disregards human agency and the role played by contingency and random factors. In actual empirical cases, we can observe that technological outcomes are not always the most technological or efficient, while we can also see the failure of certain technologies to take hold, although they are both efficient and 'technological' – genetically engineered food or nuclear power may be two cases in point. The point here is that technological outcomes must be seen as the products of a complex interplay of social, political, cultural, economic but also technological factors. Each technology interacts with its context, and the artefacts produced and the uses they are put to feed back into technologies, leading to other directions and new artefacts. This is the argument put forward by the social constructivist school of thought, associated with the work of Wiebe Bijker and his colleagues (e.g., Bijker, 1995; Bijker, Hughes and Pinch, 1987). Given the plurality and heterogeneous character of our societies, we can infer that technological uses and outcomes will be as plural and as heterogeneous: while some might be considered 'progressive' in the sense that they contribute to a more equitable and just distribution of wealth, status and power, others may be seen as politically problematic, socially destructive or psychologically pathological. This is not only a reflection on the uses themselves, but also the result of the interaction and articulation between certain political, social, etc. characteristics with some elements of the technology itself.

Assuming a position across these various positions, the philosopher Bernhard Stiegler argues that technology and humanity are coeval or co-originary: technology is a necessary supplement to humanity. The central problem posed by Stiegler in his four-volume work *Technics and Time* concerns the role of 'technics'. The term 'technics' refers to the object of techno-logy, and

more specifically to the domain of skills, as opposed to episteme, the domain of knowledge. For Stiegler, all human action relates to technics (1998: 94). But what is the relationship between humans and technics, or skills and tools? Stiegler makes use of Derrida's insight (in *Of Grammatology* (1974 [1997]) and *Of Spirit* (1991)) on prostheses or supplements to humans as ever-present. Derrida showed that the philosophical move to isolate thought (the 'essence' of humanity) from technics or the technological means (supplements) by which it is articulated is in fact impossible: speaking, writing, printing and, crucially, archiving are always there when thought is articulated. Thought, life or even nature cannot be understood without technics: this is what Derrida terms prosthesis of/at the origin, or 'originary technicity' (*Of Grammatology*, 1974 [1997]).

Because the relationship between technology and humanity is one of a dynamic mutual composition (Stiegler, 2006), what is at stake is nothing less than the future of humanity. Stiegler argues that technical objects are the exteriorization of memory-thought, which then condition and circumscribe the 'interior', this very memory and thought. But this dependence on such mnemonic devices, as he calls them, entails loss of knowledge, which is then displaced and moved onto these technological objects. Losing our mobile phone, to use Stiegler's (2006) example, means losing all our contact numbers, which are no longer in our memory. Equally, consider the loss of the aptly named 'memory stick', which involves the loss of stored knowledge that we cannot retrieve from our memories. And here we must think, argues Stiegler, what this entails for our future. When in new technologies all the 'know-how' is 'exteriorized' and stored in devices controlled by others (corporations, governments, armies, etc.) then we are faced with two effects. On the one hand, this entails a kind of 'human obsolescence', the deskilling and consequently the 'proletarization' of more and more humans, who after this loss of knowledge become fit only for consumption. On the other hand, we find the assumption of more and more power by the cognitive and cultural industries that run today's societies of control (Stiegler, 2006: 18–19). For Stiegler, this leads to a politics of memory, a struggle for control of these technological mnemonic devices.

It is fair to say that most people tend to assume an instrumentalist view of technology, as a tool to use in their everyday life. In so doing, they may

overlook the specific ways in which technology structures life. For example, one may think of the difference between a society where mobile phones did not exist and a society where they are widely available: these are clearly two very different societies, with people having very different practices and experiences. These specific ways in which our lives are structured by technology are the result of how these technologies are put together. The idea that technology has a particular 'essence', although hard to grasp and perhaps harder to agree with, makes an interesting point: while the instrumentalist and social constructionist views prioritize the human and social elements and control of technologies, the substantivist strand is the only one that takes into account the materiality of technology – technology not only is acted upon but also acts on the world. So to return to the point made earlier, technologies may structure our lives in both technological and non-technological ways. What technologies can actually accomplish, for example supporting voice and image over the internet, which is what Skype typically does, is a very significant parameter, and cannot be ignored. Moreover, the technical infrastructure that is required in order to support this technology (the wires, fibre optics, camera and sound equipment and so on) leaves a trace in the material world, and has a clear impact on the social world; one clearly needs and presupposes the other. In this, the social constructivist viewpoint of the role played by a variety of other, non-technological factors is very important in helping understand and frame the impact that technologies may have in our lives. For example, some mobile operators offer free data plans making the internet more accessible to their subscribers; hence, while two mobile phone users may have the same technology they may not be able to use it in the same manner because of the different costs it has for them. From this point of view, in considering technologies and society we must consider the technical-material and social dimensions equally. This argument underpins our discussion of media theories.

New Media Theories

For media theorists, the role and involvement of the media in society is crucial. Just as the substantivist view of technology holds that technologies 'enframe' or in a sense prefigure society, an influential strand of thought in the discipline of media and communication holds that the media structure societies. While in the field of communication, McLuhan and media theory lost currency because of the rise of alternative paradigms, prioritizing political economic factors or audience practices, the focus on media as objects and technologies returned in the 1990s and 2000s, and the first wave of digital media. This led to a formulation of a distinct theoretical strand, which, although quite diverse, can be subsumed under the heading of new materialism; the focus here is on Friedrich Kittler, and more recently on the work of theorists such as Matthew Fuller and Jussi Parikka. This strand constitutes a useful return to the material aspects of technologies and media, and it allows us to examine how they order and structure the world, the processes by which they operate, and the traces they live behind. On the other hand, there is a tendency to lose the social aspects of media and technologies, the ways in which humans can and do act upon the media and their materials. Network theories of the new media, associated mainly with the work of Manuel Castells, clearly illustrate the role of other parameters, social, political and economic. The following sections will discuss these three strands, which are not mutually exclusive – occasionally drawing upon, adding to, and in discussion with, each other.

Media Theory: McLuhan

As with this chapter, a theoretical interrogation of the relationship between the media and society typically begins with Marshall McLuhan. This is because McLuhan is the first theorist to argue that the importance of the media is not located in the contents they circulate but in the form of the media themselves. In fact his somewhat-opaque statement that 'the media is the message' (McLuhan, 2001 [1964]: 7) can be interpreted in two ways: first, it denotes the ultimate priority of media forms, which indeed impart a crucial message, and second, that the contents of any new medium are the old media. To begin with the latter, McLuhan's argument relies on a slightly idiosyncratic view of the historical development of the various media. Thus, he considers that speech, orality, was the first 'medium' – he is clearly using a widened understanding of the term. Subsequently, the media that evolved, such as written language, contained speech as its contents; the invention of the medium of print used written language as its contents. Cinema then used print as its contents and so forth. Specific messages and media contents are therefore not as important or relevant as the actual medium itself. Nonetheless, this kind of cannibalistic behaviour leads straight back to contents as a means for analysing media. Following McLuhan's arguments, the contents of the new media incorporate all other previous media (cf. Levinson, 1999).

But it is the first understanding concerning the primacy of the media that leads to the more radical implications for any media analysis. This is due to the relationship it posits between media, people and societies. McLuhan famously thought that the media are extensions of the human senses. As he put it: 'all media, from the phonetic alphabet to the computer, are extensions of man that cause deep and lasting changes in him and transform his environment' (McLuhan, 1969: 54). More particularly, he viewed the media as either extensions or amputations, but nevertheless as inextricably bound to human beings. For McLuhan, the media can extend our senses, but they can also limit them: a medium can amplify or accelerate existing processes or senses (McLuhan, 2001 [1964]: 7), and this is its 'true' effect or impact. Examples here include the process of mechanization or the replacement of parts of human labour by machines. The fact that human labour is mediated

by machines leads to a fragmentation of previously integrated parts of the process. Similarly, the telephone extends human voice, but it also 'amputates' face-to-face interaction – a criticism often faced by the so-called social media in more recent days. In more general terms, the relationship that McLuhan posits between the media and people is one in which the shape or form of the media determines what happens to humans. Humans, or more accurately the current human condition, is seen as the 'effect' of media and technology. It's little wonder that McLuhan faced accusations of media or technological determinism (e.g., Levinson, 1999).

Indeed, it seems that the relationship posited by McLuhan is one in which technology and media cause and determine the changes and directions of human activity, be it social, political or economic. And, moreover, humans are blinded to these effects of the media in the same way that fish are unaware of the water in which they swim: 'As a result, precisely at the point where a new media-induced environment becomes all pervasive and transmogrifies our sensory balance, it also becomes invisible' (McLuhan, 1969: 56). There is a sense in all this that humans themselves are led by the media, not realizing the many and varied effects and consequences. The historical evolution of the media, according to McLuhan, who in this seems to follow Harold Innis (1950, 1951), is from orality to literacy, from the spoken word to handwritten manuscripts and from there to print and then electronic media (McLuhan, 2002 [1962]). Each media epoch was characterized by different lifestyles, cultures, trends, economies, and also political systems (Innis, 1951; McLuhan, 2002 [1962]). Oral cultures were linked to tribal forms of socio-political organization and relied on the art of memory. Literate cultures, such as the ones by Greeks and Romans, introduced militarism and the exercise of power from far away (empire). The dawn of the electronic media will, for McLuhan, inevitably lead to the end of the 'Gutenberg Galaxy', print culture and its main characteristics and organizing principles: nationalism, functional differentiation, rationalization, homogenization and alienation – all these are also clear characteristics of (early) modernity. The uniformity of print is in a sense emblematic of the homogenization effected by this kind of medium; McLuhan further adds that the print age has installed a primacy of the visual over the melange of senses mobilized by the oral and manuscript eras. But what of our era? This, for McLuhan, is in transition from the Gutenberg Galaxy to the electronic era.

The electronic media usher in a new culture, in which time and space do not matter as much, due to the immediate and interlinked connections drawn by electronic circuits. The main organizing principles characteristic of the 'mechanical age' of the Gutenberg Galaxy will inevitably become extinct: no more nation-states, no more fragmented individuals; rather, we will come together as a community in the global village, linked by a series of interdependencies.

It is clear that, for McLuhan, the motor of human history is not, as Marx would have it, class struggle, but rather media and technological evolution. Technology and media replace Marx's humanism, but also give rise to important questions: what leads to technological change? If humans and their societies are determined by media, then what accounts for shifts in media themselves? Moreover, and following a Marxian theme, are we all equally affected by the different media ages? McLuhan would perhaps answer that different media instigate a different division of labour, but the absence of these explicitly political considerations earned him many an intellectual enemy (see, for instance, Enzensberger, 1970). Perhaps some answers are found in the work of Friedrich Kittler, who relies on, and extends, McLuhan's thought.

New Materialism and Media Theory: Kittler and Beyond

'The media determine our situation' is the opening line of Friedrich Kittler's *Gramophone, Film, Typewriter* (1999) – a statement boldly reiterating McLuhan's 'the medium is the message'. But Kittler's work is much more subtle and nuanced than this statement conveys. His argument fuses Foucauldian archaeological analysis and Lacanian structural psychoanalysis with the media and their technologies in unexpected ways. Foucault famously argued that notions, institutions, disciplines and even selves that appear 'natural' are in fact all constructed; they form the culmination of years of operation of certain discursive principles and formations, and they reveal the operation of power (e.g., see Foucault's *The Order of Things* (2002 [1966]), *Power/Knowledge* (1980), *The Archaeology of Knowledge* (1989 [1969])). Discourse – or a series of signs, written, spoken or otherwise conveyed – is placed at the centre of such constructions. The job of an 'archaeologist' or later 'genealogist' of the social world is to find the constitutive elements of the issues, subjects and disciplines they are analysing. Lacan, on the other hand, focused on the way in which subjects or selves become who they are through the operation of linguistic principles (Lacan, 1980 [1966]). Kittler now draws upon these insights, arguing that it is well and good to look at languages and their combination into discourses, but we must not overlook the media or the technological networks that made specific kinds of languages and discourses emerge and assume primacy. Kittler views such languages and discourses more broadly as information and argues that to understand our present condition, we must take into account the ways in which this information is processed and stored. He refers to such configurations as 'discourse networks', which he more specifically defines as networks 'of technologies and institutions that allow a given culture to select, store and produce relevant data' (Kittler, 1992: 369). Kittler then proceeds to a historical periodization resting, on the one hand, on McLuhan and, on the other, on Foucault (2002 [1966]).

In his book *Discourse Networks 1800/1900,* Kittler (1992) describes the 'network of 1800' with the period of alphabetization, which relied on writing as the only means of processing and storing information. All other kinds of

signs, sounds, images and so on had to go through written language in order to be stored. This discourse network was linked to Romanticism, as written language was in the first instance a 'technology of symbolic encoding' (Translators' Introduction: xxv), and was primarily associated with literature. Literature, and poetry, were then interpreted as the exteriorization of an inner voice, which sought to capture feelings and ideas in an 'authentic' way. The monopoly of writing was broken by the invention of other media, such as Edison's phonograph and kinetoscope, which allowed the recording and broadcasting of voices, sounds and images. Remington's typewriter, which was invented at around the same time (1900), constituted the third medium described by Kittler as part of the 'discourse network 1900'. This network revolved around inscription technologies, and was no longer representing the 'inner voice' but rather exteriorized modernity's need to control, rationalize and record data in a standardized manner. Kittler supports his arguments with references to Nietzsche, one of the first authors to use a typewriter, which then made him realize the shift involved: from the expression of 'inner voices', the individuality and idiosyncracies of writing (by hand) to standardized typography, from an agent of writing to a surface for inscription (Kittler, 1992: 210). The next move, one which Kittler has yet to complete, involves the passage to digitalization, which subverts the serial inscription of data, and leads to new forms of subjects. However, discourse networks can only be methodologically approached retrospectively, preventing Kittler from a formal description of a discourse 'network 2000' (see Kittler and Johnston, 1997: 7).

These links between media technologies and consciousness or subjectivity show the importance of the media, and justify Kittler's statement that the media determine our situation. They do so by virtue of providing us with the material artefacts by which to write, communicate or otherwise understand ourselves and the world around us. There is a clear anti-humanist stance in Kittler, as there is no room for human subjects as the agents of history in his account – rather, humans appear as the end result of historically located mediations: romantic, 'authentic', close-to-nature, mediated through handwriting, and industrious, rationalized units (individuals) mediated through the technologies of inscription. The same questions as with McLuhan inevitably arise here as well. What about human agency? What may explain media emergence, change and evolution? Kittler's argument, following a

Foucauldian understanding of power as enabling (Foucault, 1980), is that technologies make people: that is, media and their technologies make possible the kind of people that we are, and the kind of societies that we have. But then people, enabled by the media, feed back into them, thereby leading to shifts and changes, which in turn produce different media technologies, different subjects, different societies, and so on. To clarify this point further, in their introduction to Kittler's *Gramophone, Film, Typewriter*, Geoffrey Winthrop-Young and Michael Wutz (1999: xxxv) use the analogy of the Marxian conception of the dialectics of base-superstructure. In Kittler's work, the media-technological 'base' is dialectically related to the discursive 'superstructure'; this dialectical relationship means that there are tensions and conflicts that give rise to new technologies, new media and new discourse networks. The 'motor' of history therefore is technology rather then humanity.

But do humans have any power at all? Where does this leave the politics of technology? In two influential and provocative essays, Kittler declared that 'there is no software', before moving on to discuss the implications of the 'protected mode' of software (Kittler, 1997a, 1997b). He begins by pointing to the explosion of commercial software, which in turn conceals the implosion of hardware. Digitalization means that all underlying operations are reduced to binary code and are hidden from our eyes, which see only the interface of the software we are using. All words that we see appearing in front of us on our word-processing program are reduced to 0 and 1, and the voltage difference between them. The use of software and graphic user interfaces ends up obscuring the operations of hardware, which we, as users, never see or understand. This in turn makes us dependent on software companies which seek to acquire a monopoly not only over their own programs-products but also on the knowledge of technical innovations that underlie hardware. From this point of view, software operates as a kind of cryptography, which has strategic functions, mainly to offer a sustained economic advantage to software corporations. For Kittler, because software does not exist independently of hardware or machine, it insists even more vocally that it qualifies as property. This has two related results (see also Harris and Taylor, 2005: 85): first, to hide that software is the result of a collective endeavour and not a commodity, and second, to hide the operations by which software giants produce subjects or 'end-users', at the same time

obscuring the ways in which they become subjugated. 'End-users' are therefore analogous to the 1800s readers and to the 1900s audiences. They are constrained by the combined operations of both hardware and software, even as they seem to make their life easier. A relevant political response would therefore entail the engagement with all those operations that obscure the actual processes that subjugate us, that make us subjects. The task of critical analysis is precisely to show the ways in which humans and societies are constructed, and that includes not only the logic of software but crucially also the processes and coded routines of hardware. This is Kittler's answer to, and to an extent continuation of, Foucault's genealogical analysis, which he terms information materialism (Kittler, 1997a, 1997b; see also Gane, 2005). Through this method, Kittler seeks to identify the rules or algorithms that guide the transformation of information into material objects (and subjects) and vice versa. Finding the codes, rules and algorithms which govern us as subjects and the material-informational world around us will not offer mastery, but it will at least help us understand that we cannot think of ourselves as masters of the world (Winthrop-Young, 2006).

The focus on the material aspects of new media cultures found in Kittler has inspired a new generation of media theorists, whose analyses of the media sphere highlight and often revolve around their materiality. Perspectives such as Matthew Fuller's *Media Ecologies* (2005) and Jussi Parikka's *What is Media Archaeology?* (2013) shed light on the polymorphous nature of media and media cultures, highlighting the ways in which material elements circumscribe but by no means determine the media. Another common element of such approaches is the non-reductionist and holistic analytical perspective that considers all parts of (new) media cultures. In this, this body of work takes inspiration from Bruno Latour and his Actor-Network Theory (ANT) (2005), which posits an understanding of the world in terms of actor-networks. These, in turn, consist of a set of 'actants', brought together in a network, who are all sources of action upon the network; these actants can be human and non-human, for example, bacteria, viruses and technologies. According to Callon, Latour's longstanding collaborator and another ANT theorist, 'an actor-network is simultaneously an actor whose activity is networking heterogeneous elements and a network that is able to redefine and transform what it is made of' (Callon, 1987: 93). From this point of view, such networks are assemblages where the various parts act upon one another

and the emerging whole cannot be reduced to any single one of them. This complexity is evident in Fuller's *Media Ecologies* (2005). Fuller conducts an analysis of pirate radio as a specific case study of a media ecology. The pirate radio ecosystem is composed of 'transmitter, microwave link, antennae, transmission and studio sites; records, record shops, studios, dub plates; turntables, mixers, amplifiers, headphones; microphones; mobile phones, SMS, voice; reception technologies, reception locations, DJ tapes; drugs; clubs, parties; flyers, stickers, posters' (2006/2005?: 15). These are connected with 'a whole interrogative field of social, juridicial, legislative and economic formations' (2006/2005?: 20). All these parts are bound together, acting upon one another, enabling and constraining certain actions and outcomes. No single element can be seen as determining the others, but they all act in a complex synergy. It is not difficult to see the application of such a perspective to the new media, and to understand them as comprising a whole host of heterogeneous parts, assembled together and acting upon each other. These can range from the actual wires and cables connecting computers to satellites and wireless grids; from chip-making factories to technological commodities; from algorithms that underlie, sort and order new media contents and platforms to user practices that feed into such algorithms; from social media corporations to app developers; from governments and regulatory bodies to hackers and internet pirates. All these act upon each other, they forge connections, they compete and antagonize, they build upon and exploit one another in a constantly moving and dynamic assemblage (see also DeLanda, 2006).

New materialist accounts offer a valuable insight into the role played by technology, by hardware and algorithms in shaping life, society and culture. However, the question one poses to the materialist perspectives concerns the assumed equivalence of the various components. For most materialist accounts, power is distributed among the various components of the networks or assemblages, but there is uncertainty as to how this distribution takes place and whether parts or nodes assume primacy over others and have more control over the network or assemblage. It may be that in highlighting the role of the material elements of media assemblages, new materialist thought may have disregarded the role of human agency: we may not be 'masters and commanders', but we are agents, capable of reflexive and purposeful actions. Network theories focus on the social component and empirically trace its role

in new media and new technologies, and the impact that these have on the social world.

Case Study Media Archaeology

A particularly engaging offshoot of new materialist thought is found in the work of Jussi Parikka and his contribution to media archaeology. Already in the work of McLuhan and Kittler we find this concern with history, and the argument that we can learn about our new media by looking at the old media when they were new. But media archaeology is more than a history of old and new media forms; rather than assuming a single linear progression from archaic and old media to new, innovative ones, media archaeology looks at the non-linear, often retro-futuristic ways in which media were invented, used and imagined. Media archaeologies present three methodologies, which can be followed separately or in convergence: the first one, drawing from Michel Foucault's (1989 [1969]) *Archaeology of Knowledge*, looks the epistemological conditions that gave rise to specific media; the second one is to look at the scientific knowledge that went into media objects (the mathematical structure of the media); and the third method is to look at the deep material structures of the media objects, which include the raw materials that went into building them.

The first method is perhaps more readily recognized as archaeology, because it goes to the past, looking to find the discontinuities and ruptures that gave rise to new media. For example, Parikka (2013) discusses the work of Tom Gunning (1986) on cinema, which focused on the so-called 'cinema of attraction', an avant-garde form of early cinema that engages the spectators' senses and curiosity rather than focusing on the narrative elements of the cinematic plot. Instead of understanding this as one of the ancestors of classical Hollywood, media archaeology reads this as a precursor to newer cinematic experiences, such as the IMAX and videogames, which offer immersive experiences and affect spectators in a direct and visceral rather than intellectual or cognitive manner. This reading shows not only how today's media experiences may not follow a linear history, but also how they enlist and tether human bodies. Spectators or users of new media cultures, such as videogames for example, are more organically connected to these media than spectators of classic Hollywood movies.

Second, media archaeology is concerned with the mathematical basis of the new media, and signals a shift from an understanding of archaeology as concerned with the past towards a kind of reverse engineering, which illustrates what has gone into the media objects of today. In the first instance, what this points to is the existence of code, and the ways in which essentially what we see in digital media of today are operations made possible because of mathematical equations. These mathematical operations are what make possible computer programming and software, protocols for exchanging and encoding information, and the algorithms that structure

platforms. Methodologically, we could examine a specific media object as encompassing all these: a kind of archive for these primarily technical and mathematical operations that made it possible. For example, Hertz and Parikka (2012) suggest a kind of analysis that takes apart media objects, opens them up to look inside, and plays with the circuits in order to see how they were put together and how they work. This kind of media archaeology calls for tinkering with devices to see what happens and in this manner it is a hybrid methodology that doubles up as hacking and as art, to the extent that this tinkering produces something else or remixes and repurposes the media object.

Finally, the 'deep time' of the media involves, on the one hand, the raw materials that make them and, on the other hand, their fate when they become obsolete. This is a kind of natural ecology of the media that looks, for example, at materials such as the mineral columbite-tantalite, whose properties in storing electrical charges are essential for circuits used in mobile phones. This mineral, known for short as coltan, has been used to finance war in Central Africa, and more specifically in the Congo (Hertz and Parikka, 2012; International Consortium of Investigative Journalists, 2012). Moreover, given the intrinsic obsolescence of most media objects, a relevant question here concerns what happens to all these 'dead' media. This entails an understanding of, as Sean Cubitt put it, 'the built-in obsolescence of digital culture, the endless trashing of last year's model, the spendthrift throwing away of batteries and mobile phones and monitors and mice … and all the heavy metals, all the toxins, sent off to some god-forsaken Chinese recycling village' (Cubitt, 2006, cited in Hertz and Parikka, 2012: 429). An archaeology of the media materials can therefore rediscover the kinds of materials that have gone into making media objects, pointing to the costs these involve, human as well as natural.

The detour through media archaeology illustrates the complexity of new media cultures which operate at the same time in material, social-symbolic, political and political economic terms.

Network Theories

Although networks have existed in the past, and although various theorists have written about networks in a highly original and engaging manner (e.g., Wellman (1999) and Manuel Castells in his three-volume work on the network society collectively titled *The Information Age: Economy, Society and Culture* (Castells, 1996, 1997, 1998). In this body of work Castells seeks to empirically understand the changes in contemporary societies precipitated by the new media and technologies. Castells is careful to avoid accusations of technological determinism, but he is also keen to show the effects that new technologies have in our lives. We can say, then, that he is assuming a kind of agnostic stance *vis-à-vis* the relationship between society and technology, while he seeks to empirically comprehend the recent societal shifts associated with new technologies and their media. Since he is still prioritizing the study of technology though, his position can be described as 'soft determinism' (Lister et al., 2009). Castells himself has argued that:

> *Technology does not determine society.* Nor does society script the course of technological change, since many factors, including individual inventiveness and entrepreneurialism, intervene in the process of scientific discovery, technical innovation and social applications, so the final outcome depends on a complex pattern of interaction. Indeed the dilemma of technological determinism is probably a false problem, since technology is society and society cannot be understood without its technological tools. (Castells, 2000 [1996]: 5)

Castells' main argument is that new technologies are associated with a new form of social organization, which revolves around the idea of the network. Our societies can therefore be understood as network societies, based no longer on the individual, or on the traditional community as in previous societies, but on the network. In his first volume, *The Network Society*, Castells explained that 'as a historical trend, dominant functions and processes are increasingly organized around networks. Networks constitute the new social morphology of our societies, and the diffusion of networking

logic substantially modifies the operation and outcomes in processes of production, experience, power and culture' (2000 [1996]: 469). A network is seen as a structure composed of different but interconnected points – this structure has come to replace both the individual and the nation-state as the primary form of social organization. And because this 'new morphology' is not limited by geographical conceptions of space and associated limits of time, Castells argues that we have entered a new era, enabled by new electronic technologies, in which space is a space of flows and time is timeless.

Expanding on his arguments, Castells argues that space is the outcome of social construction: understanding the world around us is not so much a matter of perception (as, for instance, McLuhan would have it), but rather the outcome of a social ordering of things. From this point of view, electronic media effectively introduce a new ordering, which has made possible a different conception of space. This new concept of space is then defined not by relations of geographical contiguity but by the exchanges between the different places in which actors are found. Castells suggests that the space of flows has three layers. The first is the layer of electronic circuits which enables materially the space of flows. The second is the layer of nodes or hubs: the disjointed places that set up a network and support exchanges and interactions between actors occupying these places. Finally, the third layer refers to the spatial organization of dominant elites, which directs and articulates the space of flows: for Castells, the space of flows is not the only spatial logic in society, but it is the dominant one because it is used by the global elites. These elites are cosmopolitan, moving across places, but held together through occupying certain spaces: these include secluded residential areas as well as leisure-oriented spaces, which are made to look more or less identical despite their actual physical location.

Time within the space of flows is timeless. The 'linear, measurable, predictable time is shattered in the network society', which is characterized by a compression of time to such an extent that it makes time disappear (Castells, 2000 [1996]: 464). To understand this concept we can refer to the sequence of time that characterized the premodern era: this was determined by the seasons and their influence on agricultural production. Modernity introduced a different time, ordered by divisions between working time and

leisure time, while working time was subjected to 'scientific management' (Taylor, 1911) to make it more efficient. The temporal organization of the network society, in contrast, negates time in the sense of eliminating the sequencing of time; for example, the global financial market operates in real time, exchanging massive amounts of capital in mere seconds. Castells argues that timeless time operates only where technology has given rise to 'systemic perturbation in the sequential order of phenomena' (2000 [1996]: 494). Such perturbation may take the form either of near-instantaneity or of random discontinuity. In both cases, time can no longer be ordered sequentially, thereby leading to undifferentiated time. Although Castells accepts that biologically and socially ordered time still apply, timeless time belongs to the space of flows.

These two parameters, the space of flows and timeless time, give rise to the network as the main way by which technologically advanced societies are ordered. Thus, economy becomes increasingly organized through networks and flows between them: networks of finance and companies; and networks of work projects that operate flexibly, on an *ad hoc* basis, coming together as and when necessary and dissolving or becoming obsolete when they are no longer needed. The politics of the network are increasingly mediated politics, where ideas and ideologies give way to communicative abilities as the main means by which to seek and legitimate power. The society of the network is not characterized by the organic solidarity of modernity, in which people within nation-states depend on each other on the basis of their functional differentiation (Durkheim, 1972 [1933], in Giddens, 1972). Rather, the bonds between people in the network society are tenuous and temporary, often based on common views and beliefs, uniting people across borders, but equally fragmenting them within given places.

Apparently unconcerned with abstract theorizing of the nature of the relationship between technology and society, Castells rather assumes that the new media represent a given historical articulation. Insofar as they have enabled the new social configuration of the network, they are linked to shifts in social, cultural, political and economic processes, and from a sociological point of view, it is important to detail these shifts. This view prioritizes empirical over theoretical perspectives, or at least it sees theorizations of new media and society as stemming from empirical investigations of different

areas of life. Notwithstanding the insights of new materialism, this book will closely follow Castells' more sociologically oriented perspective. On the other hand, empirical investigations already involve some theoretical assumptions that need to be made clear. This book therefore assumes an overall theoretical stance that accepts the co-constitutive relationship between technological and social worlds, following closely the new materialist position and the ANT notion of tech-social assemblages, while seeking to enrich these insights with discussions of empirical findings and studies.

To acknowledge the dynamism and irreducibility of the socio-technical means that while technology is always there, its new manifestations lead to shifts in existing areas of life, spanning from the economic to the psychological. These are not determined by technology as such, but by the mutually conditioning relationship between human agents, social organizing and technological artefacts. Similarly, shifts in the economy, culture and so on bring about changes in technologies as well. More recently, this kind of relationship (or better, process) has been termed 'mediation' (Silverstone, 2006; Couldry, 2008; Livingstone, 2009). Mediation can be understood as the dialectical or at least dynamic interaction between media (and the technologies and artefacts that support them) and aspects of life, including self and subjectivity, society and culture, and economy and politics. To speak of mediation as a dynamic process requires that no single component assumes priority but that they are all involved albeit often in an asymmetrical or unequal way (see Couldry, 2008). Moreover, to speak of the technological mediation of society requires that we examine a series of fields of life to find out exactly what the results of this process are at this historical juncture. Thus, in this book we will examine the ways in which various areas of life have changed since the spread of the new media.

Conclusions

This chapter was concerned with theoretical approaches to the new media and technologies. The focus on theory here is necessary because theories constitute the lenses through which something is looked at and examined. Different lenses lend themselves to different views, different foci and different conclusions. In order to justify the particular theoretical lenses to be used in this book, this chapter presents and discusses three positions on technology and society and then another three positions on new media.

The three positions on technology and society – instrumentalism, substantivism and social constructionism – posit different relationships viewing technology as a neutral tool, as imposing its logic on society, and as a social construction, respectively. Next, this chapter summarized the positions of three main approaches to new media, through focusing on three main theorists: McLuhan, Kittler and Castells, representing Media Theory, New Materialism and Network Theories, respectively. From McLuhan, we got his insistence on the importance of the media, and their contribution to how we perceive the world. Kittler expanded on these ideas and prioritized technology even further, arguing that human history is the history of technology: the media makes us subjects. We make technology, but technology also makes us. Castells, finally, inserts a much-needed empiricism into the discussion, as he looks at the empirical shifts observed since the advent of new media technologies. These, he argues, can be understood as the rise of the network, itself only made possible through the new media. The boxes below (1.1–1.3) summarize the main points of all these theorists.

1.1 McLuhan – Summary of Main Points

Position on Technology:

- Media and technology assume priority
- New media use media as their contents
- The media are the message

Position on Humanity:

- Media as 'extensions of man', causing lasting changes

Position on Society and Politics:

- Media and technologies leading to different forms of socio-political organization

1.2 Kittler – Summary of Main Points

Position on Technology:

- Technological evolution as the motor of history
- Different technologies lead to the constitution of different discourses and power configurations
- Hardware crucial – 'There is no software'
- Emphasis on the materiality of technology

Position on Humanity:

- Different media lead to different subjects:
  - discourse network 1800: readers
  - discourse network 1900: audiences
  - discourse network 2000: end-users
- An anti-humanist perspective

Position on Society and Politics:

- Should focus on the genealogy of discourses to show how we are constituted, but no possibility of mastery over technology
- Should engage with hardware and algorithms that underlie the user-friendly interfaces

1.3 Castells – Summary of Main Points

Position on Technology:

- Technology viewed from an empirical point of view as enabling certain configurations

Position on Humanity:

- Technologies linked to new kinds of identity

Position on Society and Politics:

- More descriptive than theoretical or political
- Society turned into a network society with new conceptions of space and time

Research Activity

This activity aims to help readers understand new media from a historical point of view. Detaching themselves from the here and now may enable a more in-depth understanding of the role of media in society. Rendering familiar things strange has been part and parcel of the methodologies of the social sciences and humanities. This exercise seeks to get readers to think about applying this kind of methodology but also to identify assumptions regarding technology, media and their use that reveal our current thinking about these.

Task: Write a media archaeology of the future. Explain to someone from the future what a tablet computer was, how it was used, what kinds of changes it introduced, and how its end came about. Write a brief history of how it came about, and its trajectory (real and imagined) until its obsolescence. What was its social status and symbolic role, its position among other media objects, what did it replace, and what replaced it?

Further Reading

Getting to grips with complex social theory of the new media can be challenging. These interviews with Kittler and Castells provide a basic introduction to important concepts, ideas and views that have shaped their theories. The article by Michael Goddard is a discussion of and an introduction to media archaeology and the shift towards new materialism in (new) media studies.

Winthrop-Young, G. and Gane, N., 2006, Friedrich Kittler: an introduction. *Theory, Culture & Society*, 23(7–8), 5–16.

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2 The Political Economy of New Media

Learning Objectives

- To understand the new economy and the rise of informational capitalism
- To learn about shifts in the production, circulation and consumption of goods
- To critically understand changes in employment and labour
- To learn about the new media industry

Introduction

Accepting Castells' argument, that the network society constitutes a new social formation in which the network organization takes precedence, implies that this new formation must include shifts in the economy precisely as an outcome of this network organization. We should therefore expect the economy to change as a result of the network and its associated technologies. But why are such changes important? What is the role of the economy and what is its relationship to the new media and society? More broadly, therefore, the question here concerns the relationship between the economy, society and the new media. All too often we come across rather polarized views on the role of the economy. Some theorists view the economy as the determining factor not only of the media, but also of society itself – this is found in the classic Marxian approaches to the (new) media; conversely, emphasis on the symbolic aspects of the (new) media, their uses and users, and their differential appropriation and interpretation assumes that the economy has only a marginal role to play. It is crucial therefore to bridge the two positions, and to view the role of the economy not as determining but as one of the co-determinants of society, along with politics, culture and human agency. In doing this, we follow Robin Mansell's (2004) call for a revitalized political economy of the internet and the new media more broadly.

Mansell (2004) argues that if we are to understand the new media, in terms of contents, communications and services, we need to understand the processes that produce them, and more generally the ways in which they are located in capitalism, as well as the ways in which these influence and shape new media use and consumption patterns. Typically, the political economy of communication examines the conditions of media production, distribution and consumption, and the ways in which they are structured by power (Mosco, 1996). A political economic approach would include examinations of the overall position of new media businesses in the global economy, investigations of patterns of ownership, distribution of products and services, as well as studies of use and consumption practices. The political economy view, although it privileges the economic as an entry point into the study of communicative and more broadly social practices, is not necessarily

reductionist: it does not assume that all kinds of social relations are reduced to economic relations. Rather, the most recent approaches are fully aware of the contribution of other factors (symbolic, historical, political, as well as reflexive) coming from citizens, from people and their actions, that all interact in an asymmetrical way leading to a fluid, indeterminate and dynamic set of relations of production, distribution and consumption of new media artefacts, technologies, services and contents. Following this logic, this chapter will examine first the relations of production of the new media: who owns the means of new media production, to use the well-known Marxian formation? Under what circumstances are new media (as artefacts, technologies, contents, services, etc.) produced and by whom? Subsequently, we need to look at the distribution and consumption patterns to complete the circuit of the political economy of the new media.

However, this understanding of the political economy of the new media assumes that they are just another kind of product or service. But if we are to take Castells' view seriously, then we must also consider the ways in which the new media are changing the very operation of the economy. Indeed, Vincent Mosco's renewal of the political economy approach explicitly holds that communication processes and late capitalist societies are mutually constituted (Mosco, 1996: 71). Coupled with Castells' approach to new technologies and the rise of the network, it follows that the new media are fundamentally transforming capitalism. From this point of view, the discussion of the political economy of the media must be preceded by a broader discussion of the ways in which the economy is organized under the new media. Is this economic organization still capitalist in the same way as it was in the industrial paradigm of mass production?

Before embarking on a discussion of all these issues, however, we need to highlight that the perspective assumed here is a critical one. In general, political economic approaches seek to find and outline power differentials and asymmetries with a view to correcting them, thereby contributing to the creation of more equitable and just societies. This is the position that this chapter adopts in its examination of the economy. On the one hand, we are concerned with showing the changes that have occurred since the advent of the new media, while on the other, we aim to show the continued or new kinds of inequalities that have been created. Equally, this chapter is

concerned to show the contributions of a dynamic economy to society – the new and innovative possibilities it creates. But so long as the overall context is one of profit-driven capitalism, inequalities inevitably prevail and commercial considerations win over considerations of the public good.

This chapter will therefore begin with a discussion of the production and consumption processes under informational capitalism and their relationship to new media technologies, followed by an examination of the political economy of the new media.

Production and Consumption in Informational Capitalism

Several theorists have argued that the rise and spread of globalization is associated with a new kind of capitalism, which Castells has termed 'informational capitalism'. Informational capitalism refers to the new kind of economic organization that, on the one hand, relies on the new media and technologies and, on the other hand, imposes their logic on all areas of production and consumption. To understand how this dynamic operates we need to consider the new media as agents of this kind of change in themselves. Such changes include the so-called informationalization of production (i.e., the ways in which the process of production depends on information) and the associated shift towards the production of information and knowledge. In addition, we must examine the implications that these changes have for employment and workers, and the kinds of resistance and critique that have emerged *vis-à-vis* this kind of capitalism.

Production and Employment in Informational Capitalism

The globalized and deregulated processes of informational production can, in Castells' thought, be understood through the main concept of the network. Production, rather than being of a 'mass' and 'routinized' nature, relies instead in the formation of informational networks, which generate the information, knowledge and techniques that lead to a more rationalized or efficient production. These informational networks operate as add-ons to industrial production rather than replacing it. From this point of view, industrial and agricultural production processes are all encompassed in new economic networks, which are enabled and mediated by new technologies (Castells, 2000 [1996]; Barney, 2004). While informationalism informs industrial and agricultural production, it has also given rise to a new kind of production model. If we accept that the car manufacturer Ford was the paradigmatic model of industrial capitalism, Castells holds that Cisco, a US-based company that makes switchers and routers, can be considered paradigmatic of informational capitalism. Castells reports that Cisco actually only owns two of the 30 plants that produce its switches and routers, sells its products almost exclusively online, and employs mainly engineers, researchers, managers and salespersons. By contracting out the production, through operating mostly online, and through building strategic alliances with other players in the field, Cisco has managed to drastically cut costs and maximize profit. It is essentially a manufacturing company that does no manufacturing itself, but rather produces and markets the know-how, design and relevant information on the kinds of products it sells. More broadly, informational production is characterized by a network organization, whereby different aspects of the production process become autonomous and operate as separate nodes connected to a larger network. This model of the network enterprise is, for Castells, characteristic of the new kind of production process within informational capitalism. The network enterprise is deterritorialized, internally decentralized, and segmented across various chains of production and distribution; it relies on *ad hoc* joint ventures and strategic alliances with other networks-firms; and it has built within it the potential for synchronous interaction with customers, which gives rise to a process of mass

customization and personalization typical of the new kind of consumption model within informational capitalism (Castells, 2000 [1996]; 2001; Barney, 2004).

These shifts within the capitalist mode of production have led to associated changes in employment or labour. Shifts in these were already noted by Bell and others, who assumed that the decline of manual labour and the rise of the service sector will lead to new, kinder economic and social arrangements. But it turns out that these shifts in employment are more complex and leave considerably less room for optimism. To begin with, Castells' (2000 [1996]) analyses of employment trends in the G7 countries confirmed the trends observed by Bell (1973) and other theorists such as Alain Touraine (1971). Thus, in the G7 countries (USA, UK, Japan, Germany, Italy, France and Canada), in the years 1970–1990 there was an average 4.72% increase of service jobs, including both producer services and social services. But this is not the only change. Based on his analyses of the data on the G7 countries, Castells highlights several trends in employment in informational capitalism: the informationalization of employment has led to a steady decline of agricultural and manufacturing jobs; the rise of both producer and social services; the increasing diversification of service activities as sources of employment; and the expansion of both upper (e.g., managerial) and lower (e.g., clerical and retail) levels on the occupational structure. This in turn reflects 'a relative upgrading of the occupational structure over time' (Castells, 2000 [1996]: 244). To some extent, these broad trends might be taken to imply a general improvement of working conditions, since, after all, a service worker may be seen as enjoying higher levels of job satisfaction and status than a manual worker – indeed, this is partly Daniel Bell's argument. But a proper evaluation of the conditions of working life under informational capitalism must take into account changes not only in the occupational structure but also in the working conditions and generally the working lives of people.

The most prevalent trend in the working conditions under informational capitalism is the increased importance of flexibility in work (Castells, 2000 [1996]; Barney, 2004). To understand the changes introduced by flexibility in employment, Darin Barney (2004) looks at the typical form of employment under industrial capitalism. A typical worker was employed full-time, in a

well-defined job, in which *he* (typically workers were men) knew exactly not only the tasks but also the routinized ways in which he should carry them out. The job was permanent, and carried out at a fixed place of employment provided by the employers. Workers typically remained in the same job throughout their working lives, or otherwise sought promotion within the same firm: in short, they followed a set career pattern over their lifecycle (Castells, 2000 [1996]). Employment in industrial capitalism was *institutionalized* (Barney, 2004: 95, my italics) and as such it was much too inflexible to respond to the needs of a capitalist system that requires constant innovation and growth. Under the pressure of the requirements of the new kind of production, such as globalization and deregulation, and a decentralized, network organization, labour had to be made *flexible*.

In practice, rendering labour flexible has led to the creation of non-standard forms of employment. These are non-standard in several ways: in terms of time, with work being part-time or flex-time; in terms of distance, with tele-work, based at home or even in a different country; in terms of relationship to employers, with work increasingly undertaken as an external contract, *ad hoc* or freelance work. The results of these new forms of work and more generally of the 'flexibilization' of labour include: the feminization of labour, with more and more women participating in the workforce in non-standard ways; and the loss of a clear career path, with more and more people changing jobs, functions and employers. The increasing precariousness of flexible labour has led to an emphasis on continuous training and lifelong learning, pointing to an increasing gap between the educated and skilled workers and the low or unskilled ones. These developments in the field of employment are generally linked to the demands of production under informational capitalism, and can be more specifically associated to the increased importance of information and communication in the production process. But we must also note here that most of these developments were brought about by new technologies. Thus, tele-work is made possible because of technologies of instant and reliable communication and data transfer. Further, the increased productivity associated with technological innovation has given rise, on the one hand, to the need for a more educated and technologically literate labour force, and on the other to flexible, *ad hoc* or part-time work.

How might we assess these new forms of employment? If we look at tele-work as a case study, we can see that it entails important benefits both for employers and employees. In a cost–benefit analysis, Gareis (2003) reports that tele-work and freelancing have important advantages for employers because new forms of work allow them to adapt to changing market conditions. This includes the ability to deploy workers exactly *when and where* they are needed. At the same time, they can decentralize responsibilities and delegate decision-taking to workers, thereby removing a layer of management, allowing them to cut costs. From the point of view of employees, tele-working may allow them to better match private requirements and preferences with work demands. This is especially the case with working mothers, for whom tele-working allows them to arrange working times to match child care requirements and to be closer to their children. Tele-workers can also choose to work where it is most convenient or pleasurable, avoiding the costs of commuting. In terms of work organization, they are able to take more control of their own tasks and to organize their work according to their preferences and priorities. But tele-work is not always or necessarily positive. Based on a study of tele-work in six countries (Bulgaria, Germany, Israel, Italy, Norway and the UK), Anderson and Yttri (2007) found no statistically significant difference between new forms of work and life satisfaction. They conclude that tele-work is mostly based on pragmatic choices, and is often a temporary solution.

Robots and Production

Technological advances in recent years have led to the replacement of more and more menial and some administrative tasks by robots, or by automated systems. Brynjolfsson and McAfee (2011) found that in the USA in the years 2009 and 2010, while the economy was returning to growth, employment figures failed to recover. This is not a new argument. In 1995, Jeremy Rifkin was already talking about the 'end-of-work', where technological innovation is forcing people into unemployment. This kind of restructuring due to technology was very prominent in the 1980s and early 1990s, as indeed technologies replaced a number of menial and clerical jobs. However, Rifkin's argument was not particularly convincing because, as Brynjolfsson and McAfee (2011) point out, the numbers did not support it: the late 1990s and early 2000s were characterized by growth in employment. But recent developments point to an emerging dynamic that supports Rifkin's contention. Looking at economic indicators from the 1950s until recently, Brynjolfsson and McAfee show that while productivity and employment went hand in hand, with high productivity denoting high employment and vice versa, in 2000 the two lines started to diverge. While productivity was rising steadily, employment stagnated. For Brynjolfsson and McAfee, the reason for this is to be found in new technologies and the replacement of human jobs with computer-based systems. Advances in technology are likely to make some jobs obsolete, as was the case in the 1980s. For example, Google's driverless car may eventually replace drivers. Drones may automate delivery, rendering post and courier service obsolete. Amazon has invested heavily in robotics, acquiring Kiva Systems for $775 million in 2012, and as of December 2014, Amazon was using 15,000 robots in its warehouses, primarily tasked with retrieving orders and handing them to human employees (*Time* magazine, 2014).

Since then, robots appear more real than ever, and the possibility of replacing human labour is more concrete. The question is more one of a response to this rather than a neo-Luddite tendency to blame and destroy the machines. Moreover, it may be that while robots take over the more repetitive and thankless aspects of human labour, people will become freer and more able to concern themselves with different kinds of work, just as in the nineteenth and

twentieth centuries technologies obliterated some jobs and led to the creation of different ones. Indeed, as we will see below in the discussion of immaterial labour, this may well be the case. However, a report by Benzell et al. (2015) shows that technological growth may well lead to immiseration; their conclusion is that without appropriate fiscal policy to redistribute from winners to losers and to support those most disadvantaged, technological advancement will lead to impoverishment for all. But who are the winners and losers? This is explored in the .

Critical Approaches: Virtual Class and Immaterial Labour

The broader question arising in connection with these developments concerns the fate of the working class or Marx's proletariat. Has the proletariat become extinct? Does it fare worse or better under conditions of flexibilization? Despite the optimistic tone of most relevant literature, significant benefits for workers failed to materialize. Although certain people benefited and prospered in the new work order, others lost out massively, and whole communities and ways of life were destroyed. De-industrialization and the loss of manufacturing jobs without any provision for the unemployed left thousands in misery and perpetual unemployment. A case in point is the US city of Detroit, the famous Motor City, which was the paradigmatic city at the peak of industrial capitalism, with Ford, General Motors and Chrysler all based there. Detroit acutely felt the crisis in the automobile industry, once the pivot and driving force of industrial capitalism: in July 2009, the Michigan Department of Energy, Labor and Economic Growth reported an unemployment rate of 17.8% in the Detroit Metropolitan Area. The city has lost more than 30% of its population in the last 30 years, and recent foreclosures have made houses cheaper than cars in some areas.

In general, several critics note that within the new forms of work, and the spreading ICT sector, instead of the decentralized and more equitable distribution of wealth and status, we encounter a new hierarchy. Arthur Kroker (Kroker and Weinstein, 1994) calls this the virtual class, with little or no ethics, no understanding of justice, and cynical calls such as 'Adapt or you're Toast'.

> Against economic justice, the virtual class practices a mixture of predatory capitalism and gung-ho technocratic rationalizations for laying waste to social concerns for employment, with insistent demands for 'restructuring economies, public policies of labor adjustment,' and 'deficit cutting,' all aimed at maximal profitability. (Kroker and Weinstein, 1994: 1)

Kroker's point is that the virtual class is the next generation of the bourgeois/dominant class – it is invisible, dispersed and without any class consciousness, and everywhere is characterized by 'predatory capitalism and computer visionarism' – see Kroker's discussion with Geert Lovink (undated). The virtual class is authoritarian, socially disinterested and even contemptuous of these working-class people who failed to adapt: they are the primary advocates of TINA ('There is no alternative'), foreclosing any possibilities to look for other ways of living/working with technology.

While the concept of the virtual class was an early attempt to resist the neoliberal techno-capitalism, in more recent years, the spread of information sector workers leads to a rethinking of the working class. Maurizio Lazzarato (1996) attempted to trace through a critical prism the changes in production and labour relations and processes effected through the informationalization and intellectualization of work. For Lazzarato, the new kind of labour can be characterized as immaterial labour. Immaterial labour refers both to the changes in work, whereby most jobs require information processing and computer skills, and to the activities that produce the cultural contents of commodities: 'the kinds of activities involved in defining and fixing cultural and artistic standards, fashions, tastes, consumer norms, and, more strategically, public opinion' (Lazzarato, 1996: 113). In immaterial labour, the cycle of production only comes into operation as and when required by the 'capitalist'; once the job is done, the cycle dissolves. Thus, precariousness, hyperexploitation, mobility and hierarchy are the typical characteristics of immaterial labour. Moreover, immaterial labour blurs the boundaries between work and leisure: work is life and life is work. In addition, immaterial labourers have to have managerial skills as well, to coordinate with those above them, others within immaterial labour, and the ultimate consumers of the commodities they will produce.

In addition, the involvement of intellectual labour in all forms of work today implies, for Lazzarato, the engagement of processes of subjectivity and affect: the workers are not merely performing a task, they are thoroughly invested in the work they are doing. They also end up (re)producing themselves. Immaterial labour 'gives form to and materializes needs, the imaginary, consumer tastes, and so forth, and these products in turn become powerful producers of needs, images, and tastes' (Lazzarato, 1996: 136).

Immaterial labour therefore has the capacity to transform the person who produces/consumes commodities, and for this reason Lazzarato argues that it must be seen as producing a social relationship – immaterial commodities are successful only insofar as they produce such a relationship of innovation, production and consumption.

If Fordism and the industrial mode of production introduced consumption into the production cycle, then the informational mode of production must be seen as introducing *communication* (Lazzarato, 1996, but see Castells, 2000 [1996]), thereby transforming both industry (now focused on sales and consumer relations) and services (now focused on relationships with clients). From the point of view of workers or the immaterial labour force, Lazzarato observes that they produce both subjectivity (the principal content of social communication) and economic value. The new model is therefore putting subjectivity to work in generating cooperation with other workers as well as in the production of the cultural contents of commodities. The points raised by Lazzarato imply that the new labour force and kinds of work that have evolved in informational capitalism represent a distinct phase of labour–capital developments, in which labour is at once more autonomous and more creative than under conditions of industrial capitalism. The autonomy of the new labour force resides in its independence from wage labour, and its creativity is found in building new relationships between producers and consumers, authors and audiences. Their economic valorization (i.e., that they circulate as commodities in a capitalist organization) should not obscure either autonomy or creativity. To an extent, therefore, the new conditions of labour involve a new degree of autonomy and creativity of workers that effectively counters the kind of alienation identified by Marx. The next step is to attempt to reach new, alternative, more equitable and just modes of economic organisation.

Informational Products and Consumption

One of the key contributions of Lazzarato's immaterial labour is his observation of the ways in which production and consumption of informational/communicational products are inextricably bound together. Because of the focus of labour on communication, and because of the increased creativity and autonomy of labour, the role of labour is no longer limited to production of commodities, but to the creation and management of a social relationship with consumers. For Lazzarato, immaterial labour gives form and materializes parts of our imaginary, our needs, tastes and so on: in other words, immaterial labour seeks to both satisfy consumer demands and needs and to establish these. This is why Lazzarato argues that the 'raw material' of immaterial labour is subjectivity and the ideological-cultural environment within which this subjectivity lives. This is done on the basis of the social relationship built by the new production and consumption processes under informational capitalism: this social relationship is first and foremost a communicative relationship that requires the constant exchange of information between producers and consumers. Because essentially the products of immaterial labour are based on processes of communication, each commodity acquires its 'use value' on the basis of the value of its cultural and informational contents. Moreover, the particularity of these commodities lies in the fact that not only are they not destroyed in their consumption, but also their circulation and consumption creates, transforms and enlarges the cultural environment of consumers.

More specifically, immaterial commodities (commodities produced by immaterial labour), argues Lazzarato (1996), transform the persons who use them; and to that extent the process of production involves the (re)production of a social relationship with consumers: this is understood as communication. And this kind of social relationship, as with all relationships, is based on reciprocity. Consumers can no longer be expected to passively consume products that are mass produced, as it was under conditions of industrial capitalism. Rather, they intervene on the process of production in two ways: they integrate production and consumption, and they give meaning to the consumption of specific commodities. Integrating production with consumption effectively means that consumers have a direct input in the

kinds of products to be produced. Techniques developed in marketing and sales that offer information on consumer habits and preferences are as integral a part of production as technical innovation and design. No product or commodity is ever produced without a thorough research of its reception by the public: often, consumer research leads to changes in design and marketing, thereby leading to a production process that is effectively integrated with consumption. At the same time, consumption of cultural commodities attaches meaning to them, and places them onto a specific cultural hierarchy. Consider for example the consumption of exclusive products, such as champagne and brandy, by famous rappers, or Burberry scarves by less affluent parts of the population. This very act of consumption produces a new meaning for these commodities. In this sense, consumption is at the same time the production of meaning which attaches itself to commodities. Consumption can also be seen as a communicative act, in the sense that it immediately communicates something both for the consumer and for the products they consume. What does informational capitalism imply for the new media? This will be addressed next.

New Media Corporations and Political Economy

Classical political economy of the media emphasizes the ways in which processes of media production and consumption reproduce dominant relationships (Golding and Murdock, 1979; Mosco, 1996). Because it relies on Marxian theory, it prioritizes the role played by capital in shaping these processes. It comes as no surprise, therefore, that most such analyses have focused on media ownership and the ways in which it has influenced the production and contents of the media. Consumption, in these terms, was seen as secondary in that it was seen as determined by production and contents: after all, audiences can only read or watch what production makes available to them. Studies such as Herman and Chomsky's (1989) *Manufacturing Consent* outlined the role played by concentration of media ownership in the hands of a few powerful corporations, as well as the role played by advertising as one of the most important sources of media income. These, argue Herman and Chomsky, act as 'filters', allowing only certain contents, news stories and frames passing through and receiving media attention. But this emphasis on the production side and ownership has tended to overlook both the polysemy of media texts as well as the act of consumption itself. A proper critical political economy, argues Mosco (1996), should examine all these aspects, with a view to outlining the contribution of the media to democratic politics and the barriers to this. Following Mosco, and Robin Mansell's injunction, we will look at all these processes and their interaction.

New Media Production

If we accept that new media not only operate under conditions of informational capitalism, but also dictate developments therein, then the issue of ownership of new media acquires a new significance. One of the most important aspects in ownership, and more broadly in new media production, concerns the issue of convergence. Convergence can be taken to mean at least five distinct things, including technological, economic, social, cultural and global convergence (Jenkins, 2001). Technological convergence effectively refers to the digitalization of all media contents, which in turn implies that, once produced, media content can circulate freely in all kinds of media, having no need for conversion of any sort. Technological convergence can also refer to the meeting between telecommunications and media companies: the economist Jonas Lind (2005) argues that the convergence between telecommunications, media, consumer electronics and ICTs was envisaged in the 1970s, but could only take off in the 1990s, on the basis of digitalization of contents. Although full convergence has not yet been achieved, the partial convergence made possible through digitalization has given rise to new opportunities for alliances and mergers in the industries involved. While a tendency towards economic convergence or concentration, vertical and horizontal, was already there in the media industry, this convergence opened up the way for further integration between the various aspects of media production and distribution.

Specifically, horizontal concentration refers to cases when a firm in one line of the media owns or buys an interest in another media firm, not directly related to the original one. For instance, News International is a good example of a horizontally concentrated company, as it owns newspapers (*The* (London) *Times*, *Wall Street Journal*, etc.) as well as broadcasting channels (e.g., Fox News, BSkyB); while notwithstanding its recent sale, the initial acquisition of MySpace introduced News Corporation in the world of user-generated online content. Vertical concentration refers to instances when a media firm owns or buys an interest in a company further down the media production chain, thereby increasing its control over the process of production and distribution. For example, the famous and ill-fated merger between AOL and Time Warner was thought to be a perfect opportunity to

integrate media content (Time Warner) with an online distribution platform (AOL). Although this merger failed, with the two firms eventually parting company, it has not put off other mergers, such as the Comcast and NBC merger in December 2009. NBC, previously owned by General Electric, was bought up by Comcast, officially classed as a telecommunications company, and one of the bigger cable and DSL providers in the USA. The deal has been controversial: Congressman Henry Waxman criticized the move because it 'raises questions regarding diversity, competition, and the future of the production and distribution of video content across broadcasting, cable, online and mobile platforms' (Szendro Bok, 2009: unpaginated). Comcast attempted a further merger with Time Warner Cable in 2014 but it was quashed by the regulators (Forbes, 2015). In the world of new media firms, mergers and acquisitions, often aggressive, are very common. The acquisition of YouTube by Google in 2006 strengthened even further the power that Google holds over information on the internet. In more recent years, we have seen Facebook buy WhatsApp and Instagram, Microsoft buy Skype, Twitter buy Vine, and Yahoo buy Tumblr. New media corporations keep on acquiring other companies that are in some ways interesting, possible sources of profit, or possible competitors. In some instances, they buy up companies to gain entry into a particular subfield; for example, Facebook bought Oculus, a virtual reality company, while Microsoft bought Mojang, the creators of Minecraft, and moved dynamically into the field of games. In other instances, they acquire companies in order to acquire licences and patents to be used in new products; for example, although Microsoft's acquisition and subsequent closure of Nokia is generally seen as disastrous, Microsoft still owns mobile technology and operating systems' licences, which can be redeemed at a later stage when the company finds it right to enter the field of mobile phone production (Darrow, 2015). Another area where new media corporations have moved into is the so-called cloud, or data storage facilities. Most new media corporations operate their own clouds: Amazon, Google, Apple and Microsoft have all heavily invested in cloud technology, as more and more users move their data to the internet rather than storing in local devices.

Parallel to such high-profile acquisitions, all new media corporations invest heavily in new technologies and innovative applications both through internal research and development departments and through scouting the horizon for new and exciting start-ups, waiting to be bought. For example, Microsoft

owns Azure Internet of Things suite, which is 'a cloud-based offering with preconfigured solutions that address common Internet of Things scenarios, so you can capture and analyze untapped data to transform your business' (from Microsoft.com). Google research, through the semi-secret Google X Lab, is looking into artificial intelligence and machine-learning technologies (see research.google.com). Facebook has spent over $1 billion on research and development in the first quarter of 2015 alone (Novet, 2015).

These mergers, acquisitions and investments have not only consolidated the power of a handful of new media corporations; they have also allowed them to move into and effectively control new technologies for the creation, storage, production, distribution, consumption, reception and use of all kinds of data. Moreover, through continuously looking for new inventions, and quickly moving to acquire patents and licences, they are in control of the past, through ownership of data archives, of the present, through ownership of platforms that host data and information as it is created, and of the future, through heavy investment in future technology and research. Clearly this is raising important questions of regulation. Is it right that a few corporations effectively control technologies that are crucial for the past, present and future of humanity? Is it appropriate that such important technologies are in private control? These are questions that our societies need to begin addressing.

New Media Corporations: A Who's Who

Who are the main players in the field of new media? Technological and economic convergence implies that we need to take into account the involvement of more than one type of industry. In its annual report on the Global 500, *Fortune* lists the top corporations in terms of growth in revenues. In terms of new media corporations, these are found in the technology sector. The 2015 results are tabulated in Table 2.1.

The table shows the mixed fortunes of the new media corporations. First, it is very clear that these are hugely successful companies, raking in millions of dollars in revenues, while most of them are household names. Second, it is also clear that companies that trade in new media as technological objects generate more revenues than those that trade primarily in software, such as Microsoft, or that operate as platforms, for example Google. Third, notwithstanding the huge revenues, profits are a different question and companies as well known as Amazon are still not profitable. Interestingly, Hon Hai Precision Industry is the Taiwanese parent company of Foxconn, who are manufacturing Apple products. In fact, *Fortune* reports that about 40% of Hon Hai's income comes from Apple, which shows the dominance of Apple in this table. Finally, very noticeable in Table 2.1 is the absence of all the social media corporations, such as Facebook and Twitter. Why is this?

The short answer is that they are nowhere near as large and profitable as any of these ten corporations. In 2015, *Fortune* ranked Facebook at number 242 of the top US companies, with revenues of $12,466 million, and profits of $2.940 million. Its growth rate is a phenomenal 58% in terms of revenues and 96% in terms of profits, leading *Fortune* to rank it number 10 on its list of the fastest growing companies in the USA. While there is no doubt that Facebook is a success story, the decline and fall of MySpace is part of the boom-and-bust story of social media. MySpace was bought by News Corporation for $580 million in 2005. Since then, it has been slowly and steadily in decline. According to research by eMarketer, MySpace is said to face a reduction of 21% in its advertising income in 2010, dropping from $490 million in 2009 to $385 million in 2010 (eMarketer, 2009). Eventually, MySpace was bought

by Justin Timberlake for $35 million in 2011. Twitter is facing mixed fortunes at the moment, after a tough year in 2015. Twitter reported revenues of $665 million in 2013, $1.8 billion in 2014, and $2.20 for 2015. While its revenues are growing, the company is still not profitable. In the spring of 2015, Twitter's Q1 results were leaked and it appeared that its revenues were less than the projections, leading its stock to a freefall. After the stock lost more than 20%, Twitter ceased trading for a while (Ha, 2015). In October 2015, Twitter recovered after the announcement of the appointment of its founder, Jack Dorsey as the company's CEO, following the resignation of Dick Costolo earlier in 2015. Other well-known social media are equally teetering on the brink of profit but are not quite profitable: for example, YouTube, which is a Google company, had revenues of $4 billion in 2014, but according to Winkler (2015), after paying for copyrighted content as well as for the equipment to deliver videos fast, YouTube is roughly breaking even.

Table 2.1 Top ten companies in the technology sector

Rank	Name	Revenue ($ million)	Profit ($ million)	Change in profit (%)
13	Samsung Electronics	195,845	21,922	−19
15	Apple Inc.	182,795	39,510	6
31	Hon Hai Precision Industry	139,039	4,307	19
53	HP	111,454	5,013	−2
82	IBM	94,128	12,022	−27
88	Amazon	88,988	−241	−188
95	Microsoft	86,833	22,074	1
116	Sony	74,724	−1,145	−
124	Google [Alphabet]	71,487	14,444	11
131	Panasonic	70,169	1,632	35

Source: Global Fortune 500, 2015
Source: Global Fortune 500, 2015

These issues show that, notwithstanding the popularity of these social media, and their wide diffusion among global internet users, they have yet to find a fail-safe business model and means by which to guarantee a steady income. The main business model of social media is to sell advertisements, or rather users (and their data), to advertisers (see Smythe, 1981; Fuchs, 2013). It is therefore very important for them to keep on growing their user base. One of the reasons that Twitter ran into trouble in early 2015 has been that its growth in users was seen as lacklustre. Moreover, the spread of ad-block apps, which

prevent users from seeing ads, is damaging the very core of this business model. Another income generator for these companies is the collection of data and metadata on their users, which they subsequently sell to market research companies. While this seems a more certain way to make money, the data can sell for as little as a few cents. According to King and Seward (2013), in 2013, 85% of Twitter's revenue came from advertising and the remaining 15% from selling its data to third parties. King and Seward estimate that Twitter's average revenue per user would be slightly greater than 55 cents. On the other hand, Facebook's total average revenue per user was $1.60 in the quarter that ended in June 2013.

The conclusion we can draw so far is that although there are considerable amounts of money involved in new media businesses, there are no clear solutions to income problems. In addition, notoriety and popularity with users is not always translatable to economic viability. On the other hand, success stories seem to have made use of strategic alliances, and to combine older media revenue models with new media user dynamics. Attracting regular users to sites such as Facebook and Twitter has the potential to attract advertisers, who can see a new means of reaching these audiences/users. In his original formulation on the audience commodity, Dallas Smythe (1981) argued that the main media product is in fact the audience, which is sold to advertisers: this is very clearly the case for new media companies. Given that most online content is produced by users themselves, new media companies need to find new ways for attracting audiences, and this is primarily done through delivering new and innovative platforms for users to post their content; these may include blogs and microblogs such as Twitter, video streaming sites such as YouTube, picture sites such as Instagram, and social networking sites such as Facebook. In all these, the users are commodified in the sense of being sold to advertisers in more than one way: first, through advertisers using (or colonizing, some would say) the same platforms/space as users, and second, through selling analytics (that is, information concerning users, including demographics or preferences) to advertisers and other interested parties. From this point of view, the production of new media relies almost exclusively on the commodification of audiences. But what appears to be missing is a strategy for selling content; and this will be unlikely to come any time soon, as the major content providers on the internet are the users themselves. From this point of view, although the new

media are subjected to the same kind of market and advertising pressures as the older media, they lack the kind of content monopoly enjoyed by the latter. Clearly, this limits considerably their abilities to generate profit. But what does this mean in terms of the diversity and availability of free content online? This will be examined in the next section.

New Media Content

In classic media political economy the main argument is that the economics of media production influence and shape the content in ways that ultimately limit the diversity of media content. The tendency towards monopolies or oligopolies, clear in vertical and horizontal integration, results in limited diversity, since most corporations are reluctant to take risks with unknown, alternative and even controversial content, while seeking to make the most of existing products. Typical of this is the tendency to have sequels, such as *Harry Potter*, *Lord of the Rings*, *Pirates of the Caribbean*, *Twilight*, and so on, whose contents are distributed as books, films, magazine contents and digital games, and which are co-promoted across all the media platforms owned by corporations such as Time Warner and Disney. The result is that cultural works and, more generally, content that may not guarantee such massive returns end up ignored, and that most mainstream (offline) media push very similar kinds of content.

But now, the new media is said to change all that. First, as evidenced in the famous *Time* cover of 2006, users are the main players in the new media. Their contributions, collaborations, creative exchanges, pictures, video sharing and mashups provide the content for the new media, and given the vast diversity of users online, we can expect a similar diversity of content. Crucially, this content, precisely because of the prioritization of users, is not subject to the controls and limits imposed by mainstream media. Anyone can publish anything online. But how does this work in a political economic way? What is the relationship between user-generated content and the economy of the new media? This can be summarized in terms of a tension – a tension between the tendency of user content towards diversity and the tendency of 'monetization' or capitalization over such content to impose certain limits and controls of this kind of diversity and online exchanges. Economics operates through managing and regulating supply and demand: when supply of content is unlimited, then it is difficult to generate any income by convincing people to pay for content. This puts a tremendous amount of pressure on older media, which need to come up with new strategies, and second, on new media companies, which need to create new ways of generating sustainable income and securing growth. To this we must add the

rise of filesharing systems online, which has created new challenges for media companies. Filesharing software such as BitTorrent allows users to download films and other content, breaking the monopoly over content enjoyed by media companies through the copyright system. Music production has also been subjected to these kinds of pressures, and has been forced to rethink its relationship with audiences. All these create an explosive mix that at the very least will lead to considerable changes and restructuring in the years to come.

The explosion of user-generated content over the internet in the last decade should not come as a surprise: the rising levels of education enjoyed by more and more people as well as dissatisfaction with the limits of mainstream media have meant that the creation of user-friendly platforms has met a rising need for self-expression, individual creativity and connection between like-minded people. This started with the creation of the World Wide Web, but did not really take off until the rise of blogging applications such as Blogger and WordPress. Although blogging is still very popular, with about 2.3 million blog posts a day (see www.worldometers.info/blogs/), most people post content on a social media platform. Contents are extremely varied, with people posting on personal, cultural, political and any other topic possible. In this manner, the relationship between content production and use is disrupted, as social media seek to make platforms available to more and more users, offering more and more new features to attract them. In addition, in many ways the key is to link, tag, arrange, classify, present and search this content, hence the rising importance and power of search engines and the algorithms used to sort contents.

This wide availability of varied and free content puts pressure on the typical media business model, according to which revenue is secured through selling content to audiences, and audiences to advertisers. In addition, media companies have found their once-tightly-controlled content freely distributed across the Web. Their response to this changing relationship with content has been three-fold: they sought to control access to content, monetize content and introduce legislation penalizing filesharing. It comes as no surprise that upon finding their content distributed online for free, media entertainment companies sought to control access to them and demand compensation for their use. Applications such as BitTorrent introduced new modes of file

distribution, which is difficult to control and regulate, as they operate globally on a peer-to-peer basis. Such applications allow users to upload and download films and other copyright-restricted content, and operate on the ideological premise that information is and should remain free (see Poster, 2007). Of course, media corporations could not remain idle. In order to control access to content, they sought to develop encryption mechanisms. Partly, this monetization of content is to be achieved through the development of what is known as 'digital rights management'. This refers to any kind of restrictive technology used in order to control usage of digital media or other devices. By controlling access to content, media firms can charge users for downloading or using their content, returning to an older business model. Monetization of content, in these terms, is little more than a euphemism for selling content. Given that advertising revenue is not enough to cover costs and raise profits, media companies feel under pressure to devise ways for charging for content. This can be achieved through the institution of 'pay walls', already operating in some newspaper sites, and/or through the more precise targeting of audiences and readers. The operating premise for pay walls is simple enough: typically, they offer some free content, usually a headline or a first paragraph, asking the reader to pay in order to read the rest. The extent to which such pay walls can be successful is still under question, given the vast availability of online content for free: why would a reader pay for content that may be found elsewhere for free? From this point of view, 'monetizing content' also includes strategies for making content more attractive to readers. Such strategies may include targeting specific informational needs or, more innovatively, to integrate users in the process of value creation (Mabillot, 2007). Mabillot's argument is that integrating users in the creative process through, for example, letting them contribute to the discovery of new talent or new content, enhances the product for them, because it leads to new experiences and a deeper level of engagement. From this point of view, content providers must come up not only with the contents alone, but also with new ways of engaging users.

Finally, media firms, but also more generally the impact that filesharing and free content downloading has had on the economy, have put governments under pressure to pass legislation that penalizes users for downloading protected content. Around 2009–2010, countries in Europe imposed strict legislation regarding copyright infringement through filesharing. The Digital

Economy Act in the UK and Hadopi in France included harsh penalties for users caught filesharing copyrighted content, such as cutting their internet access. For example, the French Hadopi was named after the agency for the monitoring of illegal downloading, the Haute Autorité pour la Diffusion des Œuvres et la Protection des Droits sur Internet (Hadopi), or High Authority on Diffusion of Works of Art and the Protection of the Rights on the Internet. According to this law, users were to be disconnected if they were repeatedly caught downloading illegal content, or if they allowed others to use their connection for illegal downloading. Since then, both the UK and France realized that, first, the costs of implementing such laws and, second, the penalties involved were too harsh. The de-funding of Hadopi, announced in 2012, signalled a shift towards a different kind of approach to illegal filesharing, through educating users on the costs of this process and through directing them towards legal ways of acquiring content. The rise of Netflix, which provides high-quality content for a relatively low subscription, can be seen as a case in point. On the other hand, penalties still exist for persistent copyright infringers. In the UK, users will be notified by their ISP if their IP address is involved in illegal filesharing, and persistent infringement will result in prosecution.

Such laws and restrictions have been met with resistance from internet activists who hold that restriction of information amounts to loss of free speech. Indeed, the European elections of 2014 saw the Swedish and German Pirate Party gain one MEP each, while in Iceland, the Pirate Party was topping the polls throughout 2015. The Pirate Party of Iceland was founded by Birgitta Jonsdottir, an activist for freedom of information. Jonsdottir was also involved in the release of the Collateral Murder video by Wikileaks. Notwithstanding such strong opposition against restrictive legislation, the current trend globally is to introduce legal limits and controls to filesharing and downloading content protected by copyright laws. The extent to which such efforts will be successful in turning the tide against internet downloading remains to be seen.

We have seen in our discussion of content that the new priority acquired by use in the media triptych production–content–use (or reception) has led to significant shifts in content production and distribution. The responses of media firms – content control, monetization and anti-piracy legislation – can

only prove effective insofar as they are accepted by users. We can now move on to discuss the use of new media from a political economic perspective.

Using New Media

The rise and rise of users as the most important parameter in the new media equation has led to a renewal of the democratic appeal of the media. The wider participation in the media entailed in the technologies of new media, as well as the more active part played by users in choosing, publishing, commenting, linking to and reading online content, are, for some, signalling a major shift from a kind of passive media consumption to active use and participation. These, in turn, may contribute to the democratization of the media, as well as to the proper functioning of the public sphere as a space where people can contribute their arguments and opinions free of vested interests and coercion (e.g., Kahn and Kellner, 2004). At the same time, this emphasis on the user dimension unleashes the creativity of 'crowds', leading to the rise of a media culture that is at once a participatory culture (Jenkins, 2006a). There is little doubt that this is a positive development, in that it reverses the traditional linear logic of a media source communicating content to audiences. There are now multiple sources of content, communicating with each other, and engaged in what appears to be a dialogue rather than the one-sided monologue that was typical of the mass media era.

The neologism 'crowdsourcing' is often used to point to this kind of new collaborative culture of the users. Jeff Howe (2006), the *Wired* magazine editor who is credited with coining the term, defines crowdsourcing as 'the operation of open source principles to fields outside of software' (Howe, undated). People contribute, share information and collaboratively improve ideas, projects and products. Just as open source is meant to improve software and return it to the community of users, crowdsourcing is meant to improve concepts, through a kind of collective brainstorming. There is little doubt that this is one of the most unique and attractive aspects of new media use. This collaboration between users entails a significant promise for improvements in all spheres of life (Brabham, 2008). However, most of its current applications are in the field of business. As Brabham points out, this kind of distributed problem solving and production technique 'is a killer business model, effectively stitching the market research process into the very design of products, minimizing overhead costs, and speeding up the

creative phase of problem solving and design' (Brabham, 2009: n.p.). For many, the issue is not how to put this collective intelligence to use for the general public good, but how to harness it for profit (O'Reilly, 2005). From this point of view, the broader question here is that although use of the new media relies on new, wider participatory practices, the extent to which these may be linked to socio-cultural and political improvements is questionable. To what extent is this new collaborative model of media use linked to the democratization of the new media and more broadly of the public sphere? This is the question that we will try to address next.

Interrogating the concept of convergence, Henry Jenkins argues that rather than viewing it primarily as the result of technological developments, we should understand convergence as the result of changing consumption practices by audiences or media users. For Jenkins (2006b), convergence represents a cultural shift, in which consumers actively produce content, seek new information, and make connections between disparate media content, and they do so using a variety of media platforms. From this point of view, such consumption of new media content is at the same time production of new content. Moreover, Jenkins argues that more and more consumption or use is collective, that is, more and more media users seek information, speak to and interact with other media users in ways that enable them to get the most out of the (new) media. In these terms, this active and creative use of new media content significantly alters the logic by which media audiences operate and this in turn triggers changes in the media industries. Thus, to use Jenkins' example (2006b: 16), a teenager doing homework may juggle four or five windows at the same time, searching the internet, chatting with friends, downloading music, word-processing an essay, responding to emails, and so on. Similarly, fans of a popular TV series may, say, operate their own fan club, write new dialogues and story lines, make their own movies and post them on YouTube, debate with others to find subtexts and explanations, exchange trivia, and buy or sell autographs. This often unpredictable audience behaviour is ambiguously received by media producers, who on the one hand may want to encourage active consumption as it offers more satisfaction and a wider range of experiences, while on the other seek to capitalize on it and retain control over their products. In his book, Jenkins discusses the example of young Harry Potter fans, who write their own Hogwarts stories but end up facing the wrath of media industries that do not

want to relinquish control over their intellectual property. For Jenkins, it is crucial to examine these conflicts and compromises between different media users and between users and industries, because 'they will define the public culture of the future' (2006b: 24). This is due to the fact that the ways in which we participate in popular culture provide blueprints and protocols for our wider public and political behaviour. Thus, through media consumption and use, we learn ways of public participation that in turn may influence political participation and outcomes.

This is precisely why the question of the extent to which this kind of media use is linked to democratization is so pertinent here. This involves examining a series of questions, of which the most obvious one concerns the question of equality of the participants or media users. But perhaps preceding this, we should first examine what is meant by the term 'democratization'. Jenkins (2006b: 241) quotes Cara Mertes, a producer for the US Public Broadcasting Service, who posed several questions regarding the links between Current TV – an online digital television channel then supported by former US Vice-President Al Gore – and democratic politics. Paraphrasing Mertes (and Jenkins, 2006b), we can pose the following questions regarding democratization and media use/consumption: Is user content more democratic because it provides the kind of information necessary for a democracy to function? Is media consumption more democratic in its effects (i.e., mobilizing more people to participate in the political process)? Is it more democratic in its values (i.e., fostering rational-critical debate) or its process (in widening access and expanding participation)? Reaching clear-cut answers is difficult, given the vast diversity of online content. However, as Jenkins suggests, we may focus on the potential of user participation to achieve these ends. That said, there are obstacles standing in the way: not all participants are equal. In Jenkins' analyses, the demographics of new media users show that they are typically middle-class, white, college-educated men; but what about women, people from ethnic and cultural minorities, older people, those who don't have internet access, or those who lack computer and language skills? These digital divides present clear hurdles that need to be overcome. In addition, we have the responses of media conglomerates that seek to retain power and, more broadly, the responses of the system of commodity and informational capitalism, which operate on the premise of profit maximization, thereby marginalizing and effectively destroying

anything else.

