10

How the Claims of Digital Optimists were Contradicted by the Rise of Digital Culture

This chapter begins this book's consideration of significant changes in cultural production and consumption that can be attributed at least in part to ***digitalisation***. This term refers to the increasing use of electronic storage and transmission technologies that allow images, words, sounds and so on to be converted into binary code that can be read and stored by computers. But as I use it here, the concept embraces a number of developments that have had a huge impact not only on the cultural industries, but on societies and economies in general: most importantly the internet and the world wide web, smartphones, social media, and many other related developments such as audio and video compression software.

Chapter 5 outlined some significant technological developments that emerged in the post-war period in computing and in the telecommunications systems that increasingly provided connections between computers. This included the development of the internet. By the 1990s, the development of the world wide web, and of browsing and search software that made the internet navigable for non-specialists, made computers and other devices increasingly connectable and connected. Just as important was the spread of high-speed broadband telecommunications infrastructure, and (introduced in 2002 but with its roots in much earlier developments) Third Generation (3G) mobile telephony systems. These infrastructures were enabled by the continuing commitment of governments and businesses to information society thinking and to descendants of it such as the ideas of 'creative economy' and 'digital economy', as well as by international groups that were set up to agree 'standards' or protocols. In turn, 3G permitted the development of the smartphone – in effect a tiny, portable computer as much as a telephone – and therefore a new generation of software applications. Alongside these developments there were numerous innovations in sound and video compression, among the most notable of which was the MP3 audio compression format, which as we shall see, was to have a considerable impact on music consumption and production. Meanwhile, the IT software industry that was expanding in the wake of the growth of the web and mobile telephony developed new applications, initially known as 'social networking' and now usually called social media, which, as everyone knows, rapidly became a central part of everyday communication,

especially following the international launch of Facebook in 2005. A general term I will use to cover these various developments is ***digital networks***. It isn't completely satisfactory, but for now I feel that there's no better alternative. This and the next chapter explore how the effects of digital networks, always in interaction with the other causal factors (economic, political and cultural) outlined in Chapter 5, transformed cultural production and consumption.

Digital networks could never be a minor part of any book about change and continuity in the cultural industries. Remarkable claims for transformation have surrounded this group of technologies and their interactions, and I begin the chapter by discussing some of these claims, made by writers (journalists, business gurus, academics) that I characterise as digital optimists.[1] In my view, optimism is in general a welcome characteristic of people and what they say, write and do. The problem is that collective misplaced optimism can blind us to potential dangers, problems and abuses. Just as important and problematic is the ***neophilia*** shared by nearly all digital optimists: their 'love of, preference for, or great interest in what is new' (Oxford English Dictionary). Digital optimists are pretty much always digital neophiliacs.

Many parties have an interest in overstating the impact and potential of new communication technologies. For journalists and academics, sensational reports of a transformed future can draw attention from readers, editors and funding bodies. For companies, the introduction and dissemination of new technologies provide new market opportunities. Politicians and policymakers can appear progressive and forward-looking by affirming and reinforcing such views – thereby helping to ensure that the prophecies are fulfilled.

The main questions addressed by this and the next chapter are as follows (see Table 4.1). **To what extent have digital networks transformed cultural production and consumption? Have digital networks opened up access to the means of cultural production and circulation? Are barriers between production and consumption breaking down?** I'm particularly concerned by two sets of claims that have been explicitly and implicitly made by digital optimists, and the second is derived from the first:

- Digital networks allow for substantially greater levels of control and/or creativity and/or participation on the part of non-professional 'users' and/or audiences, and represent a threat to the forms of corporate power that were discussed in Chapters 8 and 9.
- Because of this, the power of industrial, professional and institutionalised cultural production is eroding, and a more decentralised, democratic and vigorous system of communication has either arrived, or is just over the horizon.