In an important article, Lincoln Dahlberg (2005) notes that attention is one of the most valuable resources online, and media corporations are in a privileged position for attracting and keeping attention. Large and well-known corporations vie to keep users engaged within their own online environments, and for the most part they succeed. Dahlberg refers to the kind of online environment offered by portals such as Yahoo! and AOL, but his observation is valid more broadly. In Table 2.2, we can see the top ten web companies, ranked by Alexa.com, using a combination of the average number of unique visitors, the page views, and the time spent on the site. To find that Google, Facebook and YouTube are the top three is not really surprising. The point here is that notwithstanding users' active content production and exchanges over the web, corporations are not far behind them in seeking to exploit such use for profits. And in doing so, the possibility for circulation and exchange of the information vital for democracy, as well as rational-critical engagement with arguments, is notably diminished: online corporations prioritize the mainstream, and discourage alternative and contentious uses and arguments. In opting for traffic maximization they steer clear of any substantial controversy, although they may cultivate some kind of minor controversy and scandal, usually involving private lives, to attract notoriety and more traffic. In addition, when users are searching for alternative viewpoints, algorithms and search optimization methods used by engines such as Google ensure that such alternatives will end up beyond the second or third results page. Although Google's algorithm is a corporate secret, it is clear that the more linked a site is, the more likely it is to appear in the first few pages of the search results: and here is where corporate sites have an advantage as they represent powerful and well-known brands and are therefore more likely to be linked to other sites in the web, improving their overall visibility. In these terms, users are being controlled and manipulated by online corporations which seek to control and circumscribe use in order to capitalize and 'monetize' it. Perhaps the best example of such practices could be the way in which Facebook operates: relying on users hooking up with other users, it has created a huge community of global users, who are then sold to advertisers. As Dahlberg suggests, online corporations constitute users primarily as consumers, or at least as private individuals and strategic actors (see also Patelis, 2000).

Table 2.2   Top ten internet sites, 2015

	Name	Daily page views per visitor	Time per person per day (MM:SS)
1	Google	19.88	17:58
2	Facebook	12.58	21:03
3	YouTube	9.23	17:56
4	Baidu	8.79	7:44
5	Yahoo	7.36	8:39
6	Amazon	12.60	11:43
7	Wikipedia	3.78	4:35
8	QQ	4.41	5:08
9	Twitter	4.94	7:44
10	Google.co.in	17.78	13:20

Source: Alexa.com

Source: Alexa.com

But do they succeed in controlling online use and traffic? The jury is still out. Dahlberg himself discusses alternative efforts as well as possible practices by which the internet's public character may be safeguarded. There is no doubt that controlling web content is a near-impossible task, although there are numerous motives, both political and corporate, to do so. In these terms it is perhaps better to see this, along with Jenkins, as a kind of struggle between users, within different communities of users as well as between users and corporations. The struggle is ongoing and has no clear winners, but this does not mean that we can sit back and watch. We must remain vigilant, ensuring that the already-unequal terms of this struggle do not become any worse, and perhaps help level the field through insisting on a plurality of engines, a diversity of portals and providers, and apparent criteria for inclusion/exclusion of different points of view. It is also clear that – notwithstanding the corporate efforts to control and circumscribe online use – the proliferation of collaborative networks, and more broadly the increased significance of collaboration and rise of collective intelligence (evidenced in projects such as Wikipedia) signal a paradigm shift towards new patterns of use that are not as easily tamed, especially by old-fashioned corporate practices. On the other hand, such corporate players continuously develop new ways for controlling and harnessing collective intelligence. Again, Facebook, YouTube and other social networking sites provide an example of this, as they rely precisely on collective use. For some thinkers, such as Jenkins, the very term Web 2.0 is thought to represent a business model that puts to (commercial) use grassroots participatory practices associated with

collective use and linking up/networking with others. All in all, we may conclude that there is an ongoing, constant struggle between users and those seeking to commercially exploit or politically control such users.

Conclusions

This chapter examined the shifts in the economic organization of society that are linked to the rise of the new media. We argued, along with Manuel Castells, that these changes still take place within the dominant social formation of capitalism, and hence share important similarities with institutions and practices of industrial capitalism. Following Castells, we termed the new social formation 'informational capitalism', to denote that, to the extent that it is capitalist, it revolves around the same quest of profit and entails the same dynamic between labour and capital as with the previous paradigm, that of industrial capitalism. But to the extent that it is characterized as *informational*, this kind of capitalism is substantially different from the industrial one, and we must study its differences in order to understand how the economy and society are changing. Box 2.1 summarizes the main changes.

This chapter further examined the political economy of the new media industry, in which we saw that the process of new media production is dominated by some major corporations, but that it also expands across several industries, including entertainment, computer equipment, network equipment, online retailing, computer software producers, and telecommunications. Following along the trend on media concentration, firms build strategic alliances, enabling them to optimize production and build upon their strengths. But traditional mainstream media companies have seen their monopoly over content come under attack by the rise of user-generated content. The free availability and vast diversity of online content have created important problems for the traditional media business model that relied both on advertising and on selling content. Faced with these problems, media corporations seek to introduce legislation regarding copyright-protected content, identify new ways to 'monetize' content, and create new ways for controlling access to content. All of these are resisted, leading to a new cycle of control and resistance. A similar struggle is taking place with respect to user behaviour more broadly. On the one hand we have almost unprecedented numbers of people participating online in new collaborative ways, while on the other hand we have major media corporations seeking to 'streamline'

such use, to commercially exploit it in order to maximize profit. Box 2.2 summarizes the main issues associated with new media production, content and consumption/use.

In many ways, the new social formation ushered in by the new media has provided us with marked improvements in the processes of production and consumption. But equally, it may be thought of as perpetuating inequalities while also creating some more. Powerful corporations still control or seek to control and harness the labour of the many, and in some cases they do this without providing any kind of compensation or payment for the services they use. The exploitative nature of capitalism, reducing everything to profit and loss, is still the dominant logic within informational capitalism. Yet there are glimpses of a new dynamic, one that speaks of user empowerment; of widened and more distributed (networked) participation in common, public cultures; and, in Lazzarato's terms, of the immaterial labour force's increased autonomy and skills. And it is here, perhaps, that we may locate the potential for change, for a struggle towards a more equitable distribution of wealth and power in society. But this is, first and foremost, a political question. We shall turn to this topic in the [next chapter](#).

2.1 Comparison between Industrial and Informational Capitalism

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Industrial Capitalism

Production:

- Mass, relying on capital, raw materials and machines
- Paradigmatic industry: car manufacturer Ford

Labour:

- 'Rationalized', alienated, based on 'scientific management'

Consumption:

- Passive: consume mass products as offered

Informational Capitalism

Production:

- Networked (distributed) and informationalized, relying more and more on information
- Relying on global finance: money generating more money
- Paradigmatic industry: network equipment firm Cisco

Labour:

- Immaterial, producing both subjectivity and commodities, more autonomous but also more precarious

Consumption:

- Active, customized and involving subjectivity

2.2 The Political Economy of the New Media

Production:

- Who 'rules' the new media? Strategic alliances between firms seek to optimize production, but a general successful new business model is lacking. Advertising and charging for contents are still the dominant revenue models

Content:

- The rise of user-generated content has given rise to a tension between corporations seeking to control contents (digital rights management) and the diversity, multiplicity and free availability of online content

Use:

- Relying on participation, collaboration and collective intelligence. In some ways it is more democratic, but there is also a tension between corporate attempts to circumscribe and capitalize on use and user struggle to remain independent of any patrons

Case Study The App Economy

The proliferation of tablets and mobile devices gave rise to a new kind of economic activity centring on the internet: the development and sale of 'apps'. Apps refer to specific programs that allow users to extend and customize the functionality of their devices. These programs can work through the operating system of mobile devices and PCs/laptops without going through the web. It is generally thought that the app economy emerged out of the launch of Apple's first iPhone in 2007, followed by the Apple App Store in 2008. At around the same time, Google launched the Android mobile operating system, and Google Play, allowing developers to create and sell Android apps. This brief case study looks at the developers, the kinds of apps they develop, and the total value of the app economy.

An industry report by Vision Mobile for 2014 estimated that there are about 5.6 million app developers in the world, with about 1.3 million in the EU28. App developers' income comes from a variety of sources, including paid downloads, advertising, contract work, and in-app purchases (Wilcox and Voskoglou, 2015). In another industry report, Ray, Wilcox and Voskoglou (2015) found that developers are overwhelmingly male and young: in the US and Europe over 90% of developers are men, and the percentage increases in Africa, Asia and South America. The average age range is between 27 and 34 years old, with African and Asian developers being younger than their European and US counterparts. Developers are roughly equally divided between those working professionally in app development and those who are hobbyists. Java, Objective C and HTML5 are the most popular programming languages used. There is a lot of inequality among developers, with about 51% earning less than $500 per month, while 4% earn over $500K. Revenue sources include paid downloads, subscription, in-app purchases, contract work and advertising.

The app market seems to be very concentrated, with iOS and Android more or less dominating apps: iOS, Apple's operating system, still has the advantage with about 40% of apps developed for iOS, 33% for Android and the remaining 27% for other operating systems. Apps come in a very wide variety, including news, entertainment, health and fitness, games, and a lot more. However, as Ray, Wilcox and Voskoglou (2015) note, given that developers who operate with an e-commerce model, for example selling physical objects (e.g., fast food) or services (e.g., taxi rides), are more likely to earn over $100K per month, it is likely that app development within e-commerce will increase. Moreover, given the proliferation of apps – 1.6 million listed in Google Play and 1.5 million in Apple App store in July 2015 (Statista, 2015) – developers have to deal with intense competition. Overall, the app economy is

growing, with revenues projected at over $143 billion by the end of 2016. To put this into perspective, Dediu (2014) reports that in 2014 developers for iOS earned more than Hollywood earned from the box office in the US. In addition, the app economy is good for job creation, with reports attributing to it about 2 million jobs in the EU alone (Wilcox and Voskoglou, 2015).

In many ways the app economy is emblematic of informational capitalism: it embodies both an entrepreneurial and a hacker spirit, and it relies on immaterial, creative and autonomous labour. On the other hand, it is a very concentrated market, highly stratified and tightly controlled by the app stores. There is the possibility for conflicts of interest. For example, when the app iFixit, which offers repair guides for technological objects, created a reverse engineering video for iPhone 6 and Apple TV, it was pulled down by Apple. The tension between creativity and control, play and monetization, and openness and closure is evident in the app economy as well. Additionally, the brief overview of the developer community shows that it is a rather exclusive club, leading to the conclusion that at this stage at least app development is not something readily available to all. Moreover, even if the community opens as more and more people may turn to app developing, competition will intensify, making its sustainability as a profession highly questionable. In short, while the app economy is a vibrant, growing, creative economy, its internal tensions and contradictions may prevent it from reaching its full potential.

Research Activity: Online Users – Consumers, Workers or Users?

The role of online use or consumption of new media is by no means as clear-cut as the consumption of older media was. The lines between media use and production are blurred, and a significant part of the argument in this chapter is that there is an ongoing struggle between new media corporations that seek to control and capitalize on user participation, and users themselves who seek to remain free and independent. This activity is designed to show the tensions between use as consumption, production and participation.

Objective: to identify the various ways in which users are constituted online as well as some of the stakes involved.

Task 1: Go to an internet retailer, such as Amazon, or eBay.

- What kinds of experience do these sites offer?
- What kinds of actions-options are available to users?
- What type of participation is required in these sites?

Task 2: Go to a social networking site, such as Facebook or YouTube.

- How are you addressed in these sites?
- What kinds of actions-options are available to users?
- What kind of participation is required or expected in these sites?
- How does it differ from internet retailers? What are the similarities shared between these sites and the internet retailers?

Task 3: Go to an app offering a service, for example Uber or Airbnb.

- What do you need to do before using it? Do you subscribe or can you use it as a guest?
- What do you need to do when using it as someone offering a service and as someone requesting a service? How do these two uses differ?
- Consider the reputation/recommendation elements again from both a service provider and service end-user perspective. How important are these? Using your own experiences with such sites, have you found yourself writing a really negative recommendation? Under what circumstances? Have you thought of

the implications of this?

In general, how do these three kinds of sites differ from each other? In which sites is the user more independent? How does each type of site seek to control and circumscribe use? Which type of site (if any) affords more user participation? Which is more democratic and in what ways? (Think of Cara Mertes' questions on democracy and Current TV, in Jenkins, 2006b). What are some of the ways in which users may resist or undermine attempts to limit and control their use?

Further Reading

The following articles highlight the importance of the economy and specifically the political economy of the new media. Robin Mansell calls for a revitalization of the political economy of the new media, through studies of production and consumption of new media as commodity forms. Rosalind Gill and Andy Pratt explore cultural work from the point of view of the Italian autonomist tradition, and explore the ways in which informational capitalism has given rise to the *precariat*. Christian Fuchs focuses on another dimension of the new media economy, that of the 'gift', or the unpaid labour of new media consumers. He argues that this free labour ends up commodifying the users themselves, leading to the need to develop a new critique and a new approach to the political economy of the new media. Responding to this, Bolaño and Vieira argue that the reliance on advertising must also be considered, especially in the context of social media corporations, whose business model relies on selling personal information and data produced by their users.

Mansell, R., 2004, Political economy, power and new media. *New Media & Society*, 6(1), 96–105.

Gill, R. and Pratt, A., 2008, In the social factory? Immaterial labour, precariousness and cultural work. *Theory, Culture & Society*, 25(7–8), 1–30.

Fuchs, C., 2009, Information and communication technologies and society: a contribution to the critique of the political economy of the internet. *European Journal of Communication*, 24(1), 69–87.

Bolaño, C.R. and Vieira, E.S., 2015, The political economy of the Internet: social networking sites and a reply to Fuchs. *Television & New Media, 16*(1), 52–61.

3 Politics and Citizenship

Learning Objectives

- To understand the relationship between politics and the new media
- To critically understand the continuities and changes in politics as a result of the new media
- To learn about various instances in which the new media have been credited with positive and negative effects on the political process
- To develop a critical understanding of the role of new media in the political process

Introduction

The openness and directness of the internet and the new media as means of communication have given rise to hopes regarding the political system and its further democratization. While the mass media model of communication has been hierarchical, closed to the majority of the citizens, and operating in a uni-directional mode, the new media seem to entail a promise for something more. Their open and informal character, their interactive attributes, as well as their wide reach provide new opportunities for politicians to communicate with citizens, for citizens to communicate with each other, and for people to mobilize in order to achieve certain political goals. More fundamentally the new media entail the possibility for a more radical renewal of political life, which will be at once more democratic and more encompassing than ever before. These high expectations are attributed to three main factors: first, because the new media 'democratize' information both in its production and in its dissemination aspects; second, because of the possibilities offered by the new media for active participation, for forming interest groups and coalitions, and for mobilizing people; third, because of the possibilities for online discussions and deliberations on issues of importance that breathe new life into the public sphere (Dahlberg, 2001).

But are the new media really capable of delivering on these promises? In his work, Castells (1997 [2004]) has detailed some of the changes that take place due to the new media. Network politics, for Castells, revolves around the ability to use media and information – this is why he refers to it as informational politics. This new kind of politics, linked to new media and technologies, is decentralized and de-linked from territories and national politics. It is, in many ways, a globalized politics. It is also driven more by citizens than by politicians, giving new momentum to activist politics, as we have seen in the past few years. Notwithstanding these changes, questions regarding, first, the democratic aspects of this politics and, second, its overall quality still remain. Cynics might note that some 25 years since the expansion of the internet, and its popularization through the World Wide Web, nothing much has changed in the world of politics. Serious questions have arisen concerning issues of access to the new media, since the various digital

divides means that not everyone has equal access and can use new media in an equal manner. In addition, the quality of the debate or discussion taking place in online environments is subject to a lot of criticism: does it really qualify as deliberation (Dahlberg, 2001; Papacharissi, 2002)? Moreover, Cass Sunstein (2001) argues that the internet is in fact linked to a fragmentation rather than a renewal of the public sphere, in which people typically only visit sites concerning their own interests and rarely come across other viewpoints and ideas. Finally, there are justified concerns regarding the quality of information on the internet, as often there is no way in which we can check the credibility of the source and the accuracy of the information we are reading. All this implies that the relationship between the political process and the new media is far from straightforward.

This chapter will review the relationship between the new media and political life, arguing that in this field, developments are led not by politicians or other big players, but by people themselves. In fact, as we shall see, while citizen-related political practices may be changing through the new media, governments, politicians and political institutions have been slow on the uptake, and tend to follow rather than lead developments. On the other hand, we shall also see that the development of new online political practices does not always guarantee either political success or improved democracy. In other words, they are not always linked to more transparency, accountability and legitimacy. However, there is still a lot to be gained from the use of the new media in politics, not least the increased role allocated to everyday citizens, who are no longer only required to cast their vote every four years or so, but can and often they do comment, discuss and criticize political developments on an everyday basis. Will that trigger changes linked to fundamental shifts in the polity? We will have to wait and see.

In pursuing these arguments, the chapter divides political life into three areas. First, formal political life is considered, from the point of view of organized political parties, governments and other political institutions. What have they made of the new media? In which ways have they improved their practices? To what extent have they been successful in their use of the new media? Second, this chapter will examine the alternative forms of politics, as seen in political activist organizations, which have profited considerably from the opportunities offered by the new media. When and under what circumstances

has new media activism proved successful? Examples will be drawn from the anti-globalization movement, environmental movements and anti-war activism. Third, this chapter will look at citizen-based political initiatives and practices, in order to find out if there have been any changes in everyday citizenship. This will entail a discussion of social media platforms and the related development of new forms of political participation and engagement. This section will review the political role of social media, such as Facebook and Twitter, to see if social media have ushered in a new kind of politics.

Politicians and New Media: Politics as Usual?

For a long time the discussion on the relationship between (formal) politics and the new media was polarized between those who hoped the new media would revolutionize traditional politics and those who thought that the internet would destroy the political process. In characteristically upbeat prose, Howard Rheingold (1993: 14) argued that '[t]he political significance of CMC [Computer Mediated Communication] lies in its capacity to challenge the existing political hierarchy's monopoly on powerful communications media, and perhaps thus revitalize citizen-based democracy.' The early 1990s were in many ways characterized by an unbridled optimism regarding the abilities of the new media to radically transform our lives. Along with Rheingold, other authors, including Nicholas Negroponte (1995) and the then US Vice-President Al Gore, envisaged a new kind of online politics in which citizens would directly participate and the internet would be a modern version of the Athenian Agora (Gore, 1994). A series of relevant publications explored this relationship primarily from an optimistic, hopeful point of view. Books and articles such as, among others, Lawrence Grossman's *The Electronic Republic* (1995), Graeme Browning's *Electronic Democracy* (1996), Wayne Rash's *Politics on the Net* (1997), and Rosa Tsagarousianou, Tambini and Bryan's *Cyberdemocracy* (1998) are indicative of the explosion in the field of new media and politics in the 1990s. Briefly, the main arguments were mostly based on analyses of the technological possibilities offered by the internet; they held that because of the speed and directness that it introduces in communication, because of the sheer volume of information that it can process, and because of its interactive features, political life was likely to change from a hierarchical, top-down model, in which citizens are required to merely cast their vote every four years or so, to a much more decentralized process, in which citizens can have more control and in which politicians can 'narrowcast' their messages, targeting specific citizens (see Abramson, Arterton and Orren, 1988).

Conversely, a more dystopian vision of the relationship between the new

media and politics was highlighting other, much more negative outcomes for the political process. Sunstein's (2001) cyber-balkanization arguments on fragmentation and polarization of the public sphere had a sobering effect on the hyper-optimism of other authors. Similarly, long-term engagement with the new media was accused of contributing to a loss of social capital, that is, of the social relationships and supporting networks that people build in their face-to-face encounters with others (Etzioni and Etzioni, 1999; cf. Putnam, 2000). Others accused the new media of promoting a kind of techno-elitism in which it is mostly those who are technologically savvy or computer-literate who profit from the new media (see Warnick, 2002). Yet another dystopic strand concerns the ability of the new media to cast a very wide net of surveillance that follows every key stroke and every digital track we leave behind (Poster, 1995; Lessig, 1999). These critical points polarized the debate between a cyber-utopian and a cyber-dystopian version of the relationship between the new media and politics.

The Normalization Thesis

However, by the late 1990s–early 2000s, several studies came up with actual empirical findings which could allow for a more realistic assessment of the impact of the internet on formal politics. Based on such empirical findings, David Resnick (1998) suggested his 'normalization thesis'. Specifically, in an important chapter, Resnick (1998) argued that while the early internet may have provided a fluid and unstructured space for debates and polemics, its spread across the board meant that offline players have moved online, thereby influencing more or less the whole of the internet. The egalitarian and participatory character of the early internet has given rise to the sleek work of digital consultants and political marketing executives, who design, research and promote political websites belonging to politicians and political parties. And they, argues Resnick (1998; Margolis and Resnick, 2000), don't have in mind deliberation and discussion, but rather persuasion and promotion: they want to use the internet much in the same way they used the mass media. And this, for Resnick, leads to a normalization of the internet: as more and more traditional political players move online, the internet loses its 'natural state' of political innocence and becomes dominated by the usual offline interests. In these terms, it's neither cyber-utopia nor -dystopia but rather politics as usual on cyberspace. But is Resnick's assessment really right?

Well, Resnick was writing in the late 1990s, but by now, things have moved on. While there is no global directory of online political parties, it is safe to assume that all political parties in the developed world have an online presence. This presence is important for them as it allows them to accomplish several goals. Gibson and Ward (2003) argue that political parties use the internet in at least three ways. First, for administration: political parties go online to provide and manage information about themselves, their positions, goals, manifestos, policy proposals, and so on. Second, they use the internet for campaigning: to recruit new members and potential voters, to target specific groups, to try to set the agenda for the election, bypassing the mass media, but also to retrieve information about visitors to the site, getting an indication of the kind of demographic that is interested in them. Third, political parties use the internet for internal organization: they can canvass their members' views on certain topics, discuss policies, encourage

donations, but also conduct e-ballots or referenda with users and/or members.

While Gibson and Ward focused on the instrumental uses of the internet by political parties, Pippa Norris (2003) examined the wider effects that going online has for the political process. She found that political party websites can function, first, as a *pluralistic civic forum* by facilitating the voice of oppositional challengers and increasing the visibility of minor and fringe parties, so that attentive citizens can learn more about the range of electoral choices. Thus, while in the mass-media-dominated era it was only the top parties that received attention by the press and television, the internet makes sure that all of them can be represented online, offering a platform for them to present their ideas, policies and manifestos. Second, party websites can function as a *channel for political participation* by facilitating interactive linkages between citizens and parties. This allows a kind of direct communication that was almost impossible in the mass media era, and which certainly has important advantages for citizens who can directly question politicians on matters of interest.

Although certainly bringing advantages to the political process, it is highly questionable to argue that formal politics has been radically altered due to the new media. More empirical research in the areas of e-government, e-parliament and e-parties shows clearly that while formal politics has embraced the new media, they are using their features of bottom-up interactivity, cooperation and participation very selectively. Specifically, in e-government the focus has been on managing the process of government more efficiently rather than encouraging citizen participation. In their article on e-government, Chadwick and May (2003) identified three models of e-government, the managerial, consultive and participatory, and found that the managerial model was the more likely to dominate. The managerial model is mainly concerned with the efficient delivery of services to users rather than with opening up the political space to citizen participation.

This focus on efficiency and the management of online presence is also characterizing e-parliaments. Stephen Coleman (2009) argues that through their online presence, e-parliaments seek to manage their visibility, their role and contribution to the political process, but they largely fail. This is because of the 'hypermediated' environment of the twenty-first century, in which

politicians, MPs and government members cannot altogether control how they come across to the citizens (Coleman, 2009; cf. Thompson, 2005: 42). Parliaments have attempted to use the internet in ways that make the legislative process more transparent and open, and to provide citizens with the opportunity to comment on aspects of the process. But this does not necessarily translate to more power to the citizenry, since their consultations are 'managed' and mediated by the parliament, rather than allowing for designated civic space to emerge (Coleman, 2009). As for the e-parties: although, as Norris (2003) noted, the internet provides room for minor and alternative parties to voice their ideas and manifestos, the increasing employment of digital consultants means that the bigger and more powerful parties are likely to have a more visible online presence. The increasing professionalization of online presence, combined with the established 'brand-name' of large political parties, means that it is unlikely that the new media alone will contribute to any radical redistributions of power in the party system, though there are some notable examples, such as Partido X. Partido X is a Spanish political party whose entire existence is only online, without any of the local structures associated with political parties. Partido X went on to win over 100,000 votes in the 2014 European Parliament elections. However, to attribute its success to the new media overlooks the broader structures of political dissatisfaction in Spain amid increasingly strict austerity policies.

So far, therefore, evidence supports Resnick's (1998; Margolis and Resnick, 2000) 'normalization thesis'. Internet formal politics appears to be 'politics as usual': the internet seems to be dominated by the same interests as the offline world. Political institutions, parties and governments use the internet for their own purposes, such as promotion, persuasion, campaigning, administration and so on, rather than to allow citizens to communicate and participate directly in the political process. In this sense, the internet becomes a facilitator of existing, formal politics rather than offering new opportunities. It is mainly used for efficiency rather than to add to accountability, transparency and participation, or in other words to broaden democracy. An explanation for this may be found in the paradigm of 'new institutionalism'. This theoretical perspective comes from political science and it is based on the idea that institutions matter: in other words, institutions often operate on the basis of their own interests, values and norms, with the result of shaping

other organizations in society as well as individuals working in these institutions and organizations (see Jepperson, 1991). If we accept that the new media are shaped not only by technology, but also by people, social structures and institutions, then it follows that political institutions seek to re-create the internet in their own image.

But accepting wholesale the normalization thesis disregards some of the broader 'effects' or outcomes of the use of new media in politics. To begin with, there is no doubt that the new media have allowed politicians to address citizens and voters directly, without the need for the media to mediate. This has contributed to the disintermediation (Hall, 2001) of politics, as politicians no longer need to rely on the media to convey their messages and communicate with voters. Through websites, emails, mobile-phone text messages, and other applications they can form a direct relationship with their potential voters and respond directly to their concerns. From the citizens' point of view, the use of new media facilitates decision-making during elections, as they have access to all the necessary information, often directly from political parties themselves. They can engage in policy and other debates, which may ultimately have some influence in policy making, and they are able to communicate directly with politicians and inform them of pressing issues and problems that need to be addressed. Additionally, Pippa Norris (2003) cites evidence that shows that use of the internet is linked to increased levels of civic engagement. However, online civic engagement is highly stratified, revealing that offline cleavages apply online as well. In their 2009 study on the Internet and Civic Engagement, Jones and Fox, for the Pew Internet and American Life Project, report that the well-off and well-educated are more likely to participate in online political activities. Similarly, previous studies report that those who use political party sites are already more interested in politics, have more resources, and have previously been involved in politics (Cornfield, Rainie and Horrigan, 2003). Finally, it may be argued that the promotional politics in which most political parties and institutions are engaged discourage actual deliberation and push towards conformity and agreement with given policies.

A case in point concerns President Obama's use of social media in the 2008 US election. A report by Edelman Digital Public Affairs offered a detailed analysis on the extensive use of social media by Obama. In *The Social Pulpit:*

Barack Obama's Social Media Toolkit (2009), Lutz identified the kinds of online media uses that Obama and his team had embarked on, as well as the kinds of results they ensured. The crucial contribution was that social media allowed the President's team to engage with people directly, and to offer them a series of possible ways in which to contribute to the campaign. An equally important dimension was that the campaign made room for and in fact positively encouraged user-generated content – this ended up being one of the most positive dimensions of the campaign, as reports tell us that voters are more likely to find information credible if it comes from a person like them. This combination of personal address and the offer of several levels of involvement multiplied the support the President had.

During his Presidency, Obama often addressed US citizens through social media, most notably through YouTube in scheduled interviews, where he took questions by users. Of course, these events are very carefully managed, but nevertheless allow for a kind of direct communication that would have been inconceivable during the reign of the mass media. On the other hand, how much has this changed politics and the political process? We need to keep in mind here that although Obama's social media use was very successful, its success was measured in terms of strategic advantage rather than democratization or gains for citizens. From the point of view of politicians, bypassing the mass media and addressing citizen-voters directly clearly offers an advantage as they are more in control of the process of communication. However, the extent to which this translates into actual democratic gains (more equality and justice) is unclear.

From a more abstract point of view, the normalization thesis assumes a uni-directional relationship between politics and the new media, whereby the former influences and shapes the latter. Yet we have seen in previous chapters that the ways in which new media mediate or intervene in areas of life are bound to leave their mark. Andrew Chadwick (2013) seeks to theorize the multiple and dynamic ways in which the new media and the political process are connected using the notion of the hybrid media system. In this system there are several actors, including old 'legacy' and new media, politicians, political bloggers and publics, ongoing adaptations, conflicts and tensions. There is no clear winner nor is it easy to say who has the upper hand. The broader conclusion that we can draw here is that, at best, the

relationship between formal politics and the internet is an equivocal one, mostly because of the spillover of offline divisions and interests in online environments. But is this the case across the broader political spectrum? The [next section](#) will discuss activist politics and new media and the changes these have ushered in the field of politics.

Political Activism and New Media

Bypassing formal politics, citizens organize on the basis of common interests and goals. Political activism, from this point of view, is part of the broader civil society, that is, the part of society that 'refers to the arena of un-coerced collective action around shared interests, purposes and values' (LSE Centre for Civil Society, 2004: n.p.). Civil society is therefore separate from both formal political institutions and business interests, and operates on the basis of both collectively shared interests and more sectarian interests. Pursuing such interests and goals through political means may be understood as political activism. Although necessary for the proper functioning of democracy, political activism is not always or necessarily progressive. It can be 'progressive' (supporting reform towards equality and justice), 'conservative' (in favour of conserving the status quo), or even 'reactionary' (reacting mainly against progressive goals). The focus in this chapter will be on progressive politics, and the democratic gains involved in engaging with the internet. The discussion will begin with a review of internet-native practices, such as hacktivism, and then move on to discuss the ways in which the new media have changed the political activism of social movements.

Net Native Activism

'Hacktivism', with its roots in the cyber-libertarian aspects of the internet, began as a movement for the freedom of information. The first and most well-known hacktivist group was the Cult of the Dead Cow (cDc). Based in Lubbock, Texas, and founded in 1984, the Cult has been one of the most influential online activist groups. Having coined the term 'hacktivism' in 1996, the Cult embarked on a series of actions aimed first to promote the freedom of information online, but also to protect users from surveillance and invasion of their privacy.

Although undoubtedly the first of its kind, this strand of hacktivism is in fact one of two approaches to online activism, as distinguished by Tim Jordan (2007). Jordan refers to the kind of hacktivism practised by the Cult of the Dead Cow as 'digital correctness' (Jordan, 2007). Digital correctness is linked to freedom of information on the web, and to the open source movement. This rests on the premise that access to information is a human right, and its deprivation is a human rights violation. Their goal is to write code that resists attempts to censor the internet but which also protects users from surveillance from authorities. cDc have written and disseminated code such as CameraShy and Six/Four, both aimed to enable users to bypass censorship systems, and Torpak, a portable browser that leaves no traces. Downloading and using some of these programs allows users to visit prohibited sites without any fear of being traced.

In general, the main adversaries of digitally correct hacktivists are national governments and corporations that seek to control information for political and business purposes, respectively. Are they successful? To some extent, they are. The 'Goolag' campaign, launched in 2006, was cDc's response to Google's acceptance of Chinese censorship of the internet, and consisted mainly of a series of logos which were then downloaded, printed on t-shirts and so on, with the proceeds going to the NGO Human Rights in China (www.hrichina.org). Goolag is a word play – or mash – between the words Google and gulag, the latter referring to the notorious Soviet concentration camps which held scores of political prisoners. In February 2006, the cDc also issued a press release about the campaign, in which Microsoft, Yahoo!,

Google and Cisco were described as the 'Gang of Four' due to their appeasement of Chinese restrictive internet policies. The press release essentially criticized the US government for failing to support human rights and free speech in China (cDc, 2006). In February 2008, cDc released the 'goolag scanner', which essentially identified vulnerabilities in websites, which can then be used to circumvent governmental restrictions on internet use (Mashable, 2008). Although it is difficult to credit the 'Goolag' campaign with the subsequent u-turn in Google's policy, the campaign has certainly raised awareness on this issue.

This is what they are against: the control and censorship of information and its malicious and exploitative use by governments and corporations. From this point of view, hacktivism is oriented towards the infrastructure of information (Jordan, 2007). When, in the summer of 2009, Iran was rocked by protests over the election result, hacktivists helped the flow of information through applications such as TOR (The Onion Router), an open source software that allows users to remain anonymous by routing requests for information through other users. Additionally, initiatives such as Psiphon (www.psiphon.ca), which produces code that bypasses filtering of access, have helped people in various countries, including Iran and Kyrgyzstan (Deibert and Rohozinski, 2009). In the meantime, hacktivists such as Oxblood Ruffin, the spokesman of cDc, raise awareness over censorship practices (Ruffin, 2009). These kinds of hacktivist initiatives have proved helpful in empowering people, but have never really managed to galvanize widespread resistance to controlling and censoring information. On this matter, 'mass action hacktivism' may prove more effective.

Mass action hacktivism is more directly concerned with intervention in cases where they consider democracy and social justice are under attack. Through promotion of disobedience actions, such as 'virtual sit-ins', 'distributed denial-of-service' (DDoS) attacks and other ways of interrupting the 'electronic veins of society' (Jordan, 2007: 77), they seek to raise awareness, protest and eventually change the world. They therefore depend on others to agree and act in the same manner.

Movements such as the Electronic Disturbance Theater (www.thing.net) and the Free Range Activists (www.fraw.org.uk/index.shtml) have attacked

corporation sites and paralysed e-services, through mobilizing a large number of people to act in the same manner. Ideologically, mass action hacktivism is allied to the anti- (capitalist) globalization movement, and is anti-neoliberal.

Case Study Anonymous

Anonymous is straddling the divide between these two forms of hacktivism. What is Anonymous? The best way to understand it is to see it as an internet-native *ad hoc* collective that is involved in online activism, DDoS attacks, hacking and defacement of sites as well as in the organization of street protests. The beginnings of Anonymous are to be found in 4chan, the notorious bulletin board, and specifically in its random board /b/, which is associated with trolling. In her book *Hacker, Hoaxer, Whistle-Blower, Spy*, Gabriella Coleman (2014) has written an ethnography of Anonymous, tracing their beginnings in 4chan, and the shift from localized actions such as Project Chanology to their evolution from trolls to a global activist icon.

Project Chanology refers to the attempt to take down or 'punish' the Church of Scientology because of its attempts to censor the internet and disrupt the free flow of information, following a leak of a damaging video of Tom Cruise meant for the eyes of Scientologists only. Links to the video were published by Gawker and other media in the US, but Scientology immediately threatened sites with lawsuits. It is to these that 4chan was reacting, calling others to act collectively in order to hack or take down the official Scientology page. On January 15, 2008, members of the /b/ board were issuing a call to arms, asking people to 'join the legion' against Scientology, with the *cri de guerre* 'FORWARD ANONYMOUS. UNITED, WE, THE LEGION ARE UNSTOPPABLE' (Coleman, 2014: 57). Anonymous, which began as the preferred username for /b/ participants, was already associated with the ideology of freedom of information and information activism. Coordinating action through Internet Relay Chat rooms (IRCs), various 'Anons' engaged in hacking, trolling and pranks against Scientology, including sending them black faxes, attacking their site via DDoS, releasing the 'secrets' of their religion to the internet, flooding their telephone lines with prank calls, sending them pizzas, and so on. A few weeks later, Anonymous released their video, which bore the marks of every Anon video since: a computerized voice, a hyberbolic yet inspirational narration calling for justice, accompanied by ominous music. Coleman (2014) argues that the video displayed all the elements and tensions within Anonymous: moral ambiguity and uncertainty over whether this was serious or a joke, done for the 'lulz'. But in any case the video and the whole project subsequently spilled into the streets with people actually protesting. Anonymous issues a set of rules regarding street protests, including Rule #17 (or 16 in later videos): 'Cover your face, in order to prevent identification from videos'. While the rule specified that masks were not necessary, when thousands of people hit the streets of various US cities to protest, they donned a Guy Fawkes mask, which was already a symbol of resistance through the film *V for Vendetta*; but it was also associated with the world of the internet through the Epic Fail Guy meme – the

message was that Scientology were an Epic Fail (see the KnowYourMeme site).

The rest is history. From a relatively marginal, internet-only group of 'geeks', Anonymous evolved into a global protest movement, associated with protests from Tunisia and Tahrir Square in Cairo to the Occupy movements and Gezi Park in Turkey. It functions as a true meme, as an inspiration: an empty signifier upon which people can write their own story of injustice and protest.

At the time of writing, in late 2015, Anonymous had retreated. Hunted by the US federal authorities, infiltrated by the FBI, and following some high-profile prison sentences for activists such as Jeremy Hammond, who was sentenced to ten years in Federal prison for hacking the intelligence firm Stratfor (see Coleman, 2014: chapter 9), Anonymous seem to have lost the power to mobilize and hold people's imagination as a global protest movement. Today, it seems more concerned with small projects, ranging from US police brutality victim Sandra Bland to Operation #Nimr, for Ali Mohammed Baqir al-Nimr, who was sentenced to death in Saudi Arabia. While Anonymous is still operating, the momentum for global protests inspired by the people behind the mask seems to have been lost.

Social Movements and the Internet

Social movements form part of civil society: that is, they are formed by citizens, for the purpose of promoting some political or social issue. In general, social movements have sought to bring around changes in socio-political organization mainly through collective action, protests and mobilizations, with some notable successes. The labour movement of the early twentieth century has managed to secure workers' rights and to contribute to the formation of welfare states (Tilly, 2004). Similarly, the feminist movement has achieved many gains for women, including the right to vote. While traditionally, social movements have involved street protests and other means of collective action, they have been quick in exploiting the possibilities offered by the internet. They have used it for, among other functions, the circulation of information on their cause, the organization of protests and demonstrations, the promotion of specific viewpoints and ideas, and the encouragement of debate and deliberation across a range of issues. But the focus on these functionalities of the internet may obscure the actual shifts that take place in the ways in which social movements operate. W. Lance Bennett (2003) argued that the new media have transformed the very nature of protest movements. Bennett was primarily talking about global social movements, and to a large extent this globalization of movements may be seen as an outcome of new technologies. On the other hand, local movements still exist, and most of Bennett's observations may be applicable to them as well. Because of the new media, protest movements have become 'polycentric': they have multiple hubs and operate from all of them. Similarly, they have become 'polycephalous': that is, they are no longer represented by a central leading figure, but have many local representatives. Finally, protest movements are no longer about ideology and ideological differences, but are 'more about personal and fluid forms of association' (Bennett, 2003: 147).

Bennett further identified the main characteristics of online social movements. The continuous nature of the internet allows social movements to be involved in permanent campaigns. Partly, this is also due to the fact that online movements have no central leadership, making it difficult to switch campaigns on and off at will. In addition, communication found in movement

sites is more about personal experiences and narratives and less about ideology. This potentially allows people to relate more to the movement's goals rather than the mere provision of information. Again, this is not totally due to new technologies: it reflects broader historical political shifts that have seen the demise of the large ideological blocs of the twentieth century, and the rise in 'soft' identity-politics. In addition, because of a lack of a central binding ideology, the ties between supporters are not strong, and the overall internal organization of the movement is that of a fluid network rather than a solidary community. Although, on the one hand, this may be seen as weakening the movement, on the other it offers it a tactical advantage as movements can regroup and reconfigure themselves with relative ease. Finally, online movements are not as dependent on the mass media for communication, as they form part of smaller public spheres, with relatively autonomous communicative networks. This, in turn, enables them to reverse information flows, and feed or influence the agenda of the mass media. Nevertheless as Bennett points out, the strengths of the online movements are inseparable from their weaknesses. Some of these vulnerabilities include the weak ties between members of movements as well as between movements themselves; these lead to unstable coalitions that may undermine sustained efforts to bring about change. At the same time, the widespread lack of a clear ideological stance leads to lack of clarity about goals, and weak idea-framing. These, in turn, may confuse publics and ultimately sabotage efforts for change.

To what extent have online social movements been effective? They appear to be more successful in short-term campaigns rather than in bringing about lasting change. For example, online campaigns against sweatshops run by Nike, Gap and others have been relatively successful, but broader neoliberal policies still remain widespread. Similarly, environmental online activism may be able to claim some local successes, but pressure from the environmental movements has failed to influence the relevant political agenda. Moreover, notwithstanding W. Lance Bennett's arguments on shifts in movement organization, many movements still operate with an old-fashioned model based on leadership and national politics. For instance, Gillan and Pickerill (2008) report that the anti-war movement in the UK, USA and Australia in fact made little use of the network-style possibilities and was primarily used as a tool for efficiency. In the end, however, this may

not be the fault of either the movements or the technologies that support them: global geopolitics is not democratic and hence it is unlikely to respond to bottom-up pressures for change.

In an overall assessment of activism and the internet it can be argued that, as initiatives, hacktivism projects show the wealth of imagination and depth of political feeling and engagement in citizens. The internet provides yet another terrain for struggle – where one can argue that the grounds are a bit more equal, although it is not by any means a 'level playing field'. In conclusion, however, there are considerable grounds for an overall pessimistic assessment given the relative lack of success for online social movements. This may well be due to a kind of spillover of offline politics online – as long as political institutions seek to shape the internet after their own image, and as long as political practices remain rooted to an offline model, things are unlikely to change. But the rise of Web 2.0 and social media has given grounds for optimism. Why? This is what we will examine next.

Social Media and Politics

The rise of social media has signalled a turn in thinking about new media and politics. This turn is mostly attributed to what Tim O'Reilly (2005) has called 'the architecture of participation'. Social media are linked to the development of a new technical infrastructure that further democratizes publishing and participation. Users are both producers and consumers of online content, and both big players and individual users have the opportunity to participate on a more equal footing. Applications such as blogs and wikis and social media platforms such as Facebook and Twitter led to the hope for a more participatory, and hence more democratic, model of politics. And this time, this model will emerge from the new media, democratizing first the internet, and then possibly spreading outwards, spilling over to the rest of society. This kind of democratization, revolving around ideas of freedom of choice and the empowerment of individuals, refers to a particular model of democracy, the liberal-consumerist model.

More broadly, though, how can social media contribute to democratic politics? We can identify three possible scenarios (Siapera, 2008). First, applications such as blogs and Twitter may complement mainstream media. Journalism's main political functions have been to provide information for people to be able to form a public opinion, to express this public opinion, and, finally, to hold governments, politicians and other powerful socio-political actors accountable for their actions (Habermas, 1996). However, journalism has been under attack for failing to fulfil its political functions, because it prioritizes the business side of making money at the expense of serving politics. Now that social media have democratized publishing, these political functions may be taken over by people themselves, who can undertake the provision of information, the expression of public opinion, and the watching of political actors. Second, social media may contribute to democratic politics because it encourages direct communication between political actors at all levels, and because it allows for deliberation and actual communal thinking about issues. In this manner, social media takes over the role of the public sphere as a space for communication, deliberation and communal thinking, and in this manner democratizing politics. Here we

should also place the role of social media in enabling direct political action, bypassing traditional political institutions and changing the face of protest and activism. Third, social media may provide a kind of training ground for the formation of new kinds of subjectivity, which might in the long run prove beneficial to democratic politics. In this way, social media introduce shifts within people themselves rather than to the broader system. It is likely that all these scenarios operate at the same time. But does this mean that politics has become more democratic?

Social Media as Political Journalism

Looking into social media as political journalism in some more detail, it seems that research is divided. While early research focusing on blogs showed that some early political blogs managed some modest gains in holding powerful politicians to account (Drezner and Farrell, 2004), in more recent years the dominance of social media platforms has meant that blogs must operate in synergy with such platforms. Moreover, blogs that began as relatively small projects hosting opinions have now professionalized and are increasingly looking to the bottom line. In other cases, popular blogs are associated with existing legacy news media, for example, the *New York Times* or the 'Comment is Free' section of the *Guardian*. From this point of view blog posts often take the form of traditional newspaper op-ed articles. At the same time, it is not clear how such blogs are financed. Although they generate some money through advertising, is it enough to guarantee journalistic autonomy? The US$315 million sale of the *Huffington Post* to AOL in 2011 shows the increasing extent to which the market gets involved in blogging. This is an important issue as, on the one hand, professional writers are subject to the pressures of the market while, on the other hand, amateur writers are not as well equipped to search, report and provide authoritative comment on important political issues.

All the same, the effect that social media have had on political journalism cannot be denied. Chadwick (2013) documents the evolving and shifting landscape of political communication in the UK and the USA, showing that political journalists and politicians are no longer the only actors. As we will see later, the impact of Wikileaks on both journalism and politics cannot be underestimated. Quasi-journalistic actions such as citizen witnessing and citizen journalism can usefully complement journalism, especially when it ignores certain areas and events. Attention from citizens in social media platforms may force mainstream media to take on certain topics. In this manner, citizens on social media may influence the mainstream media agenda. However, the increasing dominance of social media platforms along with the proliferation of online content imply that any political gains may be mixed. Specifically, the algorithms used by Facebook and Google impose their own regimes of visibility which do not necessarily prioritize political

importance (Bucher, 2012; Siapera, 2013). In short, while social media can be important for political journalism, financial pressures, increasing professionalization, and the challenge of social media algorithms make developments here equivocal.

Social Media and Political Action

Nonetheless, it may be that social media contribute to the formation of public opinion, as they allow direct communication between citizens as well as between citizens and politicians. From this point of view, social media might contribute to the political process because they provide another platform for the public sphere and because they allow for direct communication (and even deliberation) on issues of common interest. To examine these contributions, researchers have sought to identify the quality of the discussions on blogs and social networking sites. A well-researched case was 'Blog for America', the blog of Howard Dean – one of the politicians who in 2004 entered the race for the nomination for presidential candidate in the Democratic Party. He was eventually beaten by Senator John Kerry, but his blog was one of the first instances of a politician using Web 2.0 applications to address citizens directly. Kerbel and Bloom (2005) found some evidence of in-depth discussion of policies and policy proposals in the site, but mostly these took place among supporters of the same cause. In another study of the same blog, Janack (2006) found evidence for policing and disciplining of any dissenting voices: posters that questioned or criticized Dean, the Democrats, or their policies were either silenced or ostracized as 'trolls'. In general, there is some evidence for uncivil and spam posts found in the political blogosphere at large – the 2007 debates on blogging ethics are a testament to the concerns raised regarding the quality of the blogosphere. Two notable personalities of Web 2.0, Tim O'Reilly and James Wales – the founder of Wikipedia – proposed a series of ethical rules for blogging (O'Reilly and Wales, 2007). While these never really caught on, it is difficult to argue that blogs create or sustain discussion or deliberation on political issues. But few can dispute the power of blogs and other networking applications in enabling direct communication and even sustaining publicity.

A broadly discussed case of social media and politics is that of Twitter. The first time Twitter was discussed in the political sphere was in 2009, following the Iranian elections. When the results (which favoured the incumbent President Ahmadinejad) were disputed by protesters in Iran, a number took to Twitter to protest and declare their support for the other presidential candidate, Mir-Hossein Mousavi. Accessible through mobile phones, Twitter

further allows the grouping of posts on the same topic – known as a 'trending topic' – while it also offers the possibility to 'retweet', that is, to repeat and spread someone else's tweet. Finally, unlike email and social networking sites such as Facebook, Twitter makes its contents publicly available. As protests in Iran escalated, Iranians began to tweet events in real time. Tweets were written in both Farsi and English and gave information about what was going on in Iran:

> Woman says ppl knocking on her door 2 AM saying they were intelligence agents, took her daughter

> Ashora platoons now moving from valiasr toward National Tv staion. mousavi's supporters are already there. my father is out there!

> we hear 1dead in shiraz, livefire used in other cities RT (quoted in Grossman, 2009: n.p.)

Such was the power of Twitter that the US State Department asked them to postpone scheduled network upgrades to allow for the uninhibited communication by Iranian protesters (Grossman, 2009). There is no doubt that Twitter emboldened protesters, gave the impression that they were not alone, and held Iranian leaders and officials accountable to the rest of the world. On the other hand, while Twitter allows people to communicate, there are no guarantees regarding the authenticity and credibility of the tweets. Grossman reports that it is likely that Iranian intelligence infiltrated Twitter, while it is also a matter of dispute whether protesters in Iran would tweet in English – it is possible that a number of tweets in English may have been written by Iranian exiles. In the end, protests were quashed by force and early 2010 saw the execution of two protesters, Mohammad Reza Ali Zamani and Arash Rahmanipour. So, after all, Twitter did not topple the Iranian regime. But it did give temporary hope that things may change because people want them changed. It offered a window to a country otherwise remote and closed to the rest of the world; it allowed some voices to reach out, and showed the degree of solidarity that can be achieved. To expect a computer application, no matter how sophisticated, to change a political system is perhaps misguided, but the widespread use of social media for political purposes

shows that the scales are turning: politicians, even dictators, are facing constant scrutiny by citizens, who do not hesitate to network and demand changes.

The 2011 revolts in Tunisia and Egypt fed the debate on whether social media can be responsible for toppling longstanding dictatorships in the Middle East and elsewhere. The use of social media, and especially Twitter, were credited with triggering the revolts, so much so that the Tunisian revolt was dubbed the Twitter Revolution. At the height of the mass protests in Cairo's Tahrir Square, the Egyptian government shut down the internet – this act massively backfired, triggering online protests across the world. Soon, the internet was made available again. But can we argue that social media are responsible for these revolts? Not so, argue both Joss Hands (2011) and Mejias (2011): the revolts were the result of longstanding discontent, repression and social unrest, triggered by desperate actions such as the suicide of Mohamed Bouazizi in Tunisia. The social media, however, enabled to some extent the coordination of the protests, the organization of a popular resistance front, as well as the galvanization of public opinion. Charles Hirschkind (2010) further argues that, at least in Egypt, social media have paved the way for these uprisings through publishing cases of clear injustice, torture and corruption. For example, a blogger named Wael Abbas, whose blog is titled *al-wa'i al-masri* ('Egyptian Awareness'), posted a video of a man being physically and sexually abused by police officers at a police station in Cairo. The video was apparently recorded by the police as a means of intimidating others, but when it was circulated on YouTube and elsewhere, it offered the legal ammunition necessary to pursue the case through the courts. In addition, such cases were further taken up by newspapers, which then helped circulate this kind of information further, thereby galvanizing public opinion. While the debate is still on, it is clear that social media's capacity to voice discontent, coordinate action, galvanize public opinion, and elicit global solidarity is certainly a new dimension in political struggles and must be taken into account.

W. Lance Bennett and Alexandra Segerberg (2013) formalize these developments by pointing to the rise of a new kind of logic emerging out of the articulation of social media and political protest. They refer to this logic as connective action: based on personal expression and experiential

storytelling, and representing the individual, their experiences and views, as opposed to a social class or an ideology. This logic, which involves a kind of personalization of the political process, is also linked to a decline of authority and hierarchical forms of political organization. This does not mean they are necessarily leaderless – as Paolo Gerbaudo (2012) has shown, new hubs emerge – but their role is more that of loosely coordinating action as 'choreographers'. To some extent, this form of engagement is not very deep, but this does not mean that it is less efficacious: it may be that precisely because of the looser ties and connections more people can become involved, leading to higher levels of popularity compared to previous forms of political engagement through political parties or movements.

On the other hand, these personal narratives and the individuation of collective and political action may be linked to superficial forms of political action, pejoratively referred to as 'clicktivism'. The term has been used by the Adbusters activist Micah White (2010) to refer to the combination of digital activism methods with the logic of marketing and advertising. For White, this involves a focus on metrics, and the quantification of success; it is this obsession with tracking clicks, he argues, that turns activism to clicktivism. The problem with clicktivism is that in the end activism is reduced to a series of online petitions around isolated current events, failing to see the broader picture and failing to examine the conditions that gave rise to such political problems in the first place. In addition, it assuages people's conscience as they may think that by clicking on a link they have done their bit for social justice. As White (2010: unpaginated) puts it: 'clicktivism is to activism as McDonalds is to a slow-cooked meal. It may look like food, but the life-giving nutrients are long gone.'

Perhaps one of the best known examples of such clicktivism is the KONY 2012 campaign, in which Invisible Children (a US-based NGO) produced a video on Joseph Kony, a Ugandan warlord, whose Lord's Resistance Army forcibly recruited and used children soldiers. The video used a combination of techniques, including moving interviews with former of children soldiers and a simplified narrative of Kony as an arch-villain, all aiming to produce strong emotions and identification with the goals of the campaign (Andacht, 2014). Within six days, it had generated 100 million views, which made it the most viral video of all time (Harsin, 2013). The video requested that

audiences like and repost the video, that they address celebrities and politicians, and that they buy a kit, including bracelets and a t-shirt. The virality of the video was in stark contrast to the barrage of criticisms that followed. Criticisms referred to its simplistic narrative, to its mobilization of a 'white saviour' rhetoric, for its disappointing outcome outside the internet, for its assumption that awareness will suffice, and for its assumption that online action is enough to bring social justice (Greenblatt, 2012; Mengestu, 2012; Madianou, 2013). While Kony2012 was a complex 'polymedia event', as Madianou (2013) called it, which included the video and the global discussion that followed it, it is also very clearly a case of clicktivism and the infusion of marketing and viral media tactics (such as getting celebrity endorsements) with political activism. Subsequent campaigns, ranging from #nomakeupselfie to #bringbackourgirls, have replicated these logics of marketing, simplistic actions and superficially relating to the political domain. However, as both Madianou (2013) and Andacht (2014) point out, these campaigns are more complex events, and assumptions on passive or indoctrinated audiences/clicktivists are unwarranted. As these campaigns, and discussions of them, become part of collective memory, the focus moves from the immediate political outcomes to more subtle shifts in political practices and political subjectivities. This will be discussed next.

Social Media and Political Subjectivities

Another contribution of blogs and other social media to the political process may be a more subtle one. It may be that blogging, and generally participating in online social media, introduce changes in the persons themselves. We already know that new media introduce important changes in the ways in which our identities and subjectivities are constructed. We will discuss this in more detail in a later chapter, but the important thing here is to note that often these changes are associated with political changes. In his work on the novel, the theorist Georg Lukacs (1974 [1914]), argued that the medium of the novel, exemplified by Cervantes' *Don Quixote*, signalled the development of a new kind of subject and consciousness, differing substantially from the subject of the Greek and medieval worlds. This new subjectivity attempted to make sense of the alienated and fragmented world associated with modernity, through the imposition of a single narrative, based on reason. Similarly, Habermas (1989 [1962]) argued that the 'audience-oriented subjectivity' associated with the rise of the moral novel was a necessary development for the function of the public sphere – this subjectivity was undermined by the rise of the mass media. For Guy Debord (1967), the rise of the mass media is linked to the society of the spectacle: subjects therein are passive, inasmuch as the focus is on the consumption rather than the production of images, but also plural and dispersed across signs and images; no single sign or image is capable of capturing them. Mark Poster (1995) follows similar lines, positing that the arrival of the internet as a new communicative form signals a new shift in subjectivity, associated with the rise of the digital author. The digital author points to the situation in which producers of online (hyper) texts are radically separated from their text, unable to control its multiple meanings, as well as the uses to which it is put. At the same time, readers are unable to point to a single author, and attribute meaning to the intention of authors.

If we therefore begin with the premise that social media constitute a new form of communication, we can expect an associated shift in subjectivity, in the ways in which people understand themselves and the world around them. I have suggested elsewhere (Siapera, 2008) that blogs may be associated with a kind of 'authorial subjectivity', which may be conceived as positioned yet

plural, separate or autonomous from others, yet collaboratively produced. The main idea here is that through blogging, and more broadly by participating in social media, people become more attuned to the external world; they are more able to articulate thoughts, problems and opinions, as well as to connect to others and deal with oppositional views. In short, they become a person able and willing to participate in politics. This is because participation in social media leads to an engagement with the external world and with others; it leads to position taking *vis-à-vis* issues that can also be political. In addition, such participation provides people with a platform in which they articulate and refute arguments, albeit not always with the same degree of eloquence. However, these possibilities remain possibilities, provided by the architecture of the social media. For these possibilities to be realized and to lead to political action, blogs must actively engage with questions of power – this dimension corresponds to the actual contents of social media. Second, through blogs and other social media, people should link with others: they should build coalitions, mobilize resources and also compete with others in order to create a critical mass that is able to introduce changes in the political landscape. Although shifts in subjectivity introduced by social media entail a powerful new promise, any changes are likely to be slow and subtle – a gradual shift of power from established political centres to the widely diffused networks of politically active people.

Zizi Papacharissi (2010, 2014) has shown how social media erode the boundaries between the private and the public, both in terms of space and in terms of practices. In *A Private Sphere*, Papacharissi (2010) observes a shift from public spaces for political participation towards a private sphere, where people can still be politically active albeit from a different domain; in this, they combine the personal with the political, and personal experiences to abstract ideas. In *Affective Publics* (Papacharissi, 2015) she takes the argument further, referring to the ways in which storytelling, or the stories that coalesce around events, allow for sense making but can also potentially disrupt dominant narratives. These stories are told by people in their quest to make sense of the world around them but also to (re)build and sustain their own identities. It is through autobiographical self-narration, the audiences that this invites and the multiple ways in which these audiences remediate these narratives that the networked self (Papacharissi, 2010; see also Chapter 9) transcends the private sphere and acquires a public character and a

potential political relevance. For Papacharissi, the constant sharing and circulation of stories in online environments is part of a rhythm and a multi-authored evolving narrative. In this manner, Papacharissi posits that social media constitute structures of feeling (Williams, 2001 [1961]) that capture our social experiences and moods; they therefore contribute to the development of political subjectivities that are specific to our era.

While ideas about political subjectivities and gradual, incremental political changes are attractive, they are not without their critics. An important line of critique comes from Christian Fuchs (2013), who argues that the individuation observed by Papacharissi and others needs to be critically comprehended and not celebrated; the mixture of the private, the personal, the public and the political runs the danger of liquidating one into the other. Furthermore, such accounts appear to ignore the material dimension both of technologies and platforms and of the actual political domain. This idealization of political participation as clicking, exchanging files, liking, sharing and storytelling may in the end obfuscate its own material conditions of possibility, which prioritize only certain forms and foreclose everything else – as Jodi Dean (2005) has argued, communicative capitalism relies on the foreclosure of politics proper.

It is clear from the above that it is too early for a definitive critique. There is little doubt that social media contain a democratic promise and potential, but the extent to which it will be realized in the literal sense of leading to real political change remains to be seen.

Conclusions

What kind of general conclusions can we draw regarding the relationship between the new media and politics? The box below summarizes the main points of this chapter. In general, we can see that the new media have introduced some changes into the political process, but until today, these have not really contributed to any major political shifts. Politics in the new media age is still very similar to politics in the mass media age.

On the other hand, as we have seen in the chapter, the new media have provided more and new opportunities for political participation, revolving around: (1) the provision of information; (2) promotion and advocacy; (3) linking and connecting to others, and building alliances and coalitions; and (4) engagement in direct political action (protests, petitions, civil disobedience, and so on). In addition, the new media allow for a continuous engagement and political involvement far beyond what is formally expected of citizens in representative democracies. It can therefore be argued that the new media can be seen as leading to a new kind of citizenship: one understood as ongoing civic engagement, beyond voting at election time. However, there is little evidence that this new idea is widespread, as most new media use, as we shall see, remains personal and social. After all, political involvement is not a function of new media and technologies, but a function of able and interested citizens.

Summary of Main Points

New Media and Formal Politics

- Ambiguous relationship
- Spillover of offline formal politics in online environments
- New media 'normalized'?

New Media and Activism

- Activist gains in strategies and tactics
- But wider political changes not yet accomplished

Social Media and Politics

- Social media contribute by complementing political journalism
- They contribute by allowing the formation of public opinion and direct communication
- They contribute by introducing subtle yet important changes in political subjectivities
- None of these gains is absolute – there are important tensions and conflicts involved

Research Activity

The goal of this activity is to explore some of the problems and tensions involved in the relationship between new media and politics.

Design your own political campaign on an issue you care deeply about. Which media would you use and how? What would you consider as the success for your project? What would be the main obstacles? Does the internet's ability to connect people make it easier to instigate real political change?

Further Reading

This collection of articles aims to show the various issues and debates surrounding the new media and their democratic promise and potential. The first article, by three of the most well-known and respected political scientists of the media, examines the new media political landscape and suggests some methods which can contribute to the realization of the new media democratic promise. Gurevitch et al. assume a positive, optimistic perspective on the new media and their relationship to politics. The article by Lance Bennett discusses an important shift in political practice associated with new and social media: the shift towards personalization and what Bennett terms 'connective action'. Do social media change the ways in which politicians communicate during election campaigns? Graham et al. look at UK and Dutch elections and conclude that some habits die hard. On the other hand, the article by Larsson drawing on research in a Swedish election campaign traces the rise of the extreme-right populist party Sweden Democrats, pointing to the rise of a new breed of politics and politician that thrives in the online domain. An explanation for the rise of this kind of populist politics rests on the idea of echo chambers, and the ways in which the structure of social media favours polarized groups. The study by Barberá et al. used data from Twitter to examine this proposition, concluding that in fact such polarizing effects may have been overestimated.

Gurevitch, M., Coleman, S. and Blumler, J.G., 2009, Political communication – old and new media relationships. *The ANNALS of the American Academy of Political and Social Science,* 625(1), 164–181.

Bennett, W.L., 2012, The personalization of politics, political identity, social media, and changing patterns of participation. *The ANNALS of the American Academy of Political and Social Science,* 644(1), 20–39.

Graham, T., Jackson, D. and Broersma, M., 2016, New platform, old habits? Candidates' use of Twitter during the 2010 British and Dutch general election campaigns. *New Media & Society,* 18(5), 765–783.

Larsson, A.O., 2017, Going viral? Comparing parties on social media during

the 2014 Swedish election. *Convergence*, 23(2), 117–131.

Barberá, P., Jost, J.T., Nagler, J., Tucker, J.A. and Bonneau, R., 2015, Tweeting from left to right: Is online political communication more than an echo chamber? *Psychological Science*, 26(10), 1531–1542.

4 Divides, Participation and Inequality

Learning Objectives

- To learn about the unequal patterns of new media diffusion and use
- To understand the concept of digital divide and digital participation
- To develop an understanding of the role played by social class, age, gender and race/ethnicity in the diffusion of the new media
- To understand the implications of the global spread of the internet and the new patterns of inequality

Introduction

For many years, quite understandably, the main question concerning the new media was that of access. One of the primary concerns not only of theorists but also of states was the extent to which people have access to new media, and also how to overcome the digital divides that will emerge. However, following some 25 years of the commercialization of the internet, mobile phones and other new media, the rate of the spread of the new media indicates a diffusion that seems to be irreversible and almost catholic. But does this mean that there are no divisions between users? Part of this chapter's remit, then, is to look for any differentiations between users and types of use. Just as students of the mass media were concerned with audiences, their likes and dislikes, as well as any media effects on audiences, students of the new media must move beyond the spread of the new media, and to examine any new cleavages that form between users, in terms of preferences, but also in terms of other demographic factors, such as age, class, ethnicity and so on. At the same time, inequalities do not exist only within countries, but also between countries and regions. Mapping the global internet, the patterns of diffusion of the new media across the globe, is an important part of understanding new media and the varied ways in which they are appropriated and used across the world.

This chapter begins such a discussion by examining, first, the global internet, its spread and the emerging patterns of inequality. Second, it will look more closely into the issue of digital divides and its underlying assumptions and logic. It will be seen that while the digital divide began life as a simple case of the information haves and have-nots, it is now considered to be a much more complex case of how people use the new media and, more broadly, a case of new media literacy.

The Global Internet

Given the material inequalities across the globe, it is expected that the patterns of diffusion of the internet across the world broadly correspond to the distribution of material resources and income. Although this was certainly the case in the early days of the internet, which required costly equipment and subscription, the mobile internet, WiFi and flexible subscription models have changed the picture drastically. In 2016 the global population was estimated at 7.4 billion people; internet users are estimated to be in the region of 3.6 billion, just under 50% of the global population. How are these users distributed across the world?

Figure 4.1 Internet users by region, June 2016 (source: Internet World Stats – www.internetworldstats.com/stats.htm)
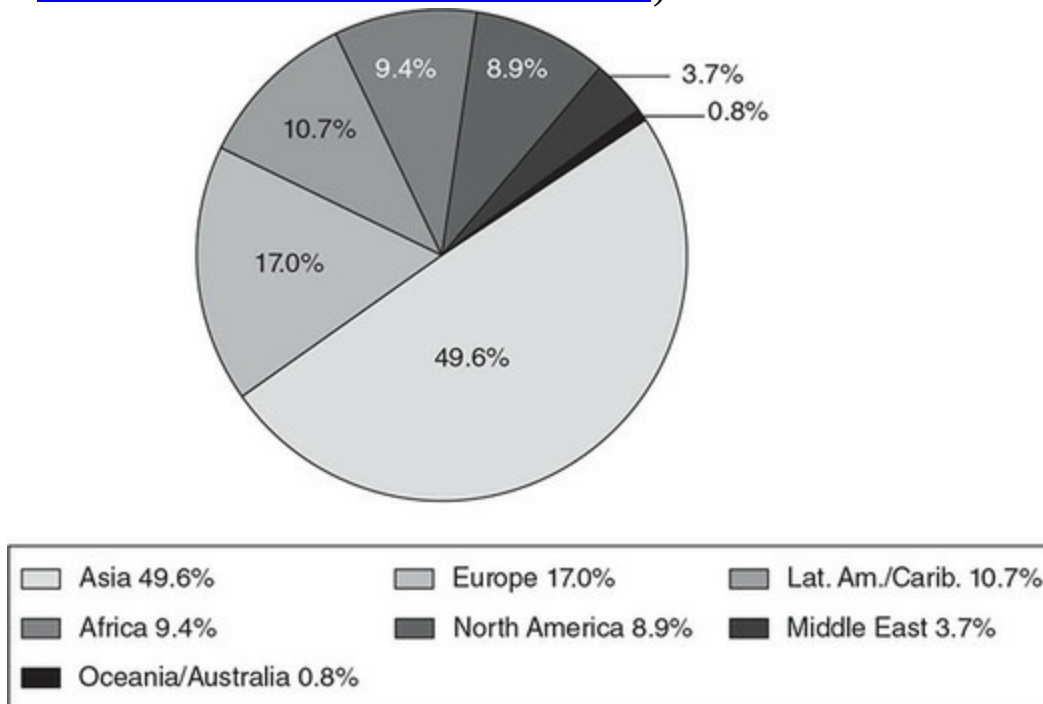
Basis: 3,611,375,813 internet users on June 30, 2016

Figure 4.1 shows that there are more users in Asia, and that Africa has more users than North America. This, however, reflects the relative size of these continents and not the actual distribution of the internet across their populations. We therefore need to find how the internet is diffused within countries and regions. This is found in Figure 4.2.

The term 'penetration' refers to the extent to which the internet has diffused. Figure 4.2 shows that while North America has only about 8.9% of the global internet users, within this region almost 90% of its inhabitants use the internet. In Asia, which has the highest number of overall users, only about 44% of its inhabitants actually use the internet. In Africa, this falls down to 28%. These findings, along with the geopolitical and cultural power enjoyed by the developed regions of North America, Europe and Australia, point to the dominance of the internet by the so-called Western world, even if more users actually live in Asia and Africa. On the other hand, the rate of growth of internet use in Africa was an astonishing 7,415% in the years 2000–2016 (Internet World Stats, June 30, 2016). Although this is likely to slow down as more and more people have access, it points to what seems to be an almost inevitable spread of the internet across the world.

Figure 4.2 Internet penetration by region, June 2016 (source: Internet World Stats – www.internetworldstats.com/stats.htm)
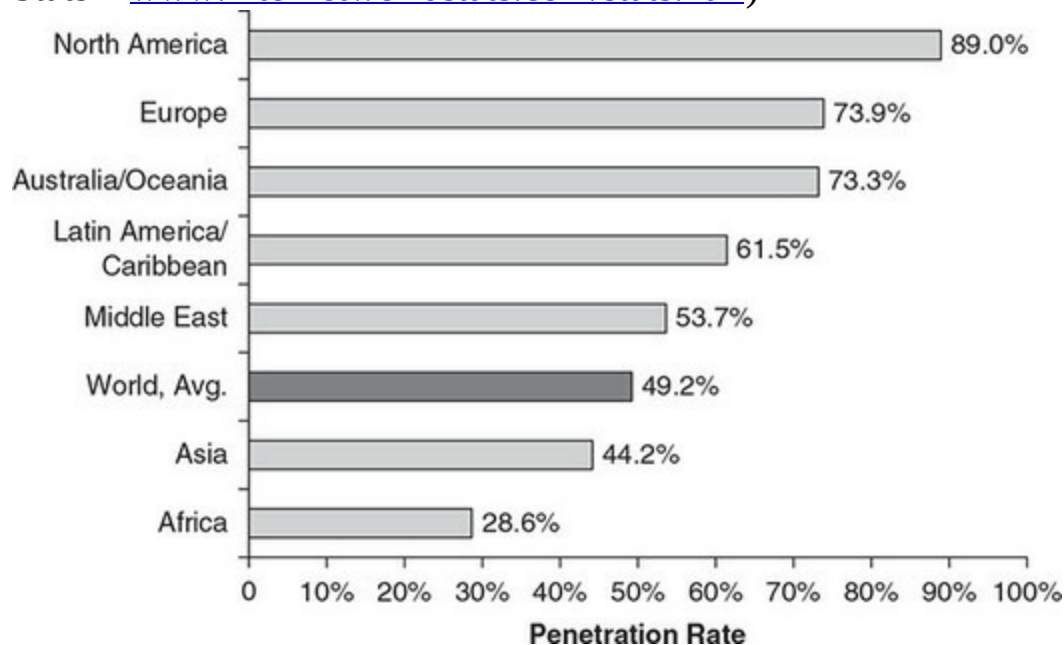
While the overall proportion of users per population is higher in the

developed regions, the striking difference in terms of numbers shows that we must not rush to conclusions. To insert some historical perspective in this, we may refer to industrialization and its spread across the world. To begin with, industrialization did not spread in an equal manner across the globe. While some nations, such as the UK, Germany, France and the USA, industrialized early, other nations remained largely agricultural, often relying on exporting raw materials to the industrialized nations. These patterns led to a longstanding dependency of agricultural and less-industrialized nations on the more developed, industrialized ones (see Wallerstein, 2005 [1974]). Although this led to a quest to industrialize in less-developed nations, the actual spread of industrialization was nowhere near as fast as that of the internet, and in fact many regions of the world never industrialized at all.

Perhaps this comparison with industrialization is not a fair one. After all, industrialization relied on a different kind of technology. Yet, following Castells, but also Lazzarato, as we have seen in previous chapters, we may argue that the internet and the new media introduce changes to the world economy, to processes of production, labour and consumption in ways that parallel those of industrialization and the shift towards mass production. This introduces profound changes, and it may affect existing patterns of inequality.

The rise of the Chinese internet, but also the prominence of Spanish, Japanese and Arabic internet, is a clear indication of the workings of a society that must be thought of in global rather than national terms. The dominant characteristics of the global internet seem to repeat and amplify those of late modernity and its global spread (Giddens, 1990). First, although the internet is not diffused in an equal manner across the world, it is nevertheless found in all countries of the world. This global spread of the internet, along with its rate of growth, points to increased interlinking of areas and parts of the world, but also to significant changes, which we may associate with globalization and the network society. Thus, the internet's time, which is timeless and always-on, increasingly becomes the global time. The internet's space, which is a space of flows rather than of territories, increasingly becomes the dominant form of spatial organization. In addition, the use of the internet by all those millions of people has the effect of what Giddens (1990) has called a disembedding mechanism: it lifts life experiences from their

localized contexts and reorganizes them in different ways, commensurable with timeless time and the space of flows, characteristic of the network society. Finally, insofar as the spread of the internet is indeed global, the role and significance of the 'West' is diminished. All these point to the ways in which the global internet is linked to and amplifies the characteristics of the global network society.

But despite the rapid spread of the internet, which is linked to commercial interests, it does not necessarily lead to a decrease in inequality. Rather, if we look at the actual users and uses of the internet, we can detect the rise of new inequalities that concern participation and interaction.

Users and Inequality: The Conceptual Discussion

The push for wider adoption of ICTs meant that accessing the internet would soon be common to everyone. However, the material (and symbolic) inequalities that structure societies may be reflected in the ways in which people actually use and gain from participating in the new media and the new media cultures that have evolved. Already in 2001, DiMaggio and Hargittai pointed to emerging skills-related inequalities. This is often referred to as a second-order digital divide, but to focus on this requires that we understand the nuances concerning access, participation and literacy. This section will begin with a discussion of the question of access, which is typically understood as the digital divide, followed by a more detailed examination of attempts to conceptualize inequalities between internet users, which is typically understood as a question of digital inequality (DiMaggio and Hargittai, 2001).

To begin with, the main question concerning digital inequality is the extent to which there are still barriers to access, and, if so, what these are. Given the commercial imperative for growth of internet subscribers, it is likely that diffusion of the internet will at some point reach saturation. Does this mean that access to all is guaranteed? Not so, apparently, as access to the internet is determined by a host of factors. While in the early days of the internet the digital divide was understood in a dichotomous manner, as either having access or not, van Dijk (2005) suggests that we view the divide in terms of four parameters: motivation, material access, skills and usage.

Motivational factors are important because not all of us have the same attitude to technology and new media, and attitudes may affect our relationship to the internet. Negative attitudes to technology and computer anxiety decrease people's motivation to access the internet (van Dijk, 2005). Addressing such attitudinal and motivational factors may be important as they can form a barrier to accessing and using the new media. Internet adoption perspectives, which make use of Rogers' (2010) diffusion-of-innovations model, show the importance of attitudes in deciding whether to

adopt an innovation: it is only if one has a positive attitude and believes they can use the innovation that they will decide to adopt it. The question of motivation may be more complex, as people feel under more and more pressure to be online, while there is increasing talk about the dangers and risks of the internet that may be putting a lot of people off.

Second, even if people have a positive attitude, the material barriers to access still remain. These include both access to the equipment (i.e., a computer, tablet or smartphone) and access to a subscription. Material access must not be taken for granted even in developed countries, as subscription may still be a costly business and the issue of the device used to access the internet is becoming increasingly important, as we shall see below. The numbers and kinds of devices we have access to is important too as they may affect the ways in which we use the internet. Equally, the type of subscription we have is significant: a broadband subscription offers a very different kind of internet access from a mobile, data-based one, which charges per data used (Mossberger, Tolbert and Hamilton, 2012). Material access to the internet is therefore still present, although it has become a more complex issue.

Third, even if we have the motivation and material access to the internet, we still need to have the appropriate skills to be able to use it. This is what Esther Hargittai (2002) refers to as a second-level digital divide: the extent to which people are able to use the internet in an efficient and effective manner. Van Deursen and van Dijk (2009) proposed a distinction between medium-related skills and content-related skills. Medium-related skills can refer to operational skills, that is, the basic technical skills that a person needs to operate the internet, for example, to launch a browser. Medium-related skills can further include formal skills, which refer to the ability a person has to navigate the internet, for example, moving from one site to the next or from one application to another. Content-related skills, on the other hand, can include information and strategic skills: information skills enable users to find, select and evaluate online sources of information, while strategic skills enable users to reach particular goals through the internet. These kinds of skills show how complex the issue of internet access can be and how other divides, for example, educational or generational, may impact internet access and use.

Finally, assuming that users are willing and able to be online, the ways in which they use the internet can differ substantially in terms of the frequency of use and time spent online, as well as in terms of the type of usage. Usage may vary as a function of other inequalities, for example educational, but they can also vary as a result of motivation and attitudes, access to different devices, and skills. While the more skills one has the better use they can make of the internet, frequency of usage is not always positive as many users can be online for hours, for example playing computer games, or conversely spending hours online for work and nothing more. Van Deursen and van Dijk (2015) propose the term 'usage gap', building upon the earlier notion of the knowledge gap (Tichenor, Donohue and Olien, 1970), to capture the deficit created by differential use of the internet. Just as the knowledge gap had emerged in the 1970s to show how more-educated people make the most out of their use of the mass media, the usage gap points to the ways in which more-educated people make the most of their internet use and gain more knowledge and skills and faster than less-skilled and less-educated people. The Oxford Internet Institute (Dutton and Blank, 2013), relying on UK survey data, developed a model of different attitudes to the internet, which in turn facilitated or enabled different uses of the internet. Their model classifies users in five clusters: the e-mersives, the techno-pragmatists, the cyber-savvies, the cyber-moderates and the adigitals, moving from frequent and continuous use to more occasional and sporadic use accompanied by a set of attitudes that range from very positive to very sceptical. In the survey sample, most users (37%) were in the cyber-moderate cluster, holding that the internet is an efficient and enjoyable tool, but one which has certain risks.

It is clear that the digital divide has evolved from a simple question of the 'haves' and the 'have-nots' to something much more complex and nuanced that involves socio-psychological, material and socio-structural inequalities and differences. But the discussion does not end here. While the notions of use and usage gap go some way towards understanding how people 'socialize' the internet and how they appropriate it differently, focusing on 'use' or 'consumption' may obscure the question of who actually 'makes' the internet, or how some people are more actively involved in producing the internet, in both its technological and cultural dimensions. To further understand this question, we may turn to the work of Nico Carpentier, who has theorized media and digital participation.

Carpentier (2016) makes a useful distinction between access, interaction and participation: these are somewhat nested concepts, meaning that one contains the other, with participation being the richer and more inclusive concept. Having access is a necessary condition but it does not translate into participation. But what exactly does participation entail? Carpentier seeks to politicize the concept, positing that participation should strive to question and criticize the status quo and the current distribution of power but also to become involved in the decision-making process. For Carpentier, (digital) media participation must be understood as a process of co-decision: on the production and use of technology, on the production and use of contents carried by this technology, on how people are involved with the technology, and on the kind of organizational policy that affects the technology. To participate therefore means to be able to be part of the technology, of its current form and future evolution. If the notion of digital inequality is taken seriously, then it is clear that digital participation is the main way of addressing this.

This discussion mapped the conceptual debates surrounding the question of divides and inequalities. We have attempted to add nuance and complexity to the issues involved, and to show how access is much more than just going online. But how are these divides and inequalities connected to other demographic divides? What do we know about class, race/ethnicity, gender and age/generation online? Who, in terms of demographic characteristics, participates in constructing and building up the internet? The next section will address these questions.

Demographics and Inequality: The Substantive Dimension

Although we speak of a new kind of society, the network society, revolving around networks rather than individuals or social groups, the relevance of classic demographic dimensions may not be diminished. We can actually pose this as an empirical question and ask whether in fact classic demographic divisions along the lines of social class, gender, race/ethnicity and age/generation still have an explanatory value when it comes to using (and not using) the internet. Divisions and social stratification in late modernity tend to be more fluid, as people are thought to have more power in constructing and performing their own identity (Giddens, 1990). On the other hand, material divisions and distribution of resources have a way of structuring social life, the choice and opportunities people have. Choice in this manner may be limited or enabled by such material divisions. This is why it is important to examine these parameters.

Social Class and the Internet

Given the vast changes in recent years, what can constitute a social class? In classic sociology, social class was seen in somewhat different ways by different theorists. In Marxist theory, social class referred to the position people have in relation to the means of production: ownership and control of the means of production defines the ruling class, as opposed to the working class, who have no other means of production apart from their labour. This perspective, which focuses exclusively on the economic domain, is rendered more complex in Weberian theory, where people are divided in terms of economic class, social prestige and political power, and these divisions determine access to resources and power (Weber, 1947 [1924]). In the sociology of Pierre Bourdieu (1986), in turn, there is a division between different forms of capital: economic capital, which refers to money and other economic assets; social capital, which refers to the people one knows; and cultural capital, which refers to the skills one has and to the symbolic value attached to these skills. While we cannot do justice to all the debates in sociology regarding social class, we can look at two elements, income and education, which cover some of the divisions referred to in sociological theory. Income and employment type may be seen as an indicator of where one stands in relation to the means of production, while education can be seen as part of the cultural capital at one's disposal and as an indicator of social prestige, an important determinant of social class according to Max Weber.

Looking at the relationship between income distribution and internet access, the picture that emerges is clear: the more income one has the more likely one is to be online. Figure 4.3 by the Pew Internet and American Life Project, drawing on US data, shows that 99% of those in the richest households are online compared to only 78% of those in the poorest ones. Although the gap is diminishing, it is still present to a significant extent. A very similar picture is emerging in the UK, where the Oxford Internet Institute survey reports that 99% of households with income above £40,000 are online compared to 84% of those earning less than £12,000 (Dutton and Blank, 2013).

Figure 4.3 Internet users by household income in the USA (source: Pew

Research Center; Rainie, 2016)
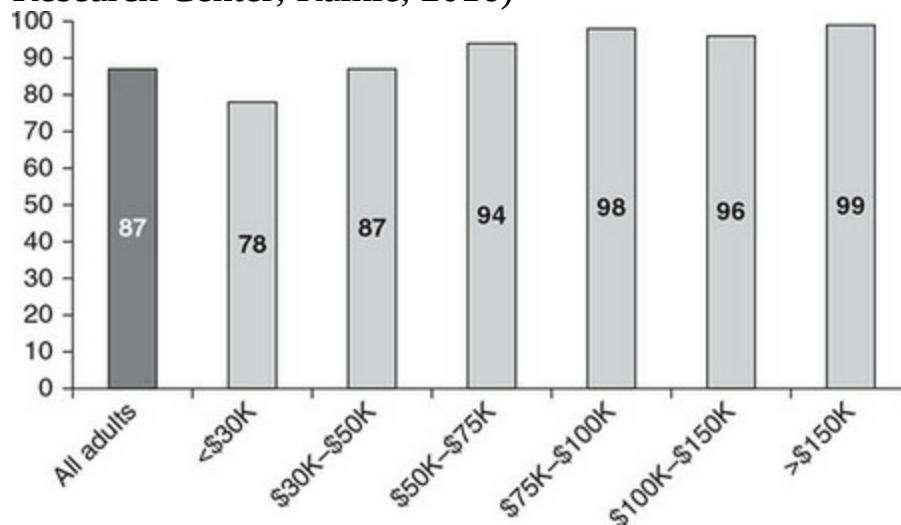
What is interesting in the Pew Research data is that when we take into account the type of internet connection, it becomes evident that the richer households enjoy a faster and more stable connection through home broadband. Figure 4.4 shows that only 45% of the poorest households enjoy a home broadband connection compared to 88% in the richest households.

Given that having internet access through multiple devices is becoming increasingly important, it is evident that households with low incomes are put at a disadvantage. However, in the USA, steps have been taken to counter this by introducing different rates for low-income households. The Federal Communications Commission is offering a subsidy to allow those in low-income households to access the internet. This has allowed telecommunications companies to offer broadband connections at very low prices: for example, AT&T offers a 3Mbps connection for $5 per month and faster 5 and 10 Mbps connections for $10 per month. Although not the fastest connections in the market, these still allow users in low-income households to have a more stable internet at home, rather than having to rely on mobile or public internet connections in schools and libraries.

Figure 4.4 Home broadband households by income in the USA (source: Pew Research Center; Rainie, 2016)
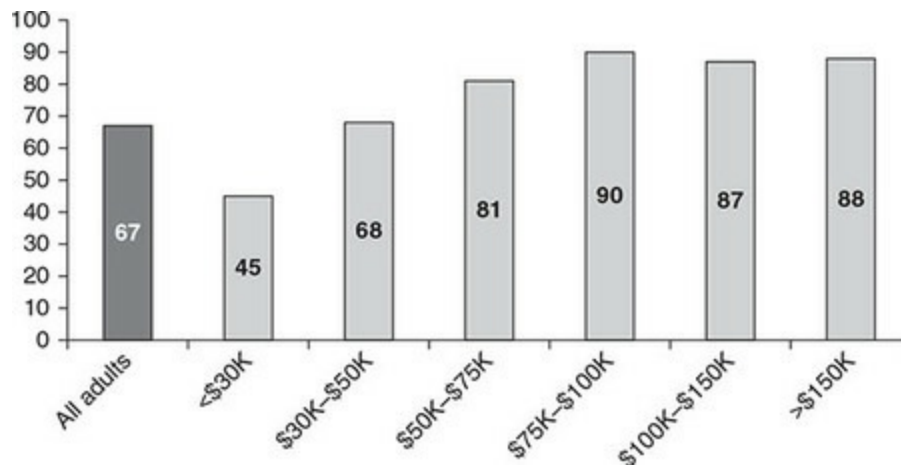
If income is still clearly important, how is education linked to internet access and use? The Pew Research study shows that the differences are even more pronounced. While 96% of college graduates are online, the figure drops to 61% of those without a high school diploma. Since low educational attainment is linked to lower income, it does not come as a surprise that only 22% of those without a high school diploma have a home broadband subscription. Again, the UK data from the Oxford Internet Institute survey of 2013 presents a very similar picture: 95% of those with higher educational qualifications are online compared to only 40% of those with no qualifications. Occupation is also connected to internet access and use, with 83% of those in white-collar, managerial, professional occupations using the internet at work compared to 50% in clerical occupations and 23% in blue-collar ones. The Oxford study further reports that while 68% of those in professional and managerial occupations primarily use the internet for learning new skills, only 32% of those in blue-collar occupations are profiting equally from their internet use. In contrast, social media use seems to be similar across all occupational types, with 30%, 32% and 24% of professional/managerial, clerical and blue-collar workers using the internet at work in order to update their Facebook (Dutton and Blank, 2013).

Drawing on the Oxford survey data, Blank (2013) conducted a study to identify who produces content online and the relationship between social class and social status with content production. To do this, Blank developed a typology of content: social/entertainment, which refers to posts and shares on social media; skilled content, which refers to maintaining a blog or a website or posting pieces of writing online; and political content, which refers to

posting comments on political sites and emailing political content. On the basis of this typology, Blank (2013) found that skilled content is produced by younger people with good technical skills, irrespective of their social status; social/entertainment content is produced by younger, technically skilled people with lower incomes, and is more likely created by non-elites; while political content is produced by higher-educated elites. Blank's study is suggestive of two main things: first, that online content must not be seen as a homogeneous category and more work should be done to distinguish between different types of content; and second, that there are demographic differences, and especially education and income are correlated with different types of content.

Overall, evidence from these surveys reveals a persisting divide on the basis of social class, which is likely to have an impact not only on future prospects and opportunities but also on people's everyday life as more and more aspects of our lives migrate online. Studying and writing essays, finding a job, looking up health information, doing our taxes, banking, or even dating and socializing are increasingly dependent on having the ability to be more or less continuously online. In this respect, those with less income and less education have to face another disadvantage that may undermine efforts to improve their situation. But there's more: not only is the internet becoming increasingly central to our lives, but also, as Carpentier pointed out, we are in a position to affect and shape the internet of the future, through our online participation. However, lower income households may be precluded from this. The Oxford Internet Survey (OxIS) refers to a new category of user, the next generation user: these are users who are more likely to use at least two applications in their phone and to own more than one device for accessing the internet. Next generation users are more active across all categories of internet use, including entertainment, information seeking as well as the production of content, making them the more actively engaged category. The 2013 survey reports that 93% of those in the highest income bracket were next generation users compared to only 57% of those in the lowest. While the criteria for next generation users may have changed since 2013, the point is that income is relevant not only to internet access but to internet use as well. Finally, it is likely that lower income is related to other demographic factors, such as gender and ethnicity/race, which can also have an impact on internet access and use.

Age, Generation and the Internet

Next to income-related divides, some of the most robust and persistent findings concern the relationship between age and use. Findings from countries as different as the USA and Cyprus reveal that the older you are, the less likely you are to make use of the internet and other new media. As early as 2000, Papacharissi and Rubin suggested that age may be a relevant parameter predicting internet use. Since then, more and more surveys have found that age is inversely related to internet and other new media use, and moreover, these findings persist even in recent years. However, the concept of life-stage can be seen as a useful corrective, pointing to the ways in which the internet may be used to fulfil people's current needs. So in this respect, it may not be declining cognitive ability that prevents older people from learning new technological skills; rather, they may lack the motivation to do so and to spend more time online because of their life-stage. On the other hand, as more and more services, for example government, banking or health, move online, internet diffusion across all ages is important.

In the US, Pew Research has shown that the age-related digital divide has declined significantly but is still present. Figure 4.5 shows that while in 2000 only 14% of those aged 65 and above were online, in 2015 the figure had risen to 60%. Although much higher, this percentage is still significantly lower compared to the 97% of 18–29-year-olds.

Very similar findings are reported in the UK. Figure 4.6 shows internet use and age, and we can observe a very similar pattern: while the gap has improved in more recent years, there is still a very significant difference. Thus, the 2013 figures from the Oxford Internet Survey show that 39% of over-65s were online compared to only 27% in 2005, but this is still very short of the 100% of those in the 14–17 age bracket. The 2016 figures provided by Ofcom show that the percentage has risen to 58%, but again this is short of the 97% in the 16–24 age bracket, and well below the national average of 87%.

Figure 4.5 Internet use by age over time in the USA (source: Pew Research Center; Rainie, 2016)
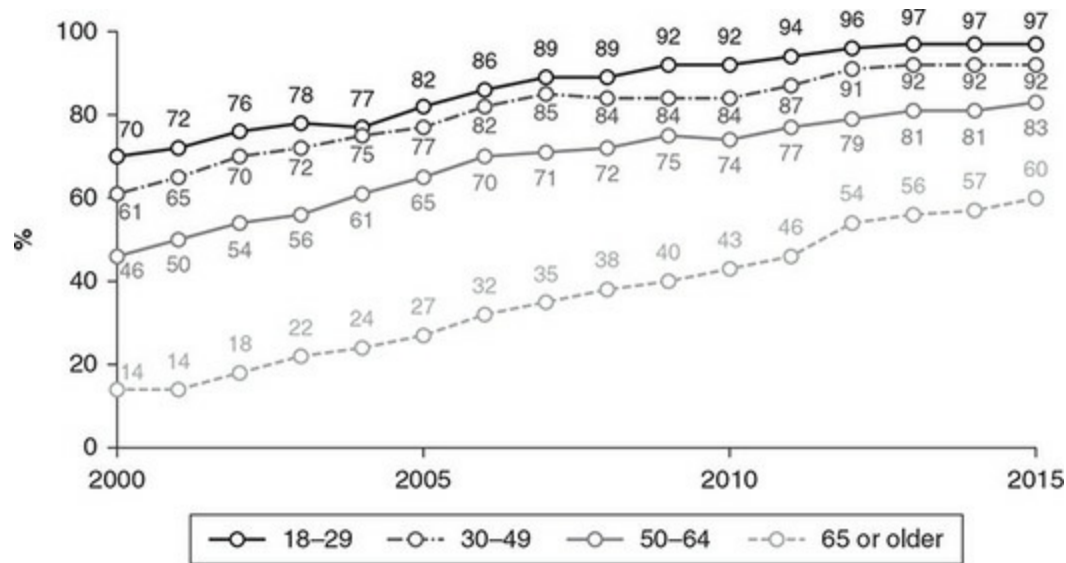
Figure 4.6 Internet use and age in the UK (source: Oxford Internet Institute, 2013)
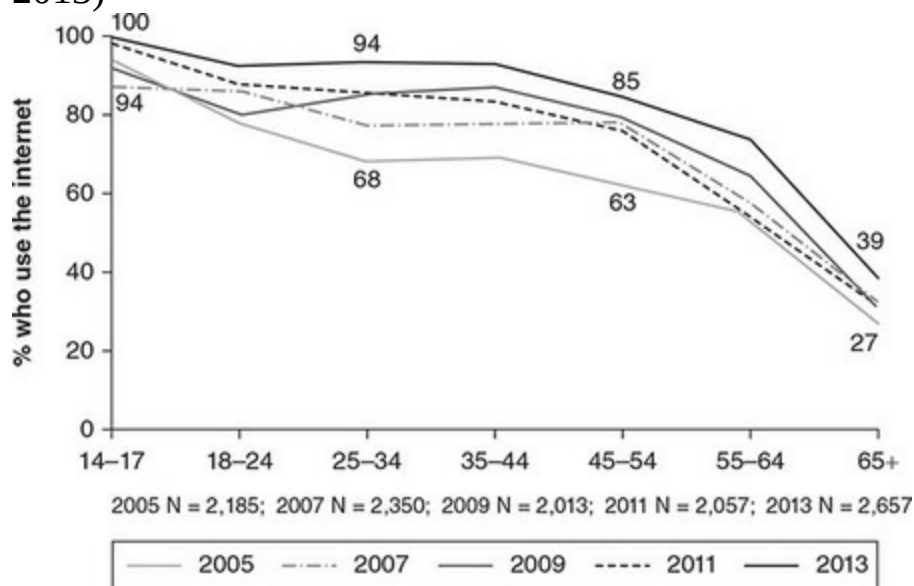
A similar picture is encountered in other countries as well. The World Internet Project, which covers Cyprus, Poland, South Africa, Sweden, Taiwan and the US, reports that age is a significant factor in internet adoption and use. Figure 4.7 shows the details for the first five countries. In these countries we see that the difference is even more pronounced, with internet use for over-65s in South Africa as low as 4%, pointing to a literal exclusion of this age group from the internet.

Figure 4.7 Internet use by age, 2013 (source: *The World Internet Project*

International Report (fifth edition), USC Annenberg School Center for the Digital Future)
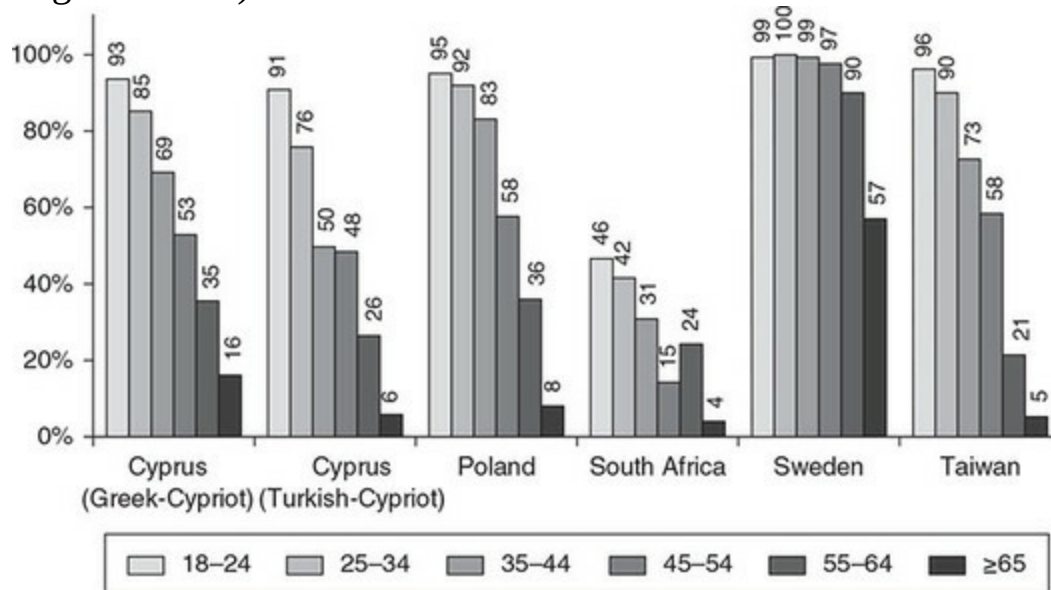
While age may be a predictor of new media, and especially internet use, there is some evidence that the concept is not differentiated enough. There are two problems potentially involved here. First, even if we know someone's age, there is still enough variation among age cohorts that needs to be accounted for. Second, the closing age gap found in high diffusion countries suggests that it may not be age as such, but rather generation, that is the main explanatory factor of such findings. In the case of the former, Helsper (2010; see also Dutton, Helsper and Gerber, 2009) explored the concept of life-stage to denote the different social roles occupied by people. Specifically, she defines life-stage as the 'points in a person's life where daily rhythm and routine alter drastically due to a change in a person's role in society' (Helsper, 2010: 355). She identifies occupational shifts and relationship developments as two major life-stage shifts. The logic behind the life-stage approach is that occupational changes may be a more accurate predictor of new media use, and that they may further account for any variation observed within age cohorts. Indeed, the more recent Oxford Internet Institute survey found significant differences between students, those in employment, and the retired. Students and employed persons reported the higher levels of use while the retired gave the lowest. Figure 4.8 offers details.

While these findings are suggestive of the kind of dynamic at play here, they do not tell the whole story. Although age and life-stage are related to new

media use, the findings from high diffusion countries such as the USA suggest that more and more older – and presumably retired – people go online. If this is the case, then it seems that age and life-stage may not always predict new media use. This has led researchers to suggest that it may not be age as such, even when combined to life-stage, but the generation to which one belongs that is a more accurate predictor of new media use. In other words, it is not the case that all over-65s fail to use the internet/new media, but that their generation is not familiar with this technology and they lack the social and cultural capital that would allow them to go online. Indeed, research on generations and the internet seems to support such an argument. The findings of a survey by Ipsos Mori (2013) seem to confirm this relationship between generation and new media use, showing that younger generations are more technologically literate than older ones, and this does not go away as they age. The UK-based survey reports that the pre-war generation has a consistently low use of new technologies, while baby-boomers and Generation X have increased their internet use even as they age. With this in mind, it is likely that when Millennials go on to be over-65, they will still retain a relationship with technology.

Figure 4.8 Internet use by life-stage in the UK (source: Oxford Internet Survey; Dutton and Blank, 2013)
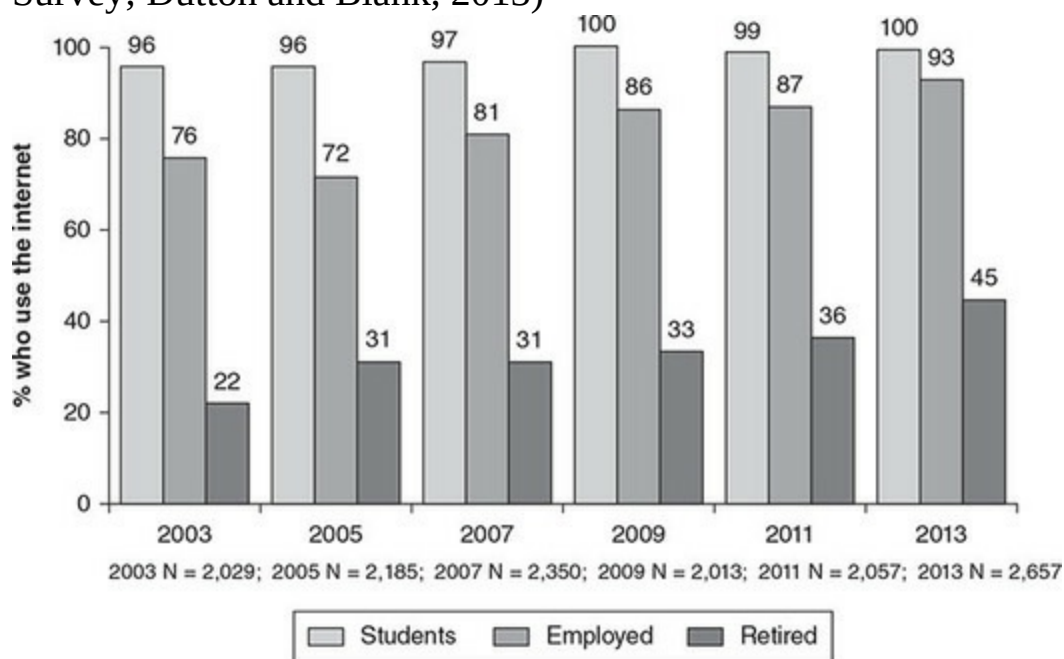
But differentiation exists within generations as well. Livingstone and Helsper

(2007) argue that research into digital inclusion should move beyond who is and who is not accessing the internet, and concern itself with finding the range and quality of use among different groups. In their study of young people (ages 9–19) and their parents, they found that access varied not only with age but also with socio-economic status (SES): thus, the older and the lower-SES people were less likely to use the new media. The more middle-class children had more access points than their working-class counterparts, while this access was more likely to be in their bedroom. These results are certainly not unexpected: while innovations become more and more diffused across the socio-economic spectrum, higher-SES people still retain their advantage through having more points of access. On the other hand, when Livingstone and Helsper (2007) took out the issue of access, they found no significant differences in the extent of use among lower and higher-SES children. At the same time, age and gender differences persisted: girls and younger users (9–11 years old) reported less usage. This shows that when access is provided young people spend more time online, using the internet more often and, as a result, have higher levels of new media literacy (Livingstone and Helsper, 2007).

What kinds of conclusions can we reach regarding the relationship between age and the new media? There is clearly an inverse relationship such that the older a person is the less likely they are to be found online. This has raised some policy concerns: Jeffrey Cole, of the World Internet Project (2010), remarked that getting older generations online is a global concern, as the world's most important information is now online. In terms of the issue of digital inequality the policy implications are evident: we must devise ways in which older generations are encouraged to use the new media and are taught the relevant skills. As more and more services migrate online, it is important for people of all ages to have access and know how to use the new media. At the same time, the very young are discouraged from spending too much time online because of parental control of the points of access, but also because – as with the older adults – they may have limited skills and know-how. The policy implications here are not so clear: it is more than likely that, with time, these young users will become skilful users while, as we shall see later, there may be good reasons to limit their time online or using other new media.

Gender and the Internet

To what extent is gender relevant in internet access and use? Do women suffer exclusion, which deprives them of even more opportunities? What may be the policy implications of gender differences in use? A longstanding demand of the feminist movement has been to fight material and symbolic discrimination: both access and literacy may enable women to attain a higher level of equality. However, evidence from a variety of surveys presents a mixed picture. Globally, there are still important gaps in women accessing the internet. In developed countries, the gaps are diminishing or even non-existent, but there are marked differences in how the internet is used. Moreover, there is a rise in online misogyny, which may end up significantly disadvantaging women and their online participation.

Globally, the gender gap remains an important issue and the 2016 figures coming from ITU (the International Telecommunications Union) show a global increase of the gender gap. [Figure 4.9](#) shows that not only is there still a difference in the uptake of the internet between men and women across the world, but that this has grown in the years between 2013 and 2016 in all but the most developed countries.

Therefore, while in the developed world men and women are almost equal in their access to the internet, in the rest of the world the gap is persisting and widening. The most pronounced difference is observed in the least-developed countries, where it stands at almost 31%. This means that women in these countries are effectively excluded from accessing the internet and all that goes with it. But are we to assume that the developed world has achieved gender equality in this domain? As we saw earlier, access is but one part of the divide. What and how users actually engage in and with the online world is another. A feminist position on the gender digital divide is that access to the internet and the new media contributes to equality in other areas of life as well. Measuring how different genders benefit from online access may provide more insights into this. In 2006, the World Economic Forum developed an index to measure gender inequality across different domains: economic participation and opportunities, educational attainment, health and survival, and political empowerment. While the Global Gender Gap index

does not measure digital equality, Martín Fernández and Martínez Cantos (2012) developed an index that combines data on internet access and use with the four areas of the global gender gap, and refer to this as an index of gender e-equality. Drawing on European survey data, Martín Fernández and Martínez Cantos combined access and use in terms of several variables (e.g., online banking, health and electronic commerce) and then combined these with the Global Gender Gap index for European countries. Based on this, they developed a ranking order that combines ICT use with the degree of gender equality. Northern European countries such as Iceland, Finland, Norway, Denmark and Sweden, but also France, Slovenia and, to a lesser extent, the Netherlands all have high usage and high e-equality; in contrast, Greece, Cyprus, Macedonia, Croatia and, to a lesser extent, Italy, Ireland and Spain were found to have low use combined with low e-equality. However, the data used in this study came from 2008 and things may well have improved since then, at least for these countries.

Figure 4.9 The gender gap (source: ITU, 2016). This is an estimate; the numbers in this chart refer to the difference between the rates of internet access for men and women expressed as a percentage. CIS refers to Commonwealth and Independent countries and LDC to least developed countries.
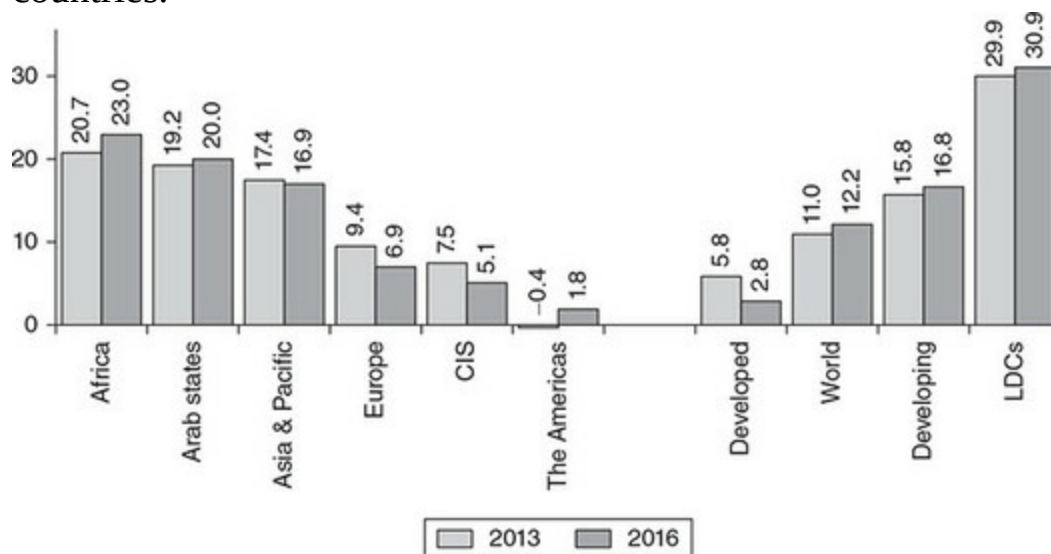
However, this kind of research points to the need to understand the gender digital divide in more nuanced terms. From this point of view, it is significant to see that surveys such as those carried out by the US-based Pew Research

and the UK-based Oxford Internet Institute do not consider gender to be a relevant variable for ICT access and use. Moreover, we lack more qualitative information about what both genders are doing online and the extent to which this is contributing to gender equality. Are men and women reproducing stereotypical gender identities and replaying gender roles online, or are they engaging in ways that subvert and undermine rigid boundaries and oppressive gender expectations? An increasing concern is that rising misogyny may put off women from engagement in some domains, for example, in some gaming communities (McClintock, 2015). Additionally, there is a rising inequality in terms of access to ICT jobs, which is important because it is likely that, in the future, society and the economy is more likely to be dependent on ICTs. So if women are excluded from this, then they are in a sense excluded from the future. For example, the US-based National Center for Women and Information Technology (NCWIT) reports that while 57% of all US professional jobs are held by women, the percentage drops to 25% of all professional computing occupations (NCWIT, 2016). Women are significantly underrepresented in the tech industry and this is likely to affect the future that the technological society is going to have. Serious policy change and strategy is urgently required to change the current pattern.

Indeed, the International Telecommunications Union issued an action plan to encourage stakeholders to take effective measures in bridging the gender digital divides. This action plan identified five key areas for policy interventions. These include: (1) the need to develop gender responsive strategies and policies in all ICT-related policies; (2) the need to ensure access to ICTs by women and girls and to address the threats online that hinder women's access to and use of technology; (3) the need to build the digital capacities of girls and women and support development of content, applications and services that meet women's needs; (4) the need to promote participation of women in the broader sector of technology in all areas, including into positions of decision making; and (5) the need to establish multi-stakeholder partnerships which include the formation of transnational partnerships that address the global gender divide (ITU, 2015).

Ethnicity/Race and the Internet

The role of ethnicity and race in internet access and use is a complicated and under-researched one. Given that, broadly speaking, those belonging to ethnic minorities are disadvantaged when it comes to opportunities, access and training, their new media use is expected to be different from that of ethnic majorities. On the other hand, different countries have a different relationship to cultural diversity (Siapera, 2010) and it may well be that some categories of ethnic minorities have more of an incentive to use new media. For example, migrants may become early adopters of new technologies because they allow them to communicate with the families they left behind (Diminescu, 2008). Survey data show that ethnicity and race are related to internet use but the relationship is not the same across different countries.

Specifically, a survey by the UK media regulator Ofcom, which included black and Asian British users, revealed no disadvantage in access to the internet. In fact, this category of users scored slightly higher than the national average for accessing the internet, with 94% being online compared to the 87% national average. Moreover, 77% use their smartphones to go online compared to the 66% national average. In terms of types of internet use, the only categories in which they differed were purchasing goods online, watching TV online, and looking up information on government websites (Ofcom, 2016). These differences do not point to any kind of divide in this respect.

A different picture is emerging in the US, where the Pew Research study shows that there is a persistent gap across ethnic groups in terms of internet access. Although this is closing, another one is emerging, concerning broadband uptake. Thus, 89% of white, non-Hispanic Americans are online compared to 81% of black and Hispanic Americans (Rainie, 2016). While this is an improvement compared to figures from earlier years, looking at the data for broadband connections reveals the emergence of a new divide: of the 67% of Americans who have a home broadband connection, 73% are white, 55% are black, and only 47% are Hispanic. Since having a home broadband is important for accessing the internet through many devices, it is clear that both black and Hispanic Americans are significantly disadvantaged in the

ways in which they access the internet. Although we have no detailed information about how different ethnicities/races use the internet, there is some evidence suggesting that there are important differences with a potentially significant political impact. In 2013, a Pew Research study revealed that young African Americans are more likely to use Twitter than their white counterparts – 40% compared to 28%, respectively. An article in the *Washington Post* made the argument that this public presence on Twitter enabled the #blacklivesmatter movement to formulate and spread (Guo, 2015). While this is difficult to prove, another Pew Research study from 2016 found that African Americans are more likely to see posts about race than white Americans, suggesting in turn that these groups have different experiences of online media (Anderson and Hitlin, 2016).

Some US-based studies might offer better insights into the interaction between race and internet use. Specifically, a study by Jackson, Zhao, Kolenic, Fitzgerald, Harold and von Eye (2008) found that in general white children were using computers longer than black children, and black boys used both computers and the internet less than other groups. Interestingly, though, black girls used the internet more often than any other group. Their use was of such intensity that it often surpassed that of the stereotypical technophiles, that is, white boys. Of all the groups studied, black boys were found to use all kinds of new media the least, with one exception: they played video games more than black girls and as much as their white counterparts. In general, these findings show that while race can lead to some differences in use and intensity of use, we need to combine it with other demographic characteristics to get the full picture. In these terms, the statistics on use that show a tendency towards equal use of the new media among black and white groups in the USA mask the differences within these groups. In the Jackson et al. (2008) study, one of the most important findings was that all differences in race were qualified by gender; the study reports that the only effect of race in which gender did not play a part was that African Americans were more likely than Caucasian Americans to search for religious and spiritual information and to use the internet to search for jobs.

Other interesting findings concerned, first, the role played by the parent's socio-economic status and, second, the relationship between new media use and academic performance. Specifically, Jackson et al. report that the more

education the parents received, the longer the children's use of IT. Similarly, children of those with higher income were using new media for longer. In addition, children whose parents had more education used the new media more often. Children of cohabiting couples played video games less often, and those of employed parents used mobile telephones more frequently. In terms of academic performance, the children who used computers for longer had higher grades than those who had used them for a shorter period. On the other hand, children who played more video games had lower grades than those who played less. Mobile telephones did not seem to affect academic performance. All these findings show that race alone cannot act as a predictor of new media use and that it interacts with other factors, such as socio-economic status and gender.

Similarly, a recent study by Eszter Hargittai (2010) tested several demographic factors among US college students, such as educational background, gender and race/ethnicity, in terms of their relationship to online skills and autonomy of use. All of these – educational background, gender and race/ethnicity – were found to operate independently and to lead to variation in online skills. Specifically, Hargittai found that African American and Hispanic users were more likely to report lower levels of web know-how, and this was found to be the case for women and those of lower educational backgrounds. However, a note of caution should be inserted here: the variable of online skill was self-assessed, and it has been found that women underestimate their online skills (Hargittai and Shafer, 2006). Nevertheless, Hargittai argues that perceived online skills can have real consequences on online uses and behaviours, such as content creation, sharing and so on. But the point made in this study is that even within the so-called digital generation, there is considerable variation in the distribution of online skills, and, moreover, that this variation is due to race/ethnicity, as well as socio-economic background and gender. Hargittai holds that these factors lead to differentiated contexts of use and experiences which in turn affect new media skill acquisition and use in later years. In simple terms, since users from poorer backgrounds are less likely to have early access to new media and autonomy (i.e., to own their own computers), it is likely that this will affect future new media use and skills.

The policy requirements here are evident: if length and autonomy of new

media use are correlated with academic performance, especially in children and young people, then we ought to ensure that measures are taken to address these. Similarly, paying attention to nuances and diversity among groups will ensure that measures are taken where required. In short, the discussion of age, gender and race/ethnicity shows a clear link between demographic factors and new media use. There is little doubt that offline differences and inequalities affect and influence online and other new media use. In societies that understand themselves as democratic, policy should address such inequalities in use, as they are likely to feed into and perpetuate other inequalities.

Case Study Digital Literacy

Throughout this chapter we argued that digital divides are more expansive than access. Several authors alluded to questions of skills and abilities, and surveys showed connections and relationships between skills, types of usage, and demographic factors. In the literature, these are understood as forming part of a concept referred to as 'digital literacy'. In one of the first attempts to define and understand this concept, Gilster (1997: 1) suggests that digital literacy can be understood as 'the ability to understand and use information in multiple formats from a wide range of sources when it is presented via computers'. A core part of digital literacy is 'the ability to make informed judgments about what you find on-line, for unlike conventional media, much of the Net is unfiltered by editors and open to the contributions of all' (Gilster, 1997: 2).

A key debate surrounding digital literacy concerns the extent to which it requires technical skills, such as the ability to download files or to use computer applications, or broader cognitive skills that allow users to critically assess information, and even socio-emotional skills that allow them to function in the digital environment (Eshet-Alkalai, 2004). Specifically, Eshet-Alkalai (2004) suggests that a holistic approach to digital literacy comprises five distinct sets of skills: photo-visual literacy, reproduction literacy, branching literacy, information literacy and socio-emotional literacy.

Photo-visual literacy refers to the ability to read visual representations. Eshet-Alkalai (2004) understands this as enabling children to make connections between visuals and language, but we can significantly expand this to include a broader range of reading and interpreting digital visual materials. Given the rise of the visual internet, the wide circulation of GIFs, memes and other visuals, it is important to be able to read them accurately, to be able to distinguish between fake and real images, to discern the source of these images, the context in which they were developed, and other relevant information.

Second, Eshet-Alkalai refers to *reproduction literacy* as the ability to creatively recycle existing materials – a kind of bricolage, or assembling of disparate materials to form a new whole – which has been seen as central to the culture of the internet (see Deuze, 2006). Again, this can be usefully expanded to a kind of (re)production literacy, which can further include the ability to produce original content of any kind – text- or image-based – and to develop and sustain an online presence, for example, a blog or a social media account. Clearly this requires both skills and the motivation to do so.

Third, *branching literacy* refers to the ability to navigate the hypertextual environment of the internet, to move from one link to the next, to operate between different tabs or windows, and to be able to make the connections, to discern differences, and so on.

Fourth, *information literacy* refers to the critical and interpretative skills required to read and digest information, to make judgements upon it, upon the credibility of a source, and the difference between fact and opinion. Eshet-Alkalai (2004: 100) refers to this as 'the art of scepticism', pointing to the distance that critical readers need to insert between themselves and the information they come across in the online environment. This is increasingly becoming a central part of being able to navigate effectively online. As more and more information circulates, people often come across information that may be false or misleading, either on purpose or inadvertently, so skills that allow people to test the accuracy of the information are becoming essential.

Finally, *socio-emotional literacy* refers to the ability to make judgements of others online: Are the people we have only 'met' online genuine? Are they telling the truth? Socio-emotional literacy may also be understood as enabling people to distance themselves from judgements they come across online, from negative comments, exaggerated reactions to posts, and so on. As Eshet-Alkalai notes, this is the most complex kind of literacy, because it requires not only critical and analytical skills, but also emotional maturity, something that is very difficult to teach.

In more recent work, Eshet (2012) has added another skill – that of *real-time thinking* – which enables people to operate in a complex digital environment; it is characterized by the real-time and high-speed appearance of large volumes of information that require processing. This kind of skill allows people to participate in multiplayer games or in action-oriented video games.

In 2013, the European Union published a report on digital competencies which included a broad scheme of key competencies (i.e., skills alongside attitudes and abilities), and subsequently applied it to several European countries (Ferrari, 2013). The scheme (found at: https://ec.europa.eu/jrc/en/digcomp/digital-competence-framework) includes five competence areas and several competencies in each area. The five key areas are: information and data literacy, communication and collaboration, digital content creation, safety, and problem solving. The EU provides scores for each of the EU member countries in an interactive chart (found at: http://digital-agenda-data.eu/charts/country-ranking-table-on-a-thematic-group-of-indicators#chart={"indicator-group":"ict-skills","ref-area":"IE","time-period":"2015"}).

The question regarding digital literacy concerns the kind of necessary and sufficient skills that people ought to have in order to be able to operate online. Developing

ideas of a kind of 'lowest common denominator', however, is difficult given that the digital environment is very dynamic and that people come with all kinds and levels of ability. Moreover, some skills, such as socio-emotional skills, cannot really be taught and are an outcome of experience and trial and error, while others, such as real-time thinking skills, may be seen as quite advanced and not necessary for all kinds of online users. Nevertheless, the importance of thinking about digital literacy lies precisely in this: the need to develop a set of core competencies and skills that can form part of a new educational curriculum oriented towards enabling all users to make the most of their online presence.

Conclusions

This chapter discussed the issue of the digital divide and the rise of new kinds of inequalities surrounding new media access and use. The box below summarizes the main points.

In conclusion, most of the literature seeks to find ways that ensure widened access to the new media, on the assumption that use of the new media, and especially the internet, is a good thing and that there shouldn't be any exclusions. While this is indeed a normative obligation for social scientists, there are issues involved here that need to be spelled out more clearly. We need to problematize this use, and to begin questioning some of the assumptions involved. For instance, there is no question of seeking to widen access to the mass media, to television for example, as this is considered a matter of personal choice. This implies that the new media are considered to offer something more, over and above what the mass media have to offer. Indeed, as more and more information moves online, and as more and more services use the new media, access and know-how are necessary for all. At the same time, the patterns of diffusion of the global internet reflect not only the changing patterns of development, but also the pressures of globalized informational capitalism, which is predicated on expansion and the spread of new, informationalized modes of production and consumption.

Summary of Main Points

The Global Internet

Divides reflecting development disparities:

- The more developed a country the more likely it is to have a high percentage of internet users
- But in absolute numbers of users, developing countries and regions prevail over developed ones
- Such patterns reveal the underlying dynamic of global informationalized capitalism and the shifting configurations of inequality

Conceptualizing the Divides

Digital divides can be understood as primary and secondary. While primary divides concern accessing the internet, secondary divides concern ability and skills to use the new media and the degree to which people profit from being online.

Five main parameters are relevant in thinking about the digital divide (based on van Dijk, 1999; Carpentier, 2016):

- Motivation: the degree to which people are interested and motivated enough to be online
- Material access: the resources that people need to have to get online (hardware and subscription costs)
- Skills: the skills necessary to be able to function online (see the case study on digital literacy)
- Usage: the various ways in which people use the internet and the extent to which they can make the most of it
- Participation: the degree to which people take part in the decision-making processes that lead to the development, circulation and use of new technologies and new media

Mapping the Divides

Divides in terms of access and kinds of uses:

- Social class, understood as a function of income and education: higher income and higher education are positively associated with internet access and use. Income and education divides persist and even widen, but concern modes of access (broadband versus mobile) and types of use (e.g., entertainment versus information, producing versus consuming contents)
- Age: the older you are the less likely you are to use the internet/new media
- Life-stage and generation may be relevant variables
- Gender: in general, more men than women use the internet/new media, but rates tend towards equalization. However, women are overwhelmingly excluded from participation in the making of technology
- Ethnicity: some inequalities persist. In the USA, fewer African Americans and Hispanics are using the internet, and they tend to have more mobile and less broadband subscriptions compared to their white counterparts

Research Activity

A central characteristic of the new media environment is that it is very dynamic. The point of conducting frequent surveys is precisely to map these changes across time. The findings of the surveys used here may have changed. The goal of this activity is for readers to be able to find and understand these changes and their direction, as well as to be able to conduct comparisons across different countries. Look at the main sources of information for ICT access, for example ITU (www.itu.int) or WorldInternetStats, and see what has changed and what has remained the same.

A second research activity is oriented towards an understanding of the different uses and different digital skills people have. Readers can develop their own questionnaire and seek to apply it to their networks. Questions may include ratings (e.g., how high do they rate their ability to undertake certain tasks?), or simple yes/no questions to a variety of online tasks. You can adapt the skills and competencies from the Europass self-assessment test (found here: http://europass.cedefop.europa.eu/resources/digital-competences).

Further Reading

Delving deeper into the various reasons and factors contributing to digital exclusion, the article by Friemel explores the relationship between age and new media, arguing that family encouragement is a significant factor for being online. The astonishing numbers of internet users in China may be hiding different kinds of divides. The article by Svensson constitutes an exploration of such divides, focusing on one platform, Sina Weibo. What might lead to exclusion in the developed and affluent countries of North-West Europe? Helsper and Reisdorff explore the emergence of a digital underclass in the UK and Sweden. The final article, by Mirca Madianou, focuses on the recovery phase following a natural disaster in the Philippines and shows that social media divides feed into existing social divides, exacerbating inequalities even further.

Friemel, T.N., 2016, The digital divide has grown old: determinants of a digital divide among seniors. *New Media & Society*, 18(2), 313–331.

Svensson, M., 2014, Voice, power and connectivity in China's microblogosphere: digital divides on SinaWeibo. *China Information*, 28(2), 168–188.

Helsper, E.J. and Reisdorf, B.C., 2016, The emergence of a 'digital underclass' in Great Britain and Sweden: changing reasons for digital exclusion. *New Media & Society*, online first.

Madianou, M., 2015, Digital inequality and second-order disasters: social media in the Typhoon Haiyan recovery. *Social Media & Society*, 1(2), 1–11.

5 New Media Uses and Abuses

Learning Objectives

- To learn about theories of media diffusion, adoption and use
- To understand differences in adoption and use
- To critically understand approaches to internet addiction
- To understand phenomena such as cyberbullying and trolling

Introduction

Our discussions so far have shown the importance of new technologies and new media, and traced broader social and economic patterns of the spread of these technologies and some of their implications. This chapter looks at a different level, that of individual adoption and use of the new media. Broad patterns of the spread of new technologies and new media look at aggregated patterns of adoption by individuals. Researchers have therefore found it important to study what drives individual adoption of new technologies and new media, and to identify some barriers involved. At the same time, it is important to note that individual decisions do not take place in a vacuum. The social and policy context surrounding the development and spread of new technologies and media are important factors, alongside cultural and socio-psychological parameters. These issues are discussed here when considering the highly influential diffusion-of-innovation model (Rogers, 2003).

However, adoption, understood as the decision about whether to use a new technology, is one thing. How people use it is another. In [Chapter 4](#) we discussed the notion of digital literacy, which refers to the skills people need to have in order to be able to function in the digital environment. But this does not cover the question of the habits that people develop around new media. Media use may be adapted to a person's life and requirements. A student's use adapts to their needs and schedules, for example. In contrast, a new mother may find her use altered because her day is now structured very differently. Socialization of new media is therefore an important parameter in understanding new media use. Theories of domestication of technology, associated with the work of Roger Silverstone, will be discussed with a view to offering some insight into the role of users in circumscribing use. On the other hand, the new media environment itself has drastically altered the way in which users comport themselves. In fact the very term 'user' denotes someone who is actively engaged, as opposed to audiences, which are seen as passively oriented towards consuming the media. The discussion of users, active users and 'producers' is a central parameter of understanding the shifts in how people comprehend the new media.

Most discussions so far have highlighted the need, and sometimes the pressure, to be online, as more and more aspects of our lives have migrated there, and as more and more jobs and services require that we are online. Sometimes, however, use may turn to abuse: there has been increasing talk of internet addiction in the media, and this points to the need to identify what may constitute addiction and how to deal with it. But addiction is not the only form of pathological use or abuse of new media. Cyberbullying and trolling are also very prominent in the media, but what do we know about these phenomena? How widespread are they and what can or should we do to address them?

The first part of this chapter is concerned with notions of adoption and use of new media and technologies. It begins with a consideration of theories of adoption, before moving on to discuss theories of domestication and socialization of technology, alongside arguments regarding the shift from passive to active users, who move seamlessly from using and consuming new media to producing them. The second part of the chapter looks at notions of new media abuse, covering the issues of addiction, cyberbullying and trolling.

New Media Diffusion and Adoption

Let us begin with a note on terminology. New media adoption refers to the decision to use or not use a new technology or medium, by an individual or another social unit, for example a household, an organization or even a state. Diffusion can be seen as the same process but viewed from the perspective of how this decision was spread across social units and what has led into it. A formal sociological definition of diffusion of a new technology is found in Katz, Levin and Hamilton (1963: 240), who refer to it as 'the (1) acceptance, (2) over time, (3) of some specific item – an idea or practice, (4) by individuals, groups or other adopting units, linked (5) to specific channels of communication, (6) to a social structure, and (7) to a given system of values, or culture'. It is worth going over these components, but before doing this, it is necessary to emphasize that studies and theories of diffusion are interested in the underlying determinants of the decision to adopt: adoption is therefore the outcome of diffusion. Following Katz et al.'s definition, adoption, as we conceive it here, refers to the acceptance of a new technology.

For Katz et al. (1963), acceptance is a dependent variable, meaning that it will vary as a function of the other parameters or elements of diffusion. The relevance and importance of time is critical: adoption or acceptance must be thought of as acceptance-over-time, and Katz et al. point to several studies which have performed comparisons and traced differences in the time of adoption. Adoption itself is also variously understood as first use or sustained use: is someone considered to have adopted a new technology when they first used it, or if/when they have consistently been using it over time? Time therefore emerges as a crucial element of the diffusion process. By operationalizing time (i.e., making it measurable) alongside the number of adopters, researchers can discern patterns of diffusion and trace the direction of influence. These have led to mathematical models that seek to predict diffusion across time. As we shall see below, the typical diffusion curve is an s-shaped one ([Figure 5.1](#)).

The next two elements, the innovation itself and the adopters, can be thought of together. The specific item or the new technology that is diffused is clearly

very important: its characteristics and what it has to offer are crucial, but these cannot be considered independently of its meaning, value and function for different people or other social units. Although different studies have come up with different schemes for classifying innovations, there is no agreement over what they key characteristics are that an innovation needs to have in order to ensure its diffusion. Neither material characteristics of the innovation (e.g., greater efficiency) nor symbolic ones (e.g., more prestige) can ensure adoption, pointing to the great complexity of the diffusion and adoption process. Similar to the characteristics of the new technology or the innovation itself, the characteristics and circumstances of the adopting unit are crucial as well: in some instances, adoption can be a matter of an individual decision; in other instances, there is a need for a collective decision; while some technologies, especially media technologies, require that more than one person adopts them in order for them to work – for example, a telephone requires that at least two people have it, and this is very clearly also the case in social media.

The remaining three elements – channels of communication, social structure and cultural values – all point to the significance of contextual factors in the diffusion process. In one of the most influential studies in communication, Katz and Lazarsfeld (1955) examined the role played by personal influence and significant people in one's social network. For Katz and Lazarsfeld, the influence of opinion leaders is crucial, and the impact of mass communication messages can be seen as mediated by these opinion leaders. For the process of diffusion, the channels of communication may be seen as including different media as well as different sources within one's social environment. Different media may be more effective at different stages of the adoption process: while mass media may be important for initial awareness, the personal testimony of a friend may prove crucial at a later stage. The element of social structure is used by Katz et al. (1963) to refer to the broader social context, the relationships between people within networks or social groups and between different social groups, and the hierarchies that are in operation in social contexts. For example, networks that are closed to outsiders may be resistant to the adoption of new technologies or, conversely, they may adopt new technologies themselves but not communicate this to other networks. On the other hand, adoption by a key network may have an amplification effect. Finally, the relevance of cultural factors cannot be

underestimated. The degree of cultural fit between the innovation and the specific social context is an important determinant of adoption, while a broader culture that is in general oriented towards innovation is more conducive to adoption.

This early study has been influential in summarizing the main elements of the process and opening up new avenues. These have been followed through by Everett Rogers (2003), who developed the innovation diffusion model, formalizing existing diffusion research and adding to the elements identified by Katz and his collaborators. As with Katz et al. (1963), the focus is on communication. For Rogers (2003: 5) diffusion is 'the process by which an innovation is communicated through certain channels over time among the members of a social system'. His main concern is to develop a model which details the steps involved in the decision-making process by which an individual or another social unit decides to adopt an innovation. It involves five stages: knowledge, persuasion, decision, implementation and confirmation. Knowledge or awareness of the innovation depends not only on being exposed to communication about it, but also on the previous practices, needs and innovativeness of the unit making the decision, as well as the broader social norms. The decision process is further dependent on the characteristics of the adopting unit and of the innovation itself. The model then suggests that an individual or some other social unit becomes aware of an innovation. They consequently form a favourable or unfavourable attitude towards the innovation, which leads them to decide either to adopt it or to reject it. Adoption is not a guarantee that use will continue. Upon implementing the innovation, adopters may decide that it is not for them, thereby discontinuing the use. Conversely, rejection may not be forever: non-adopters may decide to adopt at a later stage. Communication and its various channels are crucial at all stages, and Rogers divides these into mass and interpersonal channels of communication, arguing that different channels can be influential at different stages of the process, but also for different kinds of adopters.

Concerning adopters themselves, based on a series of studies, Rogers (2003) has discerned five categories, varying in terms of the innovation decision time: innovators, early adopters, early majority, late majority and laggards. While innovators have the shortest decision-making period – about 145 days

– laggards can take over four years to adopt an innovation (Beal and Rogers, 1960, in Rogers, 2003: 205). The rate of adoption can be plotted as an s-shaped curve, as in Figure 5.1.

Figure 5.1 A typical s-shaped adoption curve
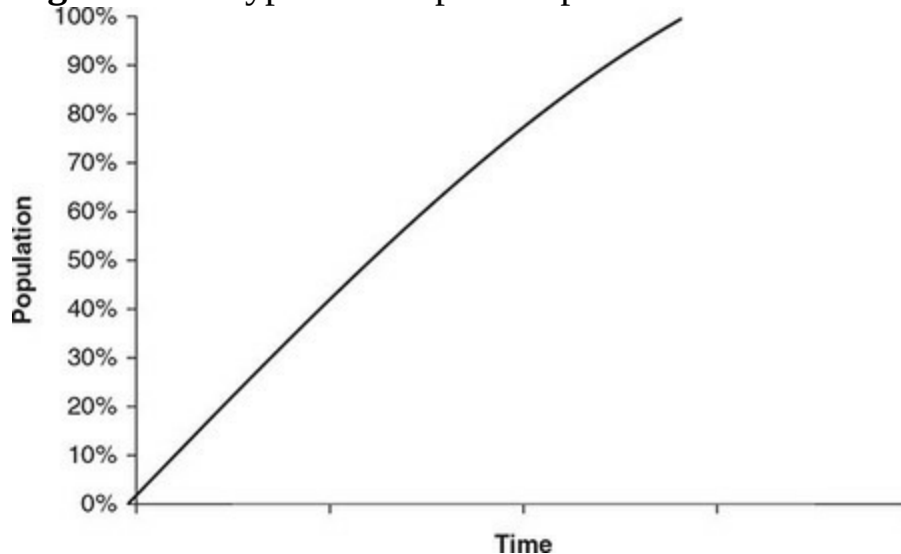
In the s-shaped adoption curve, it is clear that initially only a few people adopt, but more and more make the decision as time goes by. According to Rogers, when about 20–25% of the population has adopted, a critical mass has been created and it is impossible to stop the process. Rogers further posited that the categories of adopters are distributed across the population in a fairly normal distribution, meaning that innovators, early adopters and laggards are found at the margins and that most of us fall somewhere in the middle. These categories can be conceptualized as ideal types, described in terms of some core characteristics that people belonging in them are meant to have. Thus, innovators are seen as venturesome and risky, going out of their way to try out new things. Early adopters are seen as respectable, integrated parts of the social system, whose opinion is valued – opinion leaders are found in this category. Most of us, however, will be in the early or late majority, characterized by deliberation and scepticism, respectively. Finally, laggards are characterized by traditionalism and are reluctant to experiment with new things and ideas. While this classification system is useful in understanding how different people may be positioned *vis-à-vis* innovations, too much emphasis on the adopter type may end up attributing adoption to personality characteristics. Focusing on the types of adopter ends up

overlooking the relationship between the innovation and the user, and their preferences and needs. It may be that we can be laggards when it comes to some kinds of innovations but early adopters in others. It is also difficult to avoid sensing a normative preference for adopting innovations in Rogers' model. But there is no reason to assume that all innovations are positive or that we should adopt them all no matter what. Finally, it is striking that the model does not consider material obstacles or considerations in adopting innovations: people may be convinced that an innovation is great, but they still cannot afford it.

Adopting and using an innovation, be it a new technology, an idea or a new medium, is a complex process that involves multiple factors, and Rogers' diffusion of innovation model has made this apparent. On the other hand, it has assumed that the innovation is something that remains unchanged in the process and that, once adopted, its use is identical across all users until it is discontinued. But we know that people make different use of different technologies and media, and in adopting them they adapt them to their own needs and requirements. This more relational approach to technologies, media and users is discussed next.

Uses, Gratifications and Domestication of New Media

The focus on diffusion as a process of communication has been an important element of theories of adoption. However, in at least Rogers' model, it is assumed that audiences or those at the receiving end of such communications are passively receiving them, and that the outcome of the process depends on the source of communication and/or the personality traits of the audiences. But we know that audiences have different needs, different requirements and different expectations that affect both their decisions to adopt and the kinds of use they make out of the innovation. This has long been understood in communication theory, especially in perspectives such as uses and gratifications (Katz and Blumler, 1974). The main question raised in this theory concerns the why of technology or media use: why do people use new media and what are they looking to get out of them? This is clearly an important determinant of new media adoption and use. But at the same time, in using new media in specific – occasionally unpredictable – ways and for specific reasons, users end up changing the new media themselves. It is therefore crucial to understand the different ways in which new technologies and media are domesticated or socialized by their users.

Uses and Gratifications of New Media

The uses-and-gratifications approach 'represents an attempt to explain something of the way in which individuals use communications, among other resources in their environment, to satisfy their needs and to achieve their goals' (Katz, Blumler and Gurevitch, 1973: 510). Uses-and-gratifications approaches famously ask not 'What do media do to people?' but 'What people do with the media?' (Katz, 1959: 2). More formally, the uses-and-gratifications perspective is said to be concerned with '[1] the social and psychological origins of [2] needs, which generate [3] expectations from [4] the mass media or other sources, which lead to [5] differential patterns of media exposure (or engagement in other activities), resulting in [6] need gratifications and [7] other consequences' (Katz et al., 1973: 510). From this perspective, this approach is the next step after adoption, looking at how and why people use new media and technologies. It is a functional approach, focusing on the functions that media and technologies serve for people. The main assumption underlying this approach is that audiences or users are actively engaging with media for their own purposes. To understand media and technology use, therefore, we have to look at the social and socio-psychological context within which it takes place.

Studies of uses and gratifications have sought to identify types of use and gratification, and to develop typologies which could then be applied to different kinds of media and different kinds of social groups. Based on a questionnaire study, Katz, Haas and Gurevitch (1973) developed a comprehensive classification of needs, which they then grouped on the basis of five main parameters: (1) cognitive needs, relating to information-seeking, knowledge and understanding; (2) affective needs related to aesthetic, pleasurable and emotional experiences; (3) personal integrative needs that combine cognitive and affective elements and relate to strengthening self-esteem; (4) social integrative needs that strengthen contact with the social world; and (5) tension-free needs that relate to escapism and relaxation. Katz, Haas and Gurevitch (1973: 167) understand these as involving the 'weakening of contact with self and one's social roles'. In their study, they found that different media are used for different needs, and this reflects the underlying differences in the attributes or affordances of different media and

the ways in which they are consumed. For example, they report that knowing oneself is best served by books, while enjoying oneself is better served by television, film and books, and informing oneself is better served by newspapers. Clearly, there is some overlap between different media, due to their shared attributes and contexts of consumption.

The association of media use with social and socio-psychological factors has offered a more nuanced understanding of why and how people engage with the media. The rise of the new media created a new momentum for the uses-and-gratifications approach as researchers were looking to identify which new needs were served by the new media. Indeed, several studies sought to identify which needs were served by the various kinds of new media. For example, Papacharissi and Rubin (2000) found that people use the internet for social or interpersonal reasons, for information-seeking reasons, for convenience and for entertainment. Similarly, as reported by Sundar and Limperos (2013) in a later study, Haridakis and Hansen (2009) found that people watch and share YouTube videos for reasons of entertainment, information-seeking, and social and interpersonal connection and interaction. Comparing Facebook to instant messaging, Quan-Haase and Young (2010) found that Facebook is servicing needs relating to passing time, affection and social information, while instant messaging relates to relationship development and maintenance.

Sundar and Limperos (2013), however, make the point that the needs that were identified as being served by the new media seem to be identical to those of older media forms. This can in part be explained by the fact that human needs are, after all, finite, although it does raise the question of the instruments used to understand these classifications. Broad categories such as information-seeking or entertainment may be too wide to allow for a more detailed understanding of what people get out of their engagement with different media. Moreover, Sundar and Limperos (2013) argue that the focus on the social-psychological aspects of needs overlooks the question of the technologies of the new media and the new possibilities for engagement they offer. They therefore suggest that we take into account the affordances of new media, for which Sundar (2008) has proposed the MAIN model, as a way of classifying affordances. The term 'affordance', proposed by J.J. Gibson (2014 [1986]), a perceptual psychologist, refers to the idea that

objects in the world have certain attributes or characteristics that constrain their use and therefore lead to a limited range of action possibilities. Technological objects have design elements that guide users towards certain uses and prevent others. Sundar's model proposes that digital media have four classes of affordances: modality, agency, interactivity and navigability. These provide cues to users, who are then led to expect certain kinds of gratifications.

Modality refers to the different kinds of presentation, such as audio and video. Users can expect to get specific gratifications from seeing a video as opposed to, for example, listening to a podcast. Sundar and Limperos (2013) suggest that since video is linked to realism, and certain new features of newer forms of digital media are linked to novelty and 'coolness', modality can allow these different kinds of gratifications. For instance, some users may be using the newest model of iPhone because it offers gratifications such as 'coolness'. The agency affordance refers to the attributes of the new media that allow us to exercise agency. According to Sundar and Limperos, when we post content, when we comment on something we derive, when people like or share our content, we derive agency-enhancement and community-building gratifications. Interactivity refers to the ways in which new media allow users to make changes in media content; interactivity-based gratifications include activity, responsiveness, choice, control and flow. Finally, navigability is the affordance that allows users to move through the medium, and it is linked to gratifications such as play, variety-seeking and scaffolding, which guides users through various online spaces. Sundar and Limperos's (2013) argument is that by focusing on what the new media environment enables and on the kinds of expectations it creates for users, we have a better understanding of the psychological gratifications involved for users. This can subsequently be used for designing newer media forms or for improving existing ones.

On the whole, uses-and-gratifications perspectives have succeeded in highlighting the role of users' psychological needs and motives for using technologies, and in doing so, they emphasize the active ways in which users comprehend technologies. Sundar and Limperos's focus on the specific technological attributes or affordances involved point to the ways in which technologies themselves guide or circumscribe use. On the other hand, media

use is a social occasion, and media, as objects and as texts, are embedded in different ways in the fabric of everyday life. Focusing on the psychological elements tends to overlook the social aspects of media use, but also how these social aspects feed back into the media and may end up changing it. This is something that is found at the heart of domestication approaches to media use.

Domesticating the New Media

Both approaches to innovation diffusion and uses and gratifications of the media alluded to the importance of the meaning and value of media and media innovations for people. None of them, however, examined or explained this meaning and how it is derived in the context of everyday life. Domestication approaches posit that (1) the meaning and value attached to media technologies is created and recreated in the course of integrating and adapting media into the everyday; (2) users and their everyday lives are themselves changed in this process, while (3) their adaptations feed back into the design of the next technologies and media (see, for example, Silverstone and Hirsch, 2003; Berker et al., 2006). In this perspective, users and technologies are both dynamically engaged with and shape each other. This approach has been very helpful in dealing with issues of technological determinism, and constitutes the intellectual antecedent of mediation theories.

The process of domestication is seen as having four phases: appropriation, objectification, incorporation and conversion (Silverstone, Hirsch and Morley, 2003). Appropriation follows immediately the decision to adopt, and it occurs as soon as a new technology or medium has been bought, exchanged, downloaded or otherwise brought into the world of the person or the household or any other social unit. Miller (1988) has identified three appropriation strategies: (1) to accept wholesale the new object as it was designed by its manufacturers; (2) to introduce some new elements that reflect the users' tastes and practices – an example here would be the customization of phones or tablets via covers and other accessories; and (3) to completely remodel the new object – for example, hacking could be seen as an instance of such remodelling.

After the new media or technologies have been appropriated, they are repositioned in specific ways in the immediate social space of users, reordering it aesthetically: desktops are positioned on desks, tablets on coffee tables or sofas, phones in pockets, hands or handbags, and so on. This is a process whereby the new media objects acquire an existence and are ordered and reordered within the aesthetic and spatial environment of users. Silverstone et al. (2003) argue that non-material objects are rearranged or

objectified not in a spatial/aesthetic but in a temporal manner, which is inserted in different times within the user's day. To this we can add that new non-material media, for example apps, can also be rearranged within the virtual aesthetic environment; they can be given shortcuts, displayed immediately upon activating the device, or they can be less readily available. These kinds of (re)arrangements are clues as to the significance and value of the new media object for the users.

Incorporation refers to the placement of the new media or technology within the routines of the social unit that has adopted it. Silverstone et al. (2003) argue that incorporation prioritizes temporalities: the time and timeslot allocated to the use of specific media. Within broader discussions of the economy of attention created by the multiple forms of media available to us, it is clear that questions of time are crucial and that incorporation is a central process in the ways in which users comprehend new media. Silverstone et al. further argue that both objectification and incorporation reflect processes of differentiation and identification: through displaying and using technological artefacts users identify with some people or social groups and differentiate themselves from others. In these terms, technological artefacts, but also their content, are used in processes of identity construction, and, more broadly, they form part of the processes of social reproduction both within and outside the household, given the increasing visibility of technological objects in the social world.

Finally, conversion focuses primarily on the social world, and constitutes a bridge between the sphere of private use and consumption and the public world. Consumption and the use of certain artefacts signify entry into certain social groups: for example, music and games allow users to form their own communities based on shared tastes. Similarly, the conspicuous placement and display of technological artefacts points directly to belongingness to certain social groups. Conversion is therefore the process by which the appropriation and use of technology is converted into some form of social and cultural value and status.

With its position in between technologies and users, and in between the sphere of private consumption and public displays – and with its view of adoption and use as a complex process and the outcome of far more than a

rational decision to adopt a technology or a needs-based functional decision – the concept of domestication eschews some of the problems associated with both theories of diffusion and uses and gratifications. Recontextualizing use as a social and symbolic process, domestication enables a more complex understanding of what people do with technology. It further allows an understanding of how social divisions and cultural differences can feed into processes of consumption, through the processes of incorporation and conversion. At the same time, domestication perspectives, and more recently mediation theories, focus on the ways in which social life is changing because of technologies, since our everyday lives need to create a space for these new artefacts, both materially and symbolically. On the other hand, technologies are themselves shaped through everyday uses. This aspect, the shaping of technology through use, is becoming increasingly prominent – and increasingly quantified – as more and more information is made almost immediately available to companies through networked devices. For example, Google receives crash reports and other data, which it then uses to improve or change its apps, and location services are used to fine-tune applications. When an app or another software program is downloaded, user agreements often ask for permission to collect data, to be used for further product development. Use finds ways of feeding back into the development of new technologies.

The above sections covered the question of technology adoption, uses and gratifications, and domestication. All these point to an active appropriation and use of technologies by users. But while most use falls within parameters that are socially acceptable, some kinds of use are deemed problematic for the individual and for society: it is to such abuses of technology that we turn next.

New Media Abuses

How might we conceptualize the notion of abuse? What is considered to be abuse, and who has the right to call or define some uses as abuses? There are no straightforward answers to these questions. The definitions and understandings of some kinds of uses as abuse are a site of struggle, and boundaries are pushed in various directions at once. In this section, we will use a heuristic to define abuse of new media in terms of harm done to individuals. The first kind of abuse to be discussed concerns harm done to oneself through new media, and the second kind concerns harm done to others through new media. While there are various kinds of harm done to oneself and others, we will investigate three varieties: addiction, cyberbullying and trolling. Along with hate speech, these have been at the centre of public debates about new media. To what extent are social fears warranted? How worried should we be about the potential harm to ourselves and others through new media? This section seeks to address some of these questions with respect to addiction, cyberbullying and trolling.

Internet Addiction

Is the internet addictive? While in journalistic accounts there is a lot of discussion on this topic, there is little agreement, primarily because the definitions of addiction vary. What might be seen as a normal range of internet-use as opposed to an abnormal range which could constitute addiction? Is internet addiction a mental disorder? The problem of definition is further complicated by the question of methodology: how can we objectively measure and evaluate behaviours? There is clearly a tension, and perhaps even a contradiction, involved here: on the one hand, there is pressure to ensure that everyone is online to avail themelves of the opportunities offered by the new media, while on the other hand, there is pressure to stop people from being 'too much' online, because they may become addicted. And all the time we are not sure how much is too much, or how disruptive 'being online' is for people's lives. More broadly, discussions on internet addiction reveal social and moral fears about how people should behave. Talking about internet addiction and attempts to regulate internet access and use raise questions of what is normal social and individual behaviour in the era of new and social media. It is notable that most of the reported incidents of internet addiction, as well as relevant research in this area, come from East Asian countries. This suggests that cultural differences may play a role in defining and determining what constitutes normal behaviour around the internet. In short, there is an ongoing struggle to reconfigure social norms around internet use. At the same time, however, highly intense internet use may be pathological and may cause harm, so any discussion of internet addiction has to take these concerns seriously.

A useful definition of internet addiction is offered by Shek, Sun and Yu (2013: 2775), who posit that it 'commonly refers to an individual's inability to control his or her use of the Internet (including any online-related, compulsive behaviour) which eventually causes one's marked distress and functional impairment in daily life'. Problems associated with internet addiction include physical problems, such as sleep deprivation or loss of appetite; family or social problems, including increased isolation and conflict with family members; academic problems, including lower grades or missed classes; and occupational problems, including impaired performance and

inefficiency. Most research on internet addiction derives from the work of Kimberley Young (1998), who conceptualized internet addiction as an impulse-control disorder, similar to gambling. Young developed a set of criteria for internet addiction, based on the criteria for the diagnosis of gambling addiction found in the *Diagnostic and Statistical Manual* (American Psychiatric Association (APA), 2013), the manual used by psychiatrists in the diagnosis of mental disorders. Young measured eight parameters or symptoms, and the presence of five or more signified addiction. These symptoms, adapted from the symptoms for pathological gambling, include: preoccupation, or thinking about being online or going back online; tolerance, or wanting to spend more and more time online; failure to control internet use, or having made repeated unsuccessful efforts to cut back; withdrawal, or feeling moody or depressed when not online; using the internet for a longer time than intended; functional impairment in academic and/or occupational life; lying to family members about being online; and escape, or using the internet to escape problems.

What evidence is there for the incidence of internet addiction? Studies reveal a mixed picture. Studies in China have shown that the incidence of internet addiction among the sample studied ranges from 6.4% to 9.8% (Ni et al., 2009; Lam et al., 2009). A 2016 study reports that among adolescents in China, 10.2% have a moderate addiction compared to 0.2% who have a severe addiction (Wu et al., 2016). In Italy, a study reported an astonishing rate of 36.7% of a sample of 14–19-year-olds being addicted (Milani, Osualdella and Di Blasio, 2009). A Norwegian study found a great variance between genders, with internet addiction occurring in only 4.1% of the women in their sample compared to 19% of the men (Bakken et al., 2009). In Taiwan, studies found an incidence of 18.8% and in Hong Kong 22% (Shek, Tang and Lo, 2008; Ko et al., 2009). The two observations regarding this body of work are: first, that most studies rely on samples of young people and teenagers, whose life circumstances are very specific; and second, that for the most part they rely on self-completed questionnaires, which may not be the most accurate way of measuring or assessing behaviours. A recent review of epidemiological studies found a very wide variance of internet addiction, ranging from 0.8% in Italy to 26.7% in Hong Kong (Kuss et al., 2014). The authors argue that the variety of instruments used to measure internet addiction has led to such variance.

A question that arises here concerns the extent to which internet addiction qualifies as a mental or psychiatric disorder. The latest version of the *Diagnostic and Statistical Manual* (DSM–V) (APA, 2013) does not include internet addiction, despite calls to do so (Block, 2008). The topic is still controversial, and questions have arisen regarding the classification of internet addiction as an impulse or compulsive behaviour, or an addiction similar to those of substance addictions. While it may be that internet addiction is a behavioural rather than a substance addiction, to this day, the DSM–V has only recognized gambling addiction as a behavioural addiction. This reluctance to include internet addiction may be due to the well-documented existence of comorbidity: internet addiction is very often associated with other psychiatric disorders and it is therefore difficult to conclude that it constitutes a discrete mental disorder. Typically, internet addiction is associated with alcohol abuse, attention deficit and hyperactivity disorder, depression, and anxiety (Ho et al., 2014).

While internet addiction as such is not included in the DSM–V, the manual mentions a related disorder, internet gaming disorder. This is covered in Section III, which includes tools to improve diagnosis and diagnostic categories that require further research (Moran, 2013). The DSM–V cites studies which report that gamers play compulsively, resulting in clinical impairment; this points to neurological findings showing that certain pathways in the brains of those engrossed in online games are triggered in ways that are similar to those produced by substances, involving feelings of pleasure and rewards. However, the DSM–V is quick to point out which that further research is necessary and that the criteria for this condition focus only on gaming and do not include general internet or social media use. We discuss this further in [Chapter 11].

The reluctance to include internet addiction as a psychiatric disorder points to a general uneasiness and ambiguity surrounding the so-called symptoms of this addiction. Given that the internet is becoming increasingly ubiquitous and necessary in order to conduct our everyday lives, from arranging meetings to shopping and banking, these symptoms – for example, being online all the time – can be seen as a shift in how younger generations communicate rather than a pathological behaviour. Indeed, there is a meme circulating online that reads: 'There's a guy in the coffee shop sitting at a

table, not on his phone, not on a laptop, just drinking coffee, like a psychopath!' This sums up the kinds of behavioural shifts with respect to the internet and the expectation that we are always online, that we follow our feeds continuously, that we are familiar with every new online fad. At the same time, studies have revealed that for some individuals, online life, and especially gaming, is more real and more compelling than anything else, and this prevents them from being able to function in their personal and social lives. There is little evidence at the moment, however, to conclude that this kind of problematic behaviour is caused by the internet and not by an underlying mental disorder.

Cyberbullying

In its simplest form, cyberbullying refers to bullying using new media forms. More often than not, it is understood as the addition of electronic methods to traditional forms of bullying. Defining cyberbullying, however, is not so straightforward. Several questions arise: What kinds of behaviours can be seen as cyberbullying? Are there any totally new forms of bullying caused or facilitated by the new media? Is cyberbullying worse or more pernicious than traditional face-to-face bullying? How prevalent and widespread is cyberbullying and what ought we to do about it? This section will review some of the research that has sought answers to these questions.

The definition of cyberbullying has become a widely discussed issue, because different studies use different definitions and present different findings regarding the spread of this phenomenon. The extreme end of cyberbullying is easy to recognize and includes cruel and humiliating posts or texts, threats, harassment and so on. But other kinds of posts, for example, satirical or ironic content, which is supposedly funny or friendly, are difficult to categorize and understand outside their context, yet they may still be perceived as bullying by their recipients. The difficulty in recognizing which specific behaviours constitute cyberbullying creates problems for intervention and policy. Following extended consultation with experts, the US Department of Education offered a uniform definition of bullying to include:

> any unwanted aggressive behavior(s) by another youth or group of youths who are not siblings or current dating partners that involves an observed or perceived power imbalance and is repeated multiple times or is highly likely to be repeated. Bullying may inflict harm or distress on the targeted youth including physical, psychological, social, or educational harm. (Gladden et al., 2014: 7)

While agreeing with this definition, cyberbullying researchers Hinduja and Patchin (2015: 11) argue that it omits the intent of the act. They define cyberbullying as the 'willful and repeated harm inflicted through computers,

cell phones, and other electronic devices'.

Hinduja and Patchin (2015) argue that for an act to qualify as cyberbullying, it has to be repeated over time: a single act of online aggression is not necessarily bullying, but continuous acts are. What differs in the online environment is that a single post can be shared multiple times and travel across platforms. So it may be that a single post ends up being repeated over time, hence constituting bullying. Similarly, the perpetrator is not the only author of the post; all those who share, like and are otherwise involved in its distribution contribute to cyberbullying. Hinduja and Patchin further note that intent to harm is an important element in cyberbullying and it distinguishes it from other forms of online aggression. For example, if a compromising picture is shared by accident, this behaviour, although potentially harmful, cannot be construed as cyberbullying because there was no intention to harm. Harm is central to all forms of bullying; although physical harm is not likely, cyberbullying has been linked to psychological harm such as distress, depression or anxiety (Schneider et al., 2012), as well as to social harm such as damage to reputation or social relationships, and educational harm, for example, the inability to concentrate in class (Gladden et al., 2014). The aspect of a power differential between bullies and their victims is important, as it may be that in the online world physical power is rendered irrelevant. However, Hinduja and Patchin (2015) argue that this may still be important as most victims know their aggressors in person and are likely to encounter them in real life. Power may manifest itself differently online, as Hinduja and Patchin note, and technological proficiency may emerge as an important power differential allowing perpetrators to inflict harm, whereas lack of technological proficiency may prevent victims from protecting themselves. Whatever form they may take, power imbalances are important, as studies have shown those lacking in power tend to be bullied more (Ybarra, Espelage and Mitchell, 2014). Following Hinduja and Patchin (2015), these criteria of intent, repetition, harm and power differentials have to be present in order to classify an act of online aggression as cyberbullying.