[1] Digital optimism is a term that has been used by many people, but its value as a concept became much clearer to me when I read Graeme Turner's book *Ordinary People and the Media* (2010). It is related to the concept of digital utopianism, developed most cogently by Fred Turner (2006).

Many other claims have been made concerning the effects of digital networks on the cultural industries, such as the idea that the boundary between producers and consumers is breaking down, that amateur media and 'user-generated content' are now integral to cultural production, and that the power of media conglomerates is being eroded. I address these issues too, but I treat them as more specific versions of the two key general claims listed above.

I begin, then, by discussing some of the main key concepts used by digital optimists/neophiliacs about the transformations and benefits of digital networks. The second part of the chapter (section 10.2) outlines the main characteristics of the new digital culture that arose from the interactions of the cultural industries with the new innovations of the IT industries. I show that many of the claims and assumptions of the digital optimists/neophiliacs were misplaced, but that there is still progressive potential in digital networks. Chapter 11 focuses on the effects of digital networks on various individual industries.

10.1 The digital optimists/neophiliacs and their key claims

Celebrations of the internet and web drew upon a longstanding association of information technology with individual freedom, autonomy and decentralisation (see Flichy, 1999; Streeter, 2011; Turner, 2006). The academic and countercultural computing cultures that developed the internet and web involved many people who were sufficiently reflective to want to produce an account of the exciting developments of which they felt themselves to be a part. Like many post-enlightenment intellectuals, they (correctly in my view) saw knowledge as a potential basis for human emancipation, and (more problematically) saw the computer's ability to handle vast amounts of data as therefore a key advance.

In the 1960s and 1970s, it became increasingly clear that computers could soon be combined with telecommunications networks (this is the most basic sense of the term convergence). For some of those excited by the potential of the computer to enhance human life, the digital networks made possible by such convergence from the 1980s onwards represented the realisation of the utopian possibilities of the computer. Intellectuals associated with these computing cultures began to produce accounts of these cultures that were influential in disseminating a notion of digital networks as liberating.[2] The fact that this utopian understanding of digital networks coalesced in the 1980s, and especially in the 1990s, is highly significant. It meant that the internet and world wide web developed at a time when neo-liberalism and marketisation were sweeping the world and affecting prevailing understandings of cultural production

[2] Examples include the work of Howard Rheingold (1992), Nicholas Negroponte (1995), and *Wired* magazine. The values shaping the development and understanding of the internet have been analysed and critiqued in historically informed accounts by Vincent Mosco (2004), Fred Turner (2006) and Thomas Streeter (2011).

and consumption (see Chapters 6 and 7). The internet and world wide web were being framed by powerful individuals and institutions as democratising, life-enhancing forces in culture and communication, but at a time when neo-liberalism, marketisation and commodification were in fact *inhibiting* the realisation of their emancipatory potential. This contradiction is absolutely fundamental to understanding what has happened during the first two decades of the twenty-first century.

As the communicative possibilities of networked computers connected by long-distance telephony became increasingly apparent in the early 1990s, a generation of techno-prophets began to write about how the internet would transform the world's economies, societies and politics. In James Curran's (2016: 1) sceptical summary of these claims, the internet would transform business and bring prosperity, rejuvenate democracy, inaugurate a new era of cultural vitality, empower the weak and topple autocrats, shrink the world, and encourage dialogue between nations.[3] One influential and widely quoted commentator wrote in 1995 that 'the monolithic empires of mass media are dissolving into an array of cottage industries' (Negroponte, 1995: 58). This claim was made bang in the middle of the greatest wave of media consolidation and conglomeration in history, but the author was widely presented by journalists and other enthusiasts as a far-sighted sage.

But it was only in the 2000s that the digital optimists really got into their stride, and by this point the internet's effects on communication and culture had become a central issue. As the effects of the digital networks on cultural production, circulation and consumption became apparent, digital optimists proclaimed a new era of democratisation and invented a jargon to celebrate it. Here are some of the concepts that were widely disseminated, discussed and given credence during the first decade of the twenty-first century.