How common is cyberbullying? Given the difficulties of defining and operationalizing cyberbullying, studies have come up with different findings. Hinduja and Patchin (2012) report that on average about 25% of secondary school pupils have been exposed to cyberbullying, although the severity and

intensity of this exposure varied. While this is by no means a small number, it is evident that cyberbullying is not as ubiquitous as implied by some media accounts. To put things into perspective, Sabella, Patchin and Hinduja (2013) report that school bullying is still more common than cyberbullying. Nevertheless, its existence and the potential harm it may cause warrant intervention and the development of prevention and coping strategies (Slonje, Smith and Frisé, 2013). McGuckin et al. (2013) report that technical strategies, such as blocking, as well as socio-psychological coping strategies, for example seeking emotional support from friends and family, have been effective in countering or buffering cyberbullying. Other coping strategies include ignoring the bullying and the bully or conversely reporting them to the school authorities or the police (McGuckin et al., 2013).

A question that commonly arises concerns the differences between cyber and traditional bullying and the extent to which the former is more or less pernicious than the latter. Smith (2012) has identified seven differences between cyber- and traditional bullying: (1) cyberbullying requires some degree of technical expertise; (2) it is primarily indirect, not face-to-face, and it can be anonymous; (3) usually, the perpetrator cannot see the victim's immediate reaction; (4) the roles for bystanders are more complex online, as they can be present online when a message is posted, or they can be co-present with the perpetrator when a message is posted or with the victim when a message is received; (5) displaying abusive power to others and thus gaining status, which is thought to be one of the motives for bullying, is not typically present in cyberbullying; (6) the potential audience for cyberbullying is increased manifold as abusive or humiliating posts may scale; and (7) cyberbullying may be very difficult to escape as multiple media may be used to reach victims wherever they are. Therefore, given the amplification and intensification of some of the forms of cyberbullying compared to traditional bullying, can it be said that it is more pernicious? Sticca and Perren (2013) have examined three factors in the perceived severity of bullying: the role of the medium (online or face-to-face), publicity (whether bullying takes place in a public or private place), and anonymity (whether the perpetrator is known or anonymous). Their findings indicate that public cyberbullying is perceived as more severe because of the potential for the incident to scale and become viral and because victims have much less control over the situation. Similarly, anonymous cyberbullying was found to

be more severe, again because it reduces the control victims have over it, thereby leading to feelings of helplessness. The authors further found that cyberbullying is generally thought to be worse, although the difference between traditional bullying and cyberbullying was small, and in any case less important than the aspects of publicity and anonymity. But when publicity and anonymity are added to cyberbullying, the perceived severity of bullying is multiplied.

What kinds of conclusions can we draw from this discussion? Most research shows a correspondence between school bullying and cyberbullying, pointing to a limited phenomenon. However, new apps and technologies can enable more people to become bullies, often unwillingly, though sharing or liking posts that humiliate others. New media may create a pack mentality, attacking a single person and scaling out of proportion. Moreover, they can exacerbate the problem, as one person can constantly harass another through multiple accounts and on multiple sites. We know that publicity and anonymity are central to most new media forms; if they are also creating the bullying experience, then it is clear that we have a problem. All this points to the need to remain aware and vigilant. Digital literacy and knowledge of reactive (e.g., blocking, deleting or reporting abusive posts) and preventive strategies (e.g., increased security awareness), along with effective coping skills (e.g., through counselling or social support), may help address cyberbullying. At the same time, more research is necessary to uncover other dynamics at play in bullying and cyberbullying, including the role of gender and the role expectations of those involved in such behaviours (Ging and O'Higgins Norman, 2016).

Trolling

Frequently discussed alongside cyberbullying, trolling is often seen as the direct result of the anonymity afforded by the new media. If cyberbullying concerns the domain of interpersonal relations, especially those between young people who know each other, then trolling concerns social relationships between strangers mediated by the internet. Trolling began as subterfuge in online forums, but has now expanded to all kinds of new media forms and apps that allow people to remain anonymous. In general, trolling is seen as pernicious and damaging, and raises important questions about society, social life and the new media. This section begins with a consideration of what trolling is, looks at research on the incidence of and perpetrators of trolling, before taking a critical distance in assessing the role of trolling in online culture.

The origin of the word 'troll' is disputed, although it is thought to be based on two different uses: the first refers to a fishing technique in which bait is used to lure fish into a feeding frenzy, while the second comes from Scandinavian mythology, in which trolls were monsters living under bridges and in dark spaces from where they attacked passers-by (Bishop, 2014a). Trolling typically involves some form of deception, which is used to provoke or ensnare online users in ways that cause enjoyment for the troll. Hardaker (2010: 237–238) defines trolls as users who build an 'identity of sincerely wishing to be part of the group in question, including professing, or conveying pseudo-sincere intentions, but whose real intention(s) is/are to cause disruption and/or to trigger or exacerbate conflict for the purposes of their own amusement'. Gradually, as trolling moved from online chat rooms to other online spaces, it became a broader term used to refer to 'a specific type on malicious online behaviour, intended to aggravate, annoy or otherwise disrupt online interactions and communication' (Coles and West, 2016: 233). Trolling can take different forms, such as posting offensive messages, swearing, insulting others and writing malicious, false and deceptive posts, and it can involve the initiation of aggressive arguments and posting malicious comments (Bishop, 2013; Craker and March, 2016).

Why would people want to engage in this kind of behaviour? Researchers

such as Hardaker (2010) consider that trolling is merely a manifestation of innate human aggression that has been made easier to display because of the anonymity afforded by the new media. Research into the personality of those who troll found that they exhibit the 'dark tetrad' personality traits, that is, sadism, psychopathy, Machiavellianism, and narcissism (Buckels, Trapnell and Paulhus, 2014). Sadism was found to have one of the most robust associations and Buckels et al. concluded that trolling is an online manifestation of everyday sadism. However, not all trolling is equivalent and the same term can be applied to a wide range of communicative behaviours with different effects. Coles and West (2016) found that the meaning of trolling is not fixed, while sometimes accusations of trolling can be used to silence dissent. Bishop (2014b) identified four broad groups of trolls: the haters, who are inflaming situations with no benefit to anyone involved; the 'lolcows', who provoke others so that attention focuses on themselves; the 'Bzzzters', who write posts regardless of accuracy or usefulness of contributions; and the 'eyeballs', who lurk waiting for an opportunity to write a provocative post. Regardless of the broader validity of these types, Bishop's work points to the need to differentiate between types of trolls and types of trolling behaviour.

Trolling can be very disruptive and it can have very negative consequences for online communities. However, it can also have unexpected consequences because of its disruptive effect. As we discuss in other chapters, new media networks have a tendency to create enclosed groups. Within such groups, it is possible to observe the so-called phenomenon of groupthink (Janis, 1971). This refers to 'the mode of thinking that persons engage in when concurrence-seeking becomes so dominant in a cohesive ingroup that it tends to override realistic appraisal of alternative courses of action' (Janis, 1971: 43). Janis considered groupthink in very negative terms, arguing that it constitutes 'a deterioration in mental efficiency, reality testing and moral judgements' (1971: 43). In other words, Janis suggested that closely knit groups avoid voicing dissent and criticisms for fear of destroying the group's harmony and cohesion. However, this leads to a false consensus, which is not based on rigorous thinking but on group pressures to conform. If this is indeed the case, then trolling may be seen as disrupting groupthink and kickstarting critical thinking.

In these terms, trolling is not necessarily an isolated and aberrant instance of aggression perpetrated by problematic individuals. As a social phenomenon, trolling can be seen as the mirror image of our culture, an integral if uncomfortable part that emerges within and not from outside or from a pathological place. Indeed, Anthony McCosker (2014) studied the multiple reactions to two videos on YouTube: the first is a video of the Christchurch (New Zealand) earthquake of 2011 and the second is a video of a flash mob performing a Haka dance in Auckland. Both videos elicited a large number of comments, most expressing affects such as grief for the destruction caused by the earthquake and national pride in the case of the Haka dance. However, among such comments there were several instances of trolling, which included offensive, hateful and occasionally outright racist comments. Instead of focusing on the contents of the hateful comments and instead of considering them as isolated instances, McCosker examined them as part of an agonistic dialogue with other comments, which were occasionally equally vitriolic in response to the trolls. He argued that they should be considered 'as varied forms of provocation that instigate and help to sustain interaction and attention to place, personal experience and the tragedy of the events' (McCosker, 2014: 211). In McCosker's view, acts of provocation can be seen as productive in that they create or galvanize a response that requires more than the often repetitive conformity that we tend to see around such videos. In other words, they force commenters to think about their responses and to think about what is wrong with the trolls' provocations, thereby reasserting their identity and cultural boundaries.

Similarly, in her extensive ethnography of trolls, Whitney Phillips (2015) argues that trolls' transgressions, whether on purpose or not, foreground the dominant cultural mores in ways that recall the work of the anthropologist Mary Douglas on dirt and taboo: to understand dirt one has to understand the systems of cleanliness that are in place in any given society. Trolls therefore allow us to consider the systems by which dominant mores are produced. Phillips points to responses to trolls as often mobilizing the well-known meme 'This is why we can't have nice things'; if it weren't for trolls, the internet would have been a perfect place. Not so, argues Phillips (2015: 11): 'trolls are born of and embedded within dominant institutions and tropes which are every bit as damaging as the trolls' most disruptive behaviours […] online trolling is par for the mainstream cultural course.'

This kind of work by McCosker and Phillips points to the complexity of trolling and its intricate connection with existing dominant systems of values and ideas. Trolling is not (only or primarily) a question of pathological individuals sitting at their computers and producing hate; rather, it relies on and mobilizes existing repertoires of oppression and discrimination. This is not meant to make trolling more acceptable, but to make us think about what it is in our cultures that produces it, and to question the easy demarcation of trolling as primarily a matter of individual psychopathology.

Case Study Dimensions of Trolling

Whitney Phillips, whose work on trolling is one of the most in-depth and detailed examinations of this topic, tells the story of jenkem, which has now become part of the pantheon of trolling. According to Phillips (2015), the term 'jenkem' first appeared in a 1998 *New York Times* article on Zambia and its struggles with poverty. The article referred to an alleged local practice in which orphaned and extremely poor children put fermented sewage waste in a bottle, trapping the gas emitted by it, and subsequently inhaled the gas as a substitute for hallucinogenic drugs – this is the so-called jenkem. In 2003, a message-board user called 'Pickwick' uploaded photographs and descriptions of getting high through jenkem. Although Pickwick later admitted that this post was a hoax, and that the contents of the bottle were flour and Nutella, his photos and descriptions captivated the users of 4chan /b/, a space populated by an aggressive and anonymous user base. They then decided to try to convince authorities that jenkem was a serious threat. They wrote a letter alerting school authorities and the police to the dangers of the new drug. The letter was so convincing that a sheriff's office in Florida issued a bulletin warning parents about the dangers of the new drug. Not only that, but the story was picked up by mainstream media and local TV stations, and even the *Washington Post* fell for it (BuzzFeed, 2015).

As Phillips (2015) argues, this story not only shows the ability of the trolls to use the media against itself by creating and serving a story that was too sensational to miss, but also their ability to manipulate information and sources in ways that make bogus information appear legitimate. While in this instance the outcome was a lot of 'lolz', the significance of the jenkem story lies in its exposure of sloppy journalistic standards (Phillips, 2015) and in highlighting the media logics of sensationalism and hyperbole. Phillips points out that any broader political and cultural outcome of trolling may not be intended by the trolls themselves, but it cannot be dismissed either: whether the trolls intended this or not, jenkem did disrupt the dominant media logics. It is both the intended and unintended consequences that give trolling its current position in the culture of the new media: it is viewed with dread, anger, amusement and secret admiration, all at the same time.

But while jenkem can be seen as an amusing episode, there are blurred lines and darker areas in which trolls operate: writing abusive messages to people with a public profile falls in between trolling and cyberbullying, but it can have profound effects on the victims and occasionally on the trolls too. In October 2014, *Sky News* aired a programme about online trolls hounding the parents of Madeleine McCann, a child who disappeared from her holiday home in Portugal in 2007. The news report

exposed Brenda Leyland, a 63-year-old woman, as one of the trolls, who, under the pseudonym 'sweepyface', was accused of writing abusive messages calling for the McCanns to 'burn in hell', and so on. Three days after being 'doorstepped' by the Sky News reporter and having her identity exposed, Leyland was found dead, an apparent suicide. According to a *Buzzfeed* article, Leyland was part of a broader network, tweeting under the hashtag #mccann, expressing all sorts of views on this topic (P. Smith, 2014). This tragic case shows how the logics of the internet, anonymity and connection, and escalation and virality become entangled with the logics of mainstream media, sensationalism, exposure and amplification of shame (Madianou, 2012), creating an explosive mix. Further, this case reveals the tensions between privacy and anonymity, and freedom of speech and offensive/abusive speech.

Trolling is easy to denounce and impossible to condone, yet it is revealing of underlying cultural dynamics at play – trolling is in many ways the direct outcome of society's hypocrisy, its not-so-well-hidden racism and sexism, its social norms and expectations. No one likes trolling, but in some instances it holds a mirror up to our society, playing the part of the 'return of the repressed', as psychoanalysts would put it.

Conclusions

This chapter considered a variety of uses and abuses of new media. We considered use from the perspective of the decision to adopt or reject an innovation, which usefully pointed to the role of communication in creating awareness of and influencing such decisions. Following the work of Rogers, we concluded that after reaching a critical mass, the whole population will adopt an innovation. However, different people use the innovation in different ways. The work of social psychologists on the uses and gratifications of the new media points to a variety of functions served by the new media for users, including cognitive, affective, personal and social functions. Although uses-and-gratifications approaches tend to focus on the active audiences, and to somewhat overlook the technology itself, domestication-of-technology approaches focus on a kind of dialectical relationship, in which users adapt the technologies to their requirements and needs, while the technologies themselves also change the social and personal environment of users.

Although research has attempted to explain adoption and use from a primarily sociological or socio-psychological perspective, the question of abuse has been approached mainly from a psychological, and occasionally from a psychiatric, perspective. The extent to which the internet can cause an addiction is still a matter of debate for psychiatrists, who seek to identify patterns of abnormal neurological stimulation due to overuse of the internet, especially when it comes to online games. Others describe addiction in terms of the pernicious effects it has on the personal, academic and occupational life of those who are considered to be addicted. But addiction is not the only form of abuse: cyberbullying has been at the centre of much debate, as it is seen as affecting people at a vulnerable stage in their lives, when they are forming their identities at school. While there is little doubt that cyberbullying can have a disrupting effect on young people's lives, there is much discussion on what kinds of behaviours can be seen as constituting cyberbullying or whether cyberbullying is worse than face-to-face bullying. Finally, trolling is another form of online abuse, which some attribute to the pathological personality traits of trolls. However, when seen through a

sociological lens, trolling acquires a new explanatory potential that seeks answers in cultural dynamics rather than in individual pathology.

Summary of Main Points

Diffusion and Adoption

- Both diffusion and adoption depend on communication, on the attributes of the adopting unit, and on the attributes of the innovation
- The decision to adopt is not final and adoption may discontinue or, conversely, take place later

Uses and Gratifications

- Main uses (Papacharissi and Rubin, 2000)
  - Social or interpersonal
  - Information-seeking
  - Convenience
  - Entertainment
- Sundar and Limperos (2013)
  - Uses are derived from the main affordances of social media – modality, agency, interactivity and navigability – and these can lead to different gratifications, such as agency or community enhancement

Domestication

- Appropriation: users accept, modify or remodel a technology
- Objectification: users position the technology in relation to other objects in their environment either spatially or temporally
- Incorporation: users position the technology in relation to their everyday routines
- Conversion: when the above three processes are converted into some form of social and cultural value and status

Addiction

- Not recognized as a psychiatric disorder
  - Incidence of comorbidity high
- Internet gaming addiction regarded as requiring further study
- More a social than a psychiatric issue in most instances

Cyberbullying

- Defined as the 'willful and repeated harm inflicted through computers, cell phones, and other electronic devices' (Hinduja and Patchin, 2015: 11)
- No solid evidence on whether cyberbullying is more frequent or more pernicious than traditional bullying
  - Some studies have shown that anonymity and publicity increase the perceived severity of cyberbullying (Sticca and Perren, 2013)
- Emphasis on coping strategies and digital literacy

Trolling

- Defined as 'a specific type on malicious online behaviour, intended to aggravate, annoy or otherwise disrupt online interactions and communication' (Coles and West, 2016: 233)
- Studies in the personality traits of trolls show a high incidence of sadism
- But trolling can be productive in disrupting groupthink
- Phillips (2015): rather than an abomination, trolling is part of mainstream culture and the division and hierarchies it entails

Research Activity

Sometimes it is easier to understand a phenomenon in more depth if we look at how people talk about it. Academic and scientific definitions of cyberbullying and trolling may be comprehensive attempts to introduce clarity that may subsequently be used in measuring and developing relevant policies. On the other hand, popular understandings are more revealing of how cyberbullying and trolling are socially constructed. While this chapter focused on the former, this activity invites readers to focus on the latter, thereby arriving at a more holistic understanding of these phenomena.

- Do a newspaper keyword search, using the terms 'trolls', 'trolling', 'bullying' and 'cyberbullying', of the most popular newspapers and/or news sites in your country or region.
- How many articles did you find?
- Were they more frequent in the tabloid or 'quality' press/news sites?
- Try to build a taxonomy of these articles: how do they refer to cyberbullying? How do they refer to trolling? What are the commonalities and where do they differ? Classify the articles accordingly.
- Are there illustrations in the articles? What kinds of symbols are associated with cyberbullying and trolling?
- How do these popular understandings differ from scientific approaches? Are there overlaps?

Further Reading

This chapter examined the various ways in which individuals and groups appropriate and use social media. While we covered some of the main debates, there are several other aspects that were not covered at all. For example, do new or social media exacerbate negative behaviours and mental issues? The article by Ging and Garvey focuses on Instagram and studies pro-anorexia hashtags. Can these be thought of as contributing to anorexia and other eating disorders? In terms of addiction, some of us may have toyed with the idea of giving up social media, or some may have quit already. The article by Baumer et al. explores what makes users quit and then return to social media. Do new/social media control us or do we control them? Where is user agency located? This question is at the centre of the third article, by David Mathieu, who examines how user agency develops through interaction in social media.

Ging, D. and Garvey, S., 2017, 'Written in these scars are the stories I can't explain': a content analysis of pro-ana and thinspiration image sharing on Instagram. *New Media & Society*, online first.

Baumer, E.P., Guha, S., Quan, E., Mimno, D. and Gay, G.K., 2015, Missing photos, suffering withdrawal, or finding freedom? How experiences of social media non-use influence the likelihood of reversion. *Social Media + Society*, 1(2), 1–14.

Mathieu, D., 2016, Users' encounter with normative discourses on Facebook: a three-pronged analysis of user agency as power structure, nexus, and reception. *Social Media + Society*, 2(4), 1–11.

6 Security, Surveillance and Safety

Learning Objectives

- To learn the negative aspects of the articulation between technology, society, economics and politics
- To understand the significance of the expansion of surveillance
- To develop an understanding of issues relating to security
- To learn about online safety and protection against fraud
- To understand the relationship between new media, extreme porn and sexual aggression
- To critically understand the underlying dynamics of surveillance, security and safety

Introduction

For most people, the internet and the new media are associated with a host of positive developments, as they represent technological progress. Technological progress, one of the most central characteristics of modernity, signals improvements of almost all aspects of life, and entails the promise of the more just and equitable distribution of wealth and power. This view, which we can term techno-optimistic, is very widespread in society, with public money going into technological innovation and the spread of technologies among people. But in fact we know that technology – its 'essence' as Heidegger (Heidegger and Lovitt, 1977) would have it, or at least its uses, as other thinkers would insist – is much more ambiguous. This chapter will focus not only on this inherent ambiguity of technology, and hence of the new media, but also on some of its negative sides.

We will assume a social constructivist approach, holding that technology and its uses and outcomes must be thought of as an articulation between certain 'local' factors, such as the political, socio-cultural and economic conditions within specific historical contexts, and the specific 'affordances' or dimensions of the technology at hand. We will then look at the 'dark' side of the new media. In sections that will cover society, politics, economics and culture, we will follow a case study approach which will examine surveillance, cyber-conflict, fraud and porn pathologies, respectively. Our goal here is not only to describe some of the 'darker' aspects of the new media, but also to find out the specific articulation of the technological elements of the new media with the specific socio-historical circumstances in the contexts in which they are located. Throughout this discussion, we must keep in mind that the economic, political and social domains are intermingled, and that the economic has a political and social dimension, and vice versa. The current division is only undertaken for analytical purposes.

Society: Surveillance and Control

If by the term 'society' we mean primarily the ways in which people associate and interact with each other, then there is no doubt that the internet and the new media have had a profound effect on these. While the specific changes in sociality – the ways in which we interact – are discussed in other chapters, the goal here is to find the 'dark' side of society online: the problematic aspects which are the outcome of the application of technology in certain ways that in turn reflect the current socio-historical circumstances. There is no doubt that these may be numerous, depending on how one chooses to define 'problematic'. In the present context, we may understand 'problematic' as those aspects that oppose the very understanding of society in Tönnies' (2001 [1887]) *Gesellschaft* form, that is, as an agreed, self-conscious and quasi-contractual association with others. While Tönnies was to an extent critical of this kind of association, we want to highlight here the reflexive and liberal elements in this understanding. In other words, if societies in an ideal-typical form are voluntary associations based on conscious choice, which preserve people's autonomy and independence, and which allow them to act freely as independent agents, then anything opposing these conditions may be deemed problematic in the current context. While many things can be considered problematic in this manner, in the context of the new media, the focus here will be on surveillance, which, as we will see, has a long history but is now taking new forms and has become more intense in and through the new media.

The rise of the continuous monitoring of people and the collection of massive quantities of personal data on all of us have led theorists such as David Lyon (2001) to propose that we are witnessing the rise of a surveillance society. This kind of society refers to the increasing amount of surveillance that is taking place, alongside an explosion in the variety of methods and means for observing and monitoring people's behaviours. While to an extent surveillance must be thought of as one of the defining characteristics of modernity, new media and technologies have helped make surveillance a central aspect of late (or post-) modernity as well. Surveillance, and significantly also self-surveillance and what Mark Andrejevic (2005) calls

lateral surveillance, have now become an inextricable part of modern governance. Without surveillance, the work of governing bodies and bureaucracies would be extremely difficult, if not impossible. But surveillance introduces new divisions, new ways of classifying people and dealing with their behaviour. In so doing, new symbolic meanings are generated alongside new modes of control and often punishment: in short, new forms of power are made possible, and this power is concentrated in the hands of those who collect and control surveillance data. All these may be seen as infringements of personal freedom and as detrimental to the democratic principles according to which our societies are said to function.

Panopticon and Synopticon

Surveillance has a relatively long history as it pre-existed new media technologies. However, as we shall see, it now takes new forms, which are commensurable with current socio-political developments. Specifically, in one of the better-known formulations of his relevant work, Michel Foucault has spoken of the Panopticon, an imaginary machine designed in 1791 by Jeremy Bentham, a British architect and legal reformer. This contraption allowed for the total and complete surveillance of prison inmates who, quite literally, inhabited a transparent world with no place to hide. The logic behind this machine, as Foucault (1995 [1975]) tells us, is that prisoners (aware of their complete and total visibility) would regulate their behaviour, knowing that any wrongdoing would be caught. For Foucault, this ensures the automatic functioning of power, since it would be internalized by prisoners without the need for any external enforcer to be present at all times. For power to work in this manner, it must be visible, seen by everyone, and unverifiable – it must operate independently of whether there is an enforcer or inspector present at all times.

While the Panopticon was designed for prisoners, today's surveillance society has extended its function to society as a whole: for how else can we describe the preponderance of the all-seeing CCTV cameras across not only public buildings and banks, but also in shops, squares, open spaces, train platforms, airports? Knowing that we are watched, we must behave ourselves: the visibility of power is evidenced in the ubiquity of cameras, whereas we almost never see the enforcers, the inspectors behind the cameras, those whose job it is to watch us all the time. The very idea of the Panopticon, argues Foucault, is an ideal form of power, and as such it was destined to spread in society, as it makes power more efficient. Its main principle is that people internalize the surveillance and behave in ways that conform to the requirements of power, and the result is not so much a repressed and conformist society, but rather a society whose individuals have been constituted as subjects/objects of surveillance. This means that they are constructed as subjects/objects for whom information can be, and is, collected on a constant basis, analysed, collated, processed, and even sold. In this manner, individuals are constantly (re)classified and assessed according

to the requirements of power. But it is crucial to see the changes in the mechanisms of power involved in the shift from the Panopticon, which was essentially an architectural device or implement of power, to late modern ways of surveillance that primarily use the media.

The social theorist Zigmunt Bauman (1999) argues that while the Panopticon created docile people to populate the factories of the industrial era and created an information asymmetry between the owners and controllers of production systems and labourers, current conditions have different requirements. In globalized informational capitalism it is no longer efficient to discipline labour from 'above'. Producing a docile labour force through discipline is no longer necessary as this labour force can be found everywhere in a globalized world. Rather than discipline, Bauman argues, the mechanism is seduction: introduce the stakes through televised broadcasts of celebrities and create new fantasies and new desires. The Panopticon is thus turned into a Synopticon which seduces people into watching. Specifically, Synopticon, a term coined by Thomas Mathiesen (1997), is taken to refer to a new technique of power, exemplified by the mass media, in which people are themselves turned into watchers: the many watch the few, but these few tend to be the global elites, movie stars and celebrities, politicians and star academics, in short, those in power and those whose statements are carefully repeated and all together convey a total way of life that is subsequently admired as the only or the most worthy way of life. Bauman's argument is that this technique of power, which is implemented by the mass media, legitimizes the current state of inequality through giving the impression of transparency and equivalence between the watched elites and the watchers. At the same time, it stifles any dissenting voices by propagating a certain lifestyle to be emulated and endorsed, in a bid to ensure conformity.

But while Bauman argues that the techniques of power have fundamentally changed under globalization, Mathiesen's (1997) original argument was that panoptical methods, in which the few watch the many, coexist with synoptical methods, in which the many watch the few. Similarly, David Lyon (2001) argues that these two work in tandem, complementing each other as mechanisms of control: for Lyon, the fact that the many watch the few legitimizes and justifies that the few can watch the many. But for Mathiesen, and Bauman, the rise of synoptical techniques takes place through the mass

media, and especially television, which allows the many to watch the few. The question, however, that emerges here concerns the role played by the new media, which may introduce a new dynamic. Indeed, the new media offer renewed possibilities for surveillance, intensifying the processes of watching. At the same time, the new media impose a new model of watching, which entails constant surveillance of one another – it's as if the Panopticon was outsourced to everyday people, who now act as constant watchers of one another. Mark Andrejevic (2004, 2005, 2007) has extensively discussed surveillance and its mode in late modernity, holding that recent developments have intensified and amplified disciplinary surveillance. He refers to a new kind of lateral surveillance, in which peers watch one another. Although this kind of monitoring existed in villages and other, older forms of social organization, new media technologies have introduced new modes of watching, and have made these available to many people. For Andrejevic (2005), this democratization of access to investigatory techniques is linked to the rise of risk and uncertainty: anything can happen at any time by anyone. This creates a general culture of insecurity and suspicion which in turn feeds into and sustains the techniques of surveillance. Andrejevic further argues that the spread of surveillance techniques among the general populace reflects broader shifts in governance, shifts that relate to the rise of neoliberalism. On the other hand, this constant watching of one another follows or has contributed to the tendency to dissolve the boundaries between the public and the private: in a world of 24/7 surveillance, there is nothing left hidden, no area protected from the Big Brother gaze. Indeed, the metaphor of the Big Brother, based on George Orwell's novel *1984*, has now become a reality; in television shows, on our computer screens, and in public spaces, we are subjected to others' gaze and scrutiny, while we too subject others to the same scrutiny.

Surveillance, the State and the Expropriation of Information

Summarizing these theoretical elements, we can see that surveillance can be direct and top-down (Panopticon), used to coerce people into conformity; or indirect (Synopticon), in which the many watch the few, implemented through the mass media, using seduction to ensure conformity and the legitimization of existing inequalities. While the former, argues Lyon (2003), results in a system of control through classifying and categorizing people, the latter contributes to what may be called 'soul training'. Based on Andrejevic's work, we can argue that the new media have introduced a new dynamic in which the many watch the many: through the popularization of the new media and associated techniques of surveillance (including digital web-cameras, but also Google Earth, following people's accounts on Twitter, Facebook and the like, and through search engines and mobile phones) we can collect information on others, and they can collect information on us. This lateral surveillance supports and amplifies the previous two forms while intensifying further the functions of control, classification and wilful subjection to power. But apart from the clear socio-political implications here, which include loss of privacy, constant suspicion and a generalized sense of insecurity, surveillance has another dimension as well. This concerns the commercial exploitation of the information that is collected. Information is not only used for purposes of classification and social control, but also bought, sold and otherwise capitalized upon.

As we use supermarket fidelity cards, as we shop on e-shops such as Amazon, as we download music from iTunes or vote on talent shows using our mobile phones, we generate more and more information. These data are subsequently collected and used to create massive databases, which are then bought and sold. These databases are used to inform marketers of our choices, tastes and preferences, enabling them to sell or market products and services in more efficient ways. Often unbeknownst to us, the data trail we leave behind is used to classify us, to include us in certain categories, which are then used to inform production, marketing and the distribution of products and services. This commercial use of such data means that information that previously had no owners is now someone else's property.

Already Facebook and Twitter are making money by selling 'analytics' – demographic information combined with user online behaviours – which they collect on the basis of what their users disclose and how they move within these applications. This is raising serious questions regarding information ownership, privacy and exploitation. More broadly, it questions the rhetoric on the rising power of the user, a rhetoric that has dominated the debate since the introduction of Web 2.0. In taking control over the information that we, the users, produce through our media use, new cleavages and new power structures emerge, while more and more domains of life become commodities to be bought and sold. Information is collected by a few private companies, resulting in what Andrejevic (2007) has called a 'recentralization' of information. While those controlling the massive databases that have been created are private companies, they make information freely available to national security agencies, compromising activism as well. What is worrying here is that, until recently, surveillance techniques were controlled by governments, which, whatever their failings, at least represent the broader public and act on its behalf. Now, surveillance techniques have become the property of private companies, who operate for profit: more and more control and power is ceded to them, leaving less space for the public, the non-commercial and the common to operate freely.

But it is not that corporate surveillance has replaced state surveillance: far from it. In June 2013, whistleblower Edward Snowden revealed the extent of the surveillance being undertaken by the US National Security Agency (NSA), through its PRISM programme, providing details of the extensive and illegal surveillance of internet communications and that the NSA has direct access to the servers of Facebook, Google and Apple (Greenwald, 2013). According to Snowden, the NSA and other security agencies collected metadata on all communications by default – that is, they collected information on the who, what and when of all communications (Poitras and Greenwald, 2013). The agencies subsequently filter, measure and store this information for as long as it fits their purpose. The revelations sparked a debate over the US government's actions, and the legal aspects of accessing and storing this information without warrants, probable cause and the knowledge and consent of users. The fallout had an impact that was both domestic, in the US context, and global, as the PRISM programme targeted non-US citizens and spied on US allies. For example, it spied on the German

Chancellor Angela Merkel, the Mexican leader Enrique Pena Nieto, and Brazilian President Dilma Rousseff, and it also spied on Chinese computers. The main points of the debate regarding the NSA revelations include: (1) the extent to which any government should be allowed to have access to private communications, (2) the data trail that people leave as they communicate online, and (3) who stores, owns and has access to this trail.

Briefly unpacking these points, the increased securitization, itself an outcome of the War on Terror but also connected to the rise of a risk society (Beck, 1992), has led to a confused ethical landscape where personal freedoms and rights can be compromised in the name of security. Thus, internally and later in the relevant hearings, the NSA justified its actions on the basis of protecting from and pre-empting future terrorist hits. The case remains, however, that such actions can be seen as unconstitutional, at least when US citizens were concerned, and unethical, when citizens of other countries were involved. The legal justification for the surveillance hinged on the notion of metadata: while the content of personal communications clearly falls within the remit of the Fourth Amendment, requiring probable cause and a warrant, this is not so clearly the case with metadata, as these concern information about the communication but not the contents of the communication *per se*. On the other hand, metadata reveal so much information that they render the actual content redundant. At the very least, these revelations alerted users to the digital trails their communications leave behind, and how both governments and corporations make use of this trail and the data it generates for their own purposes.

In parallel, the revelations that the NSA had access to the servers of corporations such as Google, Facebook and Apple implied that these organizations either worked with the NSA or that their security systems had been compromised. All the corporations refuted claims of collaboration with the security agencies, and following some high-profile hacking incidents – most notably of Apple's iCloud – they moved towards stronger encryption systems that would not allow for any kind of backdoor access, either by governments or by the corporations themselves. Nevertheless, the move towards strong encryption is resisted by the security agencies, which consider that they must have a way into private communications in order to save lives. The debate has acquired a new momentum following the terrorist attacks in

Paris in November 2015, although there is no evidence that encryption played any part in organizing these attacks. Yet security experts warn that any 'backdoor' access to people's communications can be exploited by hackers and other malicious agents (Sneed, 2015).

The main issue underlying these revelations and the question of surveillance is the right to privacy. Given that the technology allows our data to be accessed and stored by third parties, what remains of the right to privacy? And, as the security agency discourses argue, why should we worry if we have nothing to hide? Most countries have adopted complex data protection legislation, which has to balance the right to privacy with the ability of corporations to monetize data and governments to intercept malicious communications; in most cases this balancing act is imperfect and often the right to privacy ends up being compromised. As for the 'nothing to hide' argument, Edward Snowden's retort in a Reddit Ask Me Anything session in May 2015 addresses this very effectively: 'Arguing that you don't care about the right to privacy because you have nothing to hide is no different than saying you don't care about free speech because you have nothing to say' (Snowden, 2015). There is clearly a political component involved here and some of the threads of this discussion will be picked up in the next section.

To conclude, it is worth noting that in some ways, submitting to this constant monitoring in all its forms is seen as participation – we are doing it willingly, because we want to be part of the online networks and to take advantage of what they offer. But this kind of participation under conditions such as those described above, argues Andrejevic (2007), is a kind of unpaid immaterial labour (see also Chapter 3; Fuchs, 2013), as we produce even as we surf the internet, use our phones, update our social networking account, or download music. Both aspects of new media surveillance, which include the loss of privacy and generalized suspicion as well as the expropriation of information by private companies (Schiller, 2007), are commensurable with neoliberalism. This ideology revolves around ideas of deregulation and privatization (Murdock and Golding, 2001) and is also associated with an emphasis on individual self-regulation and assumption of responsibility for everything – ultimately, this heightened individualism ends up eroding the connections and bonds between people that make up society. From this point of view, surveillance of the many by the many (the lateral kind), which is

precisely a reflection of this kind of neoliberalism in that it represents surveillance that has passed on to individuals themselves, ends up undermining the societies in which we live. If in general we can argue that the flip side of online participation is surveillance and control, then for as long as we – not as individuals but as the public – refuse to take control of the information we generate, this dark side will remain.

Politics: Cyber-conflict, Terrorism and Security

In our discussion of politics and the new media, we argued that the new media entail important political promises for more democracy, and a more just and equitable distribution of wealth and power. Such a promise for more democracy also entails improvements in the lives of all people across the world. While being critical of utopian approaches that considered that new technologies will cure all political evils, we must not overlook the positive potential of more engagement by more people, which may result in important democratic gains. From this point of view, it is surprising that two profoundly problematic political phenomena are encountered in online and other new media environments. These include cyber-conflict and -terrorism. The former may be defined as real-world conflicts that spill over to cyberspace (Karatzogianni, 2004), while cyber-terrorism is understood as politically motivated attacks against information systems that result in violence against non-combatant targets, and which are undertaken by sub-national groups or clandestine agents (Curran, Concannon and McKeever, 2008). Extending this definition, we can also include here the ways in which terrorist groups have used new and social media to their advantage. Both cyber-conflict and cyber-terrorism may be considered problematic, if not inherently undemocratic, because they involve violence and the imposition of the will of the few against that of the many. From this point of view, they do not include cyber-activism, which is primarily aiming to change and influence public opinion. Rather, as Karatzogianni (2004) argues, in cyber-conflict, antagonists use the internet as a weapon, which is hurled against others. In this section we will discuss some of the methods and effectiveness of the internet when used as a weapon.

Karatzogianni (2004, 2006, 2009) situates cyber-terrorism primarily within the frame of ethno-religious (cyber-)conflict, and holds that its main methods include hacking enemy sites and creating/managing sites for propaganda and mobilization. To these we can add the use of the internet to distribute terrorist know-how on using bombs, explosive devices and so on, while another use

includes soliciting financial support. More recently, a lot has been made of the use of social media for 'radicalization' (i.e., for the recruitment of followers) by terrorist groups such as the so-called Islamic State or Daesh. In what follows we will attempt to unpack the relationship between war, terrorism and new media.

Hacking and/in War and Conflict

Hacking, also referred to as information warfare, uses information technology tools to attack enemy websites. It uses the standard methods employed by hacktivists, but to different ends. These include distributed denial-of-service (DDoS) attacks, as well as Domain Name Service (DNS) attacks (see Karatzogianni, 2004). In the case of DDoS attacks, websites are prevented from working because they are flooded by a very high number of page requests, usually by 'zombie' machines. In DNS attacks, the domain name is severed from its numerical address, preventing users from accessing the site. While these are methods used by hacktivists for purposes that are considered to be more acceptable because they are primarily symbolic, in cyber-conflict and cyber-terrorism in particular, two more malicious methods are used as well: the spread of worms and unauthorized intrusions (Karatzogianni, 2004). Worms may enable hackers to gain control of computer accounts, turning them into 'zombies', which operate without the owners' knowledge and approval. Unauthorized intrusions into computer systems are perhaps the most widespread form of hacking in the popular imagination, spread through films in which hacker-geniuses break into top-secret super-computer systems such as that of the US military, NASA, etc. Through their illicit actions, such hackers can get access to top-secret information or otherwise sabotage the system.

These methods can work together as well as separately, and are quite effective weapons in cyber-war. In some cases, they can even herald hostility and forthcoming war. In the summer of 2008, some weeks before the conflict between Georgia and Russia escalated into an armed one, there were extensive reports of DDoS attacks against Georgia (Markoff, 2008). Observers noticed a stream of data directed at Georgian government sites with the message 'win+love+in+Russia'. These attacks effectively shut down Georgian servers, while the Georgian President, Mikheil Saakashvili, saw his website being attacked and rendered inoperable for 24 hours. In response, the presidential site was moved to Atlanta, in the US state of Georgia, to be hosted by Tulip Systems, a company run by a Georgian ex-patriate. In other hacking attacks, just as Russian troops entered South Ossetia, DDoS attacks crippled media, communications and transportation sites, as well as the

National Bank of Georgia site (Markoff, 2008). The result, argues Markoff, was that throughout the attack, Georgia effectively had no internet connection and could not communicate with possible sympathizers abroad. Although those responsible for the attack were never identified, sources cited by Markoff point the finger at Russian nationalists. A group under the name of South Ossetia Hack Crew has claimed responsibility for defacing the Georgian Parliament website with image collages comparing Georgian President Saakashvili to Adolf Hitler (Leyden, 2008). In the meantime, the website of the South Ossetian government was attacked in August 2008, hours before being attacked by the Georgian artillery, while the Russian news agency RIA Novosti was also hit by a DDoS attack. In a combined DDoS and DNS attack in January 2009, the Central Asian Republic of Kyrgyzstan was knocked offline for more than a week, reportedly by Russian cybermilitia (Googin, 2009). In many ways, this kind of cyber-war represents the escalation and/or spillover of conflicts into cyberspace.

Two further examples show the ways in which new media have been put to the service of war. First, the high-profile hacking by the Syrian Electronic Army and, second, the development of Stuxnet. According to Al-Rawi (2014), the Syrian Electronic Army (SEA) is better understood not as a hacking group but as a cyber-warrior group. Its members describe themselves as non-aligned politically, but all their attacks and the rhetoric they use in their website and social media accounts support Bashar al-Assad. Al-Rawi (2014) holds that the SEA was initially hosted by the Syrian Computer Society, which was headed by Assad. He further argues that such activities could not take place in government-controlled areas in Syria without the government knowing and approving of them. The SEA has two objectives: to counter the impact of Syrian oppositional groups and to draw attention to the official Syrian version of events (Al-Rawi, 2014). Their method is simple: they hack into the sites of well-known and high-profile targets and then post the defaced sites on social media. Their targets have included universities (UCLA and Harvard), news media (Reuters, the *New York Times*, The Onion, ITN News, Associated Press and others), high-profile social media accounts (e.g., hacking into the Facebook and Twitter accounts of President Obama and redirecting them to a propaganda video) and military sites. In the summer of 2015 they hacked into the US Army's public website, leaving a message that read: 'Your commanders admit they are training the people they have

sent you to die fighting' (Vinton, 2015). In another high-profile hack in 2013, they hacked into the Twitter account of Associated Press and posted the following tweet: 'Breaking: Two Explosions in the White House and Barack Obama is injured.' Fisher (2013) claims that this hack led to a $136 million dip in the US stock market, making the case that this was not merely an act of vandalism but an act of cyber-terrorism since it led to real-world damage. The Syrian Electronic Army is also significant because of its attacks against media and against social media sites; their methods, which are not limited to DDoS through zombie computers, also include 'phishing' and other espionage methods, point to a thorough knowledge and understanding of coding and information infrastructures. Symbolically, this electronic army is a very useful branch of the Syrian army, and it is clear that no modern army or military group can operate without such an electronic counterpart. This is even more clearly illustrated in the case of Stuxnet.

Stuxnet has been discussed as a pivotal moment in the development of cyber-warfare, a cyber-weapon purposely built in order to destroy enemy infrastructure (Langner, 2011). In brief, Stuxnet is a computer program that was developed in order to infiltrate and disable the Iranian nuclear facility in Natanz. It works by entering a computer and reprogramming it. Effectively, in 2010 Stuxnet managed to enter the programs that controlled the Natanz nuclear plant and sabotaged their centrifuges. The key issue with Stuxnet, argue Farwell and Rohozinski (2011), is not its technological sophistication – Stuxnet was not particularly innovative and was easily disabled – but the movement to a new form of war which is conducted entirely online. While it is not clear where Stuxnet originated, its code suggests some involvement of Russian hackers, who have used similar instruments in the past for the purposes of industrial espionage (Farwell and Rohozinksi, 2011). Farwell and Rohozinski (2011) claim that this kind of cyber-attack represents the first of its kind: using off-the-shelf and deniable resources from the global cyber-crime community, the actual source of the attack can remain hidden and avoid retribution. If Iran felt it was attacked by an enemy, it cannot prove its case and cannot retaliate. In 2012, however, Iran found a computer virus, which they called 'Flame', that was collecting intelligence on their nuclear plants (Nakashima, 2012). It later transpired that Flame shared its basic 'DNA' with Stuxnet, leading to speculation that the US and Israel had colluded in developing and planting Stuxnet (Nakashima, Miller and Tate,

2012). Whatever the case, Stuxnet indeed represents a new phase, wherein states are themselves involved in the production of malware that is being used as a weapon to attack significant infrastructures.

New Media as Communication Tools in War and Conflict

The use of the new media in propaganda has often had disturbing consequences. In 2007 a video of a girl being stoned to death by a mob surfaced on the internet. The girl was 17-year-old Du'a Khalil Aswad, of Kurdish ethnic origin and Yazidi religion, who was stoned to death in an honour killing in the Iraqi-Kurdish town of Bashiqa because she had eloped with a Kurdish Muslim boy. This video was replayed in various Islamic and jihadist forums, which reframed it as a crime against Islam, on the basis that the girl was killed because she had converted to Islam, subsequently calling for some sort of retaliation and revenge. This came in April 2007, a few weeks following Du'a's death: several cars full of gunmen stopped a bus of factory workers returning to Bashika, abducting all the men of Yazidi faith and executing them (Cockburn, 2007). Although there is no possible way in which to link the video with the calls for retaliation with the actual executions, we may place it in a context in which offline conflicts continue seamlessly in an online environment. Similarly the many videos of, for instance, Palestinian children in Gaza or images in war-torn Iraq and Afghanistan, may not contribute directly to the radicalization of young Muslims and others, but must be seen as part of the wider conflict and, as such, as tools in the effort to recruit more supporters (Hoskins, Awan and O'Loughlin, 2011). The processes of radicalization through social media are complex and have not yet been fully unravelled. This is discussed in more detail in the case study below.

Finally, this is the broader context in which we must place other techniques, such as use of the internet to distribute know-how and other kinds of practical knowledge. Manuals, how-to lessons, as well as detailed instructions are available online to guide prospective terrorists, while terrorists use the internet to make financial transactions, either through money laundering (Castells, 2004) or through seeking donations. Levitt (2002) reports that in 2001 a British internet site called the Global Jihad Fund (GJF), which openly associated itself with Osama Bin Laden, provided bank account information

for various Islamic fundamentalist fronts and groups to 'facilitate the growth of various Jihad movements around the world by supplying them with funds to purchase their weapons' (posted on GJF's site). Ariely (2008: 9) reports that terrorist organizations must be seen as 'learning organizations' involved in knowledge transfers, including communication and economic, scientific and practical information and knowledge. The Islamic State or Daesh has also been known to solicit donations through Twitter and Facebook, but the US Treasury has taken steps to disrupt and stop such activities (Sink, 2014).

We can see, therefore, that the use of the internet in cyber-conflict can be very effective: it can be used to initiate events and control their outcome, as in the case of DDoS and DNS attacks; it can be used to regulate the flow of information, as in the propagandistic uses discussed above; and it can be used to mobilize support, both in the form of new recruits and in seeking donations. From this point of view, the internet is indispensable in modern cyber-conflict. More broadly, the use of the internet in cyber-conflict and cyber-terrorism provides, it seems, a good example of the mutual shaping of technology and society-politics. In a world which is riddled with conflict, technology can neither be seen as neutral nor as imposing its own logic of efficiency. Rather, it seems that new technologies are shaping some of the forms this conflict takes, which are now organized around distributed networks, using sophisticated technological tools, and mobilizing support from across the world. At the same time, the spillover of conflict in technological domains gives rise to antagonistic, aggressive and destructive technological practices. New technologies must therefore be seen as part and parcel of the current world order, actively shaping it while also being shaped by it.

Case Study Online Radicalization

In 2011, Arid Uka, an Albanian Muslim living in Germany, shot and killed two US servicemen on a bus in Frankfurt. Uka had no connection to terrorist groups and no past or present that could indicate any terrorist involvement. When the police studied his internet history, they put together a picture which showed a gradual progression from an initial interest in jihadi content to a growing fascination and eventual engrossment. A few hours before the shooting he had watched a video showing a purported rape of a Muslim woman by US soldiers, leading Weimann (2014) to argue that there is a direct connection between material on social media and radicalization. In February 2015, three teenagers from Bethnal Green in London ran away in order to go to Syria and marry ISIS fighters. The issue of 'jihadi brides' caused considerable anxiety and foregrounded once again the role of social media. These young girls were groomed online through Facebook, Tumblr, Twitter and peer-to-peer social media such as Skype and WhatsApp. In a nuanced account, Nacos (2015) argues that the relationship between social media and radicalization is a complex one, and that especially for 'jihadi brides' one has to take into account the role of gender. For Nacos, research into this topic should examine the role of social media through the lens of parasocial interaction (Horton and Wohl, 1956) and understand young women as a kind of fan community. Furthermore, Sage (2015) draws attention to clear parallels between moral panics on other forms of media, such as television, and panics regarding social media: in the 1980s the UK government banned the voice of Gerry Adams, the leader of Irish Sinn Fein – the political arm of the IRA – from being broadcast on British media for fear of 'radicalizing' or encouraging terrorism. However, if the links between terrorism and media were so clear, then why is it that radicalized persons remain a very small minority of those exposed to them? Do we in fact have any evidence for a correlation between terrorism and social media?

Gill, Corner, Thornton and Conway (2015) argue that existing research on online radicalization suffers, first, from a lack of empirical evidence (which tends to be anecdotal) and, second, from conceptual confusion, as radicalization includes a wide range of online behaviours, from accessing jihadi material to detailing attack plans online. Moreover, Gill et al. (2015) point to the surprising lack of criminological inquiries into this area, although there are established and useful paradigms. Lastly, the literature makes no distinction between different ideological groups, for example Islamic extremists and right-wing extremists. In their own work, Gill et al. (2015) examined the online behaviours of convicted terrorists in the UK and found that in fact the internet did not increase terrorism but mostly played a role as a facilitating tool. They call for a disaggregation of terrorist-related activities and groups. For

example, they found that extreme right-wing terrorists were 3.39 times more likely to learn online than those who had committed al-Qaeda-related crimes. Moreover, right-wing extremists were four times more likely to use online materials in preparation of a violent attack. However, Gill et al. point out that online learning for violent attackers was much more likely to be accompanied by face-to-face interactions with non-violent co-ideologues. In other findings, they report that those targeting property were twice more likely to communicate online, while those targeting the military were less likely to communicate online. In short, these authors conclude that disaggregation, in terms of ideology and actual behaviours, offers a more nuanced understanding of the relationship between new media and terrorism. They also refute the existence of a dichotomy between offline and online behaviour, arguing instead in favour of a continuum along which offenders move on the basis of the kind of activity they are plotting. This kind of empirical research shows that any kind of blunt policy instrument (e.g., mass surveillance) is unlikely to prove helpful. More nuanced and targeted intervention is necessary in a variety of domains – schools, neighbourhoods and online environments.

Recently, social media corporations, alongside several authors and policy makers, have focused on the production of counter-narratives, aimed at taking apart terrorist and hate messages. Bartlett and Krasodomski-Jones (2015) studied the creation and effectiveness of bottom-up attempts to counter hate speech and extremist ideology, concluding that community-based counter-speech may constitute an important tool in the fight against extremism. Archetti (2015), however, is quick to note that just as no single narrative can trigger a terrorist act, no single communication can counter hate and terrorism. Rather, she argues that the whole communicative environment needs to be taken into account, looking at specific communities and individuals, their identities, their significant and relevant others, opinion leaders, and so on. In the end, she argues, 'a community-based approach and close attention to the consistency between our narrative (words) and our policies (deeds) are in the end the most effective tools against extremism' (Archetti, 2015: 56).

Economics: Fraud and Deception

While in cyber-conflict we discussed attacks aimed at political targets, the economic dimension reveals a wide arsenal of cyber-tools aimed at defrauding and deceiving people for monetary gains. The relationship between new media technologies and economics was discussed in [Chapter 3](), in which we placed developments in the context of informational capitalism. In this section, however, we will focus on the underbelly of online economics, which shows its vulnerability to attacks motivated by financial gains. Ranging in sophistication from email scams to trojans and other high-tech tools to defraud, one thing is for sure: online fraud is here to stay and it proliferates even as we speak. To understand the range of this kind of crime and the role of new technologies, this section relies on a crucial distinction between cyber-enabled and cyber-dependent crime. In theoretical terms, the main argument here is that although fraud has always been a part of capitalism, its online counterpart is linked to developments concerning the erosion of trust and the rise of risk, thereby feeding into other 'dark' developments, such as surveillance and conflict.

Cyber-enabled and cyber-dependent crime

In their work reviewing evidence for cyber-crime, McGuire and Dowling (2013) make a distinction between cyber-dependent and cyber-enabled crime. Cyber-dependent crime refers to new forms of crime that can only be committed through a computer and/or through access into networks. The main types of cyber-dependent crime are hacking, DDoS attacks and the spread of viruses. In contrast, cyber-enabled crime refers to traditional crime that can increase in scale or reach – mainly including fraud and theft. This section will outline some of the varieties and instances of these two broad categories of crime and will seek to discuss some of their consequences.

As we saw earlier, hacking and DDoS attacks, as well as the construction of viruses, can be used politically; they can play an important political role symbolically and materially. However, we will focus on the criminal use of these, which are mobilized in the service of personal gain for the instigators. Hacking into computer networks to release information can have important political consequences, even if it is an illegal act, but hacking into personal or corporate accounts in order to access people's bank accounts is motivated by financial gain.

Several high-profile hacks have been documented in the last few years, resulting in significant losses for banks and companies, which are then likely to be passed onto customers. While such attacks are not uncommon, companies that have fallen victim are reluctant to make the attacks public because of the loss of customer confidence. There is therefore a tendency to downplay the intrusions and their impact. Examples of high-profile hacks include the Target hack of 2014, which saw hackers obtain details of 70 million Target customers and in which 40 million credit and debit card details were compromised (Perez, 2014). In the UK, an estimated 157,000 customers of the telecoms company TalkTalk had their credit and bank details stolen when the company was hacked in 2015, resulting in a massive loss of profit and customers (BBC, 2016).

The spread of malware is the main form of cyber-dependent crime. The three main types of malware include viruses, worms and trojans. Viruses are self-

replicating programs that spread between computers but which require human action to trigger them – users have to open a file that is infected by a virus. Viruses can lead to significant destruction in computer systems and loss of files and data. In contrast, worms do not need a host and can spread through accessing websites or networks, peer-to-peer file exchange systems, and so on. Worms can then cause disruption or they can control computers remotely, stealing personal information or turning computers into 'zombies', which can subsequently be used for DDoS attacks or to send spam. Unlike viruses and worms, trojans are not self-replicating but look like legitimate files that users are tricked into downloading and executing. Trojans are used for similar purposes as viruses and worms, to gain access to personal data, including online banking passwords and other information in users' computers.

Cyber-enabled crime can be more low-tech, though there are increasingly sophisticated variants. Early scams, such as the 419 scam, named after Section 419 of the Nigerian Criminal Code (Capp 777 of 1990) that prohibits advance fee fraud (Longe et al., 2009), still exist, alongside more sophisticated attempts to entice users to part with their passwords or other sensitive data. Phishing, spoofing or pharming are all different kinds of scams used to get passwords, card or other details. In most cases, this type of fraud relies on social engineering methods, which take advantage of people's trust or belief in authority, use urgent calls for help or winning notifications to exploit people's curiosity, and so on. One of the most common forms of cyber-enabled crime affects e-commerce, where customers use their credit cards without being present in person. Such fraud may use fake websites to get credit card numbers, sometimes mimicking well-known sites or offering bargain prices for luxury goods. These types of fraud proliferate despite the increase in awareness and the widespread use of verification systems and other means of fraud detection.

While these two categories of crime are analytically distinct in practice, they can be combined. For example, fraudsters can use the telephone to get computer users to download a virus, and then hold them to ransom, asking them for money to return their files and data. The proliferation of all kinds of cyber fraud has an enormous cost. A recent study by Juniper Research estimates that the cost of these crimes will rise to $2.1 trillion by 2019, as e-commerce grows and as new forms of payments, for example through

mobiles, are introduced (Juniper Research, 2015). Fraud and the threat of fraud have also given rise to new ways of managing these, so that, for example, the cyber insurance industry is expected to grow from $2.5 billion in 2015 to $7.5 billion by 2020, while projections for the growth of cyber-security products and services estimate a rise from $75 billion in 2015 to $175 billion by 2020 (Morgan, 2016).

Risk, Trust and Security: More Surveillance?

On a more abstract level, this kind of economic fraud and deception seems to link directly with other 'dark' aspects, such as that of surveillance and control. In proliferating the methods of deception, the new media have fed into the erosion of trust, one of the key characteristics of the risk society. Ulrich Beck, who coined the term 'risk society', summarized neatly the relationship between risk and trust: 'The discourse of risk begins where trust in our security and belief in progress end' (Adam, Beck and van Loon, 2000: 213). In these terms, hearing and learning about such fraud and scams damage our trust in the system and raise the risk associated with online environments. The upshot is that we more than welcome attempts to police such environments, and are prepared to submit to methods of surveillance 'for our own protection'.

The other side of the same coin is that eventually such fraudulent behaviour may actually lead to open conflict. We must keep in mind that although the above discussion was focused on individual victims of fraud, there is another more dangerous world of online corporate fraud, which includes industrial espionage and corporate identity theft. Indeed, by spoofing authentic websites, and by scamming individuals who then pass on the costs of fraud to their insurance or to their banks, firms are already involved in online fraud. But there are cases of firms becoming involved in fraud not as victims but as perpetrators, using online means to spy on their competitors. By far the largest and most interesting case is the Google versus China affair that took place in late 2009–early 2010. When Google decided to enter China in 2006, it promised to abide by the Chinese rules of the game, which included censorship of certain politically sensitive keywords and sites – a practice known as the Great Firewall of China. This led to Google receiving a lot of flak from people who thought that Google was selling out for profit the internet cyber-libertarian principles of freedom of information. Given Google's compliance with the Chinese government, we can only imagine their surprise when in December 2009, Google fell victim to a cyber-attack that was subsequently linked to China. The attack, which contained code linked to China, is said to be of the Aurora or Hydraq trojan kind, which gives hackers the possibility to run commands on the hacked computers,

allowing them to download files and other information stored therein (McMillan, 2010). While the hack attacked other US corporations as well, Google took the attacks personally. It responded immediately by making the attacks public and when, in January 2010, the attacks were openly linked to China, the US government via its Secretary of State, Hillary Clinton, called for a thorough investigation into the matter. On 22 March 2010, Google decided to effectively leave China by relocating to Hong Kong and exiting the Great Firewall. The decision, which involves economic and strategic losses for Google given the size of China's market, also reflects an internal dilemma for Google, as Sergey Brin, one of its founders, is a vocal advocate for freedom of speech (Johnson, 2010). On the other hand, more recent evidence suggests that Google has never in fact left China: Google Analytics, which obtains data on websites' traffic and visitors, was found to operate beyond the Great Firewall, collecting and transmitting analytics on Chinese websites (Repnikova and Libert, 2015).

Another side of this conflict reveals the tensions involved: in April 2015, Google decided to refuse to recognize security certificates issued by the China Internet Network Information Center (CNNIC), China's internet authority, which means that users of Chinese sites will be given a security warning message (Kharpal, 2015). This shows that while Google may be prevented from accessing the Chinese market, it can retaliate by preventing or obstructing access to Chinese websites from elsewhere in the world. This case represents an increasingly complex situation unfolding in cyberspace: an intermingling between strategic and political interests, technological know-how, and high economic stakes. In this sense, it is not strictly speaking a case of fraud or deception, but it involves the mobilization of technological know-how for economic and political purposes. While China seeks to control the access of its citizens to cyberspace, the US is seeking to consolidate its position as a global leader in human rights advocacy and protection, and Google to protect its reputation and 'Don't be evil' mantra as well as its commercial interests. At the same time, some see China as being involved in industrial espionage in a move to ascend into a higher position in industrial design and production (see, for instance, Homeland Security Newswire, 2010a). All these cases show the inevitable cross-overs between economics and politics but also directly feed into other practices, such as increased surveillance and control. For example, as soon as Google realized it was

being hacked it contacted the US National Security Agency (NSA) in order to draft an agreement which includes data sharing between the two organizations (Homeland Security Newswire, 2010b). This may involve Google handing over data upon NSA requests, and these data may include personal emails and other personal information. From this point of view, political cyber-conflict and economic cyber-fraud and espionage feed directly into practices of surveillance and control over cyberspace. Is this the case for 'dark' cultural practices? We will examine this question in the [next section](#).

Culture: Online Porn

This discussion must begin with a short justification of the rise of online pornography as one of the negative outcomes of the new media. Pornography has had a long history of being debated within feminist circles as well as more broadly in society: Might not porn just represent a human tendency towards appreciation of the erotic? Must we always view women as victims, when some sex workers themselves feel they are in control of their sexuality? What about issues of freedom of speech? These are debates that have not been resolved, and are not likely to be in the near future, but the internet and the new media have in some ways exacerbated these dilemmas by making porn freely available in online environments.

Paasonen (2010) found that estimates of the prevalence of online porn vary considerably, ranging from 3.8% to 80% of all internet traffic – the variation is attributed to the different times as well as the different agencies involved in the measurement. Thus, in the early–mid-1990s, online porn was more prevalent, while in later years, with a wider demographic using the internet, the numbers fell. Similarly, filtering software sites or conservative family organizations tend to exaggerate the incidence of online porn, often making no distinction between erotic poems, hardcore porn and sex education (Paasonen, 2010). Moreover, online porn-related content may range from extreme sadomasochist (SM) and violent porn to alternative erotica, referred to as altporn (Attwood, 2007; Paasonen, 2010), and porn catering to diverse sexualities, queer, alternative body types, and so on, referred to as netporn (Jacobs, Janssen and Pasquinelli, 2007, in Paasonen, 2010). Finally, the production of online porn may range from professional and commercialized to artistic and writerly, and may include user-generated amateurish porn content, as found in YouPorn, the pornographic version of YouTube. The extent of this variety in prevalence, content and production makes any generalized conclusions regarding porn difficult.

But it should be clear that not all of these categories may be seen in negative terms. This section is concerned with online/new media-related practices that introduce a negative, exploitative dynamic that may disrupt and otherwise

dislocate flows of culture and cultural expression. In this instance, this translates to a disruption of broadly accepted cultural conventions on sexuality, and/or the cases in which people are seriously harmed in both a physical and an emotional and psychological manner. Thus, while porn is often linked to moral panics (Kuipers, 2006), the exaggerated view that it always leads to sexism or violence against women or that it undermines the morality of the family is not warranted by all porn content. On the other hand, there are instances of extremely violent and disturbing pornography in which people are clearly exploited. It is this kind of exploitation that places online porn in the 'dark' side of cyberspace. In a sense, this is a modified form of Catharine MacKinnon's *mala in se* (evil in itself) argument that pornography is violence against women, and that women are coerced into this exploitative industry. From this point of view, we will discuss violent and paedophile porn as two instances of problematic porn, and examine its articulations with the new media.

In April 2003, police in West Sussex, UK, discovered the body of a 31-year-old music teacher, Jane Longhurst, who was strangled with a pair of tights. Her body was hidden for weeks before it was found. In March 2004, Graham Coutts was convicted of her murder and sentenced to 26 years in prison. Coutts, a 35-year-old musician, admitted he had a neck fetish and that he had used internet porn sites involving asphyxial sex and strangulation for about eight years (BBC News, 2004). During his trial it emerged that 86% of the pornographic images found in Coutts' computer were violent, often showing naked women with ligatures around their necks. The prosecution in the trial showed evidence that Coutts had visited websites advertising violent 'snuff movies' the day before the murder. Although there is no proof that violent porn led to this murder, the victim's mother, Liz Longhurst, campaigned against this kind of internet porn. She argued that the government must 'take action against these horrific internet sites, which can have such a corrupting influence and glorify extreme sexual violence' (BBC News, 2006a). Furthermore, Liz Longhurst argued that most women appearing in these images are not consenting adults, but trafficked and exploited women (in Murray, 2009). From this point of view, the production of such images is a violent crime. Although in the UK it is considered a crime to produce and distribute violent porn, new laws have made it illegal to possess images that are or appear to be violent or life-threatening and which may lead to severe

injury. Section 63 of the Criminal Justice and Immigration Act 2008 criminalizes the possession of images depicting violent sex, bestiality and necrophilia. While the extent to which this law is justified may be questionable, many see it as a necessary first step towards controlling and punishing violence against women (see Murray, 2009, for the legal arguments).

Another extremely disturbing case concerned Vanessa George, a 39-year-old from Plymouth, UK. George worked at a nursery, looking after children up to the age of four years old. In June 2009, George admitted 13 charges which included sexual abuse of children and making and distributing indecent images of children (BBC News, 2009). George had befriended an IT consultant and known sex offender, Colin Blanchard, and another individual, Angela Allen. She then began abusing children in her care, taking pictures of the abuse on her phone, which she would then send to her Facebook friends, Blanchard and Allen, who would do the same for George. There is no doubt that the new media have created new opportunities for child abusers, who can produce, distribute and download abusive images in mere minutes. Although the legal framework for this kind of activity exists, the internet's vast size and geographical spread make it difficult to control either the production or distribution of such images.

In yet another disturbing case, Ashleigh Hall, a 17-year-old British girl, was groomed by a Facebook 'friend' who pretended to be a teenage boy calling himself Peter Cartwright. 'Cartwright' published a photo of a handsome, bare-chested teenage boy, and befriended Ashleigh on Facebook, eventually exchanging text messages and making arrangements to meet in October 2009. In fact, 'Peter Cartwright' was Peter Chapman, a 33-year-old sex offender who lured Ashleigh into his car by pretending to be 'Peter's' father. He then raped and killed her, dumping her body in a gully by a fence. Chapman confessed the murder to police the next day and was eventually jailed for life. The murder prompted Facebook to issue a statement urging people not to meet anyone who has contacted them online unless they know them well, 'as there are unscrupulous people in the world with malevolent agendas' (BBC News, 2010). In this instance, a new medium allowed a predatory sex offender to contact and lure an innocent girl to her death.

A more recent practice that has emerged is that of revenge porn, where disgruntled former lovers send compromising pictures of their former partners to designated revenge porn sites or even to their family and friends. The impact on the victims is clearly immense, but more broadly, as Filipovic (2013) argues, revenge porn is a form of misogyny aimed at humiliating and degrading women, who are the main victims of this crime. Courts tended to agree with this view, finding that posting pictures without consent constitutes an illegal act. High-profile cases such as that of Kevin Bollaert in the US are seeking to turn the tide against such practices. Bollaert operated a site called ugotposted.com, which allowed anonymous postings of nude photographs without the consent of those depicted. He also operated another site, changemyreputation.com, where he charged victims in order to remove their photos. Bollaert was found guilty and sentenced to 18 years' imprisonment in 2015. Revenge porn is now outlawed in the UK and in some US states, but there are still ways that perpetrators can post revenge porn. In a variation of the crime, some people superimpose a victim's picture on pornographic scenes and then post this in social media. In a case that sparked anger in the UK, the police decided not to bring a criminal case against a 36-year-old man who had taken photographs of a 15-year-old girl from her Facebook account, superimposed them on explicit porn pictures, and posted them on a porn site where users can comment and rate them (Laville, 2016).

New Media and Sexual Aggression

In general, there is little doubt that new media technologies have created a new environment of opportunities for predators of all kinds. Donna Hughes (2002) argues that the articulation of new technologies with a broader ideology of sexism and violence against women create an explosive combination that leads to violence and other forms of sexual exploitation. This is happening either directly, in cases where women and other vulnerable groups such as children are coerced into having sex, are raped and assaulted, and then videos of these acts are sold or posted online for the gratification of others; or indirectly, through the mainstreaming of pornography, which in turn fuels more violence and exploitation. Hughes further attributes this to the proliferation of internet porn, which, she argues, intensifies competition leading to the production of even more extreme and degrading sex scenes. Equally, the new media have given rise to a massive growth of child pornography: older media, such as cameras and analogue videos, were expensive and difficult to use and reproduce, while the main distribution medium was 'snail mail'. The new media have revolutionized both production (digital cameras, scanners, phone cameras and other digital recording media being used to capture pornographic images of children) and distribution (the internet can reach an unprecedented number of people). Moreover, the new media have offered new opportunities to paedophiles to contact and groom children, who are sometimes accosted in chat rooms and asked to pose and send photographs, or they even try to meet them. Finally, pimps and traffickers use the internet to advertise their 'wares' and find customers.

The relationship between the new media and sexual aggression is therefore fourfold. First, it involves the actual physical and emotional harm of people who are filmed in extreme scenes. Second, it offers an unprecedented ease of production, distribution and access to extreme and violent porn. Hughes cites a consultant who says that before the advent of the new media, sexual predators had to remove themselves from their community by three levels: they had to physically go somewhere, then they had to know where to go, and then they had to know where to find the extreme images to meet the sensations they sought (Hughes, 2002: 139). Third, the proliferation of

extremely violent pornographic images may contribute to the rise in violent crimes against people, such as the kinds of rapes and murders we discussed above. Finally, the new media offer the opportunity to sexual predators to contact and groom vulnerable people in online environments such as chat rooms and social networking sites.

In other studies, researchers have highlighted the kind of cultivation effect that online porn may have on culture. Dines (2010) argues that one of the effects of the online proliferation of pornography has been the mainstreaming of porn, which in turn has important implications for how women and men understand and construct their sexualities. For Dines, online porn is a multi-billion industry that relies on the exploitation of those taking part in it and which reproduces dominant masculinist tropes of sexuality. Similarly, Atkinson and Rodgers (2015) view extreme porn as a site of cultural exception, which ends up denying the humanity of those depicted and any harm caused, while at the same time reinforcing hyper-masculinist socio-cultural values. Atkinson and Rodgers further make use of the notion of drift (Matza, 1967), which refers to the ways in which porn production and consumption move to even more extreme practices of cruelty and callousness over time.

Responses: Surveillance Once Again

The response to the kind of synergy created between the new media and sexual aggression and exploitation is in turn twofold. First, it takes the form of the development of a legal framework that addresses the challenges of the new media. Here, for instance, we can place the banning of the possession of violent porn images, as discussed above. Most countries also ban not only the production but also the possession and distribution of sexual images of children. Other developments include an amendment passed in 2006 in the UK Data Protection Act. This allows credit card companies to withdraw credit cards from customers who use them to purchase child pornography on the internet (BBC News, 2006b). The second form of response is a technological one. Special filters and tracking software have been developed with a view to protecting vulnerable people such as children from accessing porn sites, and in order to track consumers and users of online child pornography. Net Nanny, Safe Eyes, CYBERsitter and others are just some of the filtering software programs that have been developed with the specific agenda to prevent access to porn, but they may go further than this: they may allow parents to follow their child's activities on social networking sites, to prevent access to P2P (peer-to-peer) sites, to block chat rooms, and so on. In 2005, Microsoft Canada, along with the Royal Canadian Mounted Police and the Toronto Police Service, developed CETS (Child Exploitation Tracking Software), which allows police agencies to collect and process large volumes of information, and to cross-reference and use social network analysis to identify offenders. In March 2010, a US software program called the Wyoming Toolkit allowed police to cross-reference millions of illegal images being shared across the internet and create a map of users accessing and using these images (*Herald Sun*, 2010). Clearly, these responses, albeit helpful in containing to some extent the sexual abuse and exploitation of people, are part and parcel of the broader culture of surveillance and security in online environments. In these terms, safety relies once more on surveillance and monitoring.

Conclusions

This chapter explored some of the negative dimensions of the new media, revealing the disruptive or even destructive aspects of social, political, economic and cultural flows that can harm the bonds of society and/or persons. We have argued that these negative dimensions are not the result of the technology as such. Although surveillance, conflict, fraud and porn pathologies pre-existed the new media, their articulation with new technologies has given rise to new forms, opened up new avenues, and created new opportunities for disruptive and problematic relationships to operate. Some of these articulations are summarized in the box below.

We have seen the proliferation of surveillance and the appropriation of non-proprietary information; the rise of cyber-conflict and cyber-terrorism, which creates issues of security; the explosion of fraud and deception, which erodes trust and multiplies risk; and the spread of porn pathologies, which objectify and exploits human beings: all can be linked to a rising culture of control. As these forms spread and multiply, governments and people demand more protection and more control over the new media. This control more often than not takes the form of more surveillance, which in turn often takes the form of internalized self-control and the surveillance of others: friends, enemies and even our own children. This consequently feeds into feelings of insecurity and the erosion of trust, creating a kind of vicious circle from which it is difficult to escape. Moreover, all too often control translates into curbs on free speech and the invasion of privacy: is this a necessary trade-off to ensure safety? This is a pressing question that societies will need to address. For the time being, though, our discussion ends with the observation that the dark side is an inextricable part of the new media and one that we must at some point confront head on.

Summary of Main Points

Society

Surveillance:

- Panopticon: one watches many, e.g., CCTVs
- Synopticon: many watch one, e.g., the mass media culture, watching celebrities
- Lateral surveillance: we constantly watch each other, e.g., Google Earth, following people on Twitter
- We associate with other people in a context of mistrust and insecurity
- Information that was non-proprietary, i.e., belonged to none, is now commercially and politically exploited

Politics

Cyber-conflict and -terrorism:

- Distributed denial-of-service (DDoS) attacks
- Domain Name Service (DNS) attacks
- Worms and trojans
- Unauthorized intrusions (hacks)
- Contributes to an environment of increased risk and insecurity

Economy

Cyber-fraud and deception:

- Cyber-dependent crime
- Cyber-enabled crime
- Articulation of economic with political conflict, e.g., the Google China affair
- Feeds into more surveillance and demands for policing and control

Culture

Violent and extreme porn:

- New modes of production and distribution of (extreme) porn
- New categories, such as revenge porn
- New media allow sexual predators to groom vulnerable people online
- Internet violent porn may lead to actual physical violence, rape and murder
- People are actually hurt in the production of violent porn
- Increase of reach of legal controls
- Development of filtering and tracking software
- Both feed into culture of control and surveillance

Research Activity

The goal of this research activity is to help readers understand that online security is primarily a matter of self-control and limitation. Are readers aware of how much information can be collected about themselves? In this activity, readers are asked to imagine themselves as a detective trying to find information about themselves through whatever is available publicly. What kinds of information do they find? Are readers surprised by what they find? Will this have any implications regarding their future online behaviours?

Further Reading

The aim of selecting this list of articles is to explore the various dimensions of security, surveillance and safety as they emerge through our engagement with the new media. Greg Elmer's article highlights some of the new ways in which panoptic surveillance works through the new media, with users-consumers continuously supplying information which becomes immediately integrated into an information processing system, which then feeds it back to us. The results? Eventually, loss of differentiation and diversity as well as 'punishment' of any transgressive behaviour. On a somewhat different note, Giselinde Kuipers reminds us that some cultural elements that are considered dangerous by some are in fact quite acceptable to others. This social construction of digital dangers must be kept in mind before we embark on any kind of moral crusade. Combining insights from surveillance theories as well as taking into account the constructedness of many online threats, Torin Monahan's article, which looks at identity theft, shows that the neoliberal paradigm leads to more self-monitoring, surveillance and self-discipline. In the final article, O'Callaghan et al. show how the algorithmic regulation of online platforms, and specifically systems of recommendation, may be pushing users into more extreme positions.

Elmer, G., 2003, A diagram of panoptic surveillance. *New Media & Society*, 5(2), 231–247.

Kuipers, G., 2006, The social construction of digital danger: debating, defusing and inflating the moral dangers of online humor and pornography in the Netherlands and the United States. *New Media & Society*, 8(3), 379–400.

Monahan, T., 2009, Identity theft vulnerability: neoliberal governance through crime construction. *Theoretical Criminology*, 13(2), 155–176.

O'Callaghan, D., Greene, D., Conway, M., Carthy, J. and Cunningham, P., 2015, Down the (white) rabbit hole: the Extreme Right and online recommender systems. *Social Science Computer Review*, 33(4), 459–478.

7 New Media and Journalism

Learning Objectives

- To understand the crisis of journalism and its socio-political implications
- To gain knowledge of the relationship between the internet and journalism
- To learn about the changes in the production, content and consumption of news and journalism
- To develop a critical awareness of the future of journalism and the new media

Introduction

The rise of journalism in the eighteenth and nineteenth centuries as the Fourth Estate – alongside the other estates, Aristocracy, Parliament, and Church – signalled the rise of a more democratic social and political system in Europe and North America. While print journalism began life as a business, the business of selling news, it soon became a vehicle for ideology, opinion and political position taking. In *The Structural Transformation of the Public Sphere*, Jürgen Habermas (1989 [1962]) discusses the various historical shifts in journalism: the trade in news developed out of the system of private correspondences and for a long time publishers merely collected and organized news for a modest profit. In parallel to these early newspapers, 'men of letters' began publishing scholarly journals on the European continent and political journals and moral weeklies in the UK (Habermas, 1989 [1962]: 182). Habermas refers to this as 'literary journalism' – it was practised mainly by educated middle- and upper-middle-class men, who sought to publish their rational-critical reflections with the intention to educate readers. This kind of journalism did not make money and it was often financed by the authors themselves. Merging newspapers and literary journalism led to the creation of the editorial function in newspapers, which no longer limited themselves to reporting the news: they also sought to publish their opinions and comments on issues of common interest. The journalism that emerged had the function of being both a transmitter of news and an amplifier of public opinion: it continued in print the debates taking place in the various salons and it acquired an explicit political function. This was the principle of publicity which entails the subjection of political decisions and other matters of common concern to the public use of reason (Habermas, 1989 [1962]).

The third phase of journalism as a commercial enterprise took hold around the middle of the nineteenth century in Western Europe. This occurred because, on the one hand, constitutional rights had ensured freedom of speech and lifted excessive taxation, while on the other hand, the rise of advertising promised good investment returns. The former allowed the press to become less partisan while the latter allowed it to concentrate on the business

opportunities (Habermas, 1989 [1962]). Habermas quotes Bücher who argued that under these circumstances 'the paper assumes the character of an enterprise which produces advertising space as a commodity that is made marketable by means of an editorial section' (1917, in Habermas, 1989 [1962]: 184). This meant that the success of a newspaper in selling advertisements depended on the kind of editorial stance it assumed and the numbers and demographics of the readers it attracted. This, for Habermas, eventually led to the structural transformation of the public sphere, with journalism becoming the Trojan horse through which private interests invaded the public sphere.

While this is perhaps far from ideal for the public sphere, journalism as business thoroughly boomed. Newspapers acquired huge profits and massive power, especially in the early twentieth century with the rise of the 'press barons' – Lords Rothermere and Northcliffe in the UK, Hearst and Pulitzer in the USA – with the trend continuing until very recently. Rupert Murdoch, the owner-majority shareholder of News International was credited with winning elections in the UK, influencing media policies, and having a say in international politics, all the while making News International one of the most powerful and rich corporations in the world. Yet in the late twentieth– early twenty-first century, things began to change. Circulation figures show sharp drops year after year. For example, in 2015 the year-on-year circulation decline was −7.69% for the UK, and the rate of change since 2009 was about the same, revealing a massive circulation drop (Sutcliffe, 2015). Although US newspapers fare somewhat better, with a loss of 3% in the years 2013–2014 (Barthell, 2015), the picture is bleak. Revenues are declining as well, with the Pew Center reporting a consistent picture in the last five years in the US: print ads are down by 5% and while digital ads have grown by 3%, this growth is not enough to make up for the lost revenue from print ads (Barthell, 2015). In the UK, in 2016, the Daily Mail group, one of the best-performing publishers, published a loss of 13% in print advertising revenues for the first quarter, and despite the rise in digital ad revenues by 24%, this was still not enough to make up the shortfall (Sutcliffe, 2016). It is estimated that in the USA, one in five jobs in journalism has been lost since 2001. It does not come as a surprise that theorists talk of a profound crisis in journalism, a crisis in which the new media are directly involved. This chapter will review the evidence and arguments regarding this crisis, and will then move on to

discuss the changes in the production of journalism and the news, the content of online news sites, and the audience or consumption side of online journalism.

The Crisis of Journalism

Although the word 'crisis' is overused, as Todd Gitlin (2009) points out, it is, in the context of the current stage of journalism, a very apt term. In fact, Gitlin suggests that journalism suffers from many crises and he identifies no less than five. Drawing on the condition of American journalism, he argues that (1) the fall of circulation, (2) the fall of advertising income, (3) the diffusion of attention, (4) a crisis in authority, and (5) the inability or unwillingness of journalism to question structures of power contribute to bring about a profound crisis of journalism, one from which it is unlikely to survive unscathed.

But what does it mean to be in or to face a crisis? The term goes back to Ancient Greece, where *krisis* meant 'judgement' in both its juridical and everyday sense. To be or to face *krisis* implied that a disorder was introduced that needed rectification. *Krisis* was at the same time the outcome of this situation, proposing ways of restoring the disorder. In this manner, *krisis* was inextricably bound to the notion of critique, as the latter includes both the identification of a problem as well as the remedial action (Brown, 2005). While in early modernity the terms 'critique' and 'crisis' became separate and quite distinct (Koselleck, 1998), we can hold on to their historical linkages, as they imply that any exit from crisis is precipitated by a thorough and clear critique. From this point of view, a crisis implies a certain impasse in which things cannot move forward unless decisions are made and changes are introduced: a crisis is therefore a hidden opportunity for changes, a means by which systems retain dynamism and feed off critiques that introduce shifts that allow them not only to survive, but actually to move forward. The crisis of journalism therefore includes both a diagnosis of a series of problems that journalism faces as well as an opportunity for all interested parties to apply their judgement – critique – in order to enable journalism to move forward. But a clear diagnosis of the problems or crises is the first step towards the formulation of an effective critique. Reworking Gitlin's five problems, we can propose the following four crises that journalism has to deal with: time, money, autonomy and cultural changes. We will deal with each in turn and discuss the role played by the new media in these crises.

Time and Journalism

The ways in which new media have altered the conception of time have been discussed by Castells, who developed the notion of timeless time, as characteristic of the network society (Castells, 2000 [1996]; see also Chapter 1). Time is timeless precisely because it can no longer be divided, measured and compartmentalized into specific slots. In the network society, time is ongoing, as continuous as the rhythm is 24/7. This rhythm is now apparent in journalism and has transformed the cycle of news into a 24/7 one. Time has always been a constitutive dimension of news – the very concept of 'news' entails a conception of time, as only the most recent events qualify as 'news'. But the flow of news followed the flow of time that suited each medium: the news cycle for newspapers typically ends in the early morning, while in television it follows the regular news broadcasts, for instance at 12, 6 or 10 o'clock, although some allowances were made for extra editions or breaking news. Equally important for news is the speed by which it is conveyed. This is indeed one of the most well-established dimensions of the news (Chalaby, 1998). Consider, for instance, that the first marathon was run by an Athenian warrior, who ran 40 kilometres to give Athens the news of victory in the battle of Marathon. But the new media have ushered in timeless time, and the news cycle became dislodged from these schedules. The new news cycle is constant, never-ending, with newness and speed of publication being the main criteria, over and above any other considerations. Thus, while the traditional news cycle allowed for some research, selection and processing of news, the continuous rhythm of timeless time leads to a pressure for constant updates, with speed taking precedence over all else.

The implications of the rise of timeless time for journalism are multiple. The most important one concerns the shift from journalism as investigation or analysis to journalism as immediate publication. This in turn leads to shifts in journalism as a profession: the emphasis is placed on techniques for hunting the most recent news, rather than on painstaking research, in-depth analysis and informed commentary. Online news has to be updated several times a day if it is to attract more readers, or to get the same readers to visit more than once. This is typically accomplished through harvesting anything as long as it is recent, even if its actual news value is minimal. The overall result is a

decrease in the quality of news as well as a decrease in credibility, as there is no time to go through the necessary relevant checks on stories, often resulting in extremely trivial or even inaccurate stories (Dimitrakopoulou, 2005). Indeed, immediacy has always been a part of journalism (Deuze, 2005) but the new kinds of immediacy imposed by the new media may require a redefinition of journalistic authority, especially since it no longer relies exclusively on verification of the news. Karlsson (2011) argues that the speed of the new media and the pressure to publish immediately has contributed to the rise of a new culture of openness and transparency in the journalistic process. While the 24/7 rhythm associated with the new media has no doubt made this kind of competition for the newest updates an important part of journalism, the broader framework of competition within which journalism operates is the result of the logic that the market imposes (Bourdieu, 1998).

Journalism and the Market

The pressure of the market on journalism has been unmistakable. As mentioned earlier, income from sales as well as advertising revenue and revenue from classifieds is in steady decline. Newspaper bankruptcies and closures are becoming increasingly common, with some famous titles falling victim to the financial crisis. The last few years have seen a number of high- and low-profile closures of newspaper titles, and newspapers keep bleeding money, with the inevitable result that some will close for ever. These trends are global, with newspapers suffering across the world.

On the other hand, the 2015 *State of the News Media* report by the Pew Project for Excellence in Journalism (2015) shows that journalism is still a viable industry, with US cable news reporting revenues of about $20 billion, and while, as mentioned earlier, news publishers may not be getting a large share of online ad revenues, they are still making money. Nevertheless, the loss in circulation and the uncertainty over the future have led media organizations to cut down journalistic jobs. In the USA in 1990, the number of people employed in newsrooms was 56,900. In 2014, the numbers had fallen to 32,900 (Doctor, 2015). Yet these findings may actually reflect problems with financing journalism rather than an overall decline of interest in journalism.

Thus, the 2015 *State of the News Media* report by Pew found that although cable news audiences and newspaper readership had fallen by 8% and 3% respectively, network and local television news audiences had grown by 5% and 3%. Interpreting the Pew study's findings, it seems clear that people are still interested in news and journalism, but have a wider choice of media wherein to consume journalism. But the problem for journalism is that this diffusion of audiences or readers resulted in loss of revenue. One of the most widely cited explanations is that journalism is losing money because people are no longer willing to pay subscription fees, or for newspaper copies, since they can get the news online for free. At the same time, although online news consumers increased revenue from online advertising whereas in newspapers advertising declined, publishers still cannot make up the shortfall. To an extent, this loss of advertising income may be connected to two issues: the

first is the rise of ad blockers and other ways developed by audiences to avoid or ignore online adverts; the second is the rise of social media platforms that are receiving the lion's share of digital advertising revenues. From the point of view of advertisers themselves, they are unwilling to spend a lot of money online, as the return might be minimal. In fact, according to a measure referred to as ROAS (return on advertising spend), the average online user is worth only about 35–55% of a newspaper reader, although it should be noted that this figure represents an increase from earlier years. In these terms, while the new media present exciting new opportunities for journalism, it has not found a way to 'monetize' them, or to secure a steady income from them.

In short, the financial crisis of journalism may to an extent be attributed to the internet. On the one hand it has introduced a new medium for publishing the news, thereby fragmenting journalism's audiences, and on the other hand, it diverted advertising income, depleting journalism from its traditional source of revenue. The remedial actions taken by large news organizations seem to hurt journalism even more. The tendency to protect profit by cutting down on journalistic jobs resulted in the repetition of the same news across different journalistic outlets. Cost-cutting has also meant a reduction of expensive news, which is mainly international news that relies on correspondents, as well as investigative journalism, which requires a relatively high number of hours spent investigating. Again, the result is a loss of diversity in the news, and an over-reliance on news or even on PR agencies for news.

Journalistic Autonomy

Although the financial crisis may have been precipitated by the new media, the very structure of journalism signalled potential problems. Structurally, journalism is located in between the market, since it relies on it for survival, and politics, since it relies on it as its primary subject matter, although it is said to serve the people (cf. Habermas, 1989 [1962]). However, the problem with journalism is that in fact it is dominated by the market, while in our media-saturated age, it tends to dominate other fields, such as science, law, politics, etc., dictating the conditions under which they operate. This is the argument put forth by Pierre Bourdieu (1998), who further holds that journalism, with its emphasis on publicity and its links with the market, has taken over most other fields, which now have to operate on the basis of publicity as well, while also making them subject to the laws of the market. The price for journalism, however, was its credibility, precisely because it does not act autonomously but adopts the rules of the market. From this point of view, journalism ought to safeguard its autonomy and be able to function as other professions do. Typically, for this to happen, journalism must set criteria for entry and costs for exit. Just as medicine and law control who enters the profession and how they behave as practitioners, so should journalism dictate what is necessary for one to be a journalist and how journalists must act as professionals.

But journalism never had clear criteria as to who qualifies as a journalist, as the profession was traditionally open to all kinds of people, regardless of whether they had university degrees or any other kind of training. This is probably because journalism does not actually possess a kind of specialist knowledge as such, although of course it requires drive and motivation, interest in the commons, as well as some kind of talent and knowledge of writing. In addition, laws on free speech mean that anyone is allowed to publish whether they are a journalist or not. This difficulty in professionalizing journalism is not necessarily a negative thing. Journalism has always stood in between people and politics, and its remit is to serve the public good: as a closed profession, journalism would not be accountable to the people nor would people be able to criticize journalism. On the other hand, this kind of professionalization could perhaps protect journalism from

encroachment either from the market or from politics, allowing it to perform its public duties according to a binding code of ethics and practices. If ever this was possible, the new media have made journalistic autonomy-as-professionalization well nigh impossible. The new media have opened up the floor to everyone who wishes to write or otherwise state their opinion, criticize or publish news or investigations, comments and analyses. Although most of these people may not qualify as journalists, they in fact perform more or less the same job, albeit perhaps not to the same standard. In any case there is no means, or indeed any justification, to prevent them from writing or voicing their opinions and views. While journalism's lack of autonomy might contribute to the crisis it is facing, autonomy-as-professionalization does not seem likely to produce a solution.

Cultural Shifts

A final aspect of the crisis of journalism relates to what we can term 'cultural changes'. As we shall see later, these changes include a shift in the ways in which journalism is consumed. While traditionally people read their morning newspaper over breakfast or on the train to work, and they watched the evening news at 8 or 9 o'clock, the consumption of online news has introduced a new pattern which is mainly to steal quick looks at the headlines at several intervals during the working day. Additionally, the new media have introduced an important shift from consumption of the news towards producing the news, or at least writing and commenting on news. As opposed to journalistic autonomy, what we see is a turn towards collaboration, collective effort and cooperative production. Notions such as wiki-fication and crowdsourcing reflect precisely this shift towards a collaborative culture, in which we rely on each other and build on our respective contributions. But to what extent has journalism managed to follow and adapt to the changing cultures of new and social media?

The Internet and Journalism

The relationship between the internet and journalism certainly seems to be a troubled one. On the one hand, we find the internet featuring as the catalyst, if not the very cause, of the crisis: time, money, heteronomy, as well as cultural changes are all due to the advent of the new media. At the same time, the internet seems to have ushered in a new, direct relationship between people and the news, as well as between people and politics. As John Hall (2001) has put it, we have entered the phase of disintermediation – we no longer need journalism to mediate between us, the people, and politics or other events, as they are reported directly by those involved and seen by people in an equally direct and immediate manner. This certainly raises important questions regarding the very role and *raison d'être* of journalism.

On the other hand, theorists turn to the internet looking for a solution to this crisis. For instance, as early as 2002 Jo Bardoel considered that the internet will lead to the development of a new kind of journalism – online journalism – which will make effective use of the internet's main attributes, leading to a renewal of journalism. Interactivity, multimediality, hyperlinks and the asynchronous nature of news and information online offer new possibilities for journalism. These attributes allow journalism to extend in space, in depth and in breadth through hyperlinks and hypertext, as well as through the participation of users, who may be found in different geographical locations. Moreover, they allow journalism to expand in time as the internet can operate as an enormous and accessible archive. Although Bardoel is optimistic regarding the future of online journalism, he points out that journalism needs to embrace and make full use of the attributes of the new media. Others, such as Pavlik (2001), consider that the internet restructures journalism across four dimensions. First, it changes the content of journalism; second, it changes the skills necessary for journalists; third, it changes the structure of news organizations and newsrooms; and finally, it changes the relationship between journalism and all its publics, including the people, its sources, politicians and so on. These changes are seen in positive terms by Pavlik, who finds that this kind of restructuring of journalism will not only lead it out of the crisis, but also effectively improve, modernize and democratize it.

So are we to hold the internet, and more broadly the new media, responsible for the crisis in journalism or should we regard them as potential saviours of journalism? Perhaps a way out of this somewhat polarized discussion can be found in the actual empirical changes we can observe in journalistic practices. The next section will look at how production, content and consumption of journalism change in online environments. We will then return to the role of the new media in the conclusion.

Changes in Journalism

In mapping the changes in journalism, we can look at three different levels: first, the level of media organizations, in which we can trace the changes in the ways in which journalism is produced in online environments and, more broadly, the changes that have occurred at the organizational level; second, the level of news contents, in which we can observe the changes in the ways that content is structured; and finally, the level of the public, in which we can examine the changing patterns of news consumption. In all these we will draw on relevant empirical studies before trying to synthesize the findings and reach some conclusions regarding the relationship between the new media and journalism.

Media Organizations

This level mainly refers to changes in the various organizational routines and practices involved in producing the news, as well as to some broader changes that news and media organizations have had to adopt in the light of new technological developments. In general, new technologies have ushered in new modes of producing the news. But what has been the most important change? For many, the most important series of transformations in the production of news have been brought about by convergence. Convergence refers to the process which blurs the lines between media, even those point-to-point communicative media, such as the post and the telephone, as well as between mass media, such as television, radio and the press (de Sola Pool, 1983: 23). Ithiel de Sola Pool primarily referred to the convergence of media technologies, which further allows the convergence of both media organizations and products. Thus media organizations, such as newspapers, may converge with online news sites and/or with broadcasting companies. Their products, already digitized, can appear in audio, text or video form on a computer terminal, a television or a mobile phone or a tablet. However, we can also observe a converging process in the internal processes of media organizations. Processes that were previously separate, performed by different people, and perhaps even in different departments have now converged. Henry Jenkins (2006b) discussed convergence as taking place between the production and consumption of media, arguing that we now find ourselves at the beginning of a new era in communication, which relies more on participation than on passive reception. In the first place, this kind of convergence signals only a need to revise our theoretical models of communication; it further implies, however, that there is a series of changes taking place in the practices of media organizations, and in the ways in which media products are produced, distributed and consumed.

Convergence

The main question here, therefore, concerns the effects of convergence in the production, as well as in the distribution and consumption of news and related communicative materials. To begin with, convergence in news

production points to technological developments, such as digitalization, which allows the same material to circulate and appear in different media platforms without the need for any major rewriting or adaptation (Flynn, 2001, in Saltzis and Dickinson, 2008). The motto seems to be 'Write once, publish everywhere' (Saltzis and Dickinson, 2008: 3). In practice, this kind of convergence means that we can have just one journalist or news producer for all media platforms, as well as the same content for all these media. At the level of distribution, convergence means that one device can combine all media. While initially the industry supported the idea of a super medium that would replace computers, televisions, radios and so on, today the dominant idea is that we can receive the same material in all kinds of platforms, ranging from HD televisions to mobile devices. However, this in turn implies that these media that do not allow for this multi-platform kind of delivery may end up obsolete. The most endangered medium seems to be print, with newspapers and magazines considered to be too old-fashioned and inflexible to survive in a convergence era. Finally, at the level of consumption, convergence emphasizes the increased reader or, better, user participation, and the role it plays in the process of production. In practice, this means that a media organization must make sure it keeps open channels for communication between media and their publics, as well as to offer users the possibility to get actively involved in the production of news, and to find ways to integrate the materials they produce.

Convergence is really appealing to most media organizations, because it allows them to extend themselves across different channels, gaining in growth and reaching more publics, while at the same time cutting their costs, something that is indeed necessary if they are to remain competitive. Saltzis and Dickinson (2008) argue that to ensure competitiveness and cost-effectiveness, media organizations may follow four strategies. First, they move towards the organizational and technological integration of newsrooms. Sometimes this entails the merging of different departments and, more often than not, a few redundancies of the staff who are judged to be superfluous. Second, they hire and use journalists or specialists who have knowledge and skills across all media. Again, this may signal more job losses, especially for those who have specialized in only one medium. Third, the application of flexible and user-friendly technology at all levels of production clearly makes the production process more efficient. Last, media organizations actively

pursue the extension of their services in new media – they seek to find ways to grow and to use more platforms. In practice, convergence in news production is translated into the creation of a fully digitized newsroom that uses a server-based system of news and other media content production. This means that content and news are available to all news personnel, who are then instructed by their editor on how to deal with it. Moreover, the adoption of internal communication systems, such as Slack, allows the various parts of the newsroom to be in constant communication with each other. These are just some of the changes taking place in converged newsrooms from a practical point of view. More broadly, however, we need to understand convergence not only as a growth strategy, but also as an important cost-cutting tactic, which has been adopted because of its increased efficiency.

Multi-skilling

From the point of view of journalists, they need to develop a range of skills across all media. This is the notion of multi-skilling, and while it is certainly a good thing, as people are allowed to learn several skills, it is in the end more ambiguous for the profession of journalism (Saltzis and Dickinson, 2008). For example, there are journalists who work for two or more different media, for television, newspapers and the web, and also journalists who record and edit their own footage. The BBC, under John Birt (1992–2000), encouraged its journalists to become multi-skilled, but in the end this practice appeared to backfire. In general, in the BBC, the impression was that a good radio journalist is not necessarily a good TV journalist. Currently, the BBC does not expect its journalists to produce contents for both media, although most have the skills to do it. From this point of view, they are interested more in the quality of their output rather than in controlling costs. On the other hand, to be multi-skilled is a positive attribute for most journalists, at least in the sense that it allows them a more in-depth understanding of the process of news production. Moreover, some kind of editing and processing of audio, video and textual material was always an informal part of the journalist's job. But to have it officially as part of the job description further allows for more control over the final product that goes out there.

New Content and Forms of Journalism

The technological characteristics of the new media, the new cultures and logics that have emerged, and the various political economic pressures on journalism, alongside journalism's quest for innovation and a redefinition of its role, have contributed to the evolution of new forms of journalism that combine innovation in storytelling techniques, in the delivery and style, and in the ways in which they engage audiences. In their discussion of the technical aspects of the new media, Lister et al. (2009) hold that their main characteristics include interactivity, networking, hypertextuality, virtuality and simulation. These technological characteristics, which have been refined and extended through the growth of social media and their emphasis on connectivity and sharedness, have contributed to the rise of the new forms of journalism. The new forms to be discussed here are live blogging, data journalism and gamified journalism. While these forms are different, they all share the fundamental aspects of the emerging new media logic: a combination of innovation and an emphasis on the new, the use of data and new-new technologies, and an emphasis on direct and continuous engagement with publics in many forms.

Live blogging

This new form of journalism combines some of the attributes of social media with core journalistic practices such as live news reporting. Thurman and Walters (2013: 83) define live blogging as a 'single blog post on a specific topic to which time-stamped content is progressively added for a finite period – anywhere between half an hour and 24 hours'. Live blogging has been around since about 1999, with the *Guardian* newspaper pioneering the style, but until relatively recently it was used mostly for covering sport. More recently, however, live blogging has become the default form for covering breaking news stories, live or ongoing events, and sports events, and it can often incorporate multimedia elements, for example, links that provide further information, videos or tweets by others. the *Guardian* newspaper uses live blogging for a variety of events. According to Thurman and Walters (2013), most of the live blogging in the *Guardian* is planned and scheduled in

advance – although not for breaking news. When it comes to news stories that are live blogged, the tone is serious, whereas in sports live blogging the tone is more casual and includes a lot of interaction with readers.

The paradox of live blogging is that most of it doesn't actually take place in the field, although this is different when it comes to live tweeting, which is usually undertaken by journalists (or citizen journalists) witnessing the events they are tweeting about. But for live blogging ongoing news stories, the typical set up is that journalists would be in the newsroom, monitoring several news sources at the same time and reporting in the short and immediate style of the live blog. From this point of view, live blogging can be better understood as mediation or curation of the event or the news story rather than original reporting (Thurman and Walters, 2013). In other words, it is mostly a process by which journalists select relevant news from other sources and repeat tentatively in the live blog, offering readers a bird's eye view of the event in a lively style, supported by videos, tweets and links to other sources.

The style of storytelling, therefore, is that of an ongoing story that unfolds in the here and now, and it includes multiple angles and a variety of perspectives. It imitates a conversational style, and often includes unverified news with caveats; for example, a live blogger might post a tweet but point to the fact that it is unverified information. In this respect, this is a freer, more transparent kind of journalism that moves beyond the inverted pyramid structure of typical news stories. The meaning that live blogging conveys is the messiness of news and the effort it takes to separate the important from the unimportant, especially as events unfold in real time. At the same time, it removes the journalist from the position of the expert: they are no longer the all-knowing source of information, but information workers, who attempt to make sense out of a messy reality alongside and often with the aid of their readers. Moreover, live blogging can be seen as a key adaptation to the fast-paced social media environment, which operates on a 24/7 schedule with readers checking the news intermittently, thereby matching news consumption patterns (Thurman, 2013).

But live blogging hasn't been without its critiques. Symes (2011) argues that live blogging consists of a mismatch of relevant and irrelevant information

with no sorting of any kind apart from timeliness: the newest news comes first. Symes accuses live blogging of distracting readers and not guiding them to what is the most important information by rolling out news without any kind of order or sense of what is true and important, or trivial and inaccurate. This is what has led Anderson (2011) to argue that live blogging may be causing an information overload, potentially confusing readers who have to wade through 'rivers of news' to get to the point. Another issue with live blogging is that it may be lowering established standards of verification (Petrie, 2011) because of its tendency to publish news as they come. Because of these points, Anderson (2011) suggests that live blogging must move beyond the collection and reporting of news as it comes in, and to accompany this with context and curation or more processing of the information that is published. Despite such issues, live blogging remains an important and influential new form of online journalism, although it is more suited to certain kinds of events.

Data journalism

Data journalism is combining data analysis with news reporting, creating a new and unique format which makes the most from the rise of Big Data associated with the increase in computer power and the migration of communication to digital platforms. Data journalism can be defined as the use of data, understood as pieces of raw, unprocessed information, in order to write stories and understand developments. Coddington (2014) suggests that data journalism is better understood as a hybrid form that includes statistical analysis, computer science, visualization and web design combined with journalistic storytelling and reporting tools. Data journalism has generated considerable excitement in journalism because it cross-fertilizes journalism with the research skills associated with the (social) sciences, adding depth and rigour to journalism and thereby adding more value to it (Lorenz, 2012). Journalism is no longer about breaking or routine news or chasing soundbites but about understanding social reality and delivering this to readers in visually engaging formats. Moreover, data journalism is considered to be one of the most promising new forms of journalism because it further combines the logics of journalism, and its emphasis on importance, newsworthiness, analysis and interpretation, with the logics of new media, and a focus on information, data, open source and collaboration.

In terms of the production practices associated with data journalism, these revolve around ways in which data can be gathered. In some instances, the data is already offered by, for example, government statistics, but are reprocessed and analysed by journalists. In other instances, data are made available through whistleblowing in a rather unprocessed form and require further clearing and processing in order for stories to emerge. In one of the prototypical cases of data journalism, the UK MPs' (Members of Parliament) expenses scandal, the *Guardian* asked readers to sift through their allocated part of the data and report back to the reporter coordinator (Bouchart, 2012). In another much-discussed case, which is considered to have kickstarted data journalism, WikiLeaks made available the so-called war logs. These contained 92,201 rows of data and required extensive processing and analysis, contributing to the creation of new ways of approaching data in journalism, including issues of visualization, ethics and complex storytelling (Rogers, 2013). Inevitably, data journalism requires a team composed of people with varied skillsets, ranging from hardcore statistics and data analysis, to graphic and visual design, to core journalistic writing skills. In this sense, data journalism is always and necessarily a collaborative effort.

The storytelling element in data journalism is very complex. Most stories make use of a variety of methods, including texts, visuals and interactive parts, often customizable, allowing readers to focus on elements that they are more interested in. Visuals range from interactive graphs to geographical maps, while others may include photographs enriched with links and so on. The stories told by data journalism tend to be complex and to involve multiple parts that explore different aspects of the story. In this manner, the meaning conveyed by data journalism engages once more with the complexity of the world, discovering unexpected links, tracing connections previously hidden, and contributing to new developments. Data journalism has breathed new life into investigative journalism, and multiple cases have made previously hidden stories widely available, including the WikiLeaks war logs about the Iraq and Afghan wars, the LuxLeaks and Panama papers, and about the tax affairs of various European politicians, well-known entrepreneurs, and many others. In this manner, data journalism presents an alternative to and complements the more subjective, op-ed kind of journalism through an emphasis on data and facts.

However, data journalism tends to be a very labour-intensive form of journalism that requires considerable time and resources that may not always be available. Additionally, although the emphasis on data gives an aura of facticity, of being true and uncontestable, it must be pointed out that data are not and do not represent the 'truth'. The focus on data may obscure the politics of it, or, in other words, the ways in which data are themselves constructed and partial. Notwithstanding the ethics of transparency involved in a lot of data journalism projects, stories are only as good as the data on which they are based. Although we refer to data as 'raw information', they are nevertheless already processed, as they come in certain forms or units of analysis. Additionally, data journalism already requires editorial decisions as to where to focus and how to interpret the data, so such projects must be seen not as necessarily more objective and truthful forms but as another way of approaching a very complex reality. Another aspect concerning data journalism is that one of the gains of the new media for the public has been the removal of the distance between journalists and readers and, as we shall see below, the turn towards a journalism that is less a lecture and more a conversation. However, data journalism, with its reliance on data scientists and complex data processing, appears to reintroduce an expert/layperson division that is in some ways the antithesis of the turn towards a broadening of journalism. Finally, we have little evidence of how data journalism is actually received by readers and publics; do they represent a simple way of telling complex stories or are they seen as obfuscating and unnecessarily complicating stories? Thus, while data journalism represents an exciting new format for journalism, more research must be done to establish its limits and its usefulness.

Gamified journalism

In the early days of web journalism, Deuze (2003) had represented the emerging form as falling along a continuum between a focus on content and a focus on connectivity. Forms that offered new information that enable people to orient themselves in the world and acquire new knowledge would fall on the content side, while forms that allowed people to monitor the world or to engage in a dialogue would fall on the connectivity side. To these, Sue Robinson (2012) added a new understanding of journalism as experience. She argued that new media allow readers not only to orient themselves or to

engage in dialogue, but also to experience the news through immersing themselves in it and participating in it. Games and processes of gamification of the news enable readers to do precisely this: to experience the news. Gamified journalism therefore refers to the use of game principles and elements in journalism. More formally, Anderson and Rainie (2012) define gamification as the use of game mechanics, feedback loops and rewards to trigger interaction and increase engagement, loyalty, fun and learning. Applied to journalism, processes of gamification allow journalism to build a different kind of relationship with its readers, which helps them to experience and relate to the news in very different ways.

To understand gamification we must look into games, which can be understood as a structured activity with set rules, as opposed to play – a looser, unstructured activity. Some of the basic elements of games include that they have clear rules, and players are only allowed to do certain things; games mechanics require that there are given sets of actions that must be followed by players; games have goals, and players strive to attain these goals; finally, there are rewards that engage players – they can win points or badges or progress to the next level, and so on. Given the great variety of games mechanics, goals, rules and rewards, gamified journalism can come in many varieties, ranging from the simplest quiz to the most complex virtual reality setting. It can use one or more of these elements but in all cases it involves the active participation of the public.

The emphasis of gamified journalism is not so much on breaking news or the newest news, but on the quality and depth of the experience. It follows that gamified journalism pays more attention to the games mechanics, or the design and steps that users must follow, rather than on the actual reporting or the writing of the story. Following these steps and experiencing the story adds depth and allows readers to empathize and better understand certain stories. For example, the virtual reality stories of Nonny de la Pena allow readers to understand better and experience the plight of war refugees from Syria (see: www.immersivejournalism.com/). They focus on the sights, sounds and feelings of the participants in the story. In other examples, KPBS, a San Diego-based public service broadcaster, developed an app which allows users to construct their own budget for San Diego. This allows them to understand the complexities involved, the tensions between competing

demands, and the difficult decisions that need to be taken. Because readers/users experience the news, typically engagement levels are higher than when merely reading stories in the news.

Although the mixing of news with elements of games has a great potential, it involves certain issues as well. Games can mobilize both intrinsic and extrinsic motivations; in other words, they can be played and enjoyed in their own right or because of the rewards they offer. Often varieties of gamified news rely on extrinsic motivations to engage users and this may have a negative overall impact on the news. If users are playing news games in order to win points or any other rewards offered, or to boast to friends and not because they are properly interested in the particular news stories, then gamified journalism does not really add anything and any engagement and gains are likely to be very short term. Additionally, the simple win/lose outcomes of many games belie the complexity of real-life stories, while games may lead to manipulation and a mixture between reality and fantasy which may ultimately damage the trust and relationships that journalism needs to have with readers. Finally, it is often said that gamification is used not in order to engage readers and foster critical and in-depth views of the news, but for commercial purposes in order to gain 'eyeballs' and compete for the scant attention of readers (Bogost, 2011). Overall, while gamification entails important promises, more research is needed to discover its place in journalism (Ferrer Conill and Karlsson, 2015).

The three forms discussed above are not exhaustive of the new varieties of journalism that have evolved in the new media ecosystem. New formats, such as the short videos associated with mobile journalism, the listicles and lighter news stories associated with the journalism of *BuzzFeed*, and more problematically the rise of native advertising, where corporations pay for or sponsor news stories, have all developed as a function of the technical attributes of the new media, their various affordances, and the user practices and emerging cultures. For journalism, the results are ambiguous. On the one hand, online news no longer adopts a single perspective, ostensibly that of objectivity, but rather includes several points of view (Gans, 2003; Bruns, 2006). This creates a kind of journalism that makes room for all kinds of views, even the most marginalized ones. Until recently, journalism was produced in newsrooms by journalists who were considered to be authorities

and experts in their job, who in fact wrote the news from their perspective, and through the adoption of certain professional news values (cf. Galtung and Ruge, 1965). This, however, changed with the migration of news online, because it introduces a direct relationship with the public, who in turn demand that their preferences and viewpoints are taken into account. This essentially changes the structure of the news which can now be considered a dialogue. Dan Gillmor (2003: 79) put it like this: 'if […] journalism is a lecture, what it is evolving into is something that incorporates a conversation and seminar.' The upshot of this development is that the news is never a finished product, but rather an ongoing process, which includes not only what journalists and other experts write, but also the comments, feedback and reactions of the multiple publics that consume the news. While this is certainly a positive development, we need to consider some of the problems associated with the adoption of a multiperspectival kind of journalism. The most pressing problem is that subjective views and opinions, which are often found in the comments sections, do not necessarily count as quality journalism. In addition, the existence of many viewpoints does not necessarily guarantee the exchange of ideas and opinions, as readers may in fact stick to opinions and articles they agree with – this can contribute to a kind of cyber-fragmentation, in which people interact only with similar others (Sunstein, 2001). Finally, to what extent are all viewpoints really represented? Issues of power inevitably creep in and must be taken into account.

While all the above point to largely positive developments in terms of changes in the content of online news, a word of caution must be inserted here. Although the online environment offers great possibilities for journalistic content, in practice we often see a remarkable similarity of content not only across different news sites, but also across different media, both online and offline (Fenton, 2010). This can be explained by what is known as the repurposing of content: this refers to the use of content in different ways or in different media. Media companies then find it easier, and certainly cheaper, to reuse content, often only very slightly changed, rather than produce new content altogether. Thus, a newspaper may be repurposing its content online, blogs may be repurposing other blog posts, and video footage may be repurposed and reused in many different ways (Deuze, 2006; Erdal, 2009). Alongside content repurposing we have the practice of

remediation, in which new media change but also reproduce the content and practices of older media, while the latter adapt their ways to the new media (Bolter and Grusin, 1999). Deuze (2006) also argues that remediation is not always done on purpose, or at least in a deliberate fashion, but people remediate content in ways commensurable with their own interests and experiences. The outcome of these processes is not clear: for some, there is an overall lack of diversity of news across all kinds of media (see, for example, Fenton, 2010), while others, like Mark Deuze (2006), see promise in these new practices, and even the possibility for subversion in some instances. While we cannot determine yet which side is right, it may be useful to note that any changes in the content of online news must be seen in conjunction with the practices of users, or those that Jay Rosen (2006) calls the people formerly known as audiences. To them we turn next.

Consumption/Use of Online News

The main questions here include the issue of the demographics of news users, as well as their changing habits and practices around the news. We have now amassed considerable information about users and what they do, while the data trails that users leave behind are collected, analysed and acted upon by news publishers and advertisers. The rise of audience analytics represents an important development in journalism that needs to be understood more closely. This section will discuss the recent changes in consumption patterns, the changing relationships between journalists and their readers, and the role of audience analytics.

Consumption patterns

Studies of news audiences by the Pew Center and by the Reuters Institute have shown a consistent pattern of news consumption: more and more audiences get their news online. Online news competes with television for first and second place, with countries such as Finland or Brazil (urban) reporting a dominance of the internet as a news source, although this varies in terms of age and generation: younger audiences tend to prefer online sources more compared to their older counterparts (Newman, Levy and Nielsen, 2015). Additionally, the ways in which audiences consume the news are qualitatively different, especially when compared to previous decades. Most online news consumption tends to be quick and superficial. The so-called 'news grazers' tend to graze or merely scrape the surface, quickly glancing at the headlines or checking their social media feeds a few times throughout the day. So although people consume the news more often during the day, the average time they spend on reading the news has in fact decreased. This is an interesting finding which actually contradicts earlier positions which focused on the extension of online news in-depth. From the point of view of news organizations, this kind of user behaviour shows the necessity for frequent news updates.

A second change has to do with the rise of mobile technology. In the 2015 Pew *State of the News Media* report (Pew Project for Excellence in Journalism, 2015), of the top 50 digital news sites, 39 of them get more

traffic to their sites and associated applications from mobile devices than from desktops. However, mobile visitors don't spend much time on the sites: on 40 of the top 50 digital sites, visitors from desktops spend more time on the news, supporting the trend for frequent (throughout the day) but brief news consumption (Barthel, 2015). The growth of mobile devices is further associated with the development of news apps, which allow users to access branded news quickly. However, consuming news through apps tends to limit news sources, as most users (33%) only have one news app (Reuters Digital News Report, 2015).

A further shift concerns the increasing importance of pictures and videos. Almost a third of US news consumers in 2015 reported using news videos, while countries such as Spain, Demark, Italy and others reported strong growth of video news (Reuters Digital News Report, 2015). When asked about barriers to video news consumption, older audiences tended to dislike small screens, while younger audiences reported long download times. This is significant because it is linked to the development of new ways of accessing the news on social media platforms. Social media platforms are already a key source of news for audiences, with 41% of users accessing news via Facebook and almost 20% via YouTube and Twitter. Platforms are now seeking to engage news audiences further by developing purpose-built tools for news. Specifically, Facebook has developed Instant Articles, a partnership with news publishers whereby videos from news publishers can be uploaded directly on Facebook, improving the quality and leading to much lower download times. Such developments strengthen the hold of platforms over audiences even if they improve their experiences.

Consuming news on social media, especially Facebook, seems to be a matter of serendipity rather than a purposeful activity. The Reuters Digital News Report (2015) found that while Facebook is by far the most popular social media platform, people come across news there by serendipity rather than going there to get the news. In contrast, readers would go to Twitter on purpose in order to get the news. According to the same report, in the UK, only about 19% of social media users follow a news organization, although in countries such as the US, Italy and Australia the percentage is up to 30%. Overall, however, this is still not as high as news publishers may have wanted. Nevertheless, both the Reuters studies and the Pew Center's *State of*

the News Media studies consistently show the continuing importance of legacy news, for which users report high levels of trust and credibility.

Finally, as noted earlier, a key aspect of new media is the possibility for interaction and the associated shift to a more conversational kind of journalism. Engagement or participation in the news process is therefore a crucial parameter. The studies of news consumption consider sharing, liking and commenting as the main elements of engagement, with Reuters reporting very high levels across all the countries in its sample. The US tops the list with 91% of the respondents reporting some kind of participatory activity, such as liking, sharing or discussing the news with their friends.

Readers and journalists

Given these shifts in consumption patterns and in the content of journalism, changes in the relationships fostered between journalists and readers do not come as a surprise. However, these relationships are not always easy or straightforward. As more and more users participate in the news process, and as the distinctions between users and producers are blurred (Bruns, 2006), news producers are under pressure to change their established patterns and routines. But this creates tensions. Hermida and Thurman (2008), in a study of UK news editors, found that while there was a general push to include users and their content, this was mostly because of a fear that they would be left behind rather than by any sense of value in user content. In attempting to incorporate or deal with user content, news editors struggled with a variety of tensions, stemming from the need to control their news brand and the conversation, and the costs associated with keeping this control. Overall, Hermida and Thurman (2008) concluded that journalists still want to retain their gatekeeper function, and user content may undermine this. More recently, however, there is some evidence that attitudes may be changing. Lewis (2012: 851) argues in favour of a more adaptive, open kind of journalism, characterized by 'a willingness to see audiences on a more peer level, to appreciate their contributions, and to find normative purpose in transparency and participation'.

Given the emphasis on audience engagement, the onus now is placed on journalists to build and sustain relationships with their readers. Community

building is increasingly necessary in journalism, and more and more journalists' everyday work includes elements that deal not with the news process as such, but with socializing with readers. Lewis, Holton and Coddington (2014) came up with the construct of reciprocal journalism, building on the idea of embedding in journalism the notion of reciprocity with audiences. Lewis et al. discuss direct, indirect and sustained forms of reciprocity that may help journalists build communities with their readers in social networks. Similarly, Siapera and Iliadi (2015) found that journalists on Twitter spoke of the time it takes to build a network, of the need to be authentic and 'true' to yourself, and about a responsibility and an ethics of care towards their readers/networks. However, the emphasis on journalism as community building is ambiguous, because it removes sociality and social exchange from its context of social relationships and makes it part of professional practice. This applies especially in the case of journalists who work for large news publishers and therefore use their own sociality for essentially commercial purposes. More broadly, such practices show that journalism practices have moved beyond writing skills and have become much more audience-centred. This may also be due to the detailed data that news publishers can now generate on audiences. This is examined next.

Audience analytics

In the previous mass media or print journalism era, journalists had no idea of their audiences other than what they could glean from ratings or letters to the Editor. Gans (2004 [1980]), in his well-known ethnographic study of a US newsroom, began his study

> with the assumption that journalists, as commercial employees, take the audience directly into account when selecting and producing news […] I was surprised to find, however, that they had little knowledge about the actual audience and rejected feedback from it. Although they had a vague image of the audience, they paid little attention to it; instead, they filmed and wrote for their superiors and themselves, assuming, as I suggested earlier, that what interested them would interest the audience. (Gans, 2004 [1980]: 229)

However, now every editor has at their disposal detailed metrics about audience practices, which are often in real time. Based on either simpler forms of data gathering through Google and Facebook analytics, or more involved information coming from in-house data teams, editors and journalists are able to see how well their stories are doing, and adjust them accordingly.

The question for journalism concerns therefore the extent to which audience analytics are influencing editorial decisions and the extent to which they should be influencing such decisions. Anderson (2011) found that journalists were confronted with traffic metrics and were required to write stories with audience appeal, concluding that such detailed knowledge coming from the quantification of audiences reduced journalistic autonomy and made journalism more reliant on audience metrics. Similarly, Tien Vu (2014) found that editors were likely to prioritize stories with more traffic and built on these stories through follow-up articles or additional elements (e.g., videos or pictures). How may we assess this development? Boczkowski and Mitchelstein (2013) found a consistent gap between what journalists/editors prioritize as newsworthy and what audiences click on, showing a divergence between journalism and news values and audience preferences. Detailed information from audience analytics may enable this gap to diminish, thereby bringing journalism closer to its audiences. On the other hand, the most popular stories are not necessarily the most important stories, and a key function of journalism is to cover all aspects of reality rather than only a fraction. Then again, the availability of such data about audiences forces journalism to take into account readers, and their expectations, likes and dislikes.

Case Study Fake News

Nothing is more characteristic of the news media ecology than fake news. The term started to trend during the US 2016 election campaign, but what exactly we mean by fake news is still unclear. Donald Trump accused both CNN and the *New York Times* as being fake news, while Pope Francis compared the consumption of fake news to eating faeces! Bizarre stories ranging from pizzas and paedophiles to Macedonian teenagers and Kremlin strategists were shared and hotly commented on in social media but also in newspaper columns and television broadcasts. The Oxford Dictionary picked 'post-truth' as its word of the year for 2016, and the term 'alternative facts' was used by Kellyanne Conway, the Republican Party's campaign manager and Counsellor to President Trump, inviting much derision by journalists. From our point of view, a focus on fake news is important because it showcases some of the characteristics of the environment media that have significant consequences for journalism. To understand these, we must begin with an attempt to define the various types of fake news.

Claire Wardle (2017), the chief researcher of First Draft News, a US-based non-profit specialising on research on news and journalism, has developed a typology of fake news, based on three parameters: the type of content created and shared, the intentions of those behind this, and the forms of dissemination. She identified seven different categories of fake news, which she places on a continuum: satire/parody, misleading content, imposter content, fabricated content, false connection, false context and manipulated content. The intentions of the communicators are crucial as satire has no intention to deceive, while manipulated content has been developed with the objective to manipulate and deceive. None of these forms of fake news is especially new. Historical examples abound: for instance, in 1874 the *New York Herald* published an entirely fabricated account of animals escaping from the Central Park Zoo, resulting in numerous deaths! As journalism professionalized, such crude hoaxes were less common, but another, perhaps more pernicious form of fake news prevailed. Propaganda, or fabricated or manipulated stories for political purposes, was extremely widespread in both WWI and WWII, while in more recent years, tabloids and celebrity magazines are pushing the boundaries of truth in their own ways.

What really differentiates old-school fake news from the current variety are really three factors: first, the ease by which people can create contents, second, the distribution patterns across new and social media, and third, the political economy of the online domain which enables and incentivizes the creation of these forms of news. The barriers to producing contents have, as we have seen in this chapter, been

removed. Anyone with internet access can effectively produce and distribute contents of any kind of quality. Moreover, people can avail of the various functionalities of computer software such as Photoshop and create highly believable contents. While as journalism professionalized in the early 20th century, accuracy became a key value and fake stories more or less stopped, the media ecosystem in the early 21st century is very different and does not include only professional communicators. Second, fake news can travel very far on the internet: sharing a link can reach a large number of people who can then share among their networks and so on. Moreover, there are no time limits, as news stories that have been debunked still circulate months or years after they have been discredited. People may share discredited information for many reasons: they can still believe it or they share it to point to others that it is fake. But the information still travels. Additionally, there are groups that will deliberately share fake news either for political reasons, or occasionally just for fun – just because for some it is amusing to see others fall for it (see our discussion on trolling in Chapter 5). Third, the business model of most new and social media relies on advertising; very simplistically put, the more the clicks the more likely it is to make money out of your content. And sensationalist contents guarantee clicks. The infamous Macedonian teenagers who were creating and sharing fake stories during the US election campaign of 2016 had no political motive: they just did it for the money they generated through people clicking on their contents (Silverman and Alexander, 2016).

What are the effects of fake news? As with any media effects, these are notoriously difficult to prove. In the 2016 US elections, a study by Allcott and Gentzkow (2017) found that fake news stories that favoured Trump were shared a total of 30 million times on Facebook compared to those favouring Clinton, which were shared eight million times. However, they also report that for fake news to have changed the outcome of the election, a single fake article would need to have had the same persuasive effect as 36 television campaign ads. Additionally, we know that media are unlikely to have direct effects; rather, their persuasiveness is mediated by several factors. Most of us form opinions not solely on the basis of what we see in the media, old or new, but through discussing the news with significant others in our social networks (Katz and Lazarsfeld, 1955). News consumption must therefore be thought of as a social rather than an individual practice. Does this mean that we need not worry about fake news? Well, not quite. The circulation of unchecked, unverifiable mis- and disinformation has broader pernicious effects, as it has an impact on social trust: if you are really sceptical of everything you read and see online, then trust is eroded, cynicism rises and the public sphere becomes more like a toxic sphere of false information. It is therefore important to find ways of addressing this. Indeed, social media corporations and other institutions have turned their attention to this and are trying to develop technological solutions that would flag contents as unverified, discouraging sharing. But such a technological solution is unlikely to be the only fix. Media literacy and the sharpening of our critical abilities are more than ever

necessary alongside the cultivation of a civic attitude that makes each of us more responsible towards one another. At the same time journalism and journalists could and should do more to meticulously fact-check stories and claims made in the public sphere.

Conclusions

This chapter explored the changes in news and journalism associated with the new media. Although we cannot really do justice to a complicated process that involves dealing not only with new media and technologies, but also with a shifting socio-political and cultural landscape, this chapter attempted to provide a general overview of some of the challenges faced by traditional media and journalism. Journalism is undoubtedly at a crossroads that can be linked to the new media. Time, finances, lack of autonomy, and cultural shifts have all created issues for journalism and they are all linked to the new media, although the relationship is more complex than a uni-directional causal one, in which the new media are responsible for the crisis in journalism.

The changes in journalism can be thought of as spanning across three levels or dimensions: the level of media organizations and the processes of production, the level of content, and the level of use or consumption of online news. The box below summarizes these changes.

How might we assess these changes and the role of the new media? There is little doubt that the new media have become a catalyst for journalism as journalists have had to rethink the functions of journalism and the ways in which it operates in a new media environment. In many ways, the new media have ushered in a new mode of journalism, one which relies much more on collaboration than independent reportage, and which removes authority from traditional journalistic sources. Journalism must face up to the reality of these changes, and seek to readjust in a shifting environment while maintaining its specificity as journalism. Rather than seeking ways to regain its monopoly over news through paywalls, it has much more to gain from reasserting its role in democracy through creating synergies with the new media, through helping to give voice to the voiceless, enabling citizens to make informed choices, safeguarding the public good, and checking political authorities. A relevant example here may be that of WikiLeaks.

WikiLeaks, the celebrated whistleblowing site, may be thought of as an

example of crowdsourcing: it invites people, political activists, civil servants, citizens, or anyone with sensitive information they wish to make public to tell all but without facing any sanctions for bringing about this publicity. WikiLeaks then publishes the information without revealing the source. In July 2010, WikiLeaks published a cache of US military records on the Afghan war, known as the Afghan War Diary. Spanning the period 2004–2010, it included about 91,000 reports on military incidents, revealing high numbers of civilian casualties, and in general painting a bleak picture of the war and the coalition forces. However, sifting through thousands of documents is a herculean task that citizens are unlikely to undertake on their own. Here, the contribution of professional journalists, who have the abilities, skills and time to read and summarize these documents, extracting their significance and their future implications, shows the continued relevance and need for professional journalism. Both technological innovation and traditional journalistic values can and should be put to use in the service of democratic goals.

Summary of Changes in Online Journalism

Media Organizations and Production

- Convergence: the meeting and merging between different media and media forms
- The rise of multimedia journalism and the multi-skilled journalist
- Organizations think of themselves as multimedia rather than single-medium organizations

Contents and Forms

- Live blogging: continuous and informal
- Data journalism: collaborative, complex and labour-intensive
- Gamified journalism: more engagement and connection with audiences, adding depth and contributing to knowledge and understanding

Consumption/Use

- Steady growth of online news consumption and the increasing importance of social media platforms
- Emphasis on social relationships and community building
- Audience metrics and analytics may be changing journalism

Research Activity: Assessing Online News

Readers are invited to choose three different news sites: a legacy news site, an online-only news site, and their social media feeds. Exploring each of these sites, readers should reflect on the following questions:

1. What are the most read/most shared/most liked news items? Do they differ across the various platforms? What does the popularity of these items tell us about journalism in the era of social media?
2. Go to some of the most shared/liked news posts and explore the reader comments. What, if anything, are they contributing to the news?
3. Which sites would readers recommend to other people and why?

In addition, readers can perform the following task. Keep a news diary for a few days. How often do you access the news and from which devices, sites or platforms? Do you follow any news publishers? Think about the stories you may want to share or comment upon. What are their main characteristics? What are the factors that have influenced your decision to share or comment on something?

Further Reading

In this chapter we showed some of the cataclysmic changes that have affected journalism. These articles provide some further discussion of how the news media landscape has changed. Matt Carlson discusses a controversy regarding Facebook's trending news algorithm, which speaks more broadly to the fraught and antagonistic relationship between social media corporations and journalism. Similarly, the article by Tandoc and Maitra shows how social media corporations such as Facebook are influencing the field of journalism. Finally, the article by Welbers et al. shows some of the pressures on journalism stemming from the new possibilities offered by audience metrics.

Carlson, M., 2017, Facebook in the news: social media, journalism, and public responsibility following the 2016 Trending Topics controversy. *Digital Journalism*, 1–17.

Tandoc, E.C. Jr, and Maitra, J., 2017, News organizations' use of native videos on Facebook: tweaking the journalistic field one algorithm change at a time. *New Media & Society*, online first.

Welbers, K., Van Atteveldt, W., Kleinnijenhuis, J., Ruigrok, N. and Schaper, J., 2016, News selection criteria in the digital age: professional norms versus online audience metrics. *Journalism*, 17(8), 1037–1053.

8 Mobile Media and Everyday Life

Learning Objectives

- To learn about the history and development of mobile media
- To explore the spread and diffusion of mobile media across the world
- To understand the implications of mobility and portability for socio-cultural and political life
- To critically understand the significance of portability and the changes it has introduced in everyday life

Introduction

When the originators of *Star Trek* introduced the 'communicator' into the plots of the cult 1960s TV series, they had no idea how popular their gadget would become some 40 years later. shows the 'communicator'. Alongside it is Martin Cooper, the inventor of the first mobile phone. He is holding an early model, often referred to as the 'brick'. Cooper developed a prototype and made the first call on a handheld mobile telephone in April 1973, but the invention did not take off commercially until the 1980s. Given its price, the mobile phone was reserved only for the rich and/or busy business people – the yuppies of the 1980s.

The revolutionary idea behind the mobile phone is that it provides a means by which people can communicate with one another regardless of their geographical location. They no longer need to be in certain fixed places to communicate. They can be in touch with others on a permanent basis regardless of where they find themselves. Perhaps because of this, the rates of diffusion of the mobile phone have been astonishing. But this revolutionary idea was taken a step further when mobile phones merged with the internet, resulting in the smartphone or a computer-phone hybrid. Previously distinct devices, including MP3 players, pagers, mobile games consoles, digital cameras, global positioning and navigation systems, portable media players, and of course personal computers have now become combined in the smartphone. The smartphone typifies two important attributes of the new media: portability and personalization. Perhaps for the first time in history, human beings are able to communicate with one another without the restrictions imposed by fixed devices. Both portability and personalization further introduce an element of continuous availability, as mobile media make us available across boundaries of space and time. As such, they are definitely part of an increasingly mobile network society. But what are the implications of the portability of the new media? What happens when the logic of the telephone is married to the logic of the computer? What kinds of changes have mobile media, now mostly in the guise of the smartphone, introduced to the fabric of social and political life? What broader conclusions can we draw? This chapter will attempt to sketch some answers to these

questions. Beginning with a brief historical overview, it will move on to discuss the political, economic and socio-cultural implications of mobile media.

A Brief History of Mobile Media

While there is little doubt that the mobile media have introduced a new radical dynamic into our relationship with the media, we should not overlook the broader historical context into which they are located. This section will focus on the evolution of the mobile telephone to the smartphone. It will discuss its predecessors, history and development, and then map its diffusion across the world. Much of the power of the smartphone depends on its diffusion: the more diffuse it is the more its usability increases. In this sense, smartphones represent a clear instance of the network society at work: as different networks of users emerge, the uses and advantages of these mobile media increase. But such increases must be understood within the context of aggressive marketing, built-in obsolescence, and media convergence. This section will follow the development and diffusion of the smartphone with a view to eventually identifying their political, economic and socio-cultural impact.

Figure 8.1 *Star Trek* communicator (left); Dr Martin Cooper in 2007 in Taipei (right) (sources: *left*: photograph by David Spalding in Wikipedia, Creative Commons License; *right*: photograph by Rico Shen in Wikipedia, GNU Free Documentation License and Creative Commons License)

From the Mobile Phone to the Smartphone

While for many, the roots of the mobile phone may be traced to popular science fiction of the 1960s, the history of the mobile communicator is a longer one. In fact, we may trace the ancestry of the mobile phone back to Marconi and the invention of the radio in 1894: the mobile may be thought of as a combination of the radio and the telephone. Mobile radios could send and receive signals and were used experimentally in the US police force as early as the 1920s. These two-way radios were seen as being useful only for the emergency services and there were no plans to exploit the technology commercially. According to Lacohée, Wakeford and Pearson (2003), the commercial use of mobile telephones began in 1947 in the USA, when AT&T offered a radio-telephone service between New York and Boston. In 1956 in Sweden, TeliaSonena and Ericsson created the first fully automatic mobile phone system, allowing calls to be made and received in a car, although using the public network telephone system. These phones operated through the car's battery and weighed no less than 40 kilogrammes! The invention and spread of the transistor allowed for the development of lighter phones, but they were still too big to carry around. Since then the developments have typically been discussed in terms of the different 'generations' of mobile phones: 1G, 2G and 3G.

1G is the first generation of mobile phones, which used analogue technology. It was based on the creation of a cellular network that included a series of base stations which provided radio coverage over large geographical areas. This is essentially what allows mobile phones to operate. In 1977, AT&T received a licence from the Federal Communications Committee to start building a cellular network in the USA. Given the size of America, this was not an easy task. In the meantime, in northern Europe, such networks were being developed since the late 1960s by the Nordic Mobile Telephone Group (NMT), and by 1981 Sweden already counted 20,000 mobile phone users (Lacohée et al., 2003). Spain, Austria, the Netherlands and Belgium used NMT services, while bigger countries such as Germany, France, Italy and Britain designed their own systems (Lacohée et al., 2003).

In the late 1980s, as digital systems were gaining more currency, there was a

move to combine mobile phones with digital technology. This led to the development of the second generation of mobile phones. 2G technology, at least in Europe, rested on the Global System for Mobile Communications (GSM), and this provided several benefits to users. Content, that is, phone conversations, were digitally encrypted, which provided greater accuracy and was more efficient in power usage, thereby allowing for smaller batteries, and thus smaller telephones. In addition, 2G phones offered some new services, such as SMS text messaging, which quickly became one of the most popular features of mobile phones. Digitalization led to the lowering of costs, and the mobile phone soon spread across the population. Lacohée et al. (2003) reported that, by 2000, 50% of the UK population owned a mobile phone.

Figure 8.2 A 1980s 'brick' phone: Motorola Dynatac 8000x (source: photo by Redrum 0488, Creative Commons License, posted on www.retrowow.co.uk)

The third generation of mobile phones, the well-known 3G, was launched in the early 2000s, amid much hype regarding their potential. Governments in Europe auctioned off licences and generated vast amounts of money. For instance, in the UK the licence auction generated £22.5 billion and in Germany £30 billion, which led telecoms companies to incur massive debts. Eventually some companies crashed, leaving thousands of people unemployed (Keegan, 2000). Licensee telecom companies were responsible

for providing the infrastructure, which relied on optical fibres to ensure more efficient and quicker data transfer. 3G phones allow for increased speeds and data capacity, making possible the convergence between various mobile devices and, in the end, the rise of the smartphone. Smartphones, however, also have built-in Wi-Fi connectivity, which allows them to access wireless internet services without having to rely exclusively on cable networks. Subsequent iterations, such as 4G technology, build on and improve the network, offering faster speeds and better connectivity. Because of the different ways in which 4G has actually been implemented, the International Telecommunications Union (ITU) refers to LTE technology (or Long Term Evolution), which refers to the path that needs to be followed to achieve 4G speed and connectivity. But in general, the speed and connectivity afforded by late 2G and early 3G, as well as the rise of wireless internet, led to the smartphone.

The Smartphone: From BlackBerries to iPhones

Though the idea of a device that combines the telephone with the internet and with what was known as a personal digital assistant (PDA) has been around for a long time, it was really turned into a functional and commercially successful technology in 2003 with the launch of the BlackBerry 7200 model. The classic BlackBerry model included a black and white screen and a physical QWERTY keyboard. The innovation of the new BlackBerry device was not only the keyboard but its colour display, push email, some Web browsing, and of course phone and text services. In short, this was the first fully convergent device. By the end of 2003, it was estimated that BlackBerry controlled almost 90% of the smartphone market (Ziegler, 2009). The BlackBerry smartphone became so popular it was dubbed CrackBerry. Users were meant to be so hooked on checking their emails and texting one another that they couldn't put their devices away.

Legend has it that Mike Lazaridis, BlackBerry co-CEO, was exercising on his treadmill when he saw Steve Jobs launching the iPhone in January 2007. When he showed his co-CEO Jim Balsillie this new phone, which had a full Web browser, something that BlackBerry's telephone carriers didn't allow them to have, the latter responded: 'It's OK. We'll be fine.' Less than ten years later, in 2016, BlackBerry announced that it would stop making smartphones, concentrating instead on smartphone software development. How did this happen? The new iPhone wasn't seen as a threat to BlackBerry's core business, which was to provide secure and efficient communication. It was seen as a plaything for those more interested in YouTube and other internet pursuits rather than in communication (McNish and Silcoff, 2016). What BlackBerry misunderstood, however, is that the iPhone effectively changed the whole market: iPhone was designed for the Wi-Fi network, not the mobile phone network. Using Safari and Google maps on a phone was a transformative experience for users and this is the disruption that iPhone brought to the market (Griffin, 2015). The app universe that was developed later relied on 3G and 4G mobile networks, but

the possibility that phones can be gateways to the internet was first introduced by the then mostly 2G iPhone in 2007.

Another pivotal moment was in November 2007. The Open Handset Alliance, a consortium of telecoms companies, device manufacturers, software companies and other technology companies, including Google, T-Mobile, Qualcomm, Motorola and others, announced the release of Android, a mobile operating system, as a free and open source tool (Open Handset Alliance, 2007). It was then increasingly clear that the future of mobile phones was the internet. Android's release as an open source tool was intended to 'bring the Internet developer model to the mobile space' and to create an open ecosystem, offering 'more compelling services, rich Internet applications and easier-to-use interfaces – ultimately creating a superior mobile experience' (Open Handset Alliance, 2007: unpaginated).

The App Universe

The 'superior mobile experience' referred to in the Open Handset Alliance 2007 press release was brought into being with the development of the app universe. Apps can be defined as discrete software products or applications that extend the functionality of mobile devices. Android developed and offers for free the Android Developers Kit (SDK), which includes a full suite of tools that enable the development of apps for the Android environment. This led to a new generation of developers for mobile devices, and to an explosion of apps distributed through certain key outlets, such as Google Play. Apple was not far behind, developing Swift (Start Developing iOS Apps), which allows developers to build apps for the iPhone operating system, and to distribute them through their App Store. As of November 2016, iPhone and Android phones controlled over 90% of the market, with about 25% and 68% market share, respectively (Market Share, 2016).

While the iPhone operates as a closed ecosystem with firm control over all aspects, from releasing new versions of iOS, to app development, to distribution, pricing and billing, Android is a fragmented ecosystem, which means that at any given time Android devices may be using different versions of Android, frustrating developers who need to work on a specific version. On the other hand, the flexibility and competitive pricing of Android devices has seen them widely diffused across the world. Notwithstanding the struggle to control the market and the emerging duopoly, the rise of the app universe has led to a set of very different relationships and experiences with our devices. Games, news, health and fitness, and education have been provided for through apps that cater for any kind of need and desire. 'There's an app for that' was a phrase used by Apple in one of its adverts in 2009, and it then became so popular that it moved to trademark it. The impact that the app universe and the ubiquity of apps has had on society and culture will be discussed below. Before that, however, the next section examines yet another revolutionary aspect of smartphones: their global distribution.

Global Diffusion and its Costs

How widespread is the use of mobile devices, and especially mobile internet? Data from the International Telecommunications Union (ITU) point to two main developments: the global spread of mobile internet and the fact that mobile internet is growing faster in the developing world. Neither of these facts is particularly surprising, but together they offer a glimpse of the future internet, in which internet access will be mainly through individual mobile subscriptions rather than fixed household ones.

According to ITU 2016 data, presented in Figure 8.3, while 2G technology has now almost reached saturation with 95% of the global population living in areas covered by it, 3G technology is spreading fast, covering 84% of the global population. However, 3G has only reached 67% of rural populations, pointing to a persistent urban–rural divide in mobile as well as in internet reach (see also Chapter 4). LTE technologies (i.e., very fast networks) reach 53% of the global population.

Figure 8.3 Mobile technology reach (source: ITU, 2016)
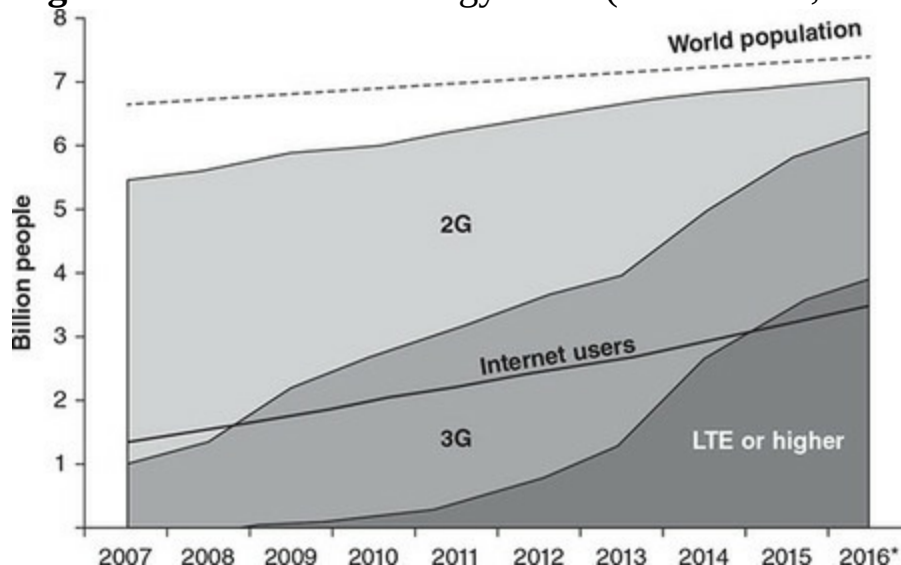
When it comes to mobile broadband, or in other words, internet subscriptions through mobile devices, we see that although in the developed world, Europe and America, almost 90% of the population is accessing the internet through

a mobile device, mobile broadband is growing fast in the developing world too. It is crucial to note here that parts of the developing world did not have access to the infrastructure necessary for fixed broadband, so mobile internet is the only internet service they can have access to. The rise of mobile internet has been an important contributor to economic growth in the developing world, and especially in sub-Saharan Africa. Reports point to the creation of a vibrant mobile economy, which is estimated to contribute 8% of GDP in sub-Saharan Africa, up from 5% in 2014 (GSMA Intelligence, 2015). Mobile internet offers a connection for those previously unable to access the internet, offering services such as financial services, to those who have no access to banks, and creating new jobs, thereby contributing significantly to economic growth.

Given the expansion of mobile internet technology, the growth in smartphone ownership is not surprising. A survey by *eMarketer* found 4.30 billion mobile phone users worldwide in 2016, which is 58.7% of the global population. eMarketer further estimates that the number of mobile phone users will increase to 4.78 billion by 2020 (eMarketer, 2016). Such developments represent an important departure from previous ways of accessing the internet, which is now through a personal device rather than a shared household one. A comparison between ownership of smartphones and ownership of laptops/personal computers is also instructive: in 2015, 25% of people owned a smartphone compared to only 17% who owned a personal computer (Statista, 2016a).

What needs to be discussed further, however, concerns the context of this growth in smartphone use. Notwithstanding the many benefits this might bring to users, it must be read against three related aspects: the aggressive marketing of smartphone manufacturers, the notion of built-in obsolescence and its environmental cost, and the continued reliance on the extraction of resources and use of exploitative labour in manufacturing these devices. Although these are extremely important issues, we can only touch upon them here. Given the importance of the smartphone market, it is no wonder that manufacturers are aggressively marketing their products, using techniques such as product placement, celebrity 'brand ambassadors', PR events (e.g., when launching new products), strategic pricing, emotional branding and so on. These techniques are aimed at increasing the company's market share or

consolidating their existing market share, and while there may appear nothing wrong with this, in order to sustain such practices, companies are moved towards continuously releasing new products. Although there is currently no proof that smartphone manufacturers are planning or building in obsolescence in their devices, these marketing techniques and the fast production cycle for smartphones are contributing factors in motivating users to change their phones even when they are in perfect working order. Proske, Winzer, Marwede, Nissan and Lang (2016) argue that factors such as non-reparability of the devices and the lack of technical support offered by manufacturers are important for obsolescence. They also point to the notion of psychological obsolescence, whereby users want to change their functional devices because they want the new features of the most recent model. Survey data from Austria cited in Proske et al. (2016) show that users believe in planned obsolescence, feeling that their devices are not built to last, and thus they are more inclined to upgrade, even if their device still works.

Figure 8.4 Mobile broadband subscriptions (source: ITU, 2016)
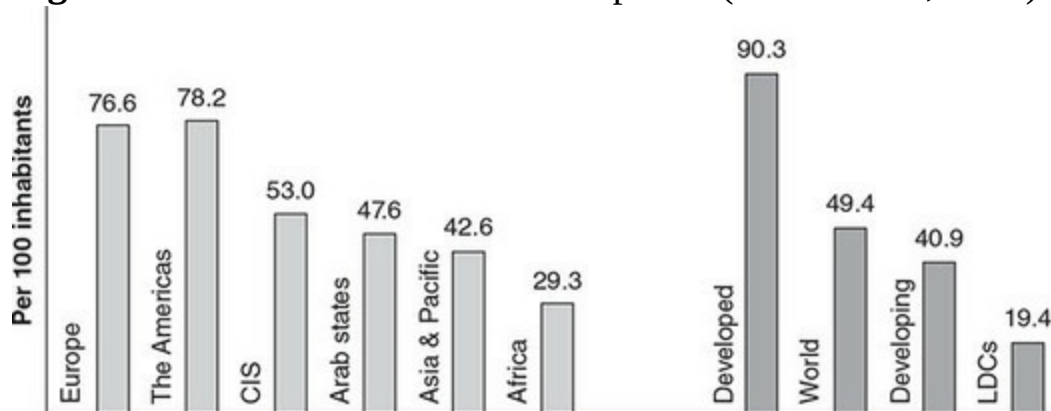
This obsolescence in turn is associated with the environmental costs of the smartphone (and other mobile gadgets). Jussi Parikka (2014) details how our lack of planning for the recycling or further use of these devices is creating a vast wasteland because these products and their components are simply dumped, further burdening the environment. Moreover, he argues that we should see these devices not in terms of their 'virtual' aura, but in terms of what has gone into them. As he puts it, smartphones are '"geological extracts", drawing across the globe earth resources and supported by a multiplicity of infrastructures. The bits of earth you carry around […] include material from the Red Dog pit mine in Alaska (zinc ores), which are then

refined into indium in Trail, Canada' (Parikka, 2014: 37).

This in turn points to the human cost that is also associated with smartphone manufacture. Minerals that go into these devices not only are mined in often non-sustainable ways, but also they can be at the centre of war and conflict. Coltan, tin and gold ores, all used in the manufacture of electronics and especially smartphones, are often mined in conflict-ridden areas, such as the Democratic Republic of Congo (DRC) in Africa. Classified as 'conflict minerals', the sourcing of these minerals must be transparent under US law, and companies must ensure that the minerals they use are not linked to the financing of conflict. This is section 1502 of the Dodd-Frank Wall Street Reform and Consumer Protection Act, which effectively imposed an embargo on minerals mined in the DRC, but which, as Seay (2012) argued, has led to mass unemployment in the country without effectively improving conditions for the miners. Moreover, cobalt, which is not listed as a conflict mineral, is mined in appalling circumstances, while coltan and tin, which are sourced in other areas, are routinely mined through child labour and/or very-low-paid workers. An Amnesty International report showed that most miners work without essential protective gear that would protect their skin and lungs from disease. While Amnesty International documented 80 deaths in the period between September 2014 and December 2015, the true figure is unknown as accidents go unreported and bodies are buried in the mines (Amnesty International, 2016). Amnesty International also highlight the use of children as labourers, quoting the UNICEF finding that approximately 40,000 children worked in mines in the DRC in 2014, most of them mining cobalt. While corporations such as Apple and Samsung have pledged to do more to source minerals ethically, an investigation by the *Washington Post* in September 2016 showed that cobalt from small-scale Congolese mines was sold to a single Chinese company, Congo DongFang International Mining. This company is a subsidiary of Zhejiang Huayou Cobalt, which has been the main supplier of the world's largest battery makers, including those that power Apple and Samsung phones. This, argues the *Washington Post*, calls into question assertions that multinationals are capable of monitoring their supply chains for human rights abuses (Frankel, 2016).

The network enterprise, as discussed by Castells (2001), is a network of firms that has taken over its own production. However, because these firms are not

subsidiaries but independent companies, often operating in different countries, the central enterprise has little control over them. Apple is a paradigmatic network enterprise; it has long relied on a chain of suppliers for the manufacture of its products, and especially the iPhone. Hon Hai Precision Industries, trading as Foxconn, is a Taiwan-based contract-electronics manufacturer, which means that it manufactures electronics products for its clients. Foxconn is the manufacturer of, among others, the iPhone. Because Foxconn is competitively bidding for manufacturing contracts, it is under enormous pressure to produce high-quality products while meeting the time and price requirements. Often, they are subjected to fines when these requirements are not met. These kinds of pressures have led such contractors to try to squeeze more profit out of their own labour force, compromising health and safety standards and offering very low wages. Such difficulties and pressures are thought to be behind a series of suicides in the Foxconn factories in Shenzhen, which peaked in 2010 with 18 reported suicide attempts, resulting in 14 deaths (*Economist,* 2010). Chan, Pun and Selden (2013) have shown how the need to quickly adjust production to increased demands has resulted in excessive (and often poorly or even unpaid) overtime, stretching workers to the limits of their endurance. Workers, mainly young people from rural provinces, have tried to fight back but were met by state repression. The alienation experienced and the exploitation of these workers is eloquently expressed in the poetry of Xu Lizhi, a poet and Foxconn worker who committed suicide in 2014 at the age of 24 (Nao's Blog, 2014):

'I Fall Asleep, Just Standing Like That'

The paper before my eyes fades yellow

With a steel pen I chisel on it uneven black

Full of working words

Workshop, assembly line, machine, work card, overtime, wages

They've trained me to become docile

Don't know how to shout or rebel

How to complain or denounce

Only how to silently suffer exhaustion

When I first set foot in this place

I hoped only for that grey pay slip on the tenth of each month

To grant me some belated solace

For this I had to grind away my corners, grind away my words

Refuse to skip work, refuse sick leave, refuse leave for private reasons

Refuse to be late, refuse to leave early

By the assembly line I stood straight like iron, hands like flight,

How many days, how many nights

Did I – just like that – standing fall asleep?

Xu Lizhi, 20 August 2011

Mobile Media: Politics and Society

While the contexts of production of mobile media show how caught up they are in reproducing dominant relationships of capital and labour within informational capitalism, where labour exploitation is intensified, the contexts of their use point to a different kind of dynamic. Taking into account that smartphones are much cheaper and easier for accessing the internet, that they represent the convergence of telephone, the computer and the camera, thereby allowing people to quickly and easily produce and circulate media content, can it be said that mobile media are more democratic than other media? What might their contribution to politics be? What kinds of new social relations do they give rise to? How do they alter existing social relations? What is their impact on cultural processes? These are some of the questions that have arisen following the growth of mobile media. The responses to these questions have been variable; different theorists concentrate on different aspects, making it very difficult to develop some sort of theory of mobile media. In this section we will try to group together some relevant findings and arguments, positing that, as with the new media more broadly, the positive potential of mobile media for politics, culture and society may be squandered or prevented due to systemic constraints. But this requires us to examine, first, what this potential is and, second, the constraints imposed on it.

To begin with, the very argument that mobile media bring about societal changes points to a kind of deterministic position, whereby these kinds of media determine societal and political processes. We must therefore clarify here that, following Castells, Fernandez-Ardevol, Linchuan Qiu and Sey's (2007) work on mobile media, we consider their use as a social practice. It is not therefore the media as such that 'cause' any kind of effects, but rather their use, as embedded in existing socio-cultural and political contexts. At the same time, as Castells et al. (2007: 238) put it, technology extends the domain of what is feasible. It opens up new opportunities that may or may not be picked up by users. It is therefore the combination of technological 'affordances' – or what the technology of mobility, in this instance 'creates', what kinds of 'action possibilities' it offers – and the distinct characteristics

of the socio-cultural and political environment in which the use of mobile media takes place. Katz and Aakhus (2002) refer to something similar using the term 'apparatgeist' or the spirit of the artefact: for them, to understand mobile media we must understand the kind of 'spirit' or 'essence' the technological artefact has, and the various but specific ways in which it interacts with its environment.

Mobile Politics

In political terms, the articulation of the mobile media with the political environment offers new possibilities for democratization (Rheingold, 2002; Agar, 2003; Lasica, 2008). For others, such as Yochai Benkler (2006), the commercial mobile media are juxtaposed to the open and free character of the internet. Who is right? Perhaps there is no right answer here – rather, we must see the mobile media in a tension with existing power structures – but this tension does not always or necessarily lead to more democracy, equality and justice.

For Yochai Benkler (2006), open wireless networks alongside other forms of the new media have opened up new opportunities for the creation and exchange of information, and increased the role of non-market and non-proprietary production. But for this collaborative framework to lead to more democracy, the network and its infrastructure must be governed not by commercial and market-based interests but by a commons type of governance (Benkler, 2006; Goggin, 2008). Benkler juxtaposes wireless networks to the mobile phones, which are seen as seeking to impose a market-driven regulatory scheme on networks that should be free. In other words, given that telecommunications networks are controlled by telecommunications companies, those companies clearly control access to these networks. For Benkler, the new media must be governed as a commons, that is, in a manner similar to natural resources, to which all of us have a stake (cf. Lessig, 2001). But since mobile phones (the actual devices), their applications and technologies are all controlled through patents, and other means of ownership, the idea of networks as a commons is seriously undermined. Moreover, the rise of mobile broadband relies on mobile grids and the telecommunications companies that run them. The commercialization of the new media commons may prevent them from fulfilling their democratic potential. On the other hand, theorists such as Goggin (2008) suggest ways which will make mobiles part of a new media commons. More broadly, this concerns the governance of mobile networks and not their potential and actual contribution to politics. Do they contribute to an increase or deepening of democracy? If so, how?

Agar (2003: postscript) argued that the mobile phone is seen in various ways: as 'a way of rebuilding economies in eastern Europe, an instrument of unification in western Europe, a fashion statement in Finland or Japan, a mundane means of communication in the USA or an agent of political change in the Philippines'. But through all this, he highlights a common theme emerging. This, for Agar, has to do with the development of horizontal social networks that, in political terms, are critical of central authority. Indeed, the use of smartphone-based apps such as Twitter points to the creation of such horizontal networks. For Agar, this is because the mobile phones of today follow upon the culture of the CB radios, which created alternative communication networks in the 1970s, as well as the early use of mobile phones for the organization of rave parties in the UK in the early 1990s. It's not, though, the case that mobile telephony is inevitably opposing centralized power. Rather, it is in constant tension with it. While mobile phone users may use their phone in ways incommensurable with established power, the multinational corporations that control mobile services are very much part of this establishment. Examples abound: the use of mobile phones for political organizing and coordination is notorious. One of the oldest and best-known examples comes from the Philippines, where the ousting of Joseph Estrada was largely due to protests organized and coordinated through SMS messages (Castells et al., 2007). In other examples, mobile phones have been used in, among others, the Seattle World Trade Organization protests in 1999, the Gleneagles protests at the G8 summit in 2005, and the Athens riots in December 2008. Since then, the rise of internet-enabled mobile phones and the synergies created between mobile phones and social media add new political dimensions to mobile media.