One very widely used concept was 'Web 2.0', a term developed as an attempt to describe the evolving world wide web in the early 2000s. In the once widely quoted words of a figure closely associated with the term:

> Web 2.0 is the network as platform, spanning all connected devices; Web 2.0 applications are those that make the most of the intrinsic advantages of that platform: delivering software as a continually updated service that gets better the more people use it, consuming and remixing data from multiple sources, including individual users, while providing their own data and services in a form that allows remixing by others, creating network effects through an 'architecture of participation', and going beyond the page metaphor of Web 1.0 to deliver rich user experiences. (O'Reilly, 2005)

[3] The first generation of internet prophets who achieved fleeting or lasting celebrity included Esther Dyson, George Gilder, Nicholas Negroponte and John Perry Barlow. Microsoft founder Bill Gates' book *The Road Ahead* (1995) was widely quoted, and eminent Silicon Valley figures have continued to be a regular source of digital utopianism in their public pronouncements. A recent example is Google Executive Chairman Eric Schmidt's book co-authored with his colleague Jared Cohen, *The New Digital Age* (2013).

The concept was applied to open-source software such as Linux, but was more usually exemplified by phenomena such as blogging, YouTube, Wikipedia, and especially social media. The emphasis was on enhanced interactivity, but the main work done by the term was to suggest that the internet and web were entering into a new phase, and that the bursting of the dot.com bubble at the turn of the century was a mere blip in digital progress. Web 2.0 quickly became a marketing buzzword with many companies, and the hype soon spread to academic researchers.

A related and widely disseminated concept was *prosumption*. Alvin Toffler, a former journalist who in the 1970s and 1980s was one of the most influential and widely read analysts of corporate and cultural change in the English language, coined the term 'prosumer' in the 1970s (Toffler, 1980). The idea was that production and consumption had been separated in the era of mass production, but with a transition to a new information-based economy, consumers were increasingly being brought into the process of production, resulting in a welcome degree of customisation and individualisation. The term was picked up in the 2000s by digital optimists who believed that consumers were increasingly able to participate in the contemporary economic life as producers; a book called *Wikinomics* by two economists (Tapscott and Williams, 2006) helped spread the term, used now to mean a new era where 'customers participate in the production of products in a creative and ongoing way' (p. 126), such as when participants in the online game *Second Life* (the subject of a quite remarkable amount of excitement on the part of digital optimists in around 2005 to 2007) participate in the actual design of the game, as well as playing it.

There were other variants on prosumption. According to researcher Axel Bruns (2008), in the 'information age', access to the means of producing and distributing information was 'widely available', and consumers would become cultural producers and distributors, bypassing 'traditional' organisations via peer-to-peer and 'many-to-many' (rather than 'one-to-many') communication systems, leading to a new form or model of communication known as *produsage*, a mixture of production and usage. 'Innovation and creativity' guru Charles Leadbeater developed the term *pro-ams* to refer to people who pursued amateur activities to a professional level, the numbers of whom were supposedly going to proliferate due to digital networks. *Citizen journalism* became a term widely used to refer to the production of news content by non-professionals (see Chapters 11 and 15), with 'citizen media' an occasional variant. The concept perhaps most widely used of all to refer to how the web enabled increasing cultural participation was the concept of *user-generated content*, coined to refer to the way in which more and more cultural content, especially on the web, was generated by users, most of them amateur, rather than by professional producers.[4]

[4] See Clay Shirky (2008: 81–90) for discussion of user-generated content by an intelligent digital optimist.

The concept of ***crowdfunding*** emerged around 2007–2008 to refer to the practice of gaining funding by appealing to large groups of unknown people, especially online.[5] Specialist crowdfunding websites such as Kickstarter (launched in 2009) and Indiegogo were developed to provide funding for businesses, and were often used by struggling cultural producers to fund their creative projects. Many commentators and cultural producers hailed crowdfunding as a potential