On the other hand, authorities may seek to control such organizing. For example, following the riots in Athens, the government made name registration for pay-as-you-go mobiles compulsory. The anonymity of a mobile phone is no longer possible in this context. In other cases, mobile phone text messages have also been used as a form of direct political marketing, targeting prospective voters with direct SMS messages. Meanwhile, in China, text voting on TV talent shows has been banned, perhaps because it may encourage people to demand more democracy (Lee, 2007). Agar (2003) refers to the example of the Vatican, which refused to host mobile phone masts because they were 'alien to the sanctity of the

Church'. At the same time, the Catholic Church seem to have no problem accepting the Vatican radio masts – a symbol, argues Agar, of broadcasting and its centralized authority and hierarchy. In all these examples, we see the tensions between mobile phones as a bottom-up, grass-roots practice and attempts by politicians, governments and corporations to control them.

Howard Rheingold (2002) refers to this kind of organizing as a 'smart mob', or an 'intelligent swarm': mobile phones encourage a horizontal, network-style organization, characterized by the lack of a central authority and by the autonomy of the 'subunits' that make up the network. Such smart mobs are driven by the 'nonlinear causality of peers influencing peers' (Rheingold, 2002: 178). In other words, individuals using mobile phones remain autonomous, but their choices, motives and decisions influence the rest of the network to which they are connected; in this manner, the mobile network can exist and have a shape without being led by a central authority. Rheingold's perspective on mobil(e)zation (a term coined by Joss Hands (2011)) although interesting, is not without its problems. Hands (2011) argues that it still operates within the confines of liberal individualism – with politics seen as the outcome of individual preferences and decisions – and underneath it all, one can see the maximization of profit, utility or reputation as the prime motivator. From this point of view, the smart mob still operates within the logic of the market: indeed, this is evident in the sometimes successful attempts by advertisers to utilize smart mobs for marketing purposes. But, more broadly, the political implications of the mobile phone may be seen as providing an alternative form of political organizing that is more egalitarian, direct and personal than other mediated forms. In more recent political mobilizations using smartphones, Hands has observed that the emerging collectivities are nothing more than 'aggregations of consumers pressing a "like" or "favorite" button' and thus having no subversive or emancipatory effect at all (Hands, 2014: 246). Instead of a mobilization of a general intellect, Hands observes the emergence of a collective 'idiocy' – the term drawing on the Greek word for 'private' and referring to aggregates of private individuals.

On the other hand, digital cameras embedded in mobile phones have also fed into this articulation of mobility and politics. The most widely known political use of digital cameras is that of witnessing. People have the

opportunity to act as witnesses of a political event, which is recorded by digital cameras and subsequently posted online or sent to mainstream broadcast media. In some cases, videos or photographs taken by citizens have disputed official accounts of events by the authorities: an example is Ian Tomlinson's death in the G20 protests in London in 2009. A video, showing that Tomlinson was attacked from behind by a policeman while he was just walking past, was shot by a New Yorker who happened to be present (*Guardian*, 2010). The possibility offered by mobile media not only to witness but immediately to record events as they happen introduces a shift in the mediation of politics: rather than being decided upon and recorded by mainstream media alongside politicians, politics is happening at a more grass-roots level, mediated by citizens-witnesses who happen to be in a given place at a given time when a politically significant event takes place. This witnessing, recording and, crucially, publishing by citizens with mobile media feeds into this model of a more direct or 'disintermediated' (Hall, 2001), more personalized and experiential kind of politics – a kind of politics that is also less hierarchical and more diffused, since the power for the mediation of politics is now shared by citizens with mobile media. Moreover, this political witnessing through mobile cameras can contribute to the building of global solidarity and alliances. Kari Andén-Papadopoulos (2014) notes that this witnessing through mobile cameras takes place within a changed media landscape which has seen the rise of a global visual economy, where events must be documented through visuals. Indeed, the well-known phrase-cum-meme 'Pics or it didn't happen' testifies to the importance of visuals in order to prove that events happened or to persuade others. For Andén-Papadopoulos, the smartphone's digital camera 'has provided citizens with a powerful means for bearing witness to brutality, allowing for the creation and instant sharing of persuasive personalized eyewitness records with mobile and globalized target populations' (2014: 760). According to Andén-Papadopoulos, the visual information contained in witnessing videos, along with the risks taken by the person witnessing the events, are used to authenticate accounts of events on the one hand, and on the other, the reality of the depictions may end up mobilizing people to take some kind of supportive action.

More recent developments, however, such as the use of fake visuals, or footage/pictures from other events, have led to an increasing scepticism

towards such video accounts of events. The emergence of apps such as TinEye, which allows users to upload images and track their provenance, speak to the circulation of fake pictures and to their unscrupulous use for dubious purposes. An additional source of ambiguity here is the use of such visuals by state authorities. Indeed, surveillance has never been easier for state authorities, which can track users through the GPS signals of their phones or use the metadata generated by phones, pinpointing locations, dates and times. Aware of the potential of such data, state authorities have requested that mobile phone manufacturers allow a 'backdoor access', through which they can remotely access any data stored on the device. Some manufacturers, most notably Apple, have resisted this, referring to the request as a government attempt to turn iOS into GovOS (Yachot, 2016). The American Civil Liberties Union (ACLU) has provided several reasons why such a move would be catastrophic, including the conscription of telecoms companies by the government, the history of biased policing, and the risk of contributing to human rights abuses in other countries (Yachot, 2016).

Ultimately, can this type of politics be considered more democratic? It seems that it is not politics as such that is democratized by mobile media in the hands of citizens, but its *mediation*. In other words, while politics, at least formally, remains as hierarchical and closed as always, its mediation, or the ways in which we acquire information and form opinions about politics, can be seen as democratized in the sense that it is no longer the exclusive monopoly of mainstream media, but is shared by citizens. Clearly, though, we must include a caveat to this discussion: while citizens can and do make use of mobile media for political purposes, they cannot be seen as equivalent to mainstream media. The latter still have a greater control over visibility and setting the agenda, given their resources and professionalism. At the same time, the increased scope for surveillance makes the political potential of this device even more ambiguous.

Mobile Society and Culture

It is perhaps in society and culture that mobile media have brought about the most profound changes. While there are many descriptions and examples of changes associated with the mobile media, it is difficult to order them and identify the most important ones. From a social point of view, the crucial aspect is that of living or being together. From a cultural point of view, of crucial concern is the ways in which creativity, knowledge and cultural output is changing. When it comes to the former, Castells et al. (2007) argue that the main outcomes of the use of mobile media include the enhancement of individual autonomy, the creation of networks of choice, the blurring of the social context of individual practice, and the association of identity markers with mobile media. To these we may add Katz and Aakhus' (2002) arguments on the rise of tensions between public and private. Considering these together, we may conclude that mobile media contribute to the rise of a personal communication society (Campbell and Park, 2008) or, as Castells et al. (2007) put it, a strengthening of the culture of individualism. When it comes to mobile culture, Castells et al. (2007) note that mobile media give rise to instant communities of practice, while the blurring of production and use is also clear: users produce new contents and services, either in the form of shifts they introduce in the language or in developing mobile phone applications, which can be downloaded and used. Additionally, mobile apps create new forms of experiencing and storing cultural output such as music, while the customized mobile artefacts display, in some ways, the dazzling creativity of both users and mobile media designers. In cultural terms, therefore, we may argue that mobile media lead to a renewed cultural creativity but not without costs: associated with consumerism, privatized consumption and display rather than the avant garde, mobile culture does not seem to share the radicalism and criticality of other forms of art. As with mobile politics, the picture that emerges here is equivocal.

Locality and presence

While the diminished importance of space and locality is a development common to both globalization and the network society, mobile media have a

paradoxical relationship to space. Castells et al. (2007) write that mobile media enhance individual autonomy primarily *vis-à-vis* space, time and cultural norms. Whereas other media allow us to communicate across distances, mobile media allow us to completely detach ourselves from locales and communicate at will and across different localities. We are no longer connected by wires that seek to fix us in one place, but through the various wireless networks that have developed, communication is possible across most of the world regardless of where we find ourselves. Moreover, the wide availability of mobile technology across space has allowed us greater autonomy over time: communication is no longer limited to certain times but, as with other new media, it can take place on a 24/7 basis. In addition, the very concept of time changes in and through mobile media: for instance, Katz and Aakhus (2002) refer to mobile phones as leading to 'perpetual contact', and most of us will have experienced empty time (e.g., waiting for a train or bus) filled in by texting or otherwise fiddling with our mobile phones. This constant movement results in increased autonomy *vis-à-vis* socio-cultural norms specific to places: the conventions of communication and interpersonal contact are changed through mobile communications, which allow people to transgress them precisely because they move from space to space.

However, researchers have observed how the importance of place and locality has resurfaced in somewhat unexpected ways. Space differs from place in that the latter refers to the symbolic and psychological significance that the physical space has for people. While the portability of mobile media makes us more autonomous with respect to physical space, it may actually contribute to the rise of the symbolic and psychological significance that various localities have for us. All smartphones include global positioning apps, maps and other ways of geo-tagging. Hinton and Hjorth (2013) argue that mobile media have ended up adding to the complexity of locality rather than eroding it. They see the rise of mobile media as having two main results with respect to locality: first, the expansion of cartography and, second, the blending of social relationships with geographic locations. Hinton and Hjorth (2013) follow Adriana de Souza e Silva's (2011) understanding of hybrid space to denote these new spatial configurations that mesh physical locality with digital and virtual space and which are re-signified through social practices.

Indeed, social media applications allow people to geo-tag their posts, to post and comment on photographs of places, to virtually 'check in' certain places, or even to mark themselves as 'safe' following an earthquake or any other calamity. These 'affordances' are enabling the blending of physical space with the virtual space of social media, with the social practices of users and the meanings they attach to them. These hybrid spaces that emerge acquire a specific significance for people, who re-signify them in terms of their own experiences with them. Through geo-tagging, checking in, using digital maps, and so on, people position themselves in physical and digital space at the same time, understanding and signifying the physical through the digital and the digital through the physical (Farman, 2013). Presence and what it means to be somewhere is therefore radically reconfigured. Farman (2013 argues that the distinction between physical and mediated presence is increasingly blurred and that people experience them in very similar ways. However, occasional mishaps point to the ongoing tensions between physical and mediated presence. For example, there are safety issues involved when people are not aware of their surroundings because they are at the same time 'existing' in a digital or virtual space, for example by listening through their headphones, speaking on the phone, texting, and so on. The New York Marathon has banned headphones for safety reasons. There is an estimated tenfold increase of emergency room visits in the period 2006–2014 attributed to distracted walking while using mobile media (Fowler, 2016). In an incident that made the UK newspapers, a customer was refused service by a supermarket cashier because she was on the phone (Silverman, 2013). Although there are no set rules, the emerging norm is that people should prioritize face-to-face over mediated presence. But the tensions are not resolved.

The summer of 2016 saw the release of Pokémon Go, an augmented reality mobile game, in which players have to catch Pokémons that make a virtual appearance in specific locations close to the players. The interface is a map which locates the player's avatar on a grid that includes Pokémon characters. The combination of locative services, games and geographical locations and the overlay of virtual characters on real, physical space were truly innovative features of this game. This composite world of imagination, reality and virtuality, all converging in a single device, epitomized the hybridity that Gordon and de Souza e Silva (2011) were referring to, and produced what

Farman called embodied spaces, that is, spaces that are simultaneously reconstituting spaces, bodies and social relationships.

A mass personal communication society

What can we make of all this? How do mobile media ultimately impact communication and culture? Following Castells, we might argue that mobile media enhance the control of the subject of communication over the process of communication (Castells et al., 2007). Campbell and Park (2008) argued that since the individual is placed at the centre of the mobile communicative process, we can speak of the rise of a personal communication society. This refers to the idea that society revolves increasingly around interpersonal communication, which is seen as the evolution of the mass-mediated and network society. While the network society introduced the concepts of space of flows and timeless time to refer to shifts in our understanding of space and time, mobile media introduce a variation in these, which are now personalizing this experience of space and time. Mobile networks allow people to become autonomous nodes, independent of space, in freeing them from the confines of specific places and allowing them to communicate with their personal networks whenever they wish. This, however, produces an effect which Gergen (2002) described as 'absent presence': people are there, present, in a given space, but at the same time they are absent as they communicate not with those they see, but with others who may be many miles away. This kind of dislocation is in many ways characteristic of mobile media. In his work on the Sony Walkman, and subsequently the MP3 player, Michael Bull (2006) found a similar effect: people with their headphones on elect to cut themselves off from their environment; they are physically there but they are not really present.

The notion of timeless time is also amplified through mobile media. The idea of constant touch, or perpetual contact, as Katz and Aakhus (2002) put it, refers to the ways in which mobile media have enabled us to stay in touch with others regardless of time. Time is no longer divided into personal, work-related, leisure time, and so on; rather, we can get in touch whenever it makes sense for us. But this perpetual contact and, more broadly, the 'personal communication society' have also introduced a series of changes in the ways in which we connect to others. To begin with, Katz and Aakhus (2002)

describe how the mobile phone has introduced new points of orientation in our discussions. First, phone conversations typically begin with 'Where are you?' as opposed to 'How are you': our new home seems to be within ourselves. Second, it has added to the tensions between public and private. Whereas a telephone conversation is private – indeed, it is legally protected as such – it takes place in public spaces; most of us will have overheard fragments of private telephone conversations taking place on buses, trains or in restaurants. Similarly, while most of us had to work in offices, mobile media, and specifically wireless internet, mean that we can work from home, from a coffee shop, airport and so on: work and leisure are no longer as rigidly separated, but seem to converge. On the other hand, the idea of constant connectivity associated with mobile media has certain oppressive qualities, particularly the dissolution of boundaries between work and leisure, the possibility of surveillance (because your exact location is always known and your phone call data are recorded), while being out of reach is no longer easily achieved. The new excuses used to explain being out of reach, such as 'My battery is low' or 'I have signal problems', indicate the need to account for or justify not-communicating. This, in turn, has given rise to a new set of ethics, rules and regulations regarding the use of mobile phones. The development of a new etiquette and a set of quasi-formal regulations regarding mobile phone use reflects the need to embed mobile media in our everyday lives in ways that require mutual adaptation of the socio-cultural environment to mobile media use, and vice versa.

Case Study Mobile Practices – Sexting

As with most forms of new media, new practices that have emerged around them have fed into moral panics. Sexting has been the moral panic associated with mobile phone use. Formally, it refers to 'the creating, sharing and forwarding of sexually suggestive nude or nearly nude images' through digital technologies such as mobile phones and the internet (Lenhart, 2009: 3). While the prevalence rates of sexting have not been determined – studies differ highly, ranging from 2% to 20% – it is still a minority practice. In a study by Gordon-Messer, Bauermeister, Grodzinski and Zimmerman (2013) on 3,500 young adults in the USA, it was found that 28% of those involved in sexting were two-way 'sexters', and that male respondents tended to be receivers rather than senders. But the moral panic does not concern sexting among adults, only the potentially pernicious effects of sexting for young teenagers.

Hasinoff (2012) identified two main aspects circulating in media discourses: the first concerns fears about anonymity and predators, and the second concerns disinhibited girls. More specifically, Hasinoff points to generalized fears about predators using social media, fears which have become associated with sexting: girls may be forced or tricked into making and posting naked pictures of themselves which can then be circulated without their knowledge or consent, thereby hurting them. Indeed, there have been reports of people who have been blackmailed over naked pictures, although most of these concern young men (Massey, 2016). Other high-profile instances of the non-consensual circulation of sext images have included hacking and revenge porn. The infamous iCloud hack of celebrities' accounts – known as the 'fappening' – that took place in August 2014 resulted in a leak of about 500 intimate pictures. Revenge porn, where intimate pictures are circulated in order to compromise and embarrass the victim by a former lover, has also fed into this moral panic.

The second kind of fear revolves around young girls' expressions of sexuality, which is seen as radically changed from one of being ostensibly innately cautious about sexual activity and inclined towards chastity, to one of careless and risky behaviour that may well spill over to the offline world, leading to pregnancy, sexually transmitted diseases, and so on. Overall, research findings are ambiguous. Some studies (e.g., Benotsch et al., 2013) found that sexting was linked to high-risk sexual behaviours; others, however, report a low level of risk (e.g., Englander, 2012); and yet others suggest there is no risk (Gordon-Messer et al., 2013). In a meta-analysis, Kosenko et al. (2017) found that there is a positive but weak relationship between sexting and risky behaviours. On the whole, such panics have fed into a legal framework that criminalizes sexting and the circulation of intimate pictures, while at

the same time there are public discourses of shaming the people involved, especially the young girls, whose behaviour is perceived as deviant.

For Hasinoff (2012, 2015), emphasis on deviance and criminalization removes agency from people engaged in sexting, and overlooks their right to make consensual intimate pictures. As she notes, the criminalization of consensual sexting may result in further discrimination of low-income, queer and racialized youth. Instead she proposes that consensual sexting could be seen as a form of media production, which allows its authors to have a voice in constructing and expressing their sexual agency. However, this kind of expression and authorship of sexuality does not seem to take place in an equal and non-judgemental manner. In their study of sexting among young teenagers, Ringrose, Harvey, Gill and Livingstone (2013) report the prevalence of a strong double-standard, which can be seen as preventative, as such pictures are made within a culture that is already skewed against girls and women. Ringrose et al. found that boys tended to pressure girls into sending them sexual pictures, but girls known to be sending such pictures where then slut-shamed. Boys, on the other hand, were using such intimate pictures as currency and in order to score points. Easy condemnation of sexting, argue Ringrose et al. (2013: 307), 'does not scrutinise the cultural sexism that normalises the coercive, unauthorised showing and distribution of images of girls' body parts'. For Ringrose et al. (2013), as well as for Hasinoff (2013) and other feminist authors, moral panics around sexting constitute yet another form of seeking to control female bodies and the expression of their sexuality. Girls and women are the ones blamed, shamed and humiliated for making the pictures; it is their fault that the pictures were found in the public domain because they made them in the first place. If we are to take seriously the harm involved in practices such as sexting, we may need to start with the widespread sexism and misogyny.

Mobiles, creativity and identity

Another significant implication here concerns the use of mobile phones by young people, who strive between becoming autonomous and the continuous monitoring of their parents. Indeed, while the mobile phone was initially introduced to young people as a means for becoming more independent while being safe, it is increasingly becoming a tool for parental control, with some parents continuously monitoring their children. The use of mobile phones by young people has had other, parallel implications. These concern the creation of youth subcultures and the associated development of a mobile phone vernacular, used primarily in text messages. The changes in language take us to the domain of culture, and the ways in which it has changed in conjunction

with the rise of mobile media. To be sure, we have all come across some fairly incomprehensible abbreviations in the style of text messages, but it seems that these are becoming like a second language. Abbreviations such as LOL, IDK or IMO have diffused widely, initially through texts and then through social media. More recently, emojis have complemented such abbreviations: a 2015 report found that 92% of internet users use emojis, although women are more frequent users than men, with 78% and 60% using them 'several times a week' (Shaul, 2015). Their main stated reason is that emojis help ground the conversation and help them express themselves more accurately, providing some kind of emotional context to supplement their posts or texts. Emojis were designed in the late 1990s by Shigetaka Kurita for one of the first mobile internet systems in Japan. Kurita said that as the email application was limited to 250 characters, emojis would allow for more efficient communication (McCurry, 2016). What began as a humble set of 176 symbols for food, weather, and some moods and feelings has now expanded to include over 1,000 emojis for just about everything. The original set was acquired by the New York Museum of Modern Art (MOMA) in 2016. In 2012, Fred Benenson translated Melville's classic novel *Moby-Dick* into emojis, giving it the title *Emoji Dick* – the project was funded via the crowdfunding site Kickstarter and in 2013 it was accepted into the Library of Congress. Such developments show the extent of creativity involved in mobile communication and the creation of new organic mobile culture (cf. Goggin, 2012).

Language is not the only creative practice associated with mobile media. Customized colours, 'skins', applications, ringtones and phone accessories show the embeddedness of mobile media in everyday contexts, as well as their links to identity formation. Through choosing a mobile phone, its model, its colour, its 'skin', but also its content, ringtones, playlists, wallpapers and so on, mobile media serve as identity markers, much in the same way as clothes or other forms of cultural consumption mark people's identities. Fortunati (2005) and Katz and Sugiyama (2005) have shown how fashion and mobile phones are intimately linked and both contributing to the expression of identity – mobile phones far exceed the sum of the functionalities offered by the device, having become 'miniature aesthetic statements' about their owners (Katz and Sugiyama, 2005: 64). Of course such expressions are always abetted by, and certainly caught up in, marketing

campaigns and consumer culture.

In general, it is clear that mobile media contribute to the rise of a personalized culture, or as Castells and his collaborators (2007) put it, the intensification of individualism. But this does not reflect the rise of an authentic individualism which, as Theodor Adorno (1978 [1938]) has argued, reflects critical consciousness and is manifested in avant-garde modernist art. Rather, it is a pseudo-individualism based on consumer choices that appear different but which in fact represent variations of the same theme. Indeed, to the extent that mobile media practices do not critically comprehend the world around us, they merely reproduce the same or only slightly different social relationships. From this point of view, mobile media are just the latest development within consumer culture. The long queues and all-night waits of people anticipating the latest release of an iPhone cannot be seen as representing any sort of critical stance *vis-à-vis* society and culture, but merely an obsession with the newest and the trendiest that is part and parcel of consumer culture. From this point of view, the socio-cultural outcomes of mobile media may be seen as proliferating and amplifying the trends more broadly associated with the network society. They also seem to reproduce rather than undermine dominant socio-cultural patterns.

Conclusions

In this chapter we reviewed the main developments associated with mobile media, focusing on the smartphone. The main points and arguments are summarized in the box below. We have seen mobile media introduce important changes in the ways in which we relate to our physical, socio-cultural and political environment. These changes fall within the patterns identified within the network society, but are amplified and intensified through mobile media. The extent, however, to which these changes may lead to improvements in political and socio-cultural life is debatable.

What might the broader conclusions be here? Mobile media must be seen as firmly embedded in our lives. They have offered us the unique possibility of transcending the confines of space and located-ness, allowing us to communicate with others regardless of where we are. In doing so, they transformed the way in which we understand space, and disrupted the boundaries we had placed between private and public space, and between working life and social-private life. Whether the emerging highly mobile, personalized, atomized, hybrid work–social life will offer us more contentment, if not happiness, is still under discussion.

Summary of Main Points

Mobile Media – Main Characteristics

Mobile phones:

- Exponential growth of diffusion
- The future of the global internet is mobile
- Smartphones have ushered in the information age in the global south but exploitation and environmental costs are high

Political Outcomes of Mobile Media

- Development of horizontal social networks that are critical of authorities, but keep in mind:
  - Pressure of commercialization and control of mobile media
  - Intensified surveillance
  - Witnessing, authenticity and veracity

Socio-cultural Outcomes

- Enhancement of individual autonomy
- Personalized space and time
- Tensions between private and public space
- Blurring of boundaries between work and leisure
- Renewed creativity and use of imagination, but
- Dominance of consumer culture
- Changes in constructions of space, place and locality towards hybrid understandings mixing the personal, the digital and the virtual

Research Activity: Mobiles and Everyday Life

The aim of this activity is to make readers think about their mobile devices, and to understand them as both objects and practices. It follows and builds upon the kind of media archaeology discussed in [Chapter 1](#). Imagine that an alien has just landed on Earth and your job is to act as their host and guide. Upon observing people immersed into their mobile devices, you are tasked with explaining what they are for, how they are used, and what exactly people do with them. Your guest might have all sorts of questions, ranging from the provenance of these devices to the variety of their looks and their uses. They may be baffled to see so many people wearing headphones and appearing to talk to themselves. How would you explain and account for such practices? Try to use concepts such as 'mass personal communication', 'present absence' and 'perpetual contact' to explain these practices and their implications.

You can take this activity further by trying to imagine how this alien may communicate with their own people now that they are on Earth and how their people are communicating on their home planet. Can you imagine a different form of ubiquitous and always-on form of communication that does not include mobile devices?

Further Reading

The various uses and functions of mobile media are explored in the following articles. The first, by Hjorth and Richardson, is the introduction to a special issue of the journal *Mobile Media & Communication* and explores the ways in which a combination of mobile devices, games and locative media create new forms of reality and a new sense of play, through focusing on the augmented reality game Pokémon Go. The article by Jason Martin reviews and discusses studies that focused on the relationship between mobile phones and political participation: does the greater availability of mobile phones lead to increased political participation? The third article, by Hoffner et al., explores our personal investment in the mobile phone and how it may affect our identities and sense of self. The final article, by Mary Griffiths, is a review of three different books on mobile media. Griffiths provides a neat summary of the main arguments and a good introduction to some of the issues concerning mobile media.

Hjorth, L. and Richardson, I., 2017, Pokémon GO: mobile media play, place-making, and the digital wayfarer. *Mobile Media & Communication*, 5(1), 3–14.

Martin, J.A., 2014, Mobile media and political participation: defining and developing an emerging field. *Mobile Media & Communication*, 2(2), 173–195.

Hoffner, C.A., Lee, S. and Park, S.J., 2016, 'I miss my mobile phone!': self-expansion via mobile phone and responses to phone loss. *New Media & Society*, 18(11), 2452–2468.

Griffiths, M., 2007, Review article: Future Assemblies: Theorizing Mobilities and Users: Manuel Castells, Mireia Fernández-Ardèvol, Jack Linchuan Qiu and Araba Sey, *Mobile Communication and Society: A Global Perspective*, Cambridge, MA: MIT Press; O. Groebel, E.M. Noam and V. Feldmann (eds), *Mobile Media: Content and Services for Wireless Communication*, Mahwah, NJ, and London: Lawrence Erlbaum Associates, 2006; and M. Sheller and J. Urry (eds), *Mobile Technologies of the City*, London and New York:

Routledge. *New Media & Society*, 9(6), 1029–1036.

9 New Media and Identity

Learning Objectives

- To learn about the relationship between the new media and the construction of identity
- To understand the shifts in identity associated with the new media
- To critically comprehend the changes to gender and ethnic/racial identities as a function of the new media
- To critically evaluate the new kinds of subjectivities that emerge through our association with the new media

Introduction

'Blogito ergo sum' appears to be the new rendition of Descartes' famous dictum 'Cogito ergo sum' – 'I think therefore I am'. In Descartes' original formulation, the point was to show that if one thinks, this is proof that one exists. While thought was the means by which one could ascertain one's existence in the early Enlightenment, blogging, posting, tweeting, texting and so on are the twenty-first century way of supporting and showing one's existence. The connections between new media and people's existence and identity are strong: if we use the media to communicate, they, in turn, enable us to fashion ourselves out of the materials or affordances that they offer us. This may be considered to be one of the medium's messages, to paraphrase McLuhan (2002 [1962]). But the new media may be even more directly involved in processes of identity and subjectivity because of the ways in which they engage with subjects.

But what exactly do we mean by the term 'identity'? In social psychology, identity is defined as all the answers to the question 'Who am I?' along with the specific meaning and significance these answers have for the person (Tajfel, 1981). Tajfel understood identity in terms of a continuum, ranging from personal identity to social identity. Personal identity includes all those identifications derived from individual personality traits and interpersonal relationships, for example, 'I am organized, sociable, caring, [etc.].' Social identity includes all those identifications derived from group memberships, for example, 'I am a woman', 'I am Chinese', and so on. Identity is therefore plural: it contains both personal and social elements, is always accompanied by evaluations, and has important psycho-social implications for the person. From this point of view, the involvement of the new media in processes of identity, both at the level of its constitution and at the level of its expression, has important ramifications for the types of identities a person constructs and expresses, as well as for the person's sense of well-being. In these terms, we need not only to examine how the new media are involved in identity work, but also to evaluate this involvement.

The present chapter will look at the ways in which this relationship has been

theorized in order to provide an insight into any relevant shifts or transformations. The main argument pursued here is that while the internet may be associated with novel means of constructing identities, ultimately these must be assessed in terms of their contribution to self-actualization, liberation and recognition. At the same time, these new identities entail the development of new patterns of inequality and discrimination that have to be taken into account.

The chapter will be divided into three parts. First, it will look at personal identity, or subjectivity and the internet, reviewing classic work, such as Turkle (1995) and Poster (1995), but also looking at how new internet genres, such as blogs or selfies, might be linked to new types of subjectivity (Siapera, 2008; Rettberg, 2014). Second, the chapter will cover debates on gender and the internet, examining the relevant body of work and showing the ways in which technologies interact with gender and sexuality. Finally, the chapter will examine the relationship between race/ethnic and religious identity and the new media, discussing the rise of transnational links and networks, but also struggles over control of identity and visibility.

Identity, the Self and the New Media

If we accept the broad definition that self-identity includes all our personal and social identifications along with their evaluation and their significance for us, the question of how we acquire such identities still remains. Are we born with certain dispositions, which may or may not be developed further? Are we wholly made due to our environment? Or are we endowed with some identities? While there are a multitude of theories on this subject, here we will take for granted that identities are constructed through the various materials we have at our disposal. But how do these materials influence or shape identities? In order to understand the relationship between the (new) media and identity, this section will discuss relevant theories and then seek to identify the role of the new media. It will conclude with a discussion of blogging and social media posting as technologies that construct identities.

One of the most influential theorists of identity, Michel Foucault (1988), argued that identity, especially subjectivity (that is, the ways in which we become unique individuals and selves), is constructed through certain techniques, or practices. These are referred to as 'technologies of the self': the practices by which we get to understand and shape ourselves. These technologies are, in turn, constituted through power discourses. The Christian confession is an example of such a technology. Foucault considered that these technologies worked through configuring identities in certain ways: they allow certain things to be experienced, discussed and felt, and they prohibit others altogether. In this manner they condition us as persons, while also following the requirements of power: after all, our identities must be compatible with the broader socio-political system in which we live. Thus, for Foucault, individuals actively construct their own identities, but using discourses and practices which are already steeped in power relations. To paraphrase Marx, people make their own identity but not out of their choice; rather, they fashion it 'under the given and inherited circumstances with which they are directly confronted' (Marx, 1852). We can only be who we are because of the very specific socio-historical circumstances in which we find ourselves, and in being who we are, we can only use the materials and technologies available to us.

Foucault was at pains to show that while identities are constructed, they are not constructed under circumstances of liberty and free will. Anthony Giddens (1991) considered identities as dynamic, ever-changing and evolving. For Giddens, self-identity is linked to processes of modernity, such as reflection. While in pre-modern times, and even in early modernity, identities were given and static, in late modernity, the self is an ongoing project that we are constantly modifying, updating, safeguarding and so on. This reflexive project is built on the basis of local reflection on global events. Giddens argues that we constantly create and revise our personal narratives, our 'life histories', on the basis of information from our environment. This processing is undertaken through the resources that we have at our disposal. In constructing our identity we take into account any feedback we receive from our environment, and this includes what is happening in our immediate physical environment and in the broader socio-historical context in which we find ourselves. In other words, identities are not static, acquired once and for all, but exist under conditions of permanent ongoing construction – in a perpetual beta phase, to use new media terminology. From this point of view, the materials we use for their ongoing construction, as well as the circumstances under which this construction takes place, acquire an increased significance.

The historical and social circumstances of identity construction are at the heart of Castells' theorizing on identity. For Castells (1997 [2004]: 10–12), identity construction in the network society acquires different dimensions because of the distinct reconfiguration of the global/local and time/space dialectic. He therefore argues that the search for meaning is no longer local or with reference to locally shared frameworks, but *defensive*, that is, obtained in opposition to global discourses threatening local and communally shared values. Castells goes on to make a distinction between project and resistance identities. Project identities are those identities constructed in order to change the world: they are built around a certain ideology. Resistance identities, on the other hand, are stigmatized identities that seek recognition – these are identities that do not enjoy a high symbolic and material status, and they are typical of identity politics. In the network society, argues Castells, all identities tend to become resistance identities; they seek to defend and safeguard their own position. This is why, more broadly, the network society revolves around identity politics.

Conceptualizing Identity and New Media

If these are the broader theoretical frameworks within which we can conceive identity, then what is the relationship between new media technologies and identity? There are three main ways, associated with these theories, in which we can think of this relationship. First, drawing on Foucault, the new media can be clearly thought of as new technologies of the self. They can be seen as instituting new practices for self-construction, always within existing power discourses. In other words, we can, and in fact do, construct ourselves using blogs, social media, smartphones and so on. Second, based on Giddens, new media may be understood as offering the opportunity for reflection and the ongoing construction of the self. As content, on the one hand, the new media confront our selves with global discourses which in turn force us to rethink who we are; as forms, on the other hand, the new media reposition our selves, by requiring that we rethink our selves in relation to specific new media, such as smartphones, emails, blogs, social media and so on. Third, following Castells, new technologies can offer new channels for the construction of communal identities beyond territories, as well as the means by which such identities organize and act upon their demands. These identities cannot exist outside networked technologies.

Castells then posits a fundamental break in identity processes in the network society, while the other two theorists would probably understand new technologies as primarily technically implicated in identity construction – as practices, platforms and opportunities for reflection. Identities change and evolve all the time, but they would find no reason to assume any radical changes in the ways in which identity is constructed. For Castells, however, the shifts in time and space characterizing the network society introduce a fundamental break, such that the construction of identity has moved beyond geographical constraints, and also because of this, it may elude or at least confound power discourses which operate in specific localities. We will see this more clearly in our discussion of ethnicity and identity, but in terms of personal identity, the implications are clear: it is no longer limited or determined by the immediate socio-cultural context of values, requirements and expectations. Does this mean that we end up with an emancipated self?

Theorists such as Donna Haraway and Sherry Turkle also posit a fundamental break in identity processes associated with the new media, arguing for a cyborg self and a fractured, fragmented but ultimately freer self, respectively. The term 'cyborg' refers to a kind of hybrid, a mixture between humans and machines. Popular cyborgs in fiction range from Tin Woodman in the *Wizard of Oz* to Darth Vader in *Star Wars*. All cyborg characters display a mixture of human and machine characteristics, and cannot be thought of as either entirely human or entirely machines or robots. But the term can also be used metaphorically to refer to self or human-made creatures. This is the way in which Haraway uses the term. For Haraway (1991), just as cyborgs mix and choose nature and biology, so do people. Women and men reinvent themselves using various technologies to improve, correct or otherwise alter themselves – they can use various technologies, ranging from the simplest (e.g., wearing glasses) to the most complex (such as having implants or pacemakers). Haraway's main argument is that all of us use technology to reinvent ourselves and that identities undergo constant revision and reinvention through technology. The point, argues Haraway, is that identities are neither given nor essential, unchanging blocks characterized by the same attributes across time. She was primarily arguing against essentialism, or the idea that identities are characterized by a set of fixed qualities or an essence that remains the same. Since we can, and do, continuously undergo changes using technologies, there is nothing in our identities that can be considered fixed or stable. As we shall see later, Haraway's work is of great significance for gender identity and its relationship with new technologies and media.

In terms of personal identity, the work of Sherry Turkle, and especially her book *Life on the Screen* (1995), has been valuable in helping us understand the specific implications of networked technologies in the construction of identities. Multiplicity, plurality and choice are at the centre of Turkle's understanding of identity: people have many identities and are happy to juggle between them while they are seen as making informed choices regarding the appropriateness of certain identities in certain contexts. Her study of MUDs (multi-user domains) – online environments connecting many users together – showed that people are happy to operate with a number of identities. Moreover, the multiplicity and plurality of these identities may also have a therapeutic value, as people are able to reveal aspects of their identity that are otherwise hidden. Freed from the confines of social conventions,

embarrassment and norms, people may express themselves in different ways. In these terms, the anonymity and disembodiment of online subjects lead to identities being liberated from past concerns – online no one knows who you are, so, for Turkle, you can be anyone you want to be. At the same time, there is no 'real' you: your identity cannot be reduced to one of your 'avatars' or online personas. An example of this juggling of multiple identities can be seen in *Second Life*, the user-created virtual community, in which people assume an 'avatar' and live a 'second life'. What is the relationship between second life and 'first life'? Are identities similar or do they diverge, and if so in what ways? While this is an empirical question, it is likely that for some people their *Second Life* avatar may differ dramatically from their actual life: if we follow Turkle's arguments, this may enable individuals to live a more complete life, as they have the opportunity to experience, albeit virtually, different, complementary or antithetical identities. 'Be yourself, free yourself' is one of the injunctions of *Second Life*, and indeed for many participants their experience of this virtual world may offer them precisely this kind of freedom.

However, although plurality and multiplicity (as well as construction) are generally accepted as conditions of identity in late/post modernity, the assumption that online selves differ radically from the offline ones, or that people can really be who they want to be online) is not always warranted. Castells (2001) argues that this type of experimentation is mostly limited to young people, who are yet to construct a core identity. Certainly, most of the participants in Turkle's study were younger people, whose identities were perhaps not as consolidated as those of, for example, people over 25 years old. Similarly, Wynn and Katz (1998, in Baym, 2006) report that in web pages people still maintain a coherent overall identity. This implies that even when given the chance to be someone else, or to express all the multiple facets of their identity, people still seem to stick to one identity which is characterized by a set of more or less stable characteristics. Indeed, we need to have some sort of continuity and stability in our identity if only for others to recognize us and to be able to interact with us. Even the most extravagant avatar in *Second Life* needs to display some stability across time and across the *Second Life* environments in order to be able to participate in the game or virtual world, to make friends, and to experience this kind of online environment. More broadly, it is not that actual norms and rules don't exist in

online worlds; they do. However, they are negotiated in common with others and made to fit new environments and requirements. Some of these norms (e.g., politeness) may be 'inherited' but are modified when online. We cannot live our lives outside rules and norms, but we can reinvent rules and norms to fit new circumstances.

In more political terms, the danger is to overlook the ongoing material and symbolic inequalities in favour of an aestheticized perspective which views identity exclusively as a voluntary choice. Are we really liberated or emancipated because our *Second Life* avatar seems to be? More broadly, however, the general point made by all these theorists is that identities are not inscribed in stone, even if they are involved in power discourses and hierarchies, and that technologies offer new and exciting possibilities to rebuild our identities because online there are no set rules or norms, and because of the ways in which we can play with offline aspects of our identity. But how exactly are new media involved in the construction of identities? To this we turn next.

Technologies of the Self: Social Media and Identity Construction

Perhaps the clearer articulation of the relationship between new media and identity is that of new media as technologies of the self. Technologies of the self, Foucault tells us, 'permit individuals to effect by their own means or with the help of others a certain number of operations on their own bodies and souls, thoughts, conduct, and way of being, so as to transform themselves in order to attain a certain state of happiness, purity, wisdom, perfection, or immortality' (1988: 18). In these terms, these technologies allow us to construct ourselves in very specific ways, circumscribed by these technologies, which give shape and form to our very core. Foucault discussed some of these technologies, most notably the exploration and constant examination of the self contained in the Ancient Greek injunction 'Know Thyself' and the Christian confessional. Through this constant reflection of trying to find and 'know' ourselves, argues Foucault, we construct a very specific kind of self; a reflexive, inner-directed self; a self who as a result has an internal life, as it were, which we can access through examining and monitoring our thoughts and actions. At the same time, this examination also has as its object the body and the self in its 'external', as it were, dimensions: taking care of ourselves. By occupying themselves with themselves, argues Foucault (1988: 19), people can learn and cultivate their selves. Similar principles are found in early Christian religious practices, which involved 'soul searching', the constant monitoring of each thought and act in order to ensure compliance with God's requirements. The main point of technologies of the self is to produce a kind of self or identity that is compatible with social, cultural, religious and political norms and requirements. In this way, the techniques themselves were an inextricable part of identity construction.

If letters, self-examination and confessions were the technologies of the self in Antiquity, what are today's technologies of the self? What kind of subjects or identity do they produce? Since Foucault's technologies of the self are all forms of communication, perhaps we can turn to communication and media forms. This question follows a long line of enquiry into the relationship between media forms and subjectivity. Examples of this line of thought abound in social and political theory. As we have seen in Chapter 5, different

media of communication are linked to different kinds of selves and subjectivities. For example, Georg Lukacs, in *The Theory of the Novel* (1974 [1914]), argued that Cervantes' *Don Quixote* (1605) introduced a new kind of consciousness, which is not the same as that of Antiquity, found in tragedy and epic poems. It further differs from the subjectivity associated with the Medieval Christian world, in which subjects were in the hands of God. Rather, in the modern novel, subjects are confronted by a fragmented and alienated world, where neither gods nor God can offer help or support. They must therefore find and impose their own narrative, which is based on reason, to explain and make sense of this world. A similar argument is pursued by Habermas (1989 [1962]), for whom the rise of the 'moral novel', such as Richardson's *Pamela* (1740), led to the creation of an inner self – this is the so-called 'audience-oriented subjectivity', in which we imagine our life as narrated to others. The advent of mass media led to important changes in subject formation. Guy Debord (1967) documented the rise of the society of the spectacle, in which images proliferate and subjects are positioned through consuming these images. The multiplicity of these images, however, is fragmenting subjects, who cannot be identified with any single sign or image. The changes introduced by the advent of the digital world are discussed by Mark Poster (1995), whose idea of the digital author refers to the kinds of subjects who may produce text, but are not in control of it: their texts may acquire different meanings and may be put to different uses as they traverse cyberspace.

If we turn now to social media, as some of the most widely available means of online communication, and we consider these as technologies of the self, then what kind of subject do they produce? To begin with, we must note that social media accounts offer people the opportunity to reimagine themselves and to become subjects – as opposed to merely playing with identities, as one finds in virtual environments such as *Second Life,* and also as Turkle suggested. Becoming a subject requires the acceptance of difference and multiplicity within oneself, but also to manage to retain a sense of precarious togetherness. The technical characteristics of social media platforms (posting status updates, sharing, uploading photos and videos, tagging, etc.), the ability to shift between modes of address (to readers, to friends, to oneself), the discretion enjoyed by the poster over what they post (they can write about whichever subject they choose; they can post photos or videos, write one-

liners about any topic, or more detailed posts, and so on) – all point to the construction of a different kind of subjectivity that differs from the one cultivated by letters, confessionals, novels and mass media. Elsewhere I have referred to this as an 'authorial subjectivity' (Siapera, 2008): in this mode and through posting on social media, a person acquires ownership and responsibility over what they say (and hence what they are), thereby becoming autonomous. But autonomy here is not seen as radical separation from others; rather, it refers to the ability to judge, evaluate, think and act through self-instituted and self-assessed modes. And this kind of autonomy is a collaborative one: through looking at other blogs and posts we take a position, we 'like', 'dislike', share, comment, link to, and so on, while others do the same to our posts. In this sense, posting creates a self who is in constant revision alongside and through others. It is different from: letter exchanges, as these take place between two people and are private; self-examination, as it is a reflection performed by one on one; the confessional, as this is done in the privacy of the church or the psychoanalytic couch; novels, as these are written by others and internally projected; and the mass media, as posting is not a spectacle prepared by others for mass consumption. As a result, in and through posting on social media sites, subjects emerge as autonomous (that is, different from others in specific ways), but this is a social kind of autonomy, as it takes place in the virtual presence of others and involves a kind of exteriorization of one's 'inner' thoughts, ideas, opinions, experiences and so on.

An important aspect of identity construction through social media is captured in Nick Couldry's notion of presencing (Couldry, 2012). Couldry uses the term to refer to all the activities on social media sites that involve posting information or representations about oneself for the purpose of '*sustaining a public presence*' (2012: 50, italics in the original). Presencing, argues Couldry, is about making an objectification of one's self, as a response to the emerging requirement that one is present online. In creating and sustaining their online presence through social media, people need to take into account, on the one hand, the digital environment and its technical affordances and, on the other hand, the social norms and etiquette that has emerged.

In thinking of the technical aspects of social media, they are characterized by a certain permanence. The archival aspects of social media accounts mean

that they can act as depositories of memories, ideas, thoughts, but also their existence, to a degree, constrains the person, as archived content potentially remains there forever. Consider, for example, the 'your memories' function introduced by Facebook, whereby users are shown a post from their own archives and then choose whether to share it or not. While this function allows a degree of choice as to whether this can be shared or not, this material is there and can be accessed by anyone, depending on the user's privacy settings. boyd (2011) refers to this element as permanence; social media and online data are there to stay unless people take active steps to remove them. Our current selves, now at a different life stage, may be compromised by posts of our younger selves. Such posts may come back to haunt us, as many people have realized. In some ways, posting on social media sites operates on the dialectic between control, as users have almost absolute discretion over their posts, and loss of control. This loss of control is epitomized in the following: the moment posts go live, they can be used and quoted out of context, and in general acquire a life of their own beyond the narrow confines of the social media account. Users can find their comments or posts shared, retweeted or reblogged in totally different contexts and given very different meanings.

Additionally, users need to navigate the increasingly complex social aspects of social media presencing, such as the simultaneous participation in social, family and work networks. Posting for one kind of network may be inappropriate for another, so users must learn to address all kinds of networks to avoid causing offence or appearing inauthentic. The boundaries between contexts, in terms of space, time and the social groups to which we belong, have increasingly eroded, leading boyd (2011) to refer to a collapse of contexts. The various Facebook or Twitter fails that circulate online constitute a means by which people become more aware of the dynamics involved in social media, learning and socializing the emerging norms. We therefore learn how to manage our selves more efficiently across the various social media platforms. In doing so, however, the construction of the self becomes less of a project of autonomization and more a strategic or instrumental performance. From this point of view, it is clear that authenticity emerges as a key value in social media presencing: we are expected to present a self that appeals to all audiences, is consistent across time, but that also remains true to oneself. Recent debates about the fakery of some social

media accounts, especially the contrivance that goes into selfies, reflect these struggles and pressures.

Specifically, social media open up at least two interrelated types of struggle: one is that of visibility (Thompson, 2005) and the other is that of popularity. Being visible is as important, as readership and connection to others is part of the appeal. Equally, popularity, understood as the extent to which posts are liked and linked to, is an important aspect as it offers a kind of reward and recognition. But these two dimensions have led to the emergence of strategic or tactical posting that seeks to increase visibility and popularity. The 'like economy' that has emerged further removes social media identity practices from autonomization and emancipation. Rather, it ties social media to prevailing logics of popularity and microcelebrity (Senft, 2013). Moreover, there is an increasing convergence of social media and mainstream media logics, as Marwick (2015) found in her study of Instagram. Looking at the most successful Instagram accounts, Marwick reports that they tend to reproduce conventional hierarchies of luxury, celebrity and popularity that imitate the mainstream celebrity culture. It is no wonder that it is Instagram that has generated the most vocal discussion around fakery and contrivance. In 2015, a young Instagram blogger, Essena O'Neill, posted a video denouncing her presence as fake. She re-captioned her pictures, pointing to the various ways in which they were contrived, and opened up a public discussion about the pressures created by social media, especially for young people.

Such public discussions may be useful in contextualizing and repositioning social media in people's lives, but, on the other hand, they can be linked to moral panics and exaggerated positions on the harm they may be causing. Two related kinds of moral panics have emerged: one around the notion that social media practices such as selfies have given rise to a narcissistic culture that cares only about appearances; and the second, that social media pressures lead to depression and harm our psychological well-being. Is there any merit in these accusations? Neither of these is easy to determine, given the inherent ambivalence of technologies of the self. However, there may be something in the relationship between social media and psychological well-being. In a study by Steers, Wickham and Acitelli (2014), it was found that the amount of time people spend on Facebook was associated with depressive symptoms.

Steers et al. posit that this is because of the social comparison that people undertake on Facebook. This may be something that the public discussion alludes to: given there is so much emphasis on presenting a perfect self online, users may mistake this for real life, and feel depressed because they cannot emulate such perfection. However, the Steers et al. study reports depressive feelings across all types of comparison: upwards, where one looks at 'perfect' accounts, non-directional, and downwards, indicating that the very process of social comparison may be detrimental to one's psychological well-being. In subsequent work, Steers (2016) makes a distinction between social media activities that are understood as connecting activities, such as conversing with friends, and those that are understood as disconnecting, such as evaluating ourselves by comparing ourselves to others. It is primarily disconnecting activities that are linked to negative consequences, while dialogue and exchanges with others appear to have positive effects. Steers argues that the push towards such comparisons may be the outcome of the architecture of social media platforms. Indeed, this may be the case with Instagram, whose visual structure invites these kinds of comparisons. On the other hand, social comparison is part of what people are doing in social media. As Foucault (1988) argued, power, which is inscribed in all technologies of the self, is both oppressing and enabling: it fashions individuals and selves in given ways, but in making them subjects it allows them to act; in so doing, people actively modify and rewrite the conditions of their existence. At the very least, these studies suggest that the relationship of the self with social media is indeed complicated.

Case Study Selfies and the Quantified Self

Although self-portraits have a long history in art, the popularity and sheer volume of self-photographs taken and posted in social media have created much debate, especially focusing on the links between selfies, narcissism and a superficial concern with aesthetics and external appearances. A parallel practice is found in the technologies that allow the tracking, storing and processing of quantitative information about the self. What can we make of these practices? And what do they mean for the project of the self and for the current state of our culture?

In her discussion of selfies, Jill Walker Rettberg (2014) argues that self-representations can be textual, visual or quantitative, and that none of these forms was invented by social media: rather, they are all part of a long genealogy of thinking about and representing ourselves. The criticisms and frequent ridicule of selfies constitute a form of social discipline that parallels the wider misogynistic practices that have emerged online (Burns, 2015). Burns (2015) shows how such criticism is focused on women, and especially younger women, who were ridiculed for being superficial, narcissistic and too focused on appearances. These criticisms against gendered selfies persist, although research has documented that both men and women take selfies (Mendelson and Papacharissi, 2011). Rettberg (2014) argues that what such criticism does not take into account is that although selfies are about the self, they are part of a broader conversation. Similarly, Papacharissi (2014) points to the storytelling attributes of selfies, holding that they are ongoing projects, performed in order to find expression or connection in front of actual or imagined audiences.

The storytelling and aesthetic elements of selfies are subsequently stored, archived and searched in line with the technological affordances of various new media platforms and devices. But this aspect, the technological counterpart to the creative and narrative part, constitutes in itself a way of writing or constructing ourselves via digital media. The ongoing concern with documenting and tracking everything has expanded to include the self. Again, this is not a totally new practice but has a long history: Foucault's discussion of Marcus Aurelius's letters to his tutor shows an early form of objectifying the self and collecting information about oneself. Foucault points to the meticulous listing of mundane details in Marcus Aurelius's letters, and the tracking of diet, exercise and other such information, and outlines the difference between this practice – focusing on what one did – and the focus on what one thought, which characterized the Christian confessional.

Portable and other wearable devices and platforms extend these practices considerably. Such media automatically track, collect and relate to us information

about our bodies, the function of our internal organs, the calories we consume and burn, even our sexual performances. This is the project of the 'quantified self', and as Rettberg (2014) puts it, it constitutes the personal equivalent of Big Data. As with Big Data, however, we collect all this information and can illustrate it in engaging ways, but we are not yet sure what kinds of questions can be answered with all these data. Foucault (1997 [1988]: 225) made the point that technologies of the self aim to transform the self 'in order to attain a certain state of happiness, purity, wisdom, perfection, or immortality'. The implication is that by collecting data and information about ourselves, we become happier or better – that we improve in some ways. But this in turn implies that data and information can do this for us; this points to the fallacy of 'dataism' (van Dijck, 2013), or the belief that we can obtain objective quantitative information about all kinds of individual and social behaviours through online media. This belief fails to take into account the contexts within which such behaviours are produced and the contexts in which they are interpreted. On the other hand, as Rettberg (2014) points out, such techniques also involve the pleasure of control and knowing about ourselves (and others), even if this is illusory and often of little actual value: knowing that one slept heavily or lightly, the average calories eaten at lunch, or the average pulse rate in a workout do not necessarily constitute very interesting or valuable information.

The masses of data generated by these devices serve another purpose, if they are examined from a sociological point of view. Giroux (2015) argues that such technologies are part of a broader culture in which we are happy to surrender our privacy rights and become used to the constant surveillance and monitoring of security agencies. Additionally, these technologies and practices are the site of an intense commodification of even our most intimate details – indeed, all these apps, portable devices and online platforms actively monetize the content and services they offer. Giroux finds that rather than the selfie culture being parallel to and separate from socio-political and economic context, it is in fact a symptom of the increased individualization and devaluation of the social, along with the intensification of corporate and state control. Although Giroux may appear to be discounting human agency and inventiveness, his critique shows the ways in which these are subsumed and exploited by broader socio-political formations, such as neoliberalism. As such it offers a useful corrective to either celebratory accounts of new bottom-up cultures or critical accounts that stem from conservative viewpoints.

Gender Identities and New Media

If we accept that self identities or subjectivities are constructed, then where does this leave gender (and other ascribed) identities? Since at least Simone de Beauvoir's *Second Sex* (1953), we know that women are made, not born. That is, gender is an identity that is constructed rather than one we are born with. While we are born girls or boys, the meanings, behaviours, values, desires and expectations formed around our gender are constructed on the basis of dominant discourses and gender ideologies. In other words, we are conditioned to be male or female, women and men, and to act in ways commensurable with these gender identities. As with self identities, we make these identities out of the materials available to us, but in the case of gender these materials are much more limited and prescriptive: gender roles must be strictly adhered to. Indeed, most feminist authors theorize gender identity in terms of precisely the restrictive and prescriptive gender discourses while also seeking to identify ways of undermining and changing these discourses. It is in this dynamic that we can locate the role of the new media: in enabling or creating new opportunities for the articulation of gender identities, which may in the end prove less oppressing and more liberating for the people who embody them. In discussing these issues, this section will begin with a short discussion of gender, before examining the ways in which gender is articulated in the new media. We will then discuss cyber- and techno-feminist theories and the extent to which the new media contribute to more equal gender relations.

Theories of Gender and Technology

Judith Butler (1993) described the process by which gender identities are generated and become consolidated as a process of repetition and reiteration: this is the concept of performativity. We acquire our gender identity through repeating what is expected of us, what we see others doing, and what we have been taught as acceptable for our gender. But these gender performances in different contexts also contain the grains for change and for undermining dominant discourses on gender. We perform or act on the basis of pre-existing expectations and norms but in the process of doing so we end up modifying such expectations. According to Butler, this modification is based on the mismatch between contexts and performances. When a 'wrong' or inappropriate gender performance takes place, it opens up the way for a new interpretation of gender. For example, drag is a kind of inappropriate gender performance because it is the 'wrong' gender, but in this exaggerated performance, room is created for a different imagining of gender.

Following Butler, new technologies may be articulated with gender in at least two ways: first, as a different context for performances of gender, which in turn help institute a new kind of gender interpretation. For example, acting as a woman or a mother in an online environment contributes to changing the meaning of womanhood and motherhood, because it articulates the discourses of motherhood or womanhood with those of the new technologies. In acting as a mother online, we reinstitute a gendered identity and at the same time we change this identity, which now may have another set of values or expectations attached to it. Second, gender may also be performed differently in online environments. This refers to the virtuality of online environments, which do not require strict adherence to the norms and conventions of face-to-face encounters and allow for different, more playful gender performances to take place. In practice, this means that we can pretend to be any gender we want in online environments, and/or to attach to gender any kind of behaviour we see fit. Thus, just as drag undermines conformist gender identities, so gender masquerading in online environments may radicalize gender to an unprecedented extent: it may allow for an understanding of gender identity that is disembodied from our actual bodies and their biologies, while, following this, it may transgress the binary

male/female by leading to the creation of fluid identities (Rodino, 1997; O'Brien, 1999; cf. van Doorn, van Zoonen and Wyatt, 2007).

In the early days of internet research, in the mid- to late 1990s, these gender plays were discussed as one of the ways in which new media would revolutionize gender and contribute towards eradicating the gender divisions that have for so long plagued the world. For instance, Danet (1998: 130) argues that gender masquerading online may 'contribute to the long-term destabilization of the ways in which we currently construct gender'. But does this translate to actual changes in gender identities? Lori Kendall (1996) is pessimistic about this. In her work on MUDs she found that in the end most people were pressed to reveal their 'real' identity. Perhaps more problematically, people tended to reproduce gender stereotypes when they assumed the identity of another gender. In similar research, Leslie (1993, in Danet, 1998: 140), described how when men masqueraded as women, they tended to act as 'late adolescent males wish they would, responding with enthusiasm to all sexual advances'. Others argue that this masquerading offers at best temporary respite from the oppressing qualities of gender rather than lasting change.

More recent research on blogs and gender has shown that, on the one hand, blogs tend to focus on 'real', everyday life, unlike the often imaginary, virtual world of MUDs, such as *Second Life*, and as such they relate directly to bloggers' lives (van Doorn et al., 2007). From this point of view, there is little room for gender experimentation and the creation of unconventional or alternative, gender-bending identities. Indeed, a study by Schwartz et al. (2013) found highly stereotypical gendered language on Facebook, with females using more words denoting emotion, such as 'excited', and more mention of psychological and social processes, for example, 'I love you' and '<3'; males used more swear words and object references, such as 'Xbox'. On the other hand, it is often said that technology is gendered, that it has a given gender, and that this gender is masculine: technology serves ends devised by men, it is developed and used by them and for them (see Wajcman, 2010). Feminists have long tried to identify the ways in which gender is actually written in technology. Blogs, as a technological artefact, are meant to be equally gendered, but their personal, experiential, confessional style is meant to be more feminine than masculine. On this

basis, van Doorn et al. (2007) argue that in fact blogging may be contributing towards opening up feminine discourses and allowing the plural expression of gendered identities. This may be supported by the finding that more women (74%) are using social networking sites than men (62%) (Pew Research Center, 2013).

Gendered Technologies

However, in arguing that technologies and artefacts are gendered, the implication is that genders and their identities are somehow already written and unchanged through time. The point of these arguments was to show the gender inequality inscribed on technologies and media, but it inadvertently ended up essentializing identities, as it ascribed certain core, essential and unchanging characteristics. And here the work of Donna Haraway (1991) acquires an increased significance. It is as a response to this kind of essentialism that Haraway suggested the concept of a cyborg, arguing that all of us are 'human made'. We integrate our lives with technological objects and other artefacts, and as such we can be considered 'cyborgs', hybrids of humans and machines. Haraway was also writing against a particular type of feminism which grouped all women together on the basis of a shared identity. Her arguments for gender mean that we cannot assume that all women share the same identity just because they share certain biological commonalities. Politically, this means that groups that have traditionally been put together because of perceived biological similarities (e.g., sex and race) must now find new means of connection, based on choice – the politics of affinity: 'related not by blood but by choice' (Haraway, 1991: 155). In terms of technology, Haraway recognizes that technology is ambiguous: on the one hand, it subverts nature, helping people to overcome limits and boundaries set, but, on the other hand, it may become a tool for control. More broadly, Haraway's ideas represent the position that technology, especially online media, with their emphasis on the virtual, may enable women (and men) to free themselves from bodily limitations. Sadie Plant (1998) holds that technology effectively blurs the boundaries between humans and machines and this has the potential to liberate them from constraints associated with their gender.

However, as Wajcman (2010) has observed, the implication here is that everything that is digital is necessarily positive, something that is unfortunately far from the truth. Even if we accept Manuel Castells' argument that patriarchy is dead, and although women do participate in almost equal numbers in digital worlds, the reality of the new media is that they are still tied to stereotypical gender identities. Although the idea of cyber-feminism is that gender identities can be transgressed through or in

digital culture, the reality is that gender identities remain as defining identities in both the actual and virtual worlds. This is evidenced in both material and symbolic domains of digital cultures. Concerning the former, Rosalind Gill (2002) reports that women are bearing the brunt of the *ad hoc* project work associated with the new media. They tend to get less offers for work; they are in general paid less, and suffer more job insecurity. Gill attributes these differences to the informality of this kind of work, which tends to favour men and their 'old boy networks', as well as to the discourse of flexibility, which effectively means working at all hours of the day. Another kind of issue, as Gill notes, concerns the ways in which this kind of project-based digital work actually individualizes the risks associated with work, and ultimately leaves women worse off, as they have to pay for social security contributions, maternity leave, pension schemes and so on, on their own. In the domain of the symbolic, the domination of overly sexualized, exaggerated body parts and quasi-pornographic aesthetics of some female avatars are emblematic of the ways in which stereotypical and male-oriented understandings of women are embedded in digital domains.

Where does all this leave the relationship between gender identity and technology? If we take Judith Butler's arguments seriously, gender is a performance: it comes into being through the ways in which it is performed. Similarly, if we follow closely a social constructivist understanding of technology, then we must see it as equally shaped in and through its various uses. Bringing these two strands together, it can be argued that gender relations are materialized in technology, while gender identities acquire meaning through their involvement in and use of technologies (Wajcman, 2010). As Wajcman (2010: 150) puts it: 'the materiality of technology affords or inhibits the doing of particular gender power relations. Women's identities, needs and priorities are configured together with digital technologies.' Both technology and gender are moving targets, involved in a fluid relationship in which they co-constitute each other (although they are also co-constituted by other elements). Because of this we cannot know in advance if certain new media are 'good' for gender relations or liberating for women: rather, this becomes both an empirical question for feminist scholarship and a political one for feminist praxis. The former aims at observing the ways in which certain new media forms may contribute to more equal gender relations, while the latter seeks to come up with new

media actions and practices through which to institute more equal gender relations.

Recent developments, however, have made this relationship even more complex: online misogyny, trolling, revenge porn and hate speech aimed at women. Although there are at this point no detailed statistics as to how widespread these phenomena are, the Pew Research Center reports that in the USA 40% of internet users have experienced harassment, while men and women experience different kinds of harassment (Duggan, 2014). However, women, in particular young women aged 18–24, experience the most severe kinds of harassment. There is also mounting anecdotal evidence of harassment of female journalists and commentators, especially those focusing on games, technology and feminism. As Laurie Penny (2013: 10) put it: 'Germaine Greer wrote in *The Female Eunuch* that women had no idea how much men hate them. Well, now we do.' While Penny recognizes that in part this misogyny comes from online geek cultures, she primarily views it as a throwback that will be overcome if geeks can get over their misunderstandings and stereotypical views of women. Angela Nagle (2015), however, considers that the relationship between geeks and misogyny is more complex, and the actual manifestations of misogyny are unique to the culture. Nagle refers to this kind of misogyny as transgressive countercultural antifeminism, and finds that it is parallel but not identical to the traditional conservative misogyny and sexism associated with the mainstream media. She locates its origins in the 4chan /b/ forum, the same forum that has given rise to Anonymous. If, indeed, this is a new kind of misogyny, specific to the internet and geek cultures, we need to do more work in unpacking its specific dynamics as well as in thinking about ways of countering it (Jane, 2014a). This acquires crucial importance since mounting anecdotal evidence shows that women are shying away from topics relating to technology and feminism in order to avoid exposing themselves to this kind of hate. It is clear that the material and symbolic consequences of online misogyny need to be much better understood for any intervention to be successful in countering this hate (Jane, 2014b).

Ethnic and Religious Identities in the New Media World

So far we have seen that the relationship between new media and identities, self and gender identities, is a complex and ambiguous one. Perhaps in the case of ethnic and religious identities the situation may be different, as we know from Castells that new media erode territorial boundaries and minimize the importance of geographical divisions. In discussing this relationship, this section will begin with a brief discussion of Castells' work on the relevance of ethnic identities in the network society, and a short discussion of Giddens' examination of religious identity in late modernity. We will then discuss the various articulations of ethnicity with the new media and assess the role of the new media in contributing to emancipatory practices for ethnic and religious identities. For a more detailed review of this area see Siapera (2010).

In sociological theory, ethnicity is understood in many ways. Some, such as Clifford Geertz (1973), hold that ethnicity is based on historical continuity, which in turn is linked to commonalities of culture, traditions, language and so on. Others, such as Ernest Gellner (1983), find that ethnicity and the nation-state, which he views as the political organization around ethnicity, have been brought to prominence because industrial capitalism required a culturally and linguistically homogeneous workforce. From this point of view, commonalities and ethnic traditions are modern inventions that helped capitalism to function (Hobsbawm and Ranger, 1983). In both cases, however, ethnicity is circumscribed by geographical borders and shared territories, while it is underpinned by some sense of historical continuity (Hobsbawm and Ranger, 1983), albeit for some this is invented or imagined (Anderson, 1991 [1983]). Regardless of the provenance and function of ethnicity, its role in providing meaning to people's lives is generally acknowledged. Throughout history, ethnicity formed the basis of cultural attachments, differentiations, as well as outright discrimination in some cases. Now, given the radical ways in which new technologies transform space and time, what is the relevance of ethnicity and ethnic identities in a globalized

world? If we accept Castells' arguments on the space of flows and timeless time, then it follows that ethnicity cannot be defined either by geographical boundaries or by historical continuity. Where does this leave ethnic identities?

Theorizing Ethnicity and Religion in the Network Society

Castells (2000 [1996]) accepts that ethnicity and race still exist in the network society, but argues that they do not any longer have the power to provide strong common identities. This is because their territorial basis is no longer relevant as space has become delinked from territories; at the same time, their historical significance is undermined precisely because of the lost relevance of territories, which provided the context to common ethnic bonds. In short, we no longer understand ourselves as rooted in particular territories, as we take meaning from participation in different networks, which are not bound to geography, but which create their own space. Confronted with this reality, argues Castells, ethnicity has two options. The first is to attach itself to broader cultural communes, such as religion, and in this manner to operate as a 'statement of cultural autonomy' (Castells, 2000 [1996]: 63). In other words, ethnicity is grafted on to other communal identities which then lend their appeal and significance to it, and enable it to survive albeit in a different form in the network society. A second option is to function as a kind of territorial identity but rooted in local communities, gangs or turfs, as Castells put it. In either case, the meaning of ethnic identities is changing as a result of their role and function in the network society. To paraphrase Gellner (1983), ethnic and racial identities now operate in terms of the requirements of informational and globalized capitalism.

The shifts and changes undergone by identities that have their roots in earlier historical periods are found at the root of Anthony Giddens' (1991) work on identity. As we discussed earlier, for Giddens, identity in late modernity is understood as a project and a process: it is dynamic and evolving on the basis of reflecting upon itself and making use of the information it receives. Religious identities, from this point of view, are incompatible with modern identities as they are based on dogma – a set of unchanging and unquestionable beliefs and practices. Giddens' argument is that we may see some resurgence of religious identities, but this is a reaction to the lack of a clear guiding ethic and moral principles for modern identities. In addition, they may be seen as reactions to the broader environment of risk and uncertainty associated with late modernity. Understood as reactionary,

religious identities appear at odds with both the liberal environment of the internet/new media and its high tech credentials, which point to a dynamic relationship with the everyday rather than to any kind of metaphysical transcendence.

Race/Ethnicity Online

Notwithstanding the many contradictions in the conceptualization of ethnic and religious identities, the empirical reality of the new media is very different. Online, both ethnicity and religion proliferate and even profit significantly through their association with the new media. Looking closely at the articulation of ethnic and religious identities with the new media, we can observe both continuities and transformations. Although continuities include the function of these identities as markers of difference, their articulation with the new media has deeply affected their structure and wider role in society. To begin with the continuing role of ethnic and religious identities as markers of difference, statistical evidence suggests some differentiation in the use and consumption of new media in terms of ethnicity. This kind of evidence points to the function of ethnicity and religion as the bases not only for difference but also for discrimination. The work of Lisa Nakamura is instructive. Nakamura (2002) argues that ethnicity and race in online environments is 'coded' differently, reflecting the different and changing roles of various ethnicities in the division of labour within informational capitalism. She uses the term 'cybertyping' to refer to these new kinds of ethnic and racial coding in the new media environments. Her work shows that Asians are considered to be very technologically capable, while blacks are seen as 'techno-primitive', and whites are found in the 'normal' middle. This kind of techno-Orientalism reflects a continuing fascination with the Orient, whose 'mysterious' and 'exotic' ways are in this case projected to the future. In her discussion of cyberpunk fiction, Nakamura captures this continuing mystification of race and ethnicity: in a futuristic world, inhabited by cyborgs, humanity is still understood as white.

However, as with gender identity, when online, people can pretend to be someone else. This practice is referred to as 'passing', and because of it, and more broadly because of the lack of any physical and bodily presence online, it is suggested that race and ethnicity may be stretched and changed, thereby eschewing racist and discriminatory practices. This argument is based on Turkle's (1995) work, which proposed that experimenting with different identities may increase understanding. Lisa Nakamura disagrees. For her, this kind of 'identity tourism' views identities in a very superficial manner, as

mere aesthetic add-ons, and overlooks the structural dimensions underpinning such identities. In addition, pretending to be someone else does not necessarily question and undermine the assumptions and stereotypes associated with some ethnic and racial identities; often it just replicates them. On the other hand, the online circulation of many kinds of ethnic and racial identities, even imaginary ones, as found in *Second Life*, shows that multiculturalism thrives, at least in online environments. However, Nakamura urges caution, as these identities are only acceptable insofar as they are 'all singing the same corporate anthem' (2002: 99). In other words, the practice of passing is neither subversive nor emancipatory as it is confined to the most superficial aspects of identity without challenging the structural conditions upon which these identities are founded and operate.

For all that, research has documented many positive aspects in the articulation of ethnic, racial and religious identities with the new media. The new media allow for diasporic communities to come together and pursue political goals. In her work, Franklin (2007) found that diasporic Tongans met in online forums and discussed the political situation in the Pacific archipelago of Tonga. Similarly, Muslim online spaces offer the opportunity for diasporic Muslims to 'meet' and discuss aspects of common concern. Siapera (2007a) found that some Muslims used the internet for political empowerment. The low threshold for publication means that members of minority cultures, ethnicities and religions are able to find their own voice, and to acquire higher visibility, eventually promoting goals such as equal rights and recognition (Georgiou, 2002; Siapera, 2005, 2007b). Similar findings are reported by Parker and Song (2007), who found that the development and use of ethnic websites by British Chinese enable this low-key and almost invisible minority to articulate its political demands. At the same time, this kind of development and participation in ethnic sites familiarizes minority members with political debates and processes, thereby preparing them for political participation in the mainstream political environment (Siapera, 2004). A final aspect concerns the bridges that some ethnic and religious minority sites throw to their majority counterparts: as long as they don't exclusively address their in-group members but the broader public too, they promote understanding and contribute to better inter-group relations.

However, another dimension within ethnic and religious sites may not prove as positive. Two main problems emerge. The first concerns the internal functioning of ethnic sites and the extent to which they tolerate and recognize intra-community diversity and difference. The second refers to the extent to which ethnic and religious sites contribute to the fragmentation of society. As far as the former issue is concerned, some ethnic and religious sites understand themselves as custodians of the community's history and tradition, thereby seeking to police behaviours and impose certain practices, values and understandings as the only ones. They do this by prescribing appropriate behaviours and interpretations of tradition, and by the outright condemnation of those practices that are deemed inappropriate. Some religious sites, for instance, openly condemn homosexuality, while other sites offer prescriptive advice to women on aspects such as relationships and motherhood. Yet other sites, for instance, the US-based Hot Ghetto Mess (www.hotghettomess.com), display and comment on photographs depicting 'inappropriate' styles and attitudes by black Americans, acting as a kind of cultural police. From this point of view, while on the whole we can argue that the articulation of ethnic-religious identity and the internet has a positive potential, to ensure that this potential is realized, ethnic-religious sites must allow for internal diversity and difference to emerge. When it comes to fragmentation, the main argument is that by operating a series of different ethnic sites, and by users primarily using the ones corresponding to their in-group, society is further fragmented across ethnic and religious lines. This argument, first put forth by Cass Sunstein (2001), points to the tension between the need to have a common space where everyone comes together to discuss and exchange views on matters of common interest, and the reality of the internet, which fragments audiences or users into small groups and communities sharing identities or interests. A society fragmented across these lines, argues Sunstein, is in danger of being indeed a society, that is, common to all. Moreover, the development of online ethnic enclaves may form a 'breeding ground for group polarization and extremism' (Sunstein, 2001: 67, 71). From this point of view, ethnic websites may contribute to the erosion of social cohesion and to the fragmentation of society. Some of these arguments are disputed by Dahlberg (2007), who argues that such enclaves may have benefits in redressing some of the power asymmetries involved in current multicultural pluralistic societies.

An issue with this kind of thinking involves the idea of subjects being pre-constituted as 'black' or 'Muslim' or 'Asian', and so on. However, in line with discussions on the dynamism of identity and the constitutive role of technology, it may be argued that such subjects emerge as such through their co-articulation with technological artefacts, algorithms and socio-technical practices. Sharma (2013) discusses the example of Black Twitter and blacktags being involved in the production of subjects with the capacity to multiply the ways in which they are racialized online, making and unmaking themselves through the techno-social attributes of social media, such as their algorithms, hashtags, and so on. These assemblages are ambivalent and show the complexities involved in processes of racialization and the co-articulation of race, gender and other identities with technologies. Senft and Noble (2013) described the relationship between social media and race by showing the continuing understanding of social media environments as white and male, with non-white non-male identities having to continuously account for their difference. Hate, racism and micro-aggressions make themselves apparent in social media environments and, given the stronghold of racism, it is difficult to imagine that they would not.

Conclusions

This chapter reviewed the literature on the relationship between identity and the new media. In broad terms, we found that identity is constructed on the basis of the materials available to us. New media and technologies may be seen as offering some such materials, but they do so in a context of both historical continuity and change. It does not come as a surprise that, notwithstanding the positive potential of the articulation of identities with some new technologies and new media forms (which may be seen as contributing to the emancipation and liberation of identities from constraints of the past), the new media cannot, on their own, be seen as causing this. The box below summarizes the main points.

Overall, we can see that we are in fact trying to keep pace with a moving target: identities are both fluid and dynamic, in constant evolution, much in the same way as new technologies develop and evolve in constant interaction with socio-political, economic and cultural factors. When put together, their articulations are manifold and unpredictable. From this point of view, it would be wrong to insist that the new media are necessarily a positive or negative influence on identities. On the other hand, specific instantiations may be shown to be good in terms of specific effects, such as increased political participation or visibility, symbolic value, and so on. In these terms, any assessment of the relationship between identities and the new media must be an *ad hoc* one, referring to specific instances, and valid mostly for these.

Summary of Main Points

Self-identity

- Foucault: the new media as technologies of the self
- Giddens: the new media offering opportunities for reflection and the continuing project of identity
- Castells: the self constructed under radically different conditions
- Is the new self-identity more emancipated?
- Haraway: the cyborg as a prototype for a new kind of identity offers new possibilities for emancipation
- Turkle: online environments allow for identity play and can be seen as liberating

Social media and identity:

- Autonomous but in a collaborative manner; may contribute to personal growth if not strategically oriented
- Social comparison may have negative effects on psychological well-being

Gender Identity

- Butler: performativity and new media – a new context for gender performances contributing to the dynamism of gender, while also identity playing may lead to transgression of gender norms
- Haraway: cyborgs point to constructed-ness of gender out of (also) technological materials. An ambiguous relationship: freedom from gender constraints but also instruments of control
- Cyberfeminism: the transcendence of gender through or in digital cultures (Sadie Plant)
- Just as new technologies, gender identities are fluid and dynamic – together they form a moving target
- To view the new media as 'good' or 'bad' for gender relations overlooks the dynamism of both
- The rise of online misogyny must be studied and understood more thoroughly

Ethnic-religious Identity

- Castells: space and technology are de-linked from the formation of ethnic identities
- Ethnic identities lose meaning and significance and operate now in terms of the requirements of globalized informational capitalism
- Religious identities are seen as reactionary and their relationship to new media as ridden with tensions and contradictions
- Some evidence for emancipatory potential of new media: increased visibility, and ability to voice concerns, to participate in the political process, and articulate political demands
- However, there is evidence of ethnic stereotyping in new media environments: cybertyping and techno-orientalism (Nakamura)
- More negative aspects: community policing and cyber-fragmentation
- Racism and micro-aggressions are common in online environments

Research Activity: Online Selves and Identities

The point of this activity is to help you understand the ways in which technologies positively contribute towards new formations of self and identity, but that these new formations entail new dangers and new hierarchies. The question of strategic impression management is always at the forefront of thinking about online identity. How important is this for users? What does it mean for their identity?

Look at the various forms by which you identify yourself online: (1) Textual: your Facebook name, Twitter handle, Instagram user name, email(s), and so on; (2) Visual: what images do you use in different media in order to identify yourself? Do you change them often? Why and/or when? What do all these say about who you are? How consistent are your various identities across different media?

Further Reading

This collection of articles focuses on the relationship between the new media and identity, and explores its many facets. The article by Yangzi Sima and Peter Pugsley explores the ways in which the Chinese blogosphere contributes new forms of identity construction, which are influenced more by individualism and consumerism than by traditional Chinese values. This is in line with the arguments made by Giroux (2015). In their classic article, Marwick and boyd reflect how new media dynamics, such as context collapse and invisible publics, shape and structure online communication about the self. Jesse Daniels' article constitutes a useful review and critique of research on race, racism and the internet. The final article is one of the first attempts by Castells to articulate the relationship between the internet and the self. Presenting and summarizing the main components of his network society, Castells concludes by examining the shifts in the ways in which the self is (re)constructed in and through new media technologies. This constant reconstruction is a necessity in a kind of society that prioritizes flexibility and immediate response to information flows.

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Marwick, A.E. and boyd, d., 2011, I tweet honestly, I tweet passionately: Twitter users, context collapse, and the imagined audience. *New Media & Society*, 13(1), 114–133.

Daniels, J., 2013, Race and racism in internet studies: a review and critique. *New Media & Society*, 15(5), 695–719.

Castells, M., 1996, The Net and the self: working notes for a critical theory of the informational society. *Critique of Anthropology*, 16(1), 9–38.

10 Socialities and Social Media

Learning Objectives

- To learn about theories of sociality and association with others
- To understand the relationship between sociality and the new media
- To critically comprehend the shifts in sociality introduced by social networking sites
- To develop a critical understanding of the concept and implications of networked individualism

Introduction

How many 'friends' do you have on Facebook or Snapchat? How many 'contacts' on your mobile phone? How many 'followers' on Twitter? The Pew Research Center reports the average number of 'friends' US Facebook users have is 338 (A. Smith, 2014). Of these, with some we communicate often, with others very rarely, while some of these 'friends', 'followers' and 'contacts' we haven't even met face to face. Just a few years ago things were very different, as proximity seemed to determine our social life: we met and socialized with people in our immediate environments, at school or work, or in our leisure activities. Friendships were sustained by regular face-to-face contact, although telephone calls and letters were used to keep in touch with those living elsewhere. In sociology, being and/or living with others is mediated through ethical ideas about how life should be lived, and by physical space. Ethical ideas, such as individualism (i.e., the primacy of the individual and his/her freedoms over community life) or, conversely, collectivism (the primacy of community) or, alternatively, ideas regarding safety, protection or a needs-based social organization, might permeate social structures and seep through our everyday lives. Both ethical ideas and our notion of space are profoundly affected by the new media because they generate new ideas about how life should be lived and because they provide a different, virtual space in which people come together. But how can we think of these developments in a more systematic and theoretically fruitful manner? What does it mean, more broadly, that the ways in which we socialize and interact with others tend to be increasingly mediated by the internet and other new media? How might we understand the shifts and changes in sociality associated with the new media?

Some of the answers, this chapter suggests, are to be found in theories of sociality and community. The question of being together with others has concerned theorists for a long time. In recent anthropological work, Long and Moore (2013: 2) define sociality as 'a dynamic and interactive relational matrix through which human beings come to know the world they live in and find their purpose and meaning within it'. One of the first interrogations of sociality came at the dawn of the twentieth century, when massive

urbanization uprooted people from villages and relocated them in cities, producing profound changes in how people existed together. If we accept, as Aristotle suggested, that humans are social animals, then we would expect that certain elements of sociality are characteristic of our species.

There is little doubt that the new media have ushered in radically new ways of being with others. This clearly necessitates some new theorizing of the relationships and socialities that have emerged. This chapter will examine these issues by discussing some of the older theories of sociality, beginning with the work of Ferdinand Tönnies on society and community. It will then review more recent theorizing on new media socialities, through the works of Barry Wellman, Manuel Castells and others on social networks and networked individualism. The final section will look at the explosion of social media and discuss their relationship to networked individualism.

Society and Community in the Age of the New Media

We can just imagine Ferdinand Tönnies walking in the newly paved streets of the sprawling German metropolises, wondering about the massive and profound changes in social life. For most of the nineteenth century, the majority of people lived in small villages, knowing not only each other, but each other's parents and grandparents, children, cousins, uncles and aunts! Closely-knit communities, relying on face-to-face contact, were the main form of social organization in traditional and early modern societies. And then, with the advent of the industrial revolution, more and more people left their villages and went to the cities, looking for work in factories. Towns became cities, accommodating more and more people, who were strangers to each other. What held this kind of society together? How was society even possible, given that it concerned more and more associations between strangers? These were the questions that Tönnies posed. But he was also interested in the historical changes that societies undergo as they evolve. How might we understand such historical changes? Tönnies (2001 [1887]) suggested that we need concepts to help us theorize these changes. In this section we will discuss his main concepts and examine their applicability in the context of the new media.

For Tönnies, Aristotle's understanding of humans as social animals corresponds to a psychological mechanism that concerns human will. Societies, argues Tönnies, can only exist because people want to associate with others. But human will is of two kinds: there is the essential, organic will that is almost instinctive – this is referred to as the natural will; then there is a rational will, which is purposive and goal-oriented. While natural will leads people to form associations as an end in themselves, rational will leads them to associate with other people in order to attain goals. Community (*Gemeinschaft*) is formed around this organic, natural will and it includes all those associations in which we partake out of our own choice and volition. Membership is self-fulfilling. Friendships, neighbourhood groups, voluntary organizations, families and so on are examples of communities. The bonds

that bind us to other community members tend to be affective ones. Conversely, society (*Gesellschaft*) is formed on the basis of rational will, and membership takes the form of an instrumental association that leads to certain goals: for example, membership as citizens in a city or state (including citizens' rights, protection, etc.), or in private companies (e.g., to generate profit). While community represents the romantic ideal of an association that is organic and meaningful, society represents the rational component of association, which fulfils the needs of modern society. Tönnies' argument is that while early societies relied on a *Gemeinschaft* type of social organization, modern societies must rely on a *Gesellschaft* organization, which binds people together through the application of rationality – the rational management of being and living together – all of which stem from the operation of rational will.

When thinking about what precipitated the shift from community to society, Tönnies argued that it was trade, mercantile capitalism, which subsequently led to industrial capitalism. His idea was that the desire to use money more profitably ushered in trade on a larger scale and this in turn led to capitalism (Loomis and McKinney, 2002). From this point of view, although he was influenced by Marx, Tönnies did not think that technology had any contributory role, and hence his theory cannot be used to understand the role of the new media in social change. However, his theorizations of society may provide fruitful ways of thinking about the shifts in social organization linked to the new media. The main question emerging from Tönnies' work, which can guide us in rethinking society and sociality, is this: if we accept that early societies were mostly functioning as communities, and modern societies as societies, then what do late modern, informational societies function as?

While Tönnies devised these concepts as ideal-typical formulations to enable us to understand shifts in society, there is an undercurrent of nostalgia. The shift from organic communities towards impersonal societies is associated with a loss of human contact, a loss of the unity and solidarity of the community, in favour of an instrumental pursuit of profit or other goals. Do the internet and the new media continue this trend of erosion of community or, do they, as Rheingold (1993) argued, breathe new life into a new form of community? In his groundbreaking study on communities in the age of the internet, Howard Rheingold, who has been online since 1985, wrote about his

experiences and attempted to rethink the way in which people relate to one another in online environments. His experiences with his own 'virtual' community, WELL (Whole Earth 'Lectronic Link), led him to argue that such communities are decentralized, autonomous in the sense that they make their own rules, and diverse. More specifically, Rheingold defined virtual communities as 'social aggregations that emerge from the Net when enough people carry on those public discussions long enough, with sufficient human feeling, to form webs of personal relationships in cyberspace' (1993: 5). Such virtual communities, mediated and sustained by electronic communication technologies, exist independently of geographical location and without necessarily any face-to-face contact between their members. Virtual communities come together on the basis of sharing information, ideas, feelings and desires (Calhoun, 2002). The rise of virtual communities is due, on the one hand, to the loss of more traditional public places in which people can come together and, on the other hand, to the pioneering spirit of the first 'netsurfers', who were attracted to the idea of interacting with others on a completely different level (Rheingold, 1993). The ability of the new media to bring about and sustain such communities is thought to radically change the ways in which we live our lives in late (or for some, post-) modernity. If the trend was towards more and more isolation and atomization, more *Gesellschaft* and more instrumentalism, then virtual communities represent a shift towards a new kind of community, based not merely on proximity and relations made possible by sharing a given space, but by sharing common ideas, beliefs, experiences and so on.

In general, virtual communities are characterized by a lack of physical proximity; they are based on shared interests rather than shared location, and there are weaker ties between their members, although the relationships formed can be quite intimate (Wellman and Gulia, 1999; Katz et al., 2004). Because they are primarily based on shared interests, they eschew the repressive side of physical communities, while they can also permeate boundaries of all kinds: geographical, ethnic, racial, gender and so on (Katz and Rice, 2002). As Katz et al. (2004: 327) put it, 'virtual communities are based on shared social practices and interests whereas physical communities are based on shared social and physical boundaries', and this is precisely where their novelty and potential is located. While typically communities operate in a more or less conservative manner, safeguarding and often

imposing certain traditions on their members, virtual communities allow individuals to meet like-minded people and express their identities without any fear of exclusion or ostracism, and they can therefore escape the boundaries of their local communities. Furthermore, while these virtual communities set up their own rules and norms guiding their behaviour, they are decentralized, in the sense that they do not have established community leaders. From this point of view, they can be considered as more egalitarian and hence democratic than their offline versions. Another relative advantage of virtual communities is the ease of their creation and their openness. While traditional communities are often sceptical towards newcomers, virtual communities tend to be more open, happily welcoming new members. In addition, even if people cannot find a virtual community that can accept them, they can easily set up a new one (Castells, 2004). Rheingold locates the specific contribution of virtual communities to their decentralizing tendencies and their ability to bypass both 'malevolent political leaders' as well as the power of centralized broadcast networks and the corporations that own them. They can therefore contribute to the reinvigoration of the public sphere as well as to the development of an electronic democracy. However, Rheingold is quick to point out that this potential can only be realized if the new media can escape both governmental control and commercialization.

Loss of Community?

On the other hand, there are those who view these new communities with a high degree of scepticism. Their potential is seen as ambiguous at best, since they can serve to isolate and fragment people, leading to a further loss of community as well as of 'social capital'. Bourdieu and Wacquant (1992: 119) define social capital as 'the sum of the resources, actual or virtual, that accrue to an individual or a group by virtue of possessing a durable network of more or less institutionalized relationships of mutual acquaintance and recognition'. In other words, social capital refers to the people we know and the relationships we have with them, and to the kinds of benefits we accrue out of being associated with these people. In a groundbreaking essay based on data generated by surveys from the 1950s until the mid-1990s, Robert Putnam (1995) concluded that social capital in the USA is eroding: fewer people get involved in social activities and do fewer things together, compared with previous generations. Putnam's metaphor is bowling: although more Americans are bowling, he says, fewer of them are bowling in leagues. This, for Putnam, shows the degree of social disengagement in the USA and, more broadly, in Western societies. The result is a society that is not much more than a collection of individuals, who meet and socialize occasionally but who do not share any strong bonds or any sense of common purpose. And if we do not meet and engage with other people, social trust and the social fabric that holds society together will eventually dissolve.

Putnam attributes this loss of social capital to, among others, new technologies. He argues that technological trends, such as occupying our time with television, are individualizing our time off work, thereby disrupting opportunities for the formation of social capital (Putnam, 1995: 75). In other words, the more time we spend at home watching television, the less time we have for socializing, for forming neighbourhood or other groups, for meeting people, and so on. In addition, he argues that electronic technologies satisfy individual tastes, but this occurs at the expense of other 'positive social externalities' associated with older forms of entertainment. For Putnam, new technologies use up our time in ways that do not allow us to form meaningful social associations with other people, and in satisfying our personal interests, they also remove our motives for associating with others. While Putnam was

not directly referring to the internet and other new media, his arguments imply that not only do they not contribute to a renewal of sociality; they actually end up eroding what little social capital television has left us! In his 1995 essay, he refers to the 'virtual reality' helmet, which he says will be worn by most of us in the future, as a symbol of this growing isolation. Although this hasn't happened yet, looking at people walking in the streets wearing headphones almost all the time seems to support Putnam's contentions: even as we walk among other people we are increasingly alone, increasingly isolated and retreating to the worlds offered or created by the new media.

Cass Sunstein, in his *Republic.com* (2001), offers a somewhat different criticism. The ability of the new media to offer customized information, their interactivity, which makes us able to choose and filter what we see, are leading us to a perfectly egocentric, atomized world in which the 'Daily Me' prevails. In most societies, we end up having some form of unanticipated encounter with others who may be completely different from us, and this diversity, argues Sunstein, is crucial in keeping us aware of other points of view, of disagreement, conflict and difference. The new media, for Sunstein, in fact offer limited opportunities for a truly public forum in which we are all brought together and exposed to each other. While the new media may encourage the formation of some communities, these tend to be closed groups of like-minded people. This polarization is not good for society, which ends up becoming fragmented – less a society and more a collection of polarized groups that share little, if anything, with each other. This, argues Sunstein, is divisive and breeds extremism. When online, we tend to stay in the confines of our in-group of like-minded members, rarely venturing 'out' and rarely coming across to the vast diversity of the world. Thus, although the internet is astonishingly diverse, users tend to go to places where they are likely to meet others like them, thereby ignoring this diversity to the detriment of society at large. In an updated version of his book, Sunstein (2007) speaks of the effects of Web 2.0 applications, and especially the blogosphere. Blogs, he argues, rather than bringing forward a bottom-up 'revolution' and allowing for wider participation, have ended up creating 'information cocoons' and 'echo chambers', repeating and echoing the same information and arguments over and over again.

While Sunstein's arguments were intended as political critique on the relationship between the internet and democracy, they have important implications for understanding the kind of society and community supported by the new media. It is, indeed, quite disappointing that instead of the liberal and free-minded virtual communities described by Rheingold we end up with closed, polarized groups, which contribute to the fragmentation, or as Sunstein (2001) put it, the (cyber)balkanization of society.

Where does this discussion leave us? Do the new media breathe new life into communities, which were in a slow decline since the industrial revolution? Or do they in fact put to rest the idea of closely knit communities? Calhoun (1998) argues that the debate on virtual communities rests on different understandings of the term 'community', and we should produce more precise definitions if we are to understand not only the transformations in sociality associated with the new media, but also their impact on democratic societies. In principle, communities can be understood as the extension of people's personal relationships, and community life is understood 'as the life people live in dense, multiplex, relatively autonomous networks of social relationships' (Calhoun, 1998: 391). For Calhoun, community denotes not just a place or a small-scale population aggregate, but a mode of relating to each other, which is variable in extent. In other words, we can consider communities as offering a way for relating to others. The internet, argues Calhoun, can do little in the way of producing community or 'binding people to each other in dense, multiplex networks' (1998: 392). It can prove useful in organizing and coordinating communities that operate offline, but does not seem to be able to initiate the ties, rights and obligations that are understood to be part of community life. Calhoun, then, seems to draw a line separating online from offline communities, implying that the former can only supplement but never replace the latter. Since Calhoun's essay, however, the new media have become more firmly embedded in our lives, and the distinction between off- and online is becoming more and more blurred – we seem to combine being on- and offline in a seamless way, while for more and more people their online conduct is an inextricable part of their lives. Does this mean that we no longer experience community life or enjoy the dense bonds that communities can provide us?

It seems that there is little agreement between theorists regarding the

existence, functioning and evaluation of 'virtual' communities. In his assessment of this debate, Castells (2001) argues that most of it took place in the early days of the internet and may therefore not be relevant any longer. In addition, the debate took place before we had any substantial research evidence regarding sociality on the internet. Furthermore, the debate was polarized between two simplistic extremes: harmonious communities and lonely, atomized 'netizens'. More broadly, it seems that the organic entities described by Tönnies are long gone, and no degree of nostalgia can bring them back. On the other hand, if the ways in which we relate to others have changed, we need to understand the direction of this change, before we are able to evaluate it, notwithstanding Putnam's and Sunstein's important critiques. The debate on virtual communities shows us more than anything that the concepts we have may be inappropriate for describing the kinds of relationships ushered in by the new media. A promising line of thought has been developing over the last few years, most notably by Barry Wellman and his collaborators. Although relying on theorizations of community, Wellman (1999) suggests that we can better understand shifts in sociality in terms of networks. These new theoretical developments will be discussed next.

Networks and Sociality

While most of the debate on community is characterized by nostalgic undertones, Barry Wellman has attempted to specify the stakes of the 'community question' in an entirely pragmatic and rigorous manner. For Wellman (1999), the community question concerns essentially the ways in which social systems affect how people relate to each other, as well as, conversely, how specific kinds of interpersonal relations affect the large-scale social systems within which they are embedded. Wellman argues that the question of the community is not a matter of preserving some ideal form of community, but is about understanding its dynamic nature and its historical embeddedness. His understanding of the 'community question' is not so much to see if communities still exist, but to find out how a social system is integrated: how people relate to each other, how they manage their life alongside other people, and what implications this may have for society more broadly. Because of this more abstract understanding of community, Wellman was able to decouple it from specific locales – the village, the neighbourhood or the city – and to seek its structural dimensions. He argues that while once communities were associated with densely knit groups, they are now seen as loosely bounded social networks of relationships (Wellman, 2001a). Such networks are seen as characteristic of the society of the new media, representing, therefore, the shifts in sociality in late modern, informational societies. This section will discuss the main characteristics of networks, their relationship to the new media, and some of their implications (networked individualism).

Redefining communities as networks, Wellman holds that communities can now be understood as 'networks of interpersonal ties that provide sociability, support, information, a sense of belonging and social identity' (2001b: 227). In his earlier work, Wellman defined a network 'as a set of ties linking social system members across social categories and bounded groups' (1988: 21). As with all kinds of networks, social networks consist of nodes, ties and flows. Nodes are the people who are connected, ties are the ways in which they are connected, and flows refer to the contents of their connection (Barney, 2004). On the basis of these major structures that characterize networks, network

analysis has mainly looked at: (1) the density and clustering of a network – refering to how the people are connected, in direct or indirect ways, and how concentrated their connections (clusters) are; (2) how tight the connections are, for example if they are multiple or singular, reciprocated or not, and so on; and (3) the size and heterogeneity of networks (Wellman, 1999). While networks can be dense and tightly bound, recent empirical studies have found that in general they tend to be loosely knit, and frequently changing, although they remain broadly supportive (Wellman, 1999). Another important characteristic of social networks is that their power does not rest on the strength of their ties, but rather on the extent to which they allow for weak ties. In an important essay, Mark Granovetter (1973, 1983) found that weak ties in a network (e.g., acquaintances rather than close friends) provide bridges to other networks and other people. Were it not for such weak ties, argues Granovetter, we wouldn't be connected at all. Indeed, groups of people who are very closely but exclusively connected to each other are more like enclaves rather than networks. Although networks have a number of weak ties, this does not diminish their power to offer support and social capital, but rather it increases it, as such weak ties offer connections to other networks. Most networks tend to be characterized by homophily, that is, a tendency to link to similar others (McPherson, Smith-Lovin and Cook, 2001), and from this point of view weak ties emerge as even more significant for providing connections to other networks – the so-called 'bridging social capital' (Gittell and Vidal, 1998: 15; Putnam, 2000). In other words, such weak ties generate an important network resource that brings together people or groups who did not know each other (Granovetter, 1983; Gittell and Vidal, 1998).

New Media and Changes in Sociality: Networked Individualism

The main question therefore is: what do the new media bring to sociality? Earlier, we defined sociality as a dynamic and interactive relational matrix (Long and Moore, 2013), but this matrix may be seen as reconfigured by the new media because they allow for new types of connections and new ways of orienting people towards one another. Rainie and Wellman (2012) refer to a 'triple revolution' that has ushered in a very different way of connecting with others. Social networking, the internet and mobile phones comprise the three interrelated developments that give rise to a new form of sociality referred to as networked individualism. This section will briefly introduce the key elements of the 'triple revolution' before moving to a discussion of networked individualism.

As we saw above, social networks constitute a different means of social organization, somewhere in between the individual and the social group. While for many, social networks are taken to mean social media, in an argument that echoes Castells, Rainie and Wellman (2012) suggest that there was already a discernible shift towards a network social organization. Empirical examinations of the world around us point to a set of interrelated developments, including: improved transportation, especially the rise of air travel; affordable telecommunications and computing; the spread of international trade; and in general an increase in personal autonomy. Such changes, which can summarized as an increase in flexible connectivity, weakened group boundaries, and an abundance of information, did not cause social networks but directly fed into the technological, social and economic circumstances that made networks so prominent (Rainie and Wellman, 2012). At the same time, the rise of a specific kind of internet set the technological backdrop for changes in sociality: the internet began as a means to connect different places, for example, two universities in two different cities or countries, but technological innovation made possible the development of personal computers that ended up connecting people to other people. The shape the internet took, in other words, is personal rather than group or community, argue Rainie and Wellman (2012). Also, the development of mobile technology, which allowed people to use portable devices for their

connections, contributed to a decontextualized existence where physical co-presence and co-location are no longer necessary for the building and maintenance of relationships. Moreover, mobile devices allow for a continuous, always-on connectivity that helps nurture such relationships.

Taking the above into account, how might we understand the changes in sociality? The diminished role of physical space, personalization and connectivity in space and time all contribute, argue Rainie and Wellman (2012), to a shift towards networked individualism. This represents a transition from a social organization based on groups – Wellman (2002) uses the metaphor of 'little boxes' to denote the closed boundaries and self-sufficiency of these closely knit communities – to one based on 'glocal' networks, which connected people from place to place. But this place-to-place transition soon gave way to another shift, this time involving a change to a social organization in which social networks are person-to-person ones – the metaphor used by Wellman is the 'switchboard': people operate as switchboards, managing and switching between their different networks or nodes within these networks (Wellman, 2002; Wellman et al., 2003). To understand this transition and its significance, Wellman focuses on two main characteristics: that people connect directly to other people and that they are involved in specialized relationships with specific others, with whom they share common interests. In short, in networked individualism, connectivity depends on the person rather than the locality, household or group – the individual is the primary unit of connectivity. Networked individualism can therefore be defined as the patterns of networks created by individuals on the basis of their preferences, skills, knowledge, background and so on. Individuals rely less and less on densely connected social groups, and operate several partially overlapping networks with many loose connections. These networks have now replaced social groups in meeting the emotional, social and economic needs of people. While networked individualism has provided new tools and new strategies for solving problems and orienting themselves in the world, it also requires that people spend time and invest energy in the maintenance and smooth operation of their networks.

Networked individualism has affected all kinds of social relationships: our personal and even romantic relationships, our relationships with our families, and our work relationships. According to Rainie and Wellman (2012),

networked individualism means that while families are still important, they too operate as networks of multiple connections. Families are connected through various devices and apps, enabling individuals to be more autonomous while still being in touch with family members. It is not uncommon for grandparents to stay in touch with their grandchildren through Skype, and Madianou and Miller (2013a) showed how migrant families maintain relationships with their families through the new media. The same pattern is observed across all kinds of social relationships: individuals are placed at the centre of decisions regarding which ties to form or to keep, and how. This, of course, comes at a cost: Rainie and Wellman (2012) observe that not all of us have the same skills and abilities in creating or maintaining networks. By and large, Rainie and Wellman are optimistic about the future of society. They are critical of debates regarding the decline of social capital, pointing to the circulation of similar arguments and associated moral panics for years and to survey evidence that shows that people are part of social formations as much as they ever were. But the character of these social formations has changed dramatically in the last 50 years or so.

On his part, Castells (2001) looks at networked individualism from a macro-sociological perspective, arguing that it represents the privatization of sociability, but it must not be seen as a psychological attribute. Rather, it is rooted in a host of changes, such as the individualization of the relationship between capital and labour, the demise of patriarchy, urbanization, and the crisis of political legitimacy. He understands it as the upshot of developments that seem to undermine the role of collective organizing or being-together as groups. Networked individualism, therefore, is not brought about by the new media, but the new media provide the means by which it is diffused as the dominant form of sociality in informational capitalism.

Networked Individualism: An Evaluation

Where does all this leave notions such as community and society? Does networked individualism increase or decrease social bonds and social capital? In other words, how might we evaluate networked individualism? This evaluation can be theoretical, based on an analysis of theoretical concepts and aspects surrounding networked individualism, but it can also be empirical, based on actual research findings on the kinds of relationships people develop and manage in and through the new media. In theoretical terms, networked individualism represents a balance between individuation and interconnectedness. As Castells (2004: 223) has argued, networked individualism is the synthesis between the affirmation of an individual-centred culture and the need and desire for sharing and co-experiencing. As the development of sociality takes this form, we can see its compatibility with other changes within informational capitalism: for instance, (immaterial) labour becomes more autonomous (individuated) while it relies more and more on *ad hoc* networks. To some degree, this may be seen as a positive development: Wellman (2002) notes that networked individualism offers important advantages compared to the group enclaves and 'little boxes' of previous forms of social organization. The choices afforded to individuals, their disentanglement from physical space, and the ability to manage sociality are all seen as positive aspects of networked individualism. On the other hand, as Rainie and Wellman (2012) have noted, to be able to build and manage their own networks, individuals must have the skills to do so and hence know how to connect with others, as well as to whom to connect.

However, there are also some more damaging issues: Willson (2010) argues that to view networked individualism as supporting choice overlooks the ways in which, first, people are caught up in power structures and existing socio-cultural frameworks, and second, it overstates the case for the availability of free choice as well as the degree to which people are free-floating, atomized agents. In focusing on the individual, Willson points out, we end up overlooking the ways in which other social configurations and patterns are mediated by the new media. An example here is the mediation of transnational communities or diasporas. Such communities are mediated in ways that may enhance and strengthen bonds between their members, as well

as between second- and third-generation transnationals and their 'mother country' (cf. Anderson, 1992). Participation in these diasporas is not so much a matter of choice, and it is difficult to reconcile the atomized view of networked individuals with loose bonds to each other with the strong bonds that bind transnational communities and diasporas. The question here is that although there is no doubt that socialities are changing, probably towards a more individuated variant, more traditional communities and socio-cultural frameworks not only exist but are often given a new lease of life through the new media.

Another issue concerns the extent to which networks and networked individuals are caught up in structures of power. Both Wellman and Castells have pointed out that networks can operate as resources, while within networks people can enjoy considerable power as hubs, or powerful nodes connecting people, but they can also be marginalized. As social organization within (informational) capitalism is riddled with inequalities, we can also expect to find inequalities in networks. In contrast to images of individual free agents exercising choice, networks are embedded in existing power structures, which in turn position people differently. Not all of us can have access to the same networks, and the ones we have access to typically reflect our socio-cultural background. Moreover, if we understand networks as resources, then participation in (some) networks not only reflects the unequal distribution of resources in capitalism, but also puts pressure on people to cultivate the 'right' networks, which will then allow them to be upwardly mobile. In this manner, networked individualism may be seen as encouraging a primarily instrumental, goal-oriented attitude to sociality.

As we will see in Chapter 11 on games, informational capitalism blurs the boundaries of work and play. In the same manner, it can be observed that networked individualism, with its emphasis on the instrumental acquisition of networks, blurs the distinction between work and social-personal life. An example here includes the ways in which we manage our online networks of 'friends' in social networking sites. For most of us, these include personal friends and relatives, as well as work contacts. This means our updates can be a combination of personal information alongside work-related information and self-promotion. Typically, young people are advised to mind the kind of information they post online, lest any potential employers see them in an

unflattering, unprofessional context, compromising their chances for finding work. Others choose strategically who to ask to be a 'friend' and whether to accept or decline requests on the basis of how useful and desirable these new contacts may be. This blurring of personal and working life ends up prioritizing the latter over the former, and signals a clear shift towards an instrumental understanding of social and personal networks. Networked individualism appears to be a means by which we acquire, manage and administer our public profile rather than a more liberating form of sociality.

While these lines of critique cover networked individualism as a concept and a theory, the rise of social media introduced a new, more empirically oriented element to this discussion. How do they relate to sociality? This question is approached in the next section.

Social Media and Sociality

While researchers and theorists such as Wellman and Castells have been interested in the sociality of networks for a long time, more recent developments led to a new momentum in this area. Specifically, the rise of social media offered new possibilities for conducting one's online social life, while at the same time providing ample empirical evidence for researchers to examine online socialities. The almost unprecedented popularity of the social media may have introduced further changes in network socialities. This section will review the evidence for the 'effects' and influence of social media on sociality. It will begin with a discussion of what social media are, and then move on to look at empirical studies, before finally commenting on the theoretical construct of networked individualism on the basis of the empirical evidence.

Social Media Definitions and Characteristics

When Mark Zuckerberg launched Facebook from his dorm room in Harvard in 2004, no one could have guessed the impact that this kind of combination of technology and social interaction would have on our lives. The technology and similar ideas were there long before Facebook: sites such as SixDegrees, which was launched in 1997, LiveJournal (1999), Friendster (2001) and MySpace (2003) have ushered in a new kind of online relationship (boyd and Ellison, 2007). The main idea was that they enabled people to publicly list their profile – interests, hobbies, background and so on – as well as their 'friends', 'contacts', 'fans' or 'followers'. Through these lists, other people could join in, becoming 'friends' with other friends of their friends, creating in this manner a network of people with whom they had ties of various strengths. At around the same time, in the early to mid-2000s, the rise of sites allowing the posting and sharing of user-generated contents, such as Flickr and YouTube, led to the integration of social networking sites with content sharing sites, which began to function themselves as social networking sites, listing user profiles, friends, favourite content and so on. boyd and Ellison (2007: n.p.) define social networking sites as web-based services that '[1] construct a public or semi-public profile within a bounded system, [2] articulate a list of other users with whom they share a connection, and [3] view and traverse their list of connections and those made by others within the system'. Some years later, the term 'social media' is used as an umbrella term for all these sites that integrate technology, social interaction and user-generated content. In definitions of social media, researchers variously prioritize their communicative aspects (boyd, 2008), their openness and participatory elements (Mayfield, 2007), and their connectivity and community-creation (Mayfield, 2007; Smith et al., 2008). In general, we can identify three main characteristics of social media: they allow users to create, download and share contents, to publish their profile and personal information, and to connect with others.

The popularity of social media is beyond question. At the end of 2016, Facebook had 1.86 billion monthly active users, YouTube over 1 billion, Instagram 600 million, Twitter 313 million, and Snapchat 301 million. It is estimated that 30% of all the time spent online is spent on social media, and

the average user will spend about two hours a day on social media. Teens are heavier users, with about nine hours a day spent on social media. As Asano (2017) put it, we spend more time on social media than on eating, drinking, grooming or socializing!

Research in Social Media

While these figures are very suggestive of the hold social media have over people, what do we actually know about the impact and, more broadly, about the mediating role of social media? Relevant scholarship, argue boyd and Ellison (2007), is divided in four main areas: research on how people manage their identities and reputation; research on social networks and/in social media; research on the relationship between online and offline networks; and research on privacy. Research on identities and reputations in social media has focused on the ways in which users manage their profiles in public, and mediate between reality and imagination, using aliases, avatars and the like. To a large extent this strand of research reflects the problematic of online identity, as studied by Turkle (1995) and others, and discussed in [Chapter 9](#). It is mostly research on social networks, their relationship to the offline world, and issues of privacy that are the most telling for how sociality changes in the age of social media. Most research, as boyd and Ellison (2007) suggest, has shown that online networks are an extension of offline networks. Studies by Ellison, Steinfield and Lampe (2007) as well as Choi (2006, in boyd and Ellison, 2007) and boyd (2008) found that online social networks in social networking sites are formed primarily on the basis of existing online contacts, acquaintances and friends, and users compile these networks in order to maintain and reinforce their ties with people they already know. If this is indeed the case, then the question of the relationship between social media and social capital still remains. Following Sunstein's (2001) and Putnam's (2001) arguments, it may be that social media lock people into pre-existing networks, effectively creating enclaves which end up, at best, keeping social capital stable and, at worst, diminishing it.

In a well-known early study, Wellman, Quan-Haase, Witte and Hampton (2001) found that the internet supplements what they refer to as 'network capital' (our relations with friends and family), and increases 'participatory capital' (involvement in politics and voluntary activities). Do these findings hold for social media as well? In a relevant study, Ellison, Steinfield and Lampe (2007) follow Putnam's (2000) distinction between two forms of social capital: bonding social capital, which refers to the kind of close bonds and solidarity which exists between close friends and family, and bridging

social capital, which refers to the 'weak ties' that bind acquaintances, friends of friends, work contacts, and so on. Examining the relationship between these kinds of social capital and social networking sites, Ellison et al. (2007) found that Facebook use actually increased both bonding and bridging capital, as well as what the researchers referred to as 'maintained social capital', or the ability to hold on to social capital even when frequent face-to-face contact is no longer possible. However, Ellison et al. report that intensity of Facebook use was not associated with the creation or maintenance of bonding capital. Moreover, this study also found that Facebook use led to larger increases in bridging social capital than bonding capital. A similar suggestion was made by Donath and boyd (2004), who argued that social networking sites would increase the weak ties in networks, because of the ease with which the technology allows us to include acquaintances and people we do not know very well. Another significant finding of this study was that these effects did not hold for the 'internet' at large, but only for Facebook use. In other words, it looks as if social media, but not the new media in general, may help people maintain and increase their social capital.

If these findings suggest an overall positive relationship between sociality and social media, research on privacy shows a more ambiguous relationship. One of the key ideas of modernity – the division between the public and private spheres – delegated social life and sociality to the private sphere, while participation in the public sphere typically involved a bracketing of identity and private interests, and in general includes what is of concern to the public as a whole. However, social media upset this division, by mixing public and private elements: information included on profiles can involve some of the most intimate details, such as date of birth and relationship status, while research suggests that people, especially teenagers, use social media with no clear idea of their publicness (Barnes, 2006). At the same time, privacy policy is ranked as one of the most important concerns of social media users (Acquisti and Gross, 2006). Raynes-Goldie (2010) attempted to resolve this privacy paradox (Barnes, 2006) by arguing that we need a multi-level understanding of privacy, which she then distinguishes as being between institutional privacy and social privacy. The former refers to concerns about how social media companies use personal information, and the latter refers to the publishing and control of personal information. The ways in which new media corporations monetize personal information has

been discussed already in earlier chapters, but what is important here is to understand some of the dilemmas posed by social media for the ways in which we associate with others. One of the main problems is that if, indeed, social media are creating more and more 'weak ties' (heterogeneous networks of people who only share a few similar interests), then the kind of information one posts must be very thought through: as one of Raynes-Goldie's (2010) informants put it, you do not want your teetotal boss to see the same information as your party-animal friend. Raynes-Goldie refers to this as 'context collision', and some of her informants' strategies for avoiding such collision included the use of aliases and operating multiple accounts. Similar findings were also reported by boyd (2007b), who pointed out the ways in which social media users seek to circumvent privacy concerns over social media use. Similarly, Marwick and boyd (2011) discuss the notion of context collapse, in which the boundaries between the different contexts for communication, for example, work-related communication or personal communication with friends, have collapsed, creating communicative dilemmas and raising the question of privacy. In a book on public shaming, Jon Ronson (2016) refers to the case of Justin Sacco, who wrote a tweet she thought was funny, addressing her 150 or so Twitter friends; a few hours later, her tweet had been spread globally and she was publicly shamed as racist. This example shows how the navigation between what is private and what is public is becoming increasingly complex.

More broadly, these issues reflect a shift in sociality that marks it as both private and public: the blurring of these boundaries has been characteristic of the new media (Weintraub and Kumar, 1997). In a study on social networks on YouTube, Lange (2008) reports that there are effectively two kinds of networks, those labelled as publicly private and those understood as privately public. The former consist of people who are disclosing personal and technical information while also uploading videos on popular content; additionally they may choose popular tags for their videos, making them accessible through Google searches – people in these kinds of networks choose to make private information public. At the other end, privately public networks seek and make public connections while withholding private information, often using aliases and/or masks to hide their identities in shared videos. Lange's point is that both kinds of social networks operate with private and public formats, but they select different paths as to what they

choose to keep private and what to make public, using both symbolic and technical means. As sociality increasingly becomes a hybrid form of publicness and privacy, such findings seem to support the theory of networked individualism, in which the individual is at the centre, negotiating and implementing their own choices regarding the kinds of networks they choose to belong to.

At the same time, however, the ambiguous dimensions of this new kind of individualized network sociality are ever present. For example, even accepting that social media increase social capital, this still imposes an economic model of sociality which understands it in terms of capital and costs. It follows that network sociality becomes yet another field of competition for scarce resources, for the best contacts or friends, for participation in the most valuable or prestigious networks. Moreover, research has shown that class and racial divisions still operate in social media (boyd, 2007a, 2008; Nakamura and Chow-White, 2013), which seems to negate the more individualistic and liberal elements of networked individualism. If it is a matter of free choice, then why are class and racial differences reflected in network participation? Similarly, negotiating the symbolic and technical means by which network choices for friends, privacy, uploading content and so on are made online requires familiarity with these codes, something that points to the different kinds of choices available to different people. One the other hand, the pressure that greater numbers of people feel to join such online networks and to use social media is mounting, confronting people with the dilemma: either participate or risk becoming invisible. Another issue concerns the kinds of relationships we end up having: the inclusion of all kinds of personal contacts, ranging from our family to our professional contacts, implies that any boundaries between different parts of our lives are broken down – this is the issue of context collapse. Personal, professional and family life all slide into each other, with results that may not necessarily be positive, as instrumentalism and impression management may take over. As we have seen time and again, the network society is no respecter of boundaries set in earlier kinds of society: work, play, leisure, privacy and publicity, community and society are all mixed together, placing the individual at the centre. The conclusion we can draw reiterates Manuel Castells' argument that network individualism reflects the individuation of the relationship between capital and labour and, more

broadly, the dynamics of the network society, in which social structures, as well as the ways in which we relate to each other, undergo a series of changes.

Individualism or scalable sociality?

Based on a series of anthropological studies on social media across a variety of countries, Miller et al. (2016) propose a theory of scalable sociality, which may help address two kinds of dilemmas encountered above: first, the extent to which social media are individualizing, and, second, the extent to which they negate privacy. They begin with the observation that media include a variety of applications, which are doing rather different things: for example, Instagram is using pictures while WhatsApp allows instant messaging between people and groups. Based on earlier work by Madianou and Miller (2013b), they refer to the environment created by all kinds of social media as polymedia: people use different platforms for different reasons and in different ways, socializing them according to their needs but also their cultural practices. In this manner, some are more conducive to more public forms of communication and others to more private forms. Second, Miller et al. (2016) consider that social media rely on two different kinds of communication models: the broadcasting model, or public communication to many people, and telephone model, or private, person-to-person communication. Some social media apps allow for scaling up from private communication and others allow for scaling down from public communication. In their studies, Miller et al. (2016) report that schoolchildren in the UK would be using Snapchat for private communication among their trusted friends, WhatsApp for class groups, Twitter for school discussions, Facebook to communicate with family and other friends and neighbours, and Instagram as a public communication where anyone can comment on their pictures. On the one hand, this shows that different social media platforms are socialized differently by different social groups; on the other hand, it shows that both private and public communication is taking place at the same time. Because social media platforms allow for and enable these various forms of private and public sociality to occur, Miller et al. consider it a defining characteristic of social media. Their argument is that instead of social media representing a definite shift towards networked individualism, they may be seen as offering more

flexible ways of connecting and relating to social groups.

Findings from the Miller et al. (2016) studies point to several ways in which the trend towards individualization, identified by Wellman, Castells and others, continues with social media. However, at the same time, Miller et al. found in operation the very antithesis of this: instead of individuating, social media were used to reconnect with social groups. Miller et al. point to the reparatory work often undertaken by social media, which are sometimes used in order to reconnect families that are separated by distance, or people whose life circumstances have isolated them. For example, single mothers in Italy were found to make much more use of social media than their peers. In these terms, rather than individualizing, social media allow people to maintain social connections when distance or other impediments get in the way.

In their fieldwork in India, Miller et al. observe how social divisions in terms of kinship, age, gender, class and caste are found in social media, which are occasionally used to survey and 'police' members of the same family or caste, rather than enabling individuals to form their own networks according to their preferences and interests. This led Miller et al. to suggest viewing networked individualism not as antithetical to group belonging, but as a complementary form of sociality: both seem to be facilitated by social media. For Miller et al., pre-existing offline socialities seem to determine online socialities and the ways in which social media will be adopted and used by specific cultures and communities. They argue that in conditions where there is a sense of decline in communal sociality, social media may be used to reinforce or retain this kind of group sociality; conversely, where there are forms of oppressive sociality, for example in contexts that impose constraints on women's behaviour, social media allow for some forms of individualized networking. Finally, for Miller et al., social media provide people with opportunities to find or create balance between various forms of sociality, new and traditional.

Case Study Algorithms and Sociality

A crucial parameter of social media concerns the way in which they function as technologies that connect. While offline 'real-life' social norms and conventions, as well as our own circumstances, determine who we will be seeing, and how frequently, in social media these are determined by algorithms. How do algorithms impact our connections to others? And if our connection to others is at least partly structured by algorithms and by decisions taken at the headquarters of a social media corporation, what might be the effects on sociality? Several authors have examined these issues and their work usefully highlights some of the emerging dilemmas. Two main arguments have been put forward: first, Jose van Dijck (2013) argues that the emerging culture of connectivity must be interpreted in terms of social media's quest for profit; second, Taina Bucher's (2012) focus on the algorithmic regulation of connections points to the ways in which algorithms makes us compete for visibility, enforcing public self-disclosures and sharing. Together, these arguments illustrate the important ways in which technologies intervene or mediate our connections to others.

Van Dijck's (2013) analysis of social media from a political economic, technological and cultural perspective and, crucially, from a historically informed perspective, outlines how social media platforms have changed the internet and the way we connect to others. She traces a historical shift from networked communication to 'engineered sociality'. This term refers to the ways in which platforms cannot be seen as neutral conduits for people to communicate, but as actively involved in constructing sociality through specifically programmed operators or algorithms. Van Dijck argues that social media are understood as enhancers of the human need and desire for connection, as processes of collaboration and participation, as well as automated systems that engineer connections. While social media corporations try to underplay the technological element, in fact 'making the Web social' turns out to mean 'making sociality technical', and therefore making connections, and generally people's online activities, formal, manageable and subject to manipulation (van Dijck, 2013: 12). This is how sociality can be seen as engineered.

In practice, this occurs through three related process, which van Dijck calls 'lock in', 'fence off' and 'opt out'. Platforms are built in ways that entice users to get in and stay in; they cultivate an ideology of 'FOMO' (fear of missing out), by highlighting the costs of opting out. This is accomplished through a variety of ways, for example, through offering everything from personal messaging to shopping, or conversely through becoming ubiquitous, for instance, when users can click the Facebook icon and post an article found in a website on their own timeline. Recommendation systems also function as ways of keeping users in the system: affective aspects, such

as 'likes' or favourites, reward users for posting contents. User-centredness is a crucial parameter: receiving automated feedback and constantly tweaking the experiences offered helps maintain and grow the number of platform users. However, while all this is offered free of charge, the dominant business model of the platforms, which relies on harvesting user data and subsequently selling these to advertisers or other interested parties, underpins all their activities. Van Dijck argues that popularity, hierarchical ranking and personalized recommendations are some of the main values that underpin this engineered sociality. Crucially, these values are only important because they make the data mined more valuable for social media corporations. At the same time, these values and the emerging engineered sociality are compatible to neoliberal conceptions of sociality that revolve around notions of 'hierarchy, competition and winner-takes-all mind-set' (van Dijck, 2013: 21). From this point of view, engineered sociality is a sociality made for the profit of social media corporations. Indeed, in a recent article, Mark Zuckerberg explained how context collapse may hurt the platform because users are becoming disinclined from sharing personal information. He asked his workers to find ways of incentivizing users to share more personal posts (Frier, 2016). Aspects of the Facebook algorithm that prioritize personal connections and interactions may be seen as part of such efforts.

While van Dijck focuses on the ways in which sociality is reconstituted in ways that end up reinforcing neoliberal ideologies, Taina Bucher (2012) focuses on the mechanics of this engineered sociality, and specifically on the algorithms themselves. Facebook, and other social media platforms, don't make all of their content visible to everyone. Rather, they order them on the basis of certain parameters which are all part of an ordering algorithm. Bucher examined Facebook's timeline algorithm, which was then called EdgeRank. This is the algorithm that determines what users see in their newsfeeds. EdgeRank was a trade secret, but it was thought to consist of three elements: affinity (how close a user is to the user posting content – or creating an 'edge' in Facebook's terminology); weight (how significant Facebook considers the particular interaction (e.g., comments have more weight than mere likes); and time decay (how recent the posts are). Since then, Facebook changed its algorithm, currently known as 'newsfeed algorithm', removing the time decay element. This allows users to see posts from previous days, and includes the frequency of interactions and information on the types of content that users tend to interact with among the new parameters that have been included. While Facebook's algorithm changed and is likely to change in the future too, the underlying logic remains the same. Bucher argues that this involves an indirect threat of invisibility: if users do not conform to Facebook's requirements, for example, if they do not post or interact with other posts, they will be rendered invisible to others. This is the inverse of Foucault's Panopticon, where subjects conformed because of the implicit threat of being seen or being visible. Rather, the algorithmic regulation of visibility pushes people to make themselves visible and, moreover, to compete for such visibility with

others. It is visibility that is scarce, rather than invisibility. The upshot of such arrangements for sociality is that, first, an element of competition is introduced and, second, the environment of Facebook is rewarding some behaviours more than others. For example, to actively post and comment, rather than just liking or lurking, conditions users in ways that Facebook finds more productive and profitable – that is, the production of more information which can add value to the data being mined and sold.

Social media have therefore introduced a transformative dynamic into sociality, through allowing for constant and varied connections with multiple others beyond the limitations of time and geography. This dynamic is itself largely shaped by their quest for profit. However, this focus on the algorithms as determining of social relationships overlooks user agency and cultural factors that allow users to adapt social media to their requirements. This is the argument put forth by Miller et al. (2016) in their discussions of scalable sociality: given that different platforms offer different environments, ranging from the private or semi-private (e.g., WhatsApp or Snapchat) to the public and semi-public (e.g., Twitter, YouTube and Facebook), users navigate these on the basis of their desires and wants and on the basis of their broader cultural context. At the same time, notwithstanding user agency and culture, we must not discount the fact that online environments are already structured in ways that are compatible with the social media corporations' business models: users can only navigate in ways prefigured by these algorithms, which are themselves built in ways that allow for profit extraction, mainly through data mining. From this point of view, sociality in privately owned social media will always be articulated with profit extraction and the market.

Conclusions

The main question this chapter sought to address concerned the changes in the ways in which we associate with others. These changes, as we have seen, take the form of a sociality that combines elements of individualism, already present in the pre-new-media social organization, with the deep human need to share with and connect to others. The result is a sociality that has been described as networked individualism. The summary box following the case study summarizes the main points of the chapter, and the different ways in which sociality has been theorized.

Where does all this leave us? Should we understand networked individualism as an inevitable and overall positive development, or as limiting and problematic as other forms of association? While we must remain critical, we do not yet have enough evidence to come up with a definitive evaluation. Miller et al. (2016) point to important continuities between traditional and new socialities, and their ethnographic and comparative work suggests that conflicting and complementary forms of socialities exist and are facilitated through social media. But if we consider networked individualism and the main new form of sociality that is clearly connected to social media, we must also be aware of the costs that this may entail: as Castells (2001: 133) put it, the costs of networked individualism for society are not yet clear, but there will be costs (see case study below).

Summary of Main Points

Community and Society

- Community: revolving around the will to be with others and constituting a tightly knit association bound together with affective bonds. Examples: neighbourhoods and families
- Society: instrumental, goal-oriented membership, stemming from the rational will, bound together by rationality. Examples: the state and private companies
- Does the internet/new media resurrect or completely destroy communities?
- Rheingold: the rise of virtual communities, based on shared interests rather than shared physical space, can be more democratic and egalitarian, less oppressive
- But, contra Rheingold, Putnam argues that overall social capital is diminishing (at least in the USA) and the (new) media may be responsible
- Sunstein argues that atomization, fragmentation and polarization rather than community emerge out of our engagement with the new media

Networks and Society

- Not communities but networks: loosely-knit sets of ties that provide sociability, support, information and belongingness (Wellman)
- Networks characterized by 'homophily', the tendency to include similar others, but also by weak ties (e.g., by including acquaintances or friends of friends) which provide links to other networks
- New media have created the material environment that supports networks, rather than groups or individuals
- All these contribute to the rise of networked individualism: a social organization that is no longer based on close groups or networks connecting place to place, but networks connecting person to person on the basis of preferences, skills, knowledge and so on

Critical points:

- Overstates availability of free choice
- Emphasis on choice overlooks embeddedness in power structures
- Networks are resources and hence are unequally distributed
- Imposition of instrumental, goal-oriented logic on associating with others

Social Media

- Defined as sites/media that integrate technology, social interaction and user-generated contents
- Main characteristics:
  - Communicative
  - Open and participatory
  - Provide connectivity
  - Support community
  - Actively encourage and rely upon the creation and sharing of contents
- Research on social media reveals that networks are mostly formed on the basis of existing offline ones
- Social media increase bridging social capital primarily but are not linked to the creation and maintenance of bonding capital
- Privacy concerns: while users are concerned with privacy, they do not appear to appreciate the public nature of social media
- A new sociality that blurs the boundaries between private and public
- An economic model that understands sociality in terms of capital and costs
- Divisions of class and others operate in social media
- Boundaries erode, with the professional meshing with the personal, the public with the private, and work with play
- Scalable sociality (Miller et al.): rather than individuating or networking, social media introduce a variety of connections to others, which serve different social needs and can operate differently in different cultures

Research Activity: Exploring Online Socialities

Much of the controversy surrounding the social use of the internet concerns the extent to which it does in fact offer a new kind of social connection, the extent to which it leads to a new kind of community, and the extent to which this is a positive or negative development. This activity aims to help us understand some of the issues involved in the relationship between social life and the internet. With reference to concepts such as 'community' and 'society' (Tönnies), 'social capital' (Putnam), or 'networked individualism' (Castells, Wellman), this activity requires that you carefully examine and explore sites belonging to: a self-help association; a social media platform; a gaming/virtual reality site (e.g., *Second Life*); and a locally based network site (e.g., a parent association). Now consider the following questions:

1. For each of these sites, consider the type of community they give rise to. How closely does it approximate any of the above understandings ('community', 'society', 'social capital')? What do you think keeps these groups together?
2. For each site list what you consider to be the positive and negative aspects with respect to how they connect people together.
3. For each site, consider the opportunities offered or created for connection beyond the virtual, online world. Do you consider the provision or lack of such opportunities positive or negative, or are you unequivocal about them?

A second research activity focuses on the notion of 'polymedia', 'scalable sociality' and 'algorithmic sociality'. Most of us have accounts, and occasionally multiple accounts, on different social media platforms, such as Facebook, Twitter, YouTube, LinkedIn, Instagram and Snapchat. Looking at your own accounts, how many friends/followers/connections or subscribers do you have? How many do you know personally? How many do you see in your everyday life? How do these platforms condition you to act? For example, do they mainly allow for private, public or semi-public interactions? Think of instances when you would use one rather than another, and try to justify this choice. Think of the endorsement practices on LinkedIn or the push notifications from Instagram or Twitter; the notifications from Facebook; or the infamous and much dreaded 'seen' or double check notifications from Messenger and Whatsapp. What are the norms that are emerging? What kinds of connections are encouraged through algorithmic reciprocity and the pressure to interact in the various platforms? How do these differ or converge?

Further Reading

Following up on the theme of structured or engineered sociality but also on the broader social environment created by all platforms together, these articles explore on the one hand the role played by platforms as socio-technical systems and user agency and practices on the other. Taina Bucher's article on friendship as an outcome of the ways in which platforms construct and manage our connections to others alludes to the importance of the technology. Deborah Chambers' article explores the relationship between algorithms and scalable sociality, while finally, Zizi Papacharissi's work looks at the ways the differently structured environments of different social media platforms condition and support different kinds of socialities.

Bucher, T., 2013, The friendship assemblage: investigating programmed sociality on Facebook. *Television & New Media*, 14(6), 479–493.

Chambers, D., 2016, Networked intimacy: Algorithmic friendship and scalable sociality. *European Journal of Communication*, p.0267323116682792.

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11 Games and Gaming

Learning Objectives

- To critically understand the games industry, and the ways in which gaming practices and contents are shaped by economic requirements
- To find out the kinds of representations and narratives encountered in games
- To learn the various gaming practices and their implications
- To develop an understanding of the formation of gaming communities and their characteristics

Introduction

About 80 years ago, the Dutch theorist Johan Huizinga published a book titled *Homo Ludens* (or *Playful Man*) (Huizinga, 2003 [1938]). The main argument in this book was that play is not merely a superfluous activity to be undertaken by children and the idle, but a necessary condition for culture. Through play, cultures established themselves, but also evolved and changed. For Huizinga, play comes first, before culture, and culture derives from it. In this sense, it may be argued that within a given historical context, the most prominent games define the logic and core of a culture. If we introduce computer games into this equation, and accept that their rising popularity and quick spread across the world is turning them into one of the most prominent forms of play, then our culture is by and large characterized by these kinds of games. The question, then, that emerges here concerns the changes and shifts that gaming is introducing to our culture. While this is a question that needs to be addressed empirically, this chapter takes some initial steps to examine some of the main characteristics of games and, more broadly, play.

More specifically, Huizinga argued that play is characterized by certain key features. First, play is freedom in the sense that one is not forced or morally obliged to play; it is an activity one chooses to do out of enjoyment – it is not a task, says Huizinga (2003 [1938]: 8), but done in free time. Second, play is not 'ordinary' or 'real life', but involves 'stepping out of real life into a temporary sphere of activity' (2003: 8). Games create their own worlds, parallel to 'real life'. This, in turn, is linked to another characteristic, that play takes place in a different locality and has a certain duration: games have limits of time and place, they begin and they end. Fourth, while in play mode, games have their own rules of what can and cannot be done: in this sense, games introduce order. If the rules are broken, the game is over. From this point of view, order and the rules of the game tend to be quite rigid. To the extent that some initiation to the rules is necessary, play creates divisions between those in the game and those outside it. Huizinga argues that play therefore promotes the formation of social groupings that tend to surround themselves with secrecy and often use a special code to differentiate the insiders from the outsiders. Finally, play is seen as an activity that is not

connected to any material interest, and Huizinga tells us that no profit can be extracted from it (2003: 13). To what extent do computer games share these characteristics? Or, put differently, to what extent do the new media introduce changes in the main characteristics of play?

To begin with the last feature, that of material gain, while most gamers do not play for profit, computer games form part of a growing billion-dollar industry. This industry needs to be properly understood, as its interests may shape the ways in which computer games are developed and marketed. The first section of this chapter will therefore look at the games industry from a political economic perspective, seeking to outline the economic parameters that shape gaming practices and contents. Second, how is the non-ordinariness of games and their rules determined and expressed? This requires an examination of the content and representations of games, to determine if indeed they mark a departure from ordinariness. Third, Castells (2000 [1996]) has told us that, in the network society, time becomes timeless and geographical space becomes a space of flows: how does this affect the duration of, and place limits on, games? This requires a combination of an analysis of games structure as well as of gaming practices. A final issue concerns the formation of quasi-exclusive communities around games, an important characteristic of play according to Huizinga: what are gaming communities, how are they formed, and what are their main characteristics? In addressing these issues, this chapter will be divided into three sections: a section on the political economy of games; a section on the contents and representations of games; and finally, a section on gaming practices, which will look at gamers and gaming communities.

The Political Economy of Games

The games industry is first and foremost just that: an industry. But beyond this, it is also, as Aphra Kerr (2006) argues, a cultural industry. The term 'cultural industry' was suggested by Adorno and Horkheimer (1997 [1947]) to denote the ways in which culture has become industrialized and commodified, and as such it has become a fundamental part of capitalist life, unable to stand in opposition to it. For critical theory, the issue is that culture should be left outside the realm of the economy so as to be able to criticize it and through this critique to improve the economic and political system, making it not only more equitable and just, but also more meaningful. But since the economic realm has colonized culture, the latter has lost its critical edge, and now merely serves the interests of the current political and economic order. As cultural theory and political economy evolved, the critique went even further. It is not only that culture has lost its edge; it is also produced, managed and marketed in ways that seek to maximize profit. In so doing, they turned culture from a public good to effectively a private commodity. Clearly, as Kerr (2006: 45) argues, the games industry is a cultural industry, characterized by high risk in its production, by high production but low reproduction costs, and by the semi-public-good nature of its products. The task of this section is to outline the ways in which games have become part of a growing industry, and how this has affected the ways in which they are produced, distributed and subsequently consumed. It will begin with an examination of the industry in terms of numbers and income, and then look at its structure and business strategies. The overall argument is that the games industry is seeking growth and higher returns, and in pursuing those it may sacrifice originality and creativity. More broadly, following Kline, Dyer-Witheford and De Peuter (2003), it will be argued that the computer games industry is a fundamental part of digital capitalism, relying on its networking logic and distributed creativity for profit.

Games Industry: Size and Income

As Kerr (2006, 2016) notes, it is very difficult to estimate the size of the games industry for several reasons. First, there is no doubt that the industry is internally diverse: it includes not only games consoles, such as Wii and PlayStation, but also handheld devices such as Nintendo. Additionally, games can be released for PCs, or they can be played online. The rise of mobile games complicates matters even further. The most successful games are marketed and sold globally, making the industry a global one. While size estimates are difficult, one thing appears certain: this, unlike the recording industry, is an industry with a future and it keeps on growing. In the first edition of this book, the worth of the games industry in 2008 was around US$35 billion. By the end of 2016, this had more than doubled, and the total worth of the industry was around $99 billion (Newzoo, 2016). Figure 11.1 shows a 2005 estimate of growth prepared for the OECD. According to this, the global games industry was worth more than $35 billion by 2008. As a comparison, we can say that the recorded music industry totalled $32 billion in 2003.

It is clear that the industry is growing healthily, with a 50% increase in revenues in the years 2012 to 2016. Two factors are driving this growth: the rise of mobile gaming and the popularity of gaming in the Asian market. According to Newzoo (2016), 58% of the growth in 2016 comes from the Asia-Pacific region, with China alone accounting for one-quarter of all revenues. The games market is thoroughly globalized, and although US-based companies are still strong, in 2016 the Chinese giant Tencent assumed first place and is now generating more revenue than Sony, Activision Blizzard, and EA (Electronic Arts).

Additionally, we see that the proportion of income generated by mobile games has grown dramatically, from 10% in 2012 to 27% of the total market in 2016. Other market developments include the industry focus and investment on virtual reality, leading to an altogether different gaming experience. The games industry is at the forefront of future developments, and is associated with some unexpected partnerships: for example, Facebook acquired Oculus, a virtual reality company, in 2014, and then partnered with

Samsung to develop the Samsung Gear VR, a virtual reality headset. In 2015, Oculus announced a partnership with Microsoft, which will now bundle Oculus Rift, a VR headgear, with Xbox One controllers, so that all XBox One games will be streamed to Oculus; for this to occur, Oculus will have to use Windows 10 (Warren, 2015). This example shows how closely integrated are social media, games, software and hardware companies.

Figure 11.1 The computer games market (excl. hardware), 2012–2016 (data source: Newzoo)
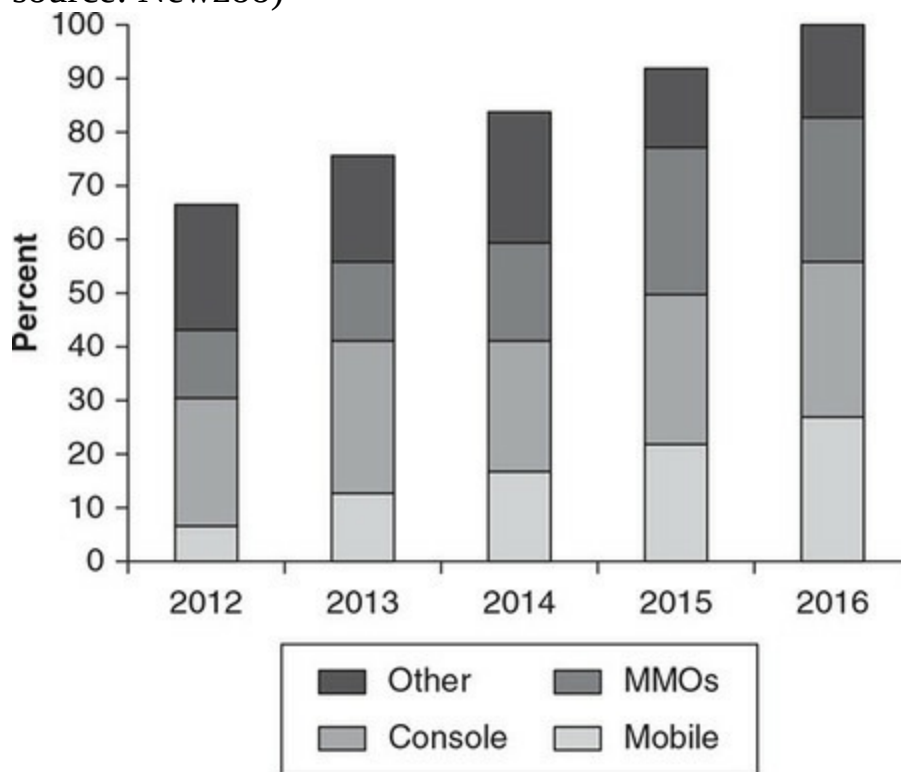
Development, Production and Informationalized Labour

The size of the industry and the kinds of companies involved show that games and gaming are at the centre of the field of new digital media, and moreover that they may drive developments in these fields. In terms of its internal development and production, the games industry has embraced the production values and processes associated with digitalized, informational capitalism: flexible, networked-organized production along with intensified marketing processes (see also Chapter 2). In fact, it forms an exemplary case of informational production, relying on creativity, 'perpetual upgrades' and saturation marketing (Kline et al., 2003: 74). The profitability of the industry depends on how it balances technological innovation, cultural trends and marketing strategies. Given its reliance on informational strategies, the digital game may in fact be something beyond a mere commodity: it may be an ideal-typical commodity form. Kline et al. (2003) elaborate on Martin Lee's (1993) argument that each phase of capitalism is exemplified by a certain commodity, which acquires an ideal-typical form, condensing the defining characteristics of this historical phase. Just as the car was the ideal-typical commodity of Fordism and industrial capitalism, computer games constitute the ideal commodity of informational capitalism, argue Kline et al. (2003; see also Dyer-Witheford, 2003). Indeed, as Dyer-Witheford (2003) has argued, we shall see that the digital game is a perfect illustration of production under conditions of informational capitalism.

In another article, Dyer-Witheford and Sharman (2005) divide the production process into four distinct stages: development, which refers to the creation and design of a game and its software; publishing, which involves the whole management of the game commodity, including its financing, manufacturing, packaging and marketing; licensing; and distribution, which refers to the actual shipping of the gaming hardware and software to retail stores. We will look at these in some detail.

How are games developed? Kerr (2006: 64) distinguishes between three types of development companies: (1) first-party developers, which are in-house production teams, integrated into publishing companies and developing

games for them; (2) second-party developers, who are contracted to develop games from concepts; and (3) third-party developers, who develop games independently and then try to sell them to publishers. The majority of games, reports Kerr, are developed by first-party developers who are directly employed by publishers. Game development, as Dyer-Witheford and Sharman (2005) put it, is the wellspring of gaming. It is a costly, work-intensive process that can take anything between 12 months and three years; it can cost several million dollars; and it relies on collaboration between 20 and 100 people, depending on the scope of the project (2005).

While game developing is the result of intense collaboration, there is an ideal form of game developer, who resembles an auteur: Deuze, Bowen Martin and Allen (2007) refer to names such as Will Wright, Shigeru Miyamoto and John Carmack, who developed *The Sims, Mario Brothers* and *Quake* respectively, as having reputations similar to those of Kubrick, Kurosawa and Polanski in earlier generations. Game developing is seen as exciting and creative, making full use of talent and offering great opportunities for success. This involvement of talent, as well as effort and personality, and vision in the process of creating a game, is a perfect example of Lazzarato's concept of immaterial labour (1996; see Chapter 2), which allows a lot of discretion and creativity to workers, and which entails the involvement of knowledge, both formal and cultural, as well as a great deal of creativity. On the other hand, the reality of work is often much more prosaic. As Kerr (2006) notes, game developers are under pressure by publishers for more profitable and commercial products. In addition, licensing laws and contract agreements seek to own and control the products of this kind of immaterial labour. These pressures have resulted in adverse working conditions: the most well-known case is the lawsuit against Electronic Arts, one of the largest game publishers, which employs over 4,100 game developers in the USA, Canada, Japan and the UK (Deuze et al., 2007). The case was exposed by a blogger, EA_Spouse, who reported that during 'crunch time' (game testing periods) workers often work 80-hour weeks, often without any compensation. While EA settled the case, this resulted in laying off about 5% of its workforce. More broadly, as Deuze et al. (2007; cf. Kline et al., 2003) report, game publishers tend to move to areas or countries which offer tax incentives and have deregulated workers' rights. In addition, outsourcing game development (the so-called second-party developers) is becoming more

frequent, with the result that the workforce of gamers is in fact dispersed across the world. De Peuter and Dyer-Witheford (2005) report that the workforce is overwhelmingly male and young, aged between their late teens and early thirties. Based on interviews with developers, they identify several positive aspects of this kind of work, including creativity, flexibility and its 'work-as-play' outlook. On the other hand, in its dark side, they report the existence of passionate pay slaves, precarious global developers, and free networked labour, referring to instances where the positive aspects of autonomy and creativity turn into 'forced workaholism' (IGDA, 2004: 6, in De Peuter and Dyer-Witheford, 2005), to the precariousness of working as outsourced labour, and to the ways in which the free labour of gamers is appropriated by publishing companies.

Looking at developments in the structure of the games industry, Kerr (2016) shows how turbulent the past decade has been. Kerr details developments, including the rise of a new business model, the intensification of competition (not only among companies but also among the different segments of the market), and a rapid change of fortune for companies. The inexorable rise of mobile games has ushered in a new form of business model for games that builds upon and expands the MMO model of free to play. Additionally, the ease with which mobile games can be developed has led to their proliferation; browsing through the games category of Google Play or Apple Store shows an astonishing range of games to be downloaded and played for free. This has shifted attention from production to the distribution or circulation of games, as reaching gamers now is more important than ever. At the same time, it points to intense competition not only between different games, but also between different segments and different companies: so a mobile game has to compete not only with all the other mobile games that are developed, but also with games developed for PC, consoles and other devices.

Intense competition puts pressure on companies which then have to create efficiencies in order to survive. Such efficiencies include the standard processes of vertical, horizontal and diagonal integration (Kerr, 2006, 2016). In the simplest terms, this means that a small number of very large firms dominate the market. The objectives of these kinds of integration are to minimize costs by exploiting economies of scale, and to maximize profit by increasing global sales and controlling distribution. Publishers such as Sony,

Nintendo and Microsoft own both consoles and software, while they also seek to expand diagonally across different market segments, for instance through developing mobile games. In addition, in what is known as vertical integration, they create synergies with retailers, thereby controlling distribution as well. Online distribution takes place primarily through app stores, but there is also a new layer of online gaming platforms, such as Origin, which belongs to EA, and Steam, which belongs to Valve Corporation, a video games developer. On the other hand, this kind of near-monopoly is tempered by the very nature of games development, which is innovative and creative: games publishers need to stay alert and able to pick up any hits by independent developers (Dyer-Witheford and Sharman, 2005). However, as Dyer-Witheford and Sharman (2005) point out, the growing number of independent developers often absorbs labour and other costs for the big games publishers, which end up scooping up most of the profits. This remains a highly volatile market with mergers and acquisitions being the norm. The barriers to entry are lower than in the era dominated by the consoles, but continued success is not guaranteed. Kerr (2016) refers to Zynga, which emerged in 2007, using Facebook as a platform for games such as FarmVille. Within four years it had become a US$1 billion company, dominating social media games; by 2015, Zynga was moving away from Facebook and acquiring mobile game companies.

It is within this context that games are produced, constituting, as Dyer-Witherford and his colleagues have argued, the ideal-typical commodity of informational capitalism. But games are an emblematic commodity not only because of their conditions of production, but also because of the semiotic elements they mobilize. To understand this further, we need to look into the actual content of games.

Games: Content, Narratives and Semiotic Power

Dyer-Witheford's (2003; Kline et al., 2003) historical analysis of games reveals their provenance: they were not created in playgrounds or by geeky teenagers; rather, just like the internet, they are a spin-off of the military-industrial complex. The first digital game is generally accepted to be *Spacewar*, a military simulation 'hacked' by defence-related workers at MIT (Dyer-Witheford, 2003: 125). Even today, military simulations cross over to games, while the military frequently enters into partnership with games publishers, thereby making digital games one of the clearer instances of the so-called 'military-entertainment-industrial complex' (Dyer-Witheford, 2003: 125; the term is MacKenzie Wark's, see Wark, 2006). Given these close synergies between the military and entertainment-industries, it does not come as a surprise that games are heavily influenced by the military: a look at some of the most popular games in 2010 reveals several war-related games, such as *Call of Duty: Modern Warfare, Bayonetta, Assassin's Creed*, not to mention old-time classics, such as *World of Warcraft, Delta Force: Black Hawk Down*, and so on. There are an increasing number of people voicing concerns regarding games as training tools for the military and their relation to violence. Indeed, in a recently released, shocking video from Iraq, in which US pilots shoot unarmed people on the ground, both the image and the words exchanged between the soldiers clearly point to relevant war games. The point here is that the games' plots and storylines end up naturalizing war and justifying violence. Analysing the content of games will therefore provide us with important insights into dominant and powerful cultural narratives.

But the issue proves far more complex than that. Often referred to as the ludology-versus-narratology debate, a dilemma has emerged concerning games as texts (Kerr, 2006; Raessens, 2006). In simple terms, this concerns the extent to which games can be analysed in the same terms as other texts, such as film for instance (i.e., through a narrative analysis of characters, plot, etc.), or whether in fact they constitute a different non-linear, interactive kind of 'cybertext' that requires new modes of analysis (Aarseth, 1997). Games,

argue 'ludologists' such as Espen Aarseth (2004), must also be analysed in terms of their rules, the material/semiotic world they create ('gameworld'), and in terms of the actions taken when players follow the rules within the gameworld ('gameplay'). Of these, the semiotic element, which corresponds to the narrative, is one of many, and not the most important. While Aarseth (2004) has vocally argued against the employment of literary-based narrative theory on games, others, such as Raessens (2006), prefer to combine insights from both narrative analysis and 'ludology', employing innovative combinations of methods, including observation, interviews, the use of diaries, as well as discourse and textual analysis. More recently, Aarseth (2012) suggested that ludology began as a critique of positions that games are only stories, and argued for the incorporation of both the mechanics of games and their semiotic elements in any analysis. He proposes a four-dimensional approach which looks at the world created by the game; the objects in the game (e.g., avatars, vehicles, weapons and so on); the agents of the game (i.e., the characters involved, which can be rich characters or simple bots); and finally, the events that unfold in the game, which can be totally open or prearranged. Following this line of thought, this section will present some findings from studies that have focused on textual-narrative analysis, as well as those which looked at other areas, such as the 'game' elements. We will seek to understand this aspect of digital games and the ways in which it is linked to their wider significance in informational capitalism.

Genres

In approaching the analysis of game content, we must somehow attempt to understand and map their diversity: from Wii's physical games, to *Guitar Hero* and *Second Life*, there are a great variety of games genres. Analysts such as Poole (2000) have identified no less than nine genres, including shoot-em ups, puzzles and sports. Apperley (2006) condenses them to four main genres. Apperley follows Aarseth (1997) and Wolf (2001), arguing that games genres must be understood not in terms of differences in their aesthetics, but in terms of their 'ergodicity'. The term 'ergodic' (Aarseth, 1997) refers to the work undertaken by 'readers' or players in co-creating the game. On this basis, Apperley names the following genres. First, there are simulation games, which are characterized by realism and simulate real-world environments: *SimCity* and *Second Life* can be considered simulation games, as well as racing and other sports games. Second, there are strategy games, in which players typically assume a god-like perspective and must gather and process information before making decisions in order to win the game: *Civilization* and *Age of Empires* are examples of strategy games. Third, there are action games, which can be first-person games in which players undertake the action directly – shooting, fighting and so on – or third-person games in which the action is undertaken by an avatar: *Doom*, *Quake* and *Mortal Kombat* are all action games. Fourth, there are role-playing games, in which a fantastical, magical world is created and players assume a character and contribute to the game through the acquisition of new skills, solving puzzles, and so on: *Dungeons and Dragons*, *Legend of Zelda*, and *Final Fantasy* are examples of this genre. While each genre is characterized by distinct background, tasks and goals, which are accomplished by players in distinct ways, they all share elements of each other: thus, some game environments make use of simulations, while action is common in both strategic and role-playing games. Information processing and puzzle solving are required in action games as well. More broadly, the notion of game genres is suggestive of the differences between games in terms of what is expected of players as well as in terms of their aesthetics and background. However, industry, academics and gamers themselves have different understandings of the various genres, which complicates matters. Moreover, the arrival of games such as *Minecraft*, which is classified as 'sandbox', defy

easy categorization and create their own genres.

Looking more closely at background storylines, the analysis often takes a form that echoes the analysis of films and other media texts. On the one hand, games are too numerous and diverse to draw any definitive conclusions. On the other hand, however, analysis of some games reveals their habitual use of gender, ethnic and other stereotypes, as well as the employment of formulaic narratives. In content analyses of the characters of video games, studies report that women and people of colour are typically underrepresented. For example, Williams, Martins, Consalvo and Ivory (2009) found that only 14% of the characters in video games are women, and only 10% are black. In the same vein, Brock (2011) points out that in video games, fantasy worlds are created where white male characters appear as conquerors, explorers and problem solvers, replicating the values of white masculinity. Moreover, female characters tend to be oversexualized, shown partially naked, with an unrealistic body shape or with sexually revealing costumes (Downs and Smith, 2010). Finally, given the political economic context of gaming and the links between gaming and the military, it is not surprising that dominant and oversimplified narratives regarding 'good' and 'bad' guys emerge in most games. We will explore some of these themes through a case study of an action game, Novalogic's *Delta Force: Black Hawk Down*, which has been studied by David Machin and Theo van Leeuwen (2005).

Case Study *Delta Force: Black Hawk Down* – Exploring Games Narratives

In their analysis of *Delta Force: Black Hawk Down*, Machin and van Leeuwen (2005) demonstrate the links between the military and entertainment industries and the ways in which they shape games content. The result is that military interventions not only appear justified and necessary, but that they are normalized and accepted as solutions to political problems. The game *Delta Force: Black Hawk Down* was produced by NovaLogic in 2003, as part of their Delta Force series. NovaLogic has a subsidiary called NovaLogic Systems, which works with the US Army's Training and Doctrine Command Analysis Centre as well as with Lockheed Martin Aeronautical Systems, producing simulations for their training needs (Machin and van Leeuwen, 2005). In addition, it donated part of its profits to the Special Operations Warrior Foundation, which offers scholarships for the children of soldiers killed on duty. The game is based on the film *Black Hawk Down* (Ridley Scott, 2001), which portrayed the events that transpired when President Bush sent US troops into Somalia during Operation Restore Hope in 1992. Somalia had suffered years of instability, a brutal dictatorship, and clan wars which had led to famine and other hardships for its people. The US special operation had the goal of helping to restore order, deliver food to Somali civilians, and help the UN in their operations. In reality, as Machin and van Leeuwen (2005) note, they ended up causing disruption and unsettling agreements that the Red Cross had reached with clan leaders.

The game is based on the same events as the film. Between its launch in 2003 and 2005, it had sold over a million copies, grossing over $30 million, but this does not include all the pirated copies. It was distributed globally with virtually no changes, even in the US accents of the soldiers. The goal of the game is to ensure that the Red Cross humanitarian operations are not disrupted, by capturing the 'bad guy', Mohamed Farrah Hassan Aidid, a clan leader. Aidid was a real person involved in the conflict, but he did not have the power or stature attributed to him in the game. Players assume the role of soldiers of Delta Force, the special operations unit of elite soldiers, looking at the screen just above the barrel of their 'gun' and shooting 'bad guys' in order to capture Aidid. There is no opportunity to play any Somali characters. While Delta Force soldiers are shown to experience emotions, for instance when their comrades are shot down, none of the Somali characters show any kind of emotion. While US soldiers are represented as a team, this is not the case with Somali militia or civilians – they are represented as a group or collective but in generic terms, and players cannot actually see their faces or characteristics. The only individual Somali is Aidid, the 'despotic' leader of the Habr Gedir clan. One of the most interesting elements of Machin and van Leeuwen's analysis is the identification

of a 'special operation', which depicts US soldiers as professionals, doing a job, which is to protect society. This discourse acts as a frame for the legitimation of war, at least at the level of soldiers. They do not mobilize any kind of argument about what is moral or just, but focus on the application of their skills and on following orders. While Delta Force is seen as a highly trained, organized and efficient unit, its 'enemies' are seen as ill-disciplined and untrained.

The formulaic narrative of good versus evil revealed in this case study has been an integral part of recent discourse on the war on terror. Do games have a role to play in this? Given these differences in the representation of the two parties, it is easy to conclude who is right and who is wrong, who has the moral right to intervene and who must be destroyed. It is also easy to conclude that in the case of any kind of conflict, the solution lies in a quick and efficient military intervention. But these kinds of games serve another purpose as well: they globalize these kinds of discourses, which are now widely used, and therefore becoming increasingly acceptable in different parts of the world.

In their analysis of Arab and American games representing the conflict in Lebanon and the role of Hezbollah, Machin and Suleiman (2006), found that the same special operations discourse was used in both Arab and American games. While in the Arab games Hezbollah represented the good guys and US/Israeli soldiers the bad guys, the basic premise of the special operations discourse remained the same. However, in the Arabic game *Special Forces*, fighters were represented in terms of their beliefs and their will to fight. In the same vein, Nie (2013) reports that games on the Chinese resistance against the Japanese occupation during the Second World War are used by the Chinese state as a means of propaganda and for sustaining the growth of the gaming industry.

Despite some differences, the broader point here is that the form and basic narrative of action games are becoming global discourses and spreading their simplified versions and explanations of complex political events, thereby justifying and glamorizing military conflicts and heightening nationalism at the same time as generating profits for their parent companies and sponsors. Other analyses point to the ambivalent and complex position of games as cultural texts. For example, in an analysis of GTA IV, Pérez Latorre (2015) concludes that it involves a central contradiction between identifying the

structural inequalities and lack of opportunities for minorities and the pleasures derived through acquiring goods (even through stealing). In this respect, games narratives may be seen as embodiments of tensions and conflicting values in real life.

The Architecture and Structure of Games

Other games genres, however, rely on different narratives – the fantastical and magical, the virtually real, the strategizing. What do they accomplish? Aarseth's (1997) argument was that games' narratives differ from other media texts because the player has a say over what goes on. This is the same across genres, but perhaps more so in role-playing and strategy games. Despite this, Carr (2006) argues that most games incorporate straightforward elements of narrative in that they have a given story line, with characters whose attributes are already 'written'. Players then have the ability to manipulate characters, to an extent subverting or altering the narrative. However, as Carr notes, this flexibility has limits: in the end you need to score points and win the game, and your character can and will only do things that enable the game to proceed – otherwise, it's game over! But the broader argument here is that we cannot think of the content of games in the same way as we think about other media texts: the built-in interaction on which they are premised does not allow us to draw conclusions regarding games just from analysing their content. Rather, we must think of this content and game plots as part of a cycle in which gamers are directly involved. From this point of view, the semiotic power of games is limited by the 'consumers' or players themselves: they choose not only which games to play, but also how to play them – which characters to choose, which tools to use, and so on. Game publishers operate on the 90:10 rule: for every hundred games produced, only about ten will be successful. Offering gamers what they want, as well as more flexibility and the possibility to 'write' the game themselves, are two ways which safeguard the success of the game.

But games, as we have argued, are not only narratives: they involve rules and a structure that guides players in specific ways. What does this gaming architecture accomplish? Dyer-Witheford and de Peuter (2009) discuss the ways in which games are used by multinationals to test and train their employees as simulation games are integrated with psychometric and cognitive skills tests alongside personality tests. Cosmetics giant L'Oréal has come up with an online simulation game in which players/employees make strategic R&D investments, marketing plans and cost-cutting procedures (Johne, 2006, cited in Dyer-Witheford and de Peuter, 2009). Cisco, the ideal-

typical networked enterprise according to Castells (2000 [1996]), prepares its management for dealing with crises through a game in which they repair a network in a Martian sandstorm (Dyer-Witheford and de Peuter, 2009). Firms such as Minerva Software (Cyberlore) hone the skills of their servicepersons through games such as Playboy Mansion, in which they try to persuade models to pose topless (2009). In similar developments, Stanford University has found that the attention and concentration exhibited by players of massive multiplayer online games (MMOG) of *Star Wars Galaxies* is such that they could be used to check real medical scans for cancer inside the game (Hof, 2007, in Dyer-Witheford and de Peuter, 2009). But this is not all: most computer games follow closely the employment paradigm of career progression, management of assets, and accumulation of capital (Poole, 2008, in Dyer-Witheford and de Peuter, 2009).

Almost 100 years ago, at the beginning of the twentieth century, Walter Benjamin observed that '[w]hat the Funfair achieves with its Dodgem Cars and other similar amusements is nothing but a taste of the drill to which the unskilled labourer is subjected to in that factory' (1969: 176). How different from this is the way in which games train players/workers for multi-tasking, flexible role-playing, inventive problem-solving, persistence and quick decision-making? Games, as Dyer-Witheford and de Peuter persuasively (2009) argue, are training the new global 'cyber-precariat', turning work into play and play into work. 'Amusement', insisted Adorno and Horkheimer (1997 [1947]: 137), 'under late capitalism is the prolongation of work'. The architecture of games is directed towards the production of subjectivities, along with cognitive abilities and skills that serve informational capitalism. But are we to consider gamers 'docile bodies', unwilling and unable to resist, obediently playing the game? We will examine this next.

Gamers: Practices and Communities

While for many years media research was debating on the role of the reader, and the extent of their involvement in the production or eventual decoding of any text, it is clear that games require active involvement, not only in interpreting the game but also in actually moving or playing the game. What gamers do is understood as configurative rather than interpretative activity (Eskelinen, 2001, in Sihvonen, 2009). Indeed, the work required by players is such that many have spoken about the popularity of games as representing a shift towards a participatory culture (Jenkins, 2006a). Specifically, Henry Jenkins has developed a passionate and persuasive account of a new culture that has emerged out of engagement with the new media. In a recent publication, Jenkins and his colleagues (2009) defined participatory culture as:

> a culture with relatively low barriers to artistic expression and civic engagement, strong support for creating and sharing one's creations, and some type of informal mentorship whereby what is known by the most experienced is passed along to novices. A participatory culture is also one in which members believe their contributions matter, and feel some degree of social connection with one another. (Jenkins et al., 2009: xi)

Keeping this in mind, games are an integral part of this participatory culture, especially some of the multiplayer games, in which the gameplay develops as a result of collaborative playing practices. On the other hand, we have identified games as the ideal-typical commodity of informational capitalism – do these gaming practices subvert this role or do they in fact reinforce it? For yet others, gaming is very far from being either participatory or subversive: gamers are seen as passively reproducing norms and practices learned during gaming, often resulting in violence spilling over from the virtual to the actual world. This section will summarize relevant arguments and findings on gaming practices, the communities that emerge, and their role within informational capitalism. It will begin with a discussion of the controversy surrounding gaming as a problematic activity possibly leading to violence.

Then it will discuss counterarguments on participatory culture, and again some counterarguments concerning gaming as reinforcing existing structures. It will finish on a more optimistic note, discussing the potential of gaming to generate radically new collaborative practices.

Games and Violence

On April 20, 1999, Eric Harris and Dylan Klebold, two high school students, entered Columbine High School in Littleton, Colorado, armed with shotguns and began shooting at students and teachers. By the time they had finished, 12 students and a teacher were dead. Why did they do it? While both students had been in trouble before, it was their video game playing that attracted the most interest. Popular accounts in the media focused on the hours these students spent playing *Doom* and *Quake*, and noted the fact that one of them (Harris) was creating new levels for *Doom* (Brown, 1999). An article in the *Washington Post* described one of these levels in some detail. Apparently, Harris had created a level called 'U.A.C. LABS', which he described as an all-out war between humans and demons on the planet Phobos. The goal of the game is to get to the planet's teleporter. Harris's further instructions read: 'The platoon guarding the teleporter out is VERY large, so beware. Good luck marine, and don't forget, KILL 'EM AAAAALLLL!!!!!' (*Washington Post*, 1999). Parents and relatives of those killed filed a lawsuit against 25 games makers, seeking damages on the basis that they had contributed directly to the massacre (BBC News, 2001). Although the lawsuits were eventually dismissed, the rejection of liability was not on the basis that computer games were not responsible, but on the premise that accepting the lawsuit would lead to problems with the First Amendment on freedom of speech.

The wider problem here is that of the links between violence and computer games. Although there is a burgeoning body of research on violence and the media more generally, the research has failed to come up with any conclusive evidence pointing to a causal relationship (see Jenkins, 2006b, 2007). The main arguments involved are, first, that computer or video game violence causes real violence and, second, that it desensitizes people to violence, thereby making it more acceptable (Anderson, 2003; Funk et al., 2004). Problems with this research are both theoretical and methodological: on the one hand, there is the assumption of a simple behaviouristic understanding of how children and young people learn, and on the other, most methods are quasi-experimental ones, conducted in laboratories and focusing on the short-term effects of playing violent computer games or watching violent images.

In meta-analytic studies, that is, on studies that analyse other relevant studies, there is also no evidence of a causal relationship such that playing video games leads to real-life aggression and violence (Ferguson and Kilburn, 2010). Moreover, as Jenkins (2007) reports, there is no evidence of increased violence in society, which is what we would expect as the number of violent computer games in the market has increased in recent years. Finally, violent games are rated. In the USA, the rating body, the Entertainment Software Rating Board (ESRB), provides six classifications: early childhood (EC), everyone (E), teen (T, 13 years old and above), mature (M, 17 years old and above), adult only (AO, over 18), and rating pending (RP) (see the ESRB site at: www.esrb.org). Concerned parents should make sure their children access and/or purchase only appropriate games.

Games and Participatory Culture: Collaboration and Co-optation

While this controversy still persists, theorists such as Henry Jenkins (1992, 2006b) have focused on the participatory elements of games, emphasizing their potential to mobilize resources, collaborate, and form communities which act as prototypes for a new, more open, participatory and creative culture and society. Role-playing and other genres of games allow the player not only to enter but also to co-author a fantasy world. Perhaps the clearest example of the participatory qualities of games is 'modding'. Modding refers to activities that modify the original game in various ways, such as offering more weapons and creating new characters or levels. Often mods can be equally and even more popular than the actual game, leading to a new game, referred to as total conversion (Sihvonen, 2009). Modding is incorporated into the logic of game production, with game developers releasing game software that is non-proprietary and allows for modification. An example is Firaxis, the makers of *Civilization*, which has not only allowed mods but also incorporated them in versions of the game. Moreover, modding has led to the emergence of communities offering instructions, help, as well as the possibility to discuss modding online (see, for instance, www.civfanatics.com/). Other games, such as *Minecraft*, encourage gamer creation of new worlds and revolve around energetic gaming communities that produce new gameplay mechanics and other items for the game. Modding can therefore be seen as an instance of what Axel Bruns (2007: n.p.) refers to as produsage: 'the collaborative and continuous building and extending of existing content in pursuit of further improvement'. Drawing upon the open source principles, this kind of collaborative production of games-related content effected by players themselves opens up possibilities for the creation of a culture and society that are based on collaboration and participation, and on the use of all our abilities and our collective intelligence (cf. Benkler, 2006). While this kind of activity is supported and even reinforced by game developers, it has led to some controversial moments: when modders introduced an 'Alien vs Predator' mod in *Quake*, they were confronted by 20th Century Fox with demands to cease production, remove websites and disclose the names of modders (Coleman and Dyer-Witheford,

2007). But modding and, more broadly, this kind of gamer activity is not necessarily politicized: in his comparison between culture jamming and fan/gamer activities, Jenkins (2002: 167) pointed out that the latter is 'dialogic rather than disruptive, affective more than ideological, and collaborative rather than confrontational'.

This idea of collaboration and sharing is central in gaming communities that revolve around specific games, while it is also built-in in several kinds of games, ranging from massive multiplayer online games (MMOGs) such as *World of Warcraft* and *EverQuest*, to *Mafia Wars* and *FarmVille* on Facebook. Such communities belie the popular understanding of gamers as lone teenagers, enabling community members to unleash their creativity and make the most of collaboration (Taylor, 2006a). Furthermore, such communities, often referred to as 'guilds', can be thought of as autonomous, in the sense of setting and operating with their own rules and regulations. Taylor (2006b) has referred to a kind of mutual surveillance which is used in order to regulate players' conduct (see [Chapter 6](#)). The active and continuous input by gaming networks and communities contributes to making games open and unfinished texts, which in turn may subvert the idea of a production cycle, as understood by game publishers (Humphreys, 2009). Such communities in fact operate in ways not limited only to 'synthetic worlds' (Castronova, 2005). In his analysis of MMOGs, Malaby (2006), using Pierre Bourdieu's concept of capital (Bourdieu, 1986), argues that game networks operate on the basis of economic, cultural and social capital on the one hand, and on the other, they blur or mix the divisions between synthetic and 'real' worlds. Specifically, by being part of a game network or guild, players acquire a certain identity, which accumulates a certain cultural capital, according to what they do, and a certain social capital, according to who they associate with. These kinds of capital, as Bourdieu has shown us, can be translated into economic capital. In addition, players already possess some form of cultural, social and economic capital before participating in a gaming network – they then mobilize it when they become part of such a network. Simply put, online players as community members acquire and accumulate certain competencies, know-how as well as a reputation. These can subsequently be capitalized upon in terms of being exchanged for other objects of value. Malaby (2006) uses the example of Kermitt Quirk, who has made a trading card, Tringo, for *Second Life*. His card generated a lot of

interest among players, resulting in its being bought by Donnerwood Media. Quirk already possessed some cultural capital, as he is a computer programmer, while he is also in possession of social capital, as he has a network of people. In producing and circulating his Tringo card, he mobilized these kinds of capital, eventually translating them into economic capital. In more broad terms, what goes on in MMOGs has a real-world counterpart: game currency, armour, tools and so on sell for real dollars in online auctions. Castronova (2001) estimated that Norrath, the imaginary *EverQuest* continent, was in fact the 77th-strongest national economy in the world! In *Second Life*, players are assigned copyright over their avatars and productions – they can also choose a creative commons licence – while they can trade any items they want. As Coleman and Dyer-Witheford (2007: 946) put it, such activities involve 'the validation and encouragement of player-created content, but within the boundaries of fully commodified systems'. Far from creating new and alternative worlds, these communities, their members and their activities operate in ways that reproduce dominant socio-cultural and economic values.

Based on similar arguments, Humphreys (2009) argues that gaming must be understood as affective labour – that is, as part of immaterial labour which produces relationships. This kind of affective labour produces value that becomes attached to products as well. From this point of view, most participation in this context can be understood as affective labour (see also Hardt and Negri, 2000). The point Humphreys is making is that we must be cautious when thinking about collaboration and participation as necessarily subversive activities. We must understand them as part of wider shifts that occur and become integrated into the existing system of informational capitalism. Insisting on caution and scepticism, and perhaps even with a touch of pessimism, McKenzie Wark argues that games in fact form an allegory of our societies. In his *GAM3R 7H30RY*, Wark (2006) argues that any form of choice and creativity is either already predetermined, just as games' outcomes are predetermined by programming algorithms, or already co-opted and integrated into society/game (much in the same way that the flip side of participation is affective labour, already an integral part of cultural and material commodities). The whole world is understood as gamespace, defined and controlled by algorithms that offer only the illusion of choice, but also structuring the space around us: all possibilities are already

predetermined in advance. Even mastery of these algorithms, as in the case of modding, does not constitute escape or exit: more than anything, this signifies deeper subjection and conformity to the rules of the game. From this point of view, gamers are the exact opposite of hackers, whose creativity lies in the production (and destruction) of new possibilities. Gamers, in contrast, enable existing (mostly commercially created) worlds to fulfil their potential – in this sense they are the ultimate collaborator of the military-entertainment complex that has spawned games.

Is there any way out? Sarah Coleman and Nick Dyer-Witheford (2007) argue that although there is much in gaming that not only resonates with, but outright supports informational capitalism, there are certain activities based on gaming which, to the extent that they are riddled with ambiguity, may be seen as contributing to shifts associated with the development of a digital commons. This digital commons is understood as a non-proprietary space and resource that all members of a community can use but no one can own (Coleman and Dyer-Witheford, 2007: 934). Such activities include piracy, modding and machinima – the creation of films out of games – and the development of MMOGs. All these activities, they argue, are situated in between commodification and the commons, revealing tensions and the creation of autonomous zones. Specifically, piracy, on the one hand, undermines game and other publishers but, on the other hand, contributes to the black and other markets. The practice of 'warez', the free circulation of broken copyrighted works, participates in a kind of gift economy. Modding, as we already discussed, can be supportive of the gaming industry, but it can also be unruly and out of control, and the same can be said of machinima. Coleman and Dyer-Witherford (2007) refer to the example of a player who used the simulation game *The Movies* to create a machinima film called *The French Democracy,* which presented a highly critical view of racism and political authority in the Paris riots of 2005. MMOG activities, finally, oscillate from the outright commercial, as in *Second Life,* to pushing the boundaries of creativity, imagination and collaboration. For Coleman and Dyer-Witheford, MMOGs are at the same time commodities and commons, as they must rely on the activity of players for their continuation. As more and more gamers organize into clans or guilds, they actively contest and resist publishers' decisions regarding the game: in one incident, Blizzard, the owners of *World of Warcraft,* were forced to lift a ban on the publication of

gay and lesbian guilds. This hybrid arrangement points to a curious and unstable co-existence of the commercial and the commons, which, for Coleman and Dyer-Witheford (2007: 948), may be seen as presaging a 'yet-to-emerge "commonist" mode of production'. It seems that gamer activities are in fact much more unpredictable than perhaps Wark had assumed: as Coleman and Dyer-Witheford argue, the relationship between commodities and the commons is at present 'fluid, fertile, and unresolved' (2007: 948).

Case Study Are Games Addictive?

In , we briefly discussed the question of gaming addiction, which is earmarked for further research. Now that we have discussed games as an industry, we return to this issue for a closer look. Are there any characteristics in the gamers or the games that trigger pathological behaviour around games? Are younger people more vulnerable as the media seem to indicate? What do you know about pathological game playing?

In an extensive study of the relevant literature, Kuss and Griffiths (2012) suggest an understanding of gaming disorder as developing across a continuum, beginning with some risk factors or etiology, manifesting in certain symptoms or pathology, and involving certain ramifications. In terms of risk factors, they have identified a set of personality traits, motivations and structural game characteristics that studies have associated with greater risk of gaming addiction. Personality traits include avoidance and schizoid personality attributes, along with loneliness and introversion, aggression and hostility, and diminished self-control. Gamers' motivations include coping with negative emotions, developing virtual social or romantic relationships, empowerment and mastery, and generally high intrinsic motivation (engaging in something for its own sake rather than because there is some external reward; see Ryan and Deci, 2000). In terms of games' structural characteristics, the most prominent one concerns the reinforcement used: games that incentivize users to continue playing were linked to addiction, and since most of these games are online, there is some evidence to suggest that internet games are more addictive than offline ones (Thomas and Martin, 2010; Lemmens and Hendricks, 2016). Other notable game characteristics linked to addiction include adult content, an ability to find rare in-game items, and watching video game cut-scenes (King et al., 2010).

Turning to the question of symptoms of the addiction, the studies discussed by Kuss and Griffiths (2012) suggest that problematic gaming may involve typical addiction symptoms, such as cognitive salience (being preoccupied by a game or gaming), mood modification (feeling better while or after having played a game), tolerance (incrementally increasing gaming), withdrawal (feeling the urge to play), conflict (experiencing some conflict and dissonance before playing), and finally, relapse (where gaming is resumed and which points to an inability to stop gaming). These symptoms have since been included in the *DSM–V* manual (American Psychiatric Association, 2013), along with a further few, such as giving up other activities in order to play; deceiving others regarding how long one is gaming; continuing gaming despite problems (e.g., in relationships or work) that have developed because of gaming; and risking friendship or other relationship opportunities due to gaming. If

people report five or more of these symptoms, clinicians may diagnose gaming addiction. Some of the repercussions of this kind of addiction are included in the above: a negative impact on one's social or romantic relationships and poor academic achievement, but also aggression, stress, loneliness, suicidal ideation and life conflicts.

In a more recent study that surveyed almost 19,000 individuals in Canada, Germany, the UK and the USA, Przybylski et al. (2017) sought to examine the validity of the *DSM–V* criteria and, more generally, the relationship between gaming addiction and social, physical and mental health. Their findings indicate that while there is a strong relationship between the gaming addiction symptoms or criteria and gaming engagement, meaning that the more symptoms reported the higher the engagement, the impact on mental, physical and social health were more mixed. Przybylski et al. (2017) further found that more than two out of three of their respondents did not report any symptoms, calculating the prevalence between 0.3% and 1.0% in the general population. In short, what they found was that while people might play online games on a regular basis, there is little to suggest that they experience negative mental and social repercussions because of it.

However, evidence from South Asia suggests otherwise. A study by Wang et al. (2014) on secondary education students in Hong Kong, which measured gaming addiction using the Game Addiction Scale, reported that 15.6% of their respondents qualified as addicted. Moreover, this addiction correlated with being a boy, having a poor academic record, preferring multiplayer games, and experiencing family conflict. There are several (Western) media reports on the military-style boot camps developed to intern gaming addicts in China (for example, Gumbrecht, 2016), which are mostly critical of the harshness by which young people are treated.

Another issue concerning gaming addiction is that gamers' behaviour may be phasic, that is, it may peak at some point and then decrease. Grohol, writing in 1999 on internet addiction, suggested that the high usage observed among some internet users subsides when the first enthusiasm passes. He developed a model consisting of three stages: enchantment, where people are obsessed with the new game or behaviour; disillusionment, when they begin getting bored with it; and finally, balance, where a balanced or level of normality is achieved. This approach seems to make a lot of sense. For example, in the summer of 2016, when Pokémon Go (an augmented reality mobile game) was released, there was a huge surge in use, accompanied by intense media coverage that ranged from reports of people being injured while playing to discussions about social decline. Pokémon Go was so popular that the servers of its parent company, Niantic, collapsed and downloads were paused. In February 2017, Niantic reported over 650 million downloads, making it one of the most popular mobile gaming apps ever. Nevertheless, following the initial launch and rush to download and play, most people stopped playing it after a while, as they

got bored. If their behaviour was measured in the first few days of having acquired the game, it might have qualified as problematic, yet after a while it normalized.

The existence of these issues raises questions regarding the validity of the construct: is there really a gaming addiction disorder or are we pathologizing a behaviour that is normal or will eventually normalize? Do we really need to do something about this, or is it another moral panic, much like the association between games and violence?

Conclusions

Our discussion of games took us very far from Huizinga's analysis with which we began this chapter. The 'innocence' of playing as freedom, unconnected to material interests, is for ever lost in a world in which the gaming industry is worth billions, and in which gamers can themselves earn money not only from developing new games, but also from trading in gaming artefacts and tools. This so-called ludocapitalism (Dibbell, 2006) not only has 'tainted' playing, but is also considered emblematic of informational capitalism. Dibbell (2006) gave a fascinating account of a year in which he lived solely off income he generated by trading in virtual goods on the MMOG *Ultima* online. In an article in the *New York Times Magazine,* Dibbell (2007) wrote about the life of about 100,000 young Chinese who work in factory-like conditions: their job is to play MMOGs such as *World of Warcraft* for hours and hours, earning about $0.30 per hour. What they do is harvest virtual goods, armours, coins and so on, which they then give to their employers, who sell them for real money. One could add here the emergence of what may be seen as a parallel industry of games screening, with channels such as Twitch TV, and competitive game playing, known as e-sport. What they are doing is blurring the boundaries not only between play and work (cf. Kline et al., 2003), but also between the virtual and real and between the material and imaginary. However, this gaming activity is further involved in blurring the boundaries between production and consumption; through modding and similar practices, gamers not only play but also produce (new) games, which are subsequently (re)sold by game publishers and also by gamers themselves. Games are very far removed from the ideal-typical version of play found in Huizinga. At the same time, viewing games as texts or representations reveals their links and connections to dominant cultural values and ideologies. No wonder Nick Dyer-Witheford and his colleagues suggest that games are the ideal-typical commodity of informational capitalism. The box below summarizes the main points in this chapter.

What kinds of conclusions can we draw? Are games the ideal-typical commodity of informational capitalism or the Empire, exemplifying its core characteristics of 'banal war, endless work and monetized labour' (Dyer-

Witheford and de Peuter, 2009)? Or can we find something more positive to say about gaming? The redeeming quality of games, argue Dyer-Witheford and de Peuter (2009), are to be found in the contradictions and tensions they are involved in. Although modding and other bottom-up gaming practices appear already co-opted by the game industry in its quest to minimize costs, they still involve a radically different mode of production, while the products of this new mode are not always so easily palatable to the industry. Any potential of gaming therefore emerges from its two 'warring' aspects: 'creative dissidence and profitable compliance' (Dyer-Witheford and de Peuter, 2009).

Summary of Main Points

The Political Economy of Games

- Industry worth in excess of US$99 billion
- Reliance on flexible networked production and extensive marketing. Profitability depends on technological innovation but also compatibility with cultural trends
- Games as the ideal-typical commodity of informational capitalism
- Game development: precarious immaterial labour
- Game publishing: relentless competition leads to consolidation and integration

Games as Text

- Games as cultural texts are more complex than other media texts
- Aarseth: games as cybertexts characterized by 'ergodicity' (i.e., by co-creation through players' actions)
- Games genres:
    - Simulations, e.g., *SimCity*
    - Strategy, e.g., *Civilization*
    - Action, e.g., *Mortal Kombat*
    - Role-playing, e.g., *EverQuest*
    - Sandbox games, e.g., *Minecraft*
    - Most games combine elements of all
    - Games narratives operate through stereotypical representations of 'them' and 'us' but semiotic power mediated by gaming practices

Gaming Practices

- Gaming as a configurative and not (only) an interpretative activity (Eskelinen)
- Gaming as leading to violence: the Columbine controversy
- Modding: activities that modify and repurpose games – often modding is already included in the games' design, hence already co-opted by the industry
- Gaming communities: ranging from loose networks to tightly-knit, hierarchical 'guilds' or 'clans'
- Ludocapitalism (Dibbell): the generation of real capital through gaming and trading in virtual goods, as well as through e-sport and game screening
- Gaming as affective labour (Humphreys) producing relationships and affective value that become part of the game's overall value
- McKenzie Wark: gaming as collaboration rather than subversion – anti-hacking
- But: gaming practices are ambiguous – could they form a prototype of an application of 'collective intellect' (Dyer-Witheford, 2003)?

Research Activity: Understanding Gaming

This activity seeks to enable you to understand games in a holistic, non-reductionist manner, realize their embeddedness in existing political economic structures and power discourses, and consider the unpredictable outcomes that gaming might have. You should visit and engage with at least two types of game, choosing one of the four genres identified in the chapter (simulation, action, strategy, role-playing). Then, consider the following questions:

1. Who developed, owns the copyright, and distributes these games? How readily available is this information?
2. Who or what is represented in these games? Who are the heroes and villains? What events are depicted? What is the goal/objective of the game, and how can it be reached? What is the narrative order of the game, and who determines it?
3. What are the game mechanics? In other words, what do players need to do in order to play the game?
4. Who is the ideal gamer? What attributes must they possess? What type of person emerges as the winner of the game?
5. Do these games encourage cooperation or competition with other gamers? Under what circumstances does collaboration actually occur?
6. What have you learned by playing these games? Do you think it was time well-spent?

Further Reading

Studying games and gaming is a disciplinary subfield, as there are many issues, debates and controversies concerning the industry, the activities and the users themselves. The article by Corliss reviews recent work on games and constitutes a good introduction to this subfield. One of the controversies that surround gaming concerns the extent to which games can be associated to learning. The articles by Unsworth et al. and Green et al. debate this, presenting arguments for and against. Turning to the semiotics of games narratives, the articles by Srauy and by Perreault et al. discuss race and gender respectively; Srauy looks at game developers and the ways in which they understand and encode race in games, while Perreault et al. conducted a narrative analysis of four award-winning games, concluding that there is little subversion of gender stereotypes and that female characters were largely defined by their male counterparts.

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Unsworth, N., Redick, T.S., McMillan, B.D., Hambrick, D.Z., Kane, M.J. and Engle, R.W., 2015, Is playing video games related to cognitive abilities? *Psychological Science*, 26(6), 759–774.

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Srauy, S., 2017, Professional norms and race in the North American video game industry. *Games and Culture*, Online First.

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12 The Future of New Media

Learning Objectives

- To understand commonalities and regularities in the articulation of the new media with different fields of life
- To learn about new initiatives and their future implications
- To understand the struggle for control over technological resources and technological futures
- To develop a critical awareness of the relationship between the future of technology and the future of society
- To comprehend the difficulties and complexities of governing the internet/new media governance

Introduction

About 100 years ago, sponge divers in the Aegean Sea discovered a strange bronze object lying among the remains of a cargo ship close to the tiny island of Antikythera. The mysterious object, named the Antikythera Mechanism, is thought to have been constructed towards the end of the second century BCE, and it represents the world's oldest computing device. Research has shown that the mechanism was used to calculate celestial information, including lunar cycles and a luni-solar calendar (Freeth et al., 2006). Freeth et al. suggest that the mechanism incorporated an application of a theory on the Moon's irregularities, developed by Hipparchos in the second century BCE. This does not show merely the technical prowess of the Greeks at the time, but also the human development of, and reliance on, technology, a good illustration of Stiegler's arguments (see Chapter 1) on technology being coeval with humanity. On the other hand, it has emerged that the Antikythera Mechanism was in fact more sophisticated than technology produced much later, and it turns out that this kind of technology was not replicated until the Renaissance, some 1,500 years later. This, in turn, suggests that the development of technology does not follow a single line from the least to the most sophisticated. There is no continuous technological progress, as there are clearly regressions, but also cycles and dead-ends. This is the point made by Bijker (1995) and his colleagues of the social constructivist approach to technology (see Chapter 1). From this point of view, predicting the future and the direction it will take is a futile exercise. On the other hand, thinking about the future may help us understand the world around us as it is now, and perhaps it may contribute to steering or governing it in ways that may offer improvements in our lives. It is also useful in helping us identify some dominant trends and thus to evaluate them, asking ourselves if this is really the direction we wish to follow.

This chapter will therefore be concerned with the future as it appears through the lens of today, seeking to identify and critically comprehend the main techno-social trends that characterize our world. The first section will begin with a summary of the main arguments encountered in the course of this book, seeking to find the regularities that suggest the existence of a set of

common threads, which may be considered as trends. Following this discussion, we argue that the future of the internet will depend on the newly emerging problems we identify and the kinds of solutions we find. Finally, the last section will discuss issues of governance of the new media and the internet in particular.

The Story So Far: Emerging Trends

The main remit of this book was to examine the articulation of the new media with various aspects of our lives, to map the changes and understand some of their consequences. The theoretical position regarding new media and society that we prioritized in this book follows Stiegler and Castells in holding that technology neither determines humanity nor is determined by it: instead it is understood as emerging alongside the rise of humanity, as an inextricable part of it, an exteriorization of the human ability for symbolic thought. This exteriorization, and the unique way in which we can pass it along to our descendants, implies that technology can in turn shape and determine humanity and the conditions within which we live. We can understand this relationship as one of dynamic mutual composition (Stiegler, 2006; see also [Chapter 1](#)). The dynamism of this relationship implies an unpredictable outcome or, better, a lack of determination when it comes to the shape of things to come. If we understand the new media as relying on technology, we can posit the same kind of indeterminate relationship. But indeterminate and unpredictable does not mean directionless. In fact, technologies, and human societies and actions, are rooted in history: they are found in certain historical circumstances that give priority over certain ideas, logics and behaviours. They become, in this sense, articulated with what has preceded them, both in technological as well as in socio-economic and political terms. While we cannot determine the shape of this articulation, we can certainly observe it and seek to understand its underlying dimensions and logics. Thus, although we observed and traced different areas of life, such as politics and gaming, subjectivity and identity, in their articulation with the new media, insofar as the new media remain as a common denominator, we can seek to identify the common threads that are found in all these different articulations. To be sure, Castells has already identified the logic of the network as the dominant logic and emerging historical trend. Yet this overarching logic must be complemented with more details from the various facets of life. To isolate these details, this section will revisit the themes covered in this book, seeking to identify any commonalities, continuities and discontinuities that may subsequently lead to some suggestions of emerging trends.

Theories of the New Media

discussed the various theoretical positions regarding technology and media. Is there something unique and specific to technology that can be identified as its essence, or is technology a mere tool for humanity? Different positions suggest different answers. The one we assume here locates technologies in specific societies, and understands them as both an outcome and a determinant of social worlds. But even we bracket the question of technology, how can we understand media? Media theory has been shaped by thinkers such as McLuhan and his insistence on the primacy of the media. This emphasis is suggestive of the importance of the media for social, political and economic life, so much so that McLuhan held that the media determine the kind of life we lead. Kittler cross-fertilized McLuhan's arguments with those of Michel Foucault, positing that the media construct specific kinds of subjects: those constructed by the new media are understood as 'users', as opposed to 'readers' and 'audiences' characteristic of previous media. More recent theorizing adds a further layer of complexity by focusing on the material dimension of both media and technologies: this material dimension can contribute to a different understanding of the relationship between technology, media and society. Perspectives such as Actor-Network Theory understand technologies as actors in a network: they enable and circumscribe specific things based on their materiality. They therefore guide or steer the network towards certain directions, which can be resisted, adapted or socialized differently. As argued earlier, this dynamic relationship implies that we cannot predict the direction of future technology, but this does not mean that we cannot think of technology in ways commensurable with political principles, such as those of democracy and its quest for equality and justice. More concerned with empirical reality, Manuel Castells describes the sociological changes that have taken place in the last few decades, seeking to extract trends and meanings from these historical shifts. This book attempted to combine Castells' interest in empirical reality with Stiegler's explicit politics of technology/new media. While we need to approach the world in terms of facts, data and information, we also need to be able to take a political and moral stance *vis-à-vis* these facts. It is with these two aspects in mind that we can proceed to discuss the remaining themes.

New Media and the Economy

One of the most important discussions in the book concerns the political economy of the new media, as well as, more broadly, the relationship between the economy and the new media. Production under conditions of informational capitalism assumes a network organization, whereby enterprises do not own all parts of the production, but assign these to other companies as and when they need. Just as enterprises are no longer represented by large factories and mass production, employment is no longer characterized by stability and permanence. Instead, flexibility at all levels is the key characteristic of employment, as it becomes increasingly informationalized. Flexi-working and project work are ever more common, while the tendency is for former employees to work as independent 'project managers', whereby they become responsible not only for the delivery of services, but also for the communication and coordination of all activities relating to these services. The so-called 'gig economy', where people are actually in a more or less exclusive relationship with a given company (e.g., Uber) but are effectively operating as freelancers, is emblematic of such shifts. This kind of employment is very different from wage labour, in that it affords a greater degree of autonomy to workers while it is also much more creative than the kind of work associated with industrial production. On the other hand, it is insecure and uncertain, as workers no longer know if and when they will have another contract or project – this is the 'precariat', informational capitalism's answer to the proletariat (Tarì and Vanni, 2005). Consumption in informational capitalism is no longer the passive buying of mass-produced commodities, but a process which involves, mobilizes and produces meaning and identities. As such, this process, which has merged with production, must be understood as an individualized process, since producers – to use Axel Bruns' (2006) neologism – do not easily fit into patterns of class or other social divisions. But this does not mean that workers-consumers are now freer or that they live in markedly better conditions. Rather, it reflects a change in the relationship between capital and labour. Using a phrase by Castells (2001), we can refer to it as the individuation of this relationship. In working, in producing and in consuming we do something more than the application of knowledge or skills: these processes involve meaning, interpretation, communication and often

innovation, thereby individuating us, dividing us into units with unique skills, abilities and aptitudes. Work no longer takes place in the factory: tele-working shows the expansion of work outside the factory or the office. But this individuation comes with a high price: on the one hand, whole lifeworlds are sucked into the production no longer of commodities but of worlds, as Lazzarato (2004) has argued. Lazzarato refers to workers as monads to indicate the new conditions under which labour takes place: the new conditions 'affirm workers' autonomy, independence and singularity (individual substance)' (2004: 194). But Lazzarato holds that this does not represent an improvement over Taylor's and scientific management's fragmented work movements. Rather, it denotes a change and, we may say, offers a clue as to a current trend in labour. This may be summarized as the individuation or singularization of labour.

Network organizing and informational – singularized – labour constitute the key characteristics of the new media industry. Where (new) media firms cannot merge or integrate, they build synergies with other companies along the chain of production and distribution. However, new media companies, despite the huge hype that surrounds them, have for the most part failed to come up with a successful business model, relying instead on older models, such as generating income through advertising and subscriptions. To an extent, this failure to come up with a model for 'monetization' may be due to the elusive nature of user-generated content, which represents a substantial part of new media content. Most of the new income of social media companies relies not on the monetization of content but on the selling of data generated by users. Consumption or use of new media involves in many ways the production of content but also the production of data on what we like, where we are located, who our friends and networks are, and so on. The two emerging, or rather continuing, trends are, first, the rise and rise of immaterial and precarious labour. This is a kind of labour that strips workers from the possibility of unionization, as it isolates and individuates them, but also offers them both autonomy and the possibility of collaboration. The second trend is the tendency towards monopolization that is encountered in many new media companies, which in this respect follows the model of media more broadly. On the other hand, because this is unchartered territory, there is very little regulation controlling this monopolization.

Politics

Our discussion of politics and new media traced the evolution of political activities on the internet from political parties and governments, to net-native political activism, to social media and revolutions. For politicians and political parties, the new media are seen as a great opportunity to communicate directly with potential voters. Political parties seek to develop a disintermediated relationship with citizens, in which they have more control and in which they do not need the media to put their message across. Social movements have profited immensely from the new media, which allow them to reach and mobilize people. At the same time, the new media, and the internet in particular, have created their own politics, which centre on the idea that information should be free. In addition, social media have created a new momentum, allowing citizens to participate, organize and mobilize for political causes. But the 'effects' or impact of the new media on politics are harder to detect: can it be argued that we now have more democracy, more equality and justice because of the new media? Much as we would like to say yes, inequalities and injustices still prevail and they have also intensified. Revolutions that have been credited to social media have now collapsed into civil war or dictatorship. On the other hand, it may be that the new media introduce subtler changes that may shape the political process in the years to come. For sure, there is a greater demand for accountability, as political actions and statements are scrutinized in social media. The mobilizing dynamic is, as we have seen in the domain of the economy, a tension between the individuation of our relationship to politics, as more and more ideologies and political parties lose their hold on the citizenry, and the collaborative elements that are both native to social media applications and necessary for a political subjectivity to develop. The emerging trend in politics has to do, first, with the continued disintermediation of politics as more and more politicians and political activists rely on the new media and not on the mass media in order to communicate. Second, people acquire a new kind of political identity, which allows them to continuously comment upon and in a sense participate in politics through social media. There is a clear trend, as observers such as Bennett and Segerberg (2013) as well as Zizi Papacharissi (2015) have noted, that involves a shift towards the personal and the affective. But this continuous production of personalized and affective

content may in the end involve political costs: as Jodi Dean (2010) argues, our energies are caught up in the constant circulation of content that seems to have no recipients.

Divides and Inequalities

One of the most persistent findings in the literature on new media has been that of divides and inequality. A major promise of the new media has been the bridging of gaps and the democratization of information. The internet has made available the works of humanity, from the collective works of Wikipedia to the digitalization of cultural works. People today have access in principle to all kinds of information instantly, more than in any other historical period. However, despite this, access is still not catholic: some people have no access to any of this, and while a part of humanity is moving ahead, another part is falling further behind. The distribution of the global internet reflects the global inequalities: while developed countries in Europe, North America and Australia enjoy almost universal access to the internet, in Africa this falls to 28%.

But even within countries that enjoy widespread access, there are emerging divides in terms of how the internet is accessed, on which device, and in terms of certain demographic categories. Specifically, as the cost of broadband is rising, more and more people are accessing the internet through mobile devices. But this, of course, circumscribes use in very specific ways. For example, it is unlikely that one can read long texts on small screens. In terms of demographics, the two persistent divides are in terms of social class and age. Another, less discussed part of the debate, as developed by Nico Carpentier (2016), concerns the notion of participation. To participate means to be part of the new media in its current form and future evolution. This means that all of us should be able not only to use, but also to write and develop new technologies or to be otherwise a part of what will be developed and to help decide its future. As we shall see below, this is far from the case now. The trend found in this chapter therefore must be one of persisting divides and inequalities.

Uses and Abuses

While divides and inequalities highlight the role of socio-economic and demographic factors in accessing the internet, questions still remain as to how people adopt and socialize new media and technologies. While theories of new media adoption tend to isolate variables connected to the social context, to the technologies themselves, and to the users, micro-sociological perspectives on domestication of technology focus not so much on adoption but rather on adaptation of and to technologies and media. The thrust of the work here highlights people's agency and their active appropriation of new media and technologies in ways that match or complement their lives. However, there are occasions when people's lives connect with new media in very problematic ways. These include cyberbullying and addiction. On balance, looking at these two types of new media abuse, there are good reasons to be concerned, but there are also good reasons to think that such concerns may be exaggerated. Moral panics surrounding the media are really as old as the media. Nevertheless, the key trend emerging here is a tension: a tension between individuality and agency and the need to be protected and be safe from harm. This, as we shall see below, is becoming increasingly prominent in the new media sphere.

The 'Dark Side': Surveillance and Security

In some instances, the collaborative and collective elements of the new media may take on a nightmarish form. The technical capabilities of the new media for surveillance, alongside the increased threats to security and safety, have given rise to a culture of control and constant monitoring. Some of these aspects include war and conflict, online fraud and extreme pornography. Following arguments by Lyon (2001) and Andrejevic (2007) we traced the rise of a surveillance society, in which we continuously monitor ourselves and others. Caught in a vicious circle of insecurity, risk and more surveillance, this culture of generalized suspicion, where anything can happen at any time by anyone, feeds into a heightened individualism, in which we stand as isolated units, suspicious of all others. While the new media have been used in war and conflict, in defrauding and actually harming people, the solution to safety and security risks appears to be equally risky and equally threatening. Is surveillance the only way by which to exorcise security and safety risks? While this is a political question, this kind of tension between surveillance, security and safety may be seen as yet another instance of the underlying dynamic of the individuation of our association to others, alongside the necessity to collaborate and collectively address threats and risks. At the same time, the trends towards more surveillance and the collection and collation of more and more personal data are unmistakable. These are also related to attempts to profit from them, through selling data and analytics – in other words demographic and other relevant information – to those interested.

Journalism

Earlier, we saw the various changes that the political process has undergone as a function of the new media. But how do traditional institutions of modern democracies fare in the new media environment? Journalism may be thought of as one of the most important institutions of (representative) democracies, functioning as the public sphere in which citizens can come together, discuss matters of common concern, and develop an informed public opinion (see Habermas, 1989 [1962]). But the new media have precipitated a crisis which goes to the heart of journalism, threatening its very survival. The rise of the new media has changed the time frame within which it operates, undermined its autonomy, dried up its revenue sources, and drastically changed the habits of its consumers-readers. How has journalism responded? It has sought to adopt more efficient production processes, through convergence; it has made use of the new media's technological affordances, introducing new forms of journalism, such as live blogging, gamified journalism and data journalism; finally, it has merged production with use/consumption, adopting open source practices such as crowdsourcing. There is no doubt that these practices have revolutionized journalism, which is now found not only in respected broadsheets and popular tabloids, but also in blogs, on Twitter, Snapchat, Facebook, and on mobile phone apps, making use of a wide range of materials and sources, ranging from text messages to testimonial mobile videos. This has rendered journalism a collaborative process, in which readers are actively involved in the production of journalistic output, but at the same time it has undermined journalistic credibility. In a provocative book, Andrew Keen (2007: 3) argued that the amateurism of user content ends up creating 'a digital forest of mediocrity', in which readers cannot and do not distinguish between professional journalism, which relies on facts and analysis, and personal opinion, appearing on blogs. At the same time, the customization of news and journalism means that we are not all part of the same public sphere, but occupy little areas of specialist interests. This inevitably results in the fragmentation of the public sphere. The tension between the opening-up and 'democratization' of journalism and the de-professionalization of journalism shows that collaboration is not a necessary and sufficient condition for an improved journalism. However, the individuation and customization prevalent in the consumption of journalism

does not allow us to participate in a common public sphere, thereby undermining its operation and ultimately its democratic functions. The tendency towards disintermediation has clearly damaged journalism, and as this trend continues, journalism needs to reinvent itself and (re)claim its continued usefulness in the new media environment.

Mobile Media

Perhaps this fundamental tension between the collaborative and individualizing aspects of the new media is more evident in areas that deal with cultural and social life. We can understand mobile media as forming part of the fabric of our everyday lives and as an important part of our culture. Indeed, the global spread of mobile phones shows that they have become a ubiquitous artefact. The rise of smartphones has radically changed the way in which we understand and use the new media, and this device is emblematic of some of the tensions involved in the new media. The commercial war between BlackBerry, iPhone and Samsung is a case in point: the massive profits involved point to the tension between innovation for profit and innovation for public good, as for example discussed in Yochai Benkler's (2006) work. Additionally, we see a tension between the individualization associated with portable media and some of their political effects, such as smart mobs, which show the results of collaboration. In socio-cultural terms, smartphones manage to isolate individuals from their surrounding space and time, while allowing them to connect with distant others. Mobile media then display in full the pull towards individualization and atomization and the push in the opposite direction, towards that of communication, collaboration and collective effort.

Identity and Sociality

The relationship between the new media, sociality and identity reveals not only changes and shifts, but also a dynamism and fluidity that makes it difficult to pin them down. Already in modernity, identity is no longer seen as fixed or given, but a project, constantly changing on the basis of people's experiences and choices. For theorists such as Foucault, identity is constructed out of the materials that comprise our culture: these technologies of the self have in the past managed to construct an inner self, concerned with self-examination and monitoring. If we consider the new media as technologies of the self, the emerging self can be seen as constructed no longer through a private confession and the forging of an inner life, but as the continuous exteriorization and display of the self in public. The paradox of this individuality is that while we all strive to make our mark and display our uniqueness, we end up conforming to the requirements set by social media and the new politics of visibility. How do ascribed identities, such as gender and ethnicity/race, fare in the new media world(s)? While the individualized elements of identity offer a more liberal and free environment for these identities, there is evidence showing the perpetuation of stereotypes and inequalities in online and other new media environments. We cannot fail to notice the rise of online misogyny and racism. The ambiguous relationship of the new media with ascribed identities indicates that there is no easy solution to inequalities and injustices, although the tension between individualization and the collective elements in the new media variably supports in some environments the playful (de)construction of gender and ethno-racial identities while in others it contributes to phenomena such as techno-orientalism and long-distance nationalism, as well as to a resurfacing of unabashed white supremacy.

The idea of a collaborative yet autonomous self resonates with Barry Wellman's (2012) and Manuel Castells' (2001) concept of networked individualism. The new media, they argue, allow people to connect to others beyond the confines of place; they allow them to choose their social contacts on the basis of common interests, and to coordinate the intensity and frequency of these contacts in ways they see fit. In these terms, the individual is the unit of connectivity, and not family, locality or group. For Castells

(2001), networked individualism is the result of a series of broader changes, such as the demise of patriarchy and political ideologies, which lead us to relate to each in different ways, prioritizing interests, skills, individual preferences, and so on. In some respects, network individualism overstates the element of free choice in relating to others, overlooking the limits set to networking by differences in access to networks, in abilities, and indeed in knowledge and skills. These power differences are reflected in studies of social media and their relationship to social capital: although there is evidence that social capital may increase through social media, the economic logic of accumulation, profit and loss prevails even in the social domain. If we accept that networked individualism forms the dominant sociality of the new media, this individuation of sociality, which at the same time retains and reproduces some of the most pernicious social divisions, such as class, gender and ethnicity/race, must be understood in critical terms. Similarly, the erosion of other boundaries, such as the public–private one, appears to undermine what Habermas would call the autonomy of the lifeworld. The emerging trend in the relationship between identity and the new media seems to be that identity is increasingly reliant on personal choice and preferences, albeit that these choices and preferences are themselves shaped in an environment which is still characterized by persistent socio-economic and cultural divisions. To these, we can add the social media environment and emerging values, as outlined by Jose van Dijck (2013): algorithmic connectivity seems to be the broader context within which we construct ourselves and socialize with others online. Equally, the trend towards the spread of an economic logic in domains such as identity and sociality and the blurring of personal and working life may perhaps not be directly attributed to the new media, but it certainly coincides with the rise of the network society, informational capitalism, and immaterial labour.

Games and Gaming

Games have been shown to be the ideal-typical commodity of informational capitalism (Kline et al., 2003), a commodity whose informational nature and conditions of production and consumption display in condensed form the main characteristics of informational capitalism. While big media companies compete for the production of games, they are considered to be high risk products, as there is a very high rate of failure, when the development costs are very high. In other circumstances, games are produced by independent developers and then sold to media or gaming corporations. In the mythology that surrounds game development, developers are themselves ardent players, who consider their work as a kind of play. But research has shown that working conditions are gruelling, with game developers working for hours on end, often receiving only minimum payment, especially in the beta phase of development, where games are tested. The narratives of games clearly show the links games have with the 'military-entertainment complex' (Wark, 2006), globalizing simplified, good-versus-evil explanations for complex political events. At the same time, the architecture and structure of games is successfully training informational workers, turning play into work. But games, and gamers in particular, have been involved in other kinds of controversies as well: games are, for some, directly linked to violence and violent practices. The stereotypical image of a gamer is that of an anti-social loner, who ends up committing random acts of violence. On the other hand, theorists such as Henry Jenkins (2006) have shown the participatory and collaborative elements of games, in which gamers collaborate in creative and imaginative ways, often forming their own communities and creating new games or levels. 'Modding', in which gamers modify existing levels or parts of a game, is one such creative activity. But gamers can also participate in gaming practices that end up generating income for them, thereby contributing to a so-called ludocapitalism, in which gaming by itself is a kind of employment, while gamers can trade credits and cheat codes and sell gaming objects in online auctions. For McKenzie Wark (2006), gaming practices and activities are already predetermined through the game's algorithm, and all gamers do is follow the instructions. Nevertheless, Coleman and Dyer-Witheford (2007) point to the ambiguous potential of practices such as modding, piracy, machinima and the development of

MMOGs, arguing that they are located in between commodification and the development of a digital commons, which does not belong to anyone and which provides resources that anyone can use. The image of the gamer as a lone, alienated 'geek' spending hours in front of a screen is complemented by a set of gaming practices which require participation in communities and collaboration, and which contribute to the creation of a set of common resources. This is typical of the tension between individuation and collaboration which underlies games and gaming practices as well as other new media forms. The emerging trend here is the spread of the gaming logic in other domains, most notably that of employment, and the resulting dissolution of the boundaries between work and play. To the extent that this gaming logic is associated to the capitalist logic of competition and profit accumulation, games help (informational) capitalism to spread in other domains as well.

Throughout this section, we identified a series of continuities and discontinuities, emerging and continuing trends, as well as an underlying tension between the individualizing and collaborative elements of the new media. Throughout, these developments were linked to capitalism as the dominant political-economic form of organization. To this extent, the logic of accumulation and profit seeking, as well as certain forms of inequality, mainly linked to our position *vis-à-vis* the means of production of informational commodities, prevail in informational as they did in industrial capitalism. On the other hand, the above-mentioned tension creates a dynamic field, leading to changes which mark a clear departure from previous practices: examples here include immaterial labour, the kinds of identities and socialities created in and through the new media, mobile media and gaming practices, and so on. These changes are, in most cases, ambiguous: to this extent they may be seen as entailing a promise but also a threat. We can summarize these in terms of three dilemmas: (1) individualism versus peer-to-peer collaboration; (2) safety and control versus openness and liberty; and (3) profit before everything versus the internet as a public good or the new commons. If we accept that the internet of today is structured along the lines of these dilemmas, then it follows that the future of the internet will be shaped by the way in which societies respond to these dilemmas. Which part will prevail in the future? And what can we do about it? The next section addresses this in more detail.

Future Dilemmas and Innovation

A key argument regarding the new media is that innovation will get us out of current problems. We don't really need to do anything because innovation will organically emerge and take care of everything. The future of the internet will be in this sense technological and will depend on the kinds of innovations that will emerge. This argument, which Evgeny Morozov (2013) has criticized as technological solutionism, relies on an unfounded belief that technology will provide solutions for everything. Indeed, most discussion of innovation views it in precisely these terms: that technology emerges from the mind of brilliant people, like Steve Jobs or Mark Zuckerberg, and that it provides solutions to all problems. The following section will address these dilemmas, beginning with innovation as the driver for our technological future.

What can qualify as innovation? Clayton Christensen (1997), writing on innovation, came up with an influential classification scheme. For Christensen, not all innovations are the same: we have disruptive and sustaining innovations. Some innovations are incremental, building on previous innovations, but improving them or slightly changing their direction. These are understood as sustaining innovations. At the same time, some innovations completely annihilate what preceded them, disrupting and ultimately destroying previous innovations. These are understood as radical innovations. Drawing on the work of the economist Joseph Schumpeter (1991), on the cycle of production and creative destruction, authors such as Anderson and Tushman (1990; see Latzer, 2009) argue that innovation occurs in cycles. First, we have some sort of disruptive, radical innovation that breaks the previous cycle of innovation. Then this new innovation becomes established, triggering a competition for the dominant form or design of the innovation, followed by series of imitations leading to ferment. This in turn triggers some incremental changes (sustaining innovations), while the cycle is disrupted yet again by another radical innovation. Radical innovations are those which are seen as disrupting the previous state of affairs, introducing a discontinuity, as they often do not have a predecessor (Latzer, 2009). The prototypical form of innovation is a disruptive one, as it opens up space for

more innovation and for more benefit for all.

For the most part, innovation is seen in terms of its business potential. Innovation and entrepreneurialism, especially those associated with the Silicon Valley model, have been extremely influential in shaping the technological future as well as the culture of the internet. Innovation is seen as successful not because it has addressed a social need, but because it has ensured high returns on capital investment. Castells (2001) discussed entrepreneurialism as an integral part of the culture of the internet, and indeed it is thought to underlie the rise of social media giants such as Facebook, YouTube and others. But the conception of the entrepreneur, as a single brilliant individual who finds success because of their motivation and genius ideas, belies the reality of collaboration, building upon previous ideas and innovations, previous successes and failures. It is less about disruption and radical breaks and more about 'scaffolding' or relying upon the work of others. In most public discussions, Silicon Valley entrepreneurialism is linked to technological innovation – for example, Google's founders, Larry Page and Sergey Brin, were computer programmers who then became extremely successful entrepreneurs. But in Castell's understanding, entrepreneurialism sits on top of the internet's other cultures, namely techno-meritocracy, hacking and community, as the mechanism that can diffuse brilliant ideas and technological solutions, feeding off but not generating them. At some point, all this became conflated, so that technological success became equal to commercial success, culminating to an eventual reversal so that a technological development is understood as innovation only if it has money-making potential. From this perspective, as the internet evolved, it became less about technological innovation *per se* and much more about deploying technologies for generating profit. But is this innovation? Morozov (2013), who is very critical of such approaches, argues that it is not, because it is not addressing any 'real' problems at all. Rather, looking at the way most technological innovation is promoted, he argues that the sequence is as follows: first, a problem is invented, then it is misrepresented as an urgent dilemma, and then it is followed by a technological solution. Sometimes, the problem may be real, but the technological solution advocated is either very limited or creates more problems. Morozov refers to examples such as the idea of using social media to connect people in the developed world to those in the developing world, which for him misrepresents problems of inequality

as problems of communication, but also to the even more problematic ways in which innovation and disruption have been made synonymous with the privatization of health, educational and other public services.

Instead of thinking of the future of the internet and the new media as a result of technological innovation, this discussion suggests that it is more likely that the future of the internet will depend on how we view innovation and its relationship to society. This is linked to the first dilemma identified earlier: that of profit making versus understanding the internet as a public good. What are societies more interested in? Profit for a few or benefit for all? A response to this will be the first determinant of the future of the internet. As we saw throughout these chapters, the political economy of the internet is that of informational capitalism. Social media platforms, the app economy, the games industry, online journalism, and even politics, sociality and identity are shaped within a context in which profit and monetization are the main priorities, and where everything, from innovation to data, is commodified, bought and sold.

This context and the relationships it engenders give rise to a specific kind of individualism. Throughout our discussion, we have seen the ways in which individuals, rather than groups or communities, or even networks, are prioritized across the new media. From the emphasis on customization and personalization to the myths of the lone innovator, the hacker in the basement, the pathological troll, the moral panics about selfies and narcissism, but also the rise of precarious immaterial labour (which is about individual project work), everything is about the individual and individualism. This is not necessarily about the destruction of society and sociality, but more about a clear shift towards placing individuals at the centre. And what's wrong about this? To begin with, this hyper-individualization overlooks the social aspects that shape and in some instances determine an individual's habitus, or their position and disposition to the world (Bourdieu, 1977). In other words, we become who we are as individuals because of the social context in which we operate. Individuals cannot be cut off from their social context and neither can societies be seen as aggregates of individuals acting as profit or individual benefit maximizers. But in the world created by social media platforms, and the new media more broadly, rarely are individuals able to act as groups or collectives or to realize

their social selves.

This is the result of both the implicit ideologies of the platforms but also their architecture and their affordances. As Tufekci (2016) has argued, social media 'optimize' user experiences using algorithms and filtering and through deriving personal traits using computational methods: 'optimization' is exclusively seen in terms of individual needs and desires, whereby these needs and desires are based on the collection and analysis of data that individuals generate. Similarly, the culture of connectivity identified by van Dijck (2013) points to the ways in which platforms condition users in specific behaviours that heighten individualism on the one hand, and generate profit out of our behaviours on the other. In this manner, social media create a self-fulfilling prophecy: they treat users primarily as individuals and then reconstitute them as such through the affordances of their platforms.

Another aspect of this prevalent understanding of individuals at the centre of everything concerns the ways in which problems are constructed and solutions offered: the question of internet or gaming addiction is a case in point. We saw that addiction is primarily seen as a question of individual pathology and the role of society does not feature anywhere. Similarly, trolling and cyberhate are typically seen as the result of a few bad apples, or personal pathologies, sadistic personalities, and the like. However, as Phillips (2015) has shown, trolling is often like holding a mirror to our societies: the pathology involved is a social pathology. Moreover, while social protests and related activities show the great potential of the new media for collaborative action, at the same time they intensify the tendency towards personalized affect, experiential narratives and testimonials; Bennett and Segerberg's (2013) connective action and Papacharissi's (2015) affective publics point to these developments but also reveal tensions between individuated selves and collective action. So, on the one hand we have the individuation that is pursued through a congruence of public discourses and dominant narratives alongside a set of material-technical practices, including algorithms, affordances and personalized devices, and on the other we have collaborative knowledge production, collective (and connective) action, peer-to-peer exchanges and, crucially, common interests. Which attributes do we want the internet of the future to have? Those who individuate us further even as they purport to connect us, or those who allow our fully social selves to emerge

and pursue our common interests? The way in which this dilemma will be resolved will be another determinant of the future internet.

These processes of individuation in the context of profit maximization are directly connected to the issue of safety and security. The rise of securitization is commonly linked to the post-9/11 political climate, although Ulrich Beck's (1992) work on risk had already identified the increasing uncertainty and its corollary, security, as integral parts of late modernity. The main mechanism by which modern institutions and systems seek to achieve safety is generalized surveillance. This includes the emergence of different and co-occurring types and techniques of surveillance supported by the new media, for example, lateral surveillance, geolocation, cookies, data trails, and so on, and more importantly the ongoing collection of data created by all of us. This rise of generalized surveillance points to an intensification of questions of risk and security, which have become entangled with both political and economic questions. The revelations made by Edward Snowden regarding the scope of data surveillance by the US National Security Agency show an unprecedented degree of ongoing surveillance of what effectively is private communication. More recent demands by US airport authorities that foreign visitors surrender their passwords to their social media adds another dimension here: state authorities no longer have to get warrants or justify the intrusion – they almost *a priori* consider people suspect unless they can prove otherwise. The presumption of innocence, one of the foundations of civic liberty, is apparently sidestepped, at least for non-citizens of the USA. At the same time, non-state actors routinely entice people to surrender their data – for example, through online quizzes, through using Facebook as the means to log in, through having to hand in your card number to use services, and so on. This allows them to trade in these data and monetize our online interactions. Considering how much data we leave behind, willingly or not, it is not an exaggeration to say that some of these actors know more about ourselves than we do!

Where does all this leave the question of liberty? Liberty has traditionally been seen as both the freedom from coercion and oppression, and the freedom to choose our government (Berlin, 1969), but it also concerns issues of autonomy, discipline and mastery (Wagner, 2002), or our ability to function effectively in the world. Are these compromised by this state and

intense corporate and generalized surveillance? Evidence suggests that they are compromised. For one thing, the importance of the NSA revelations lies in showing that government agencies are effectively breaking the law in pursuing such generalized surveillance. Additionally, the problem of such surveillance and the accumulation of data about ourselves is one of so-called function creep: that data collected for one purpose, such as marketing, might end up used for a different purpose, for example determining insurance premiums. But citizens have to be allowed to pursue their lives freely and without the threat that their data might come back and bite them. Finally, while this may sound like the work of fiction, notably Philip K. Dick's (2002 [1958]) *The Minority Report,* big data generated through generalized surveillance is contributing to pre-emptive and proactive forms of governance and policing (Dencik, Hintz and Carey, 2017). However, as Dencik et al., Elmer, Langlois and Redden (2015), and Kitchin (2017) point out, neither big data nor algorithms are objective, always right, reliable or impartial. They are as fallible as the human agents who created and interpret them and reflect their agendas, ideologies and prejudices. In this sense, generalized surveillance and the decision-making that relies upon it will inevitably reflect the inequalities and deep divides of current societies. So the liberty of those already disadvantaged and rendered vulnerable is likely to be compromised even more, while other groups – for example, those who are overweight, who smoke, who like extreme sports, etc. – may find themselves increasingly targeted. This clearly feeds into deepening inequalities and divisions. If generalized surveillance aims to contribute to better, safer, less divided, better governed societies, then it is likely to fail. But the future of the internet, the new media, and our societies is likely to depend on how we address this dilemma, and how we ensure that such surveillance does not contribute to further inequalities. Currently, there is very little reason to think that the trend towards more surveillance will change any time soon. Dencik (2015) suggests that we are all resigned to a form of surveillance realism, whereby we accept it as an inevitable part of online life and lack agency to do anything about it. We can see clearly here the limits of the individualism pursued and perhaps even imposed in online spaces.

But agency and the ability to change how the internet operates and how it may evolve in the future is importantly a question of the structures of governance that are in place. In other words, how these dilemmas will be

addressed in the future depends on the decision-making mechanisms that are in place in the present. These are discussed in the [next section](#).

Internet Governance

The discussion above identified some of the key dilemmas regarding the future of the internet, as derived from the various chapters of this book. What are we, as society, going to do about these issues? How might we regulate the internet/new media and how can we ensure a positive future for all of us? At the same time the internet, as we have seen, relies on a set of very dynamic technologies whose operation relies, in turn, on the agreement and collaboration of those who produce them. But how can we make sure that this agreement and collaboration will represent the interests of all involved? This is the political aspect of the present and future of the new media: how best can we manage and steer the new media, and especially the internet? Clearly, many different ideas compete for the definition of 'best': how might we define 'best'? 'Best' for whom? There are no easy answers here, but this section will discuss the history and the main issues regarding internet governance, concluding with a discussion of the various proposed models of policy, regulation and governance.

Most discussions of internet governance adopt a technological perspective, based on the assumption that existing legal codes and political positions regulate the social, behavioural and political aspects of the internet. Thus, theorists such as Solum (2008: 50) define internet governance as 'the regulation of internet infrastructure, its current operation and the processes by which it develops and changes over time'. On the other hand, Solum recognizes that when content and conduct go through the internet, they may introduce changes that cannot be effectively dealt with within the existing legal framework. Thus, internet governance needs to encompass the policy questions that arise when content and conduct are communicated and acted upon through the internet (Solum, 2008: 50). What is at stake here is both the present and the future of the internet and the new media. How have they been managed so far?

A Brief History of Internet Governance

In 1998 the UN received a proposal for a world summit to deal with the so-called information society, and especially with concerns regarding the divide between developed and developing countries (see Wu, Dyson, Froomkin and Gross, 2007). In general, internet regulation and governance of the so-called root servers, controlling domain names, was left to a private organization, ICANN (Internet Corporation for Assigned Names and Numbers). This rather secretive US-based organization decided on name allocation and the management of domains, such as .com, .org and the like. ICANN was mainly under fire because critics thought that it is unclear whose interests are served by the organization, that stakeholders do not participate in the decision process for name allocation, and that it is not accountable. Eventually, the UN organized two world summits to deal with the information society more broadly, and to tackle the issue of internet governance. The first one took place in Geneva in 2003, and the second in Tunis in 2005. In the Geneva summit, delegates accepted a declaration of principles, which asserted the principle that information society must be accessible to all, but ultimately failed to reach any agreement on more controversial issues concerning, in particular, the role of the private sector in governing the internet. David Gross, a US ambassador who was responsible for international communications and information policy, rather cynically described how the US diverted efforts to exclude ICANN (Wu et al., 2007). Gross did not want to assign internet governance to an international organization, such as the International Telecommunications Union or the United Nations, for fear that some countries would exercise their veto powers and perhaps compromise US interests.

The Tunis summit followed along similar lines, eventually leading to the development of the Internet Governance Forum (IGF) with a consulting role, while ICANN and the USA retained control of the root servers. While this certainly prioritized what can be seen as a (neo)liberal approach to regulation and governance of the internet, we must not disregard some important gains, since regulation must follow the US Constitution and the First Amendment, concerning freedom of speech. More recently, ICANN adopted a different, more open and transparent approach, which acknowledges the right of all

stakeholders to be involved in its decision-making processes. This multi-stakeholder model essentially draws on the work of the Internet Governance Forum, as well as of others who may express their views and opinions, which are then integrated and taken into account in the development and steering of the internet. In October 2016, ICANN was formally freed from the control of the US Department of Commerce, allowing it to operate as an autonomous organization. Nevertheless, despite its commitment to the multi-stakeholder model of governance, ICANN still operates a hierarchical organization, with IFG having primarily a consultative role. On the other hand, the IGF, which has a multi-stakeholder structure, precludes any formal outcomes of the process of deliberation.

Case Study Technological Futures: IoT and the Robots

These two cases, the Internet of Things (IoT) and the expansion of robots, present two fascinating instances of where we can glimpse the future. At this point, the technological know-how for these exists, but it is not clear how they will be deployed. The way in which they are publicly discussed illustrates some of the important dilemmas that need to be addressed and that their resolution will create a path which will determine the future.

IoT refers to the idea that devices and appliances will be connected to one another and to the internet. For example, our refrigerator, washing machine, and heating and cooling systems can be connected to the internet, so that – using our connection – we can remotely turn them on or off or see if they have been tampered with, and so on. Additionally, we can become connected to them. For instance, based on a wearable device we can set the temperature of our central heating to the optimal one for our current state. The main idea behind IoT is that anything that can be connected *will* be connected. In a White Paper published by the Internet Society (2015), the connectivity architecture is as follows: device-to-device, device-to-cloud, device-to-gateway (e.g., an app), and back-end data-sharing (the collection and exchange of data from different devices). The rise of the robots may indicate a science-fiction scenario but in fact refers to the continuation of a trend that has been around for a long time: the increasing automation of tasks previously undertaken by people. Both IoT and work automation can lend themselves to utopian and dystopian futures.

The issues raised by them reflect current debates and our earlier discussions – security, ownership of data and technologies, and governance of the protocols – but also crucially our own position and role, both philosophically and sociologically. In terms of security, IoT increases the scope for security breaches and hacking. Hackers now can potentially find their way not only into our computers, but into our homes and offices as well. Moreover, if all these data are uploaded onto cloud servers, which may be potentially hacked, then extremely sensitive data may end up in the hands of unscrupulous persons. More disturbingly, if a virus like Stuxnet, which managed to hack into the Iranian nuclear centres, can be developed, then it is almost certain that similar viruses can infect the automated systems and robots that may end up running our economy. This clearly represents a massive risk. But it is not only concerns over the potential crimes that may be committed; concerns over privacy and surveillance increase exponentially, as we would be leaving a vast data trail to be collected and processed. And this leads to the question of who owns these data that we, and the devices and appliances we own and are connected to, generate. Do we

retain ownership? Do we surrender ownership in exchange of some services, as in the social media platform model? Or do the device manufacturers and cloud owners assume ownership of our data as well? In terms of the ownership of the robots, this raises crucial political and politico-economic questions. Marx famously argued that ownership of the means of production by the few results in a subjugation of labour; if now labour power itself is owned by the few, then we can see that this results in heightened inequalities. The issue of organizing and agreeing on technological protocols may be more technical but no less important – getting companies to agree to operate on the same technological protocols when they compete and patent the technologies they produce. If the mobile industry is an example, it is likely that we will end up with a monopoly or at best oligopoly over the kinds of systems that form the backbone of IoT, but also that of the robots.

But perhaps the most important question is a philosophical one. In Martin Heidegger's discussion of technology, he argued that technology uses humans rather than being a tool that is used by them. Becoming part of a technological system even more than we are now poses crucial dilemmas of who we are becoming as humans. Work automation via robots intensifies this: inventing artificial intelligence (AI) systems that take over from us ultimately poses the question of our own usefulness. Although we can agree with Stiegler that humans cannot exist without technology, such advanced technology raises concerns about the increasingly subservient role that (some) humans will inevitably assume. If the automation of work continues, and it is more than likely that it will, then most of us will end up at best losing important skills and at worse being unemployed and competing for an ever-decreasing number of jobs. This is not new: every new technology has resulted in making jobs previously undertaken by humans (or in some cases animals) redundant. The Luddites, who were a movement of workers breaking factory machines in the early nineteenth century, were reacting to their replacement by these machines. John Maynard Keynes (2010 [1930]) referred to this as technological unemployment. However, the difference now is that even highly skilled professional jobs, including those of teachers and doctors, may be taken over by AI and other advanced technological systems. Moreover, this can happen in the next few years, meaning that in a relatively short time societies will have to deal with extremely high unemployment with no real plan in place. This is not science fiction: Frey and Osborne (2017) estimate that 47% of US jobs are at risk from automation. Although this will not affect all countries and all people in the same way, it is more than likely that inequalities will be exacerbated and that those who own, program and run these automated systems will control a disproportionate part of the total wealth (Harari, 2016).

But unemployment is not the only issue. Humans derive meaning from their work. Having a meaningful life means being able to apply one's skills and abilities, to be creative. For Hannah Arendt (2013 [1958]) work is connected to the notion of *Homo*

Faber, humans as makers. She argues that it is a crucial part of how we make our public world. What will become of that? Can all of this be outsourced to the machines? And if so, what will become of us? Algorithms have been able to write newspaper articles, music and even poetry (Cope, 2011), so creativity is not limited to humans. The kind of solution, proposed with various degrees of radicality, revolves around the idea of providing a safety net for people who will be affected by such developments. Bill Gates has proposed a tax on the robots that 'steal jobs' (Delaney, 2017), while Elon Musk, the founder of Tesla, is a supporter of a universal income which will cushion any effects of work automation. From a different place, Srnicek and Williams (2015) argue for a much more radical attitude, which sees technologies as freeing humans from the drudgery of work, and posit that full automation alongside a universal basic income should be made a crucial demand of social movements of the left. This is meant to occur in a context where algorithms and the machines are collectively owned and the benefits of automation are reaped by all. Then, we can spend our time more productively, studying, socializing or creating things. Similarly, Paul Mason (2016) sees in technological advancement, but also in the proliferation of information, an end to capitalism and a shift towards a post-capitalist economic organization that will be fairer to humans and the environment. That both CEOs of multinational technological corporations and left-wing, anti-capitalist thinkers agree that we have reached a point where we must plan for an alternative future is significant. Unfortunately, there is still a long way to go before we can reach an agreement as to what this future will look like. The one certainty is that this future will include technologies and media.

Rethinking Governance

The main difficulties in conceptualizing internet governance, and more broadly regulation of the new media, rest on three concerns: first, the structure of the internet, which is transnational and based on horizontal, decentralized networks rather than having a hierarchical structure; second, the different levels of stakeholders, some of whom may be national governments, some may be corporations, social groups, and so on; third, the difficulty and tensions that arise from trying to separate technical aspects of how the internet functions from substantive aspects, such as the information that circulates online. De Nardis (2014) identified five sources of tension that feed into discussions of internet governance. These include:

1. The idea that technical arrangements are arrangements of power. This insight comes from a conceptualization of technology not as a neutral tool but as an actor in its own right (cf. Latour's Actor-Network Theory).
2. Infrastructure design often acts as a proxy for the control of contents and information. The same infrastructure that enables the free exchange of information is the one that inhibits and intercepts it. Debates on whether apps such as WhatsApp should have a 'back door' entrance that allows for contents to be traced is an example of this tension.
3. Internet governance is increasingly in the hands of private corporations. One has only to look at controversies over what Facebook allows on its site, or over the ways in which its interface is now used to log in many other apps or sites, to get a glimpse of how influential private corporations have become.
4. Regulating and governing the internet often becomes a site of conflict over clashing values.
5. Finally, the tension between local control of parts of the internet and the globalized nature of internet operations.

De Nardis' tension points illustrate the argument made by Hofmann, Katzenbach and Gollatz (2016), who revisit the notion of internet governance, arguing that it must be reconceived beyond the narrow scope of regulation and the too-vague notion of governance. They suggest a

reconceptualization of internet governance as a kind of reflexive coordination that emerges at points of friction and tension. They argue that conflicting assumptions and understandings about the internet often remain implicit and do not become clear unless there is a dispute; but such disputes help all stakeholders to articulate their position and redevelop a form of consensus, which will help guide policy in these areas.

While this may take care of the analytical issues in conceptualizing internet governance, when there is actually a dispute, things are messier. A case in point concerns the question of net neutrality, which has been hovering in the public consciousness for a while. This refers to the idea that internet providers treat all sorts of data and information as equal and they should not charge differently or discriminate on the basis of content, websites, apps, platforms and so on. Some understand this as a form of price fixing, and hence consider it to be antithetical to market freedom (Hahn and Wallsten, 2006); some understand this as a move to compromise equality (SavetheInternet.com); others see (parts of) it as an obstacle to the efficiency of the internet. For example, in 2015 the European Parliament voted to keep net neutrality with the exception of 'specialized services', which would allow internet service providers to speed up the connections for, for example, Internet TV (European Commission, 2015). These actors prioritize free market principles, equality principles and efficiency principles, respectively, but ultimately the dispute is resolved by those who have the power in decision-making. In other words, for all the debates about multi-stakeholders and reflexive steering, in the final analysis, decisions are taken on the basis of pragmatic considerations by those who have the power to do so. Nonetheless, some disputes reveal the operation of underlying power shifts. For example, the European Commission has become concerned with the amount of hate speech circulating in online platforms, and has developed a code of conduct, effectively requiring that platforms take down hate speech within 24 hours of receiving a report (European Commission, 2016). While this code of conduct has been voluntarily agreed upon by the platforms, there are no penalties involved in cases of failure to meet the 24-hour requirement. On the one hand, the European Union wants to regulate the content to ensure compliance with European laws and regulations; on the other hand, it is bound by principles of freedom of speech but also by its own understanding of social media platforms as providing a commercial service but not as content

producers. They therefore have to rely upon and encourage this voluntary kind of self-regulation which the platforms may only undertake insofar as their own commercial interests are not compromised. While civil society groups may lobby, for example through petitions, their power is limited and they have no part in the decision-making process. In these terms, the main actors in internet governance are still states and corporations, and the role of others is limited.

Conclusions

What kinds of conclusions can we draw from all this? The box below summarizes the main points of this chapter. We have seen the various trends, and discussed the continuities and discontinuities introduced by the various new media in the multifaceted aspects of our lives. While some elements appear promising, others appear almost nightmarish, making it difficult to draw any definitive conclusions. However, although, in the past, inventions and know-how have been lost, it is unlikely that this will happen in our current historical juncture: what has been thought, what has been invented, cannot be un-thought and cannot be taken back. The new media, whether we like it or not, are here to stay. The best (if not the only) option we have is to try to contribute to their steering and governance in ways that promote ideas of justice and equality for all. From this point of view, we must remain critical, but also optimistic regarding the future of the new media and our future more broadly.

We began this book with two epigrams by McLuhan and Kittler on the media's determination of our lives. Perhaps a fitting epilogue would be Stiegler's call for a new politics of the new media, which he calls a new politics of memory, an injunction for the reappropriation of the media, time and memory in ways commensurable with humanity: a new way of life in which as Stiegler puts it, 'economizing means taking care' (undated, online text). Stiegler's point is that we must resist control of the (new) media, which operate not only as communicative media but also as storage and memory devices, by corporations, governments and other self-interested parties. The centrality of the new media is such that we must in the end view them, especially the internet, as a kind of commons: a resource collectively belonging to all of us, and which has to be governed in ways that reflect our equal rights over them.

> Summary of Main Points

Current Trends

- The main underlying trend: a fluid and dynamic tension between individualizing and collective-collaborative elements of the new media

More specific trends:

- Economy: autonomization of (immaterial) labour
- Consumption: a trend towards a wider and deeper spread of the new media across all demographic categories and across developing countries
- Politics: disintermediation and the creation of new political subjectivities
- Surveillance: more and more surveillance offered as a solution to questions of security and safety
- Journalism: under pressure to reinvent itself and justify its continued usefulness
- Mobile media: more mobility, more portability
- Identity and sociality: the individuation of sociality and the spread of an economic logic on the domains of identity and sociality
- Games: the dissolution of boundaries between work and play

Trends as Emerging Dilemmas

- Individualism versus peer-to-peer collaboration
- Safety and control versus openness and liberty
- Profit before everything versus the internet as a public good

Internet Governance

- Internet governance: deals with the regulation of the internet infrastructure, its present and future operations, as well as with the policy questions that arise out of the migration of content and conduct online
- Two world summits (Geneva, 2003, and Tunis, 2005) essentially retained the role of ICANN, a US-based private corporation, while creating new structures, such as the Internet Governance Forum
- Main decision-making bodies are still controlled by state actors and private corporations with civil society having minimal input

Further Reading

Thinking of the future paradoxically requires us to rethink the past as well as wonder what, precisely, notions of the future entail. Nick Couldry's article theorizes concepts and narratives of the future of 'the media', holding that technological, political and social forces will make this a site for intensified struggle. Whatever the future of the media will be, it will inevitably be more technological. But the world of the technological is never only technological: it is at once cultural, political and economic. Cultural research into (big) data and algorithms engages with how knowledge and technology itself is produced and what its future implication might be. A special issue of the European Journal of Cultural Studies is concerned with these debates. The article by Mark Andrejevic, Alison Hearn and Helen Kennedy is an introduction to the special issue and to some of the debates – all articles are worthy of exploration as they speak to both the present and the technological future. If we accept that the future of the new media will be technological, then any policy making must take into account the ways in which technology is a socio-technical system rather than focusing exclusively on political and legal issues. The final article, by Francesca Musiani, combines these two strands of research opening new dimensions for understanding and analysis.

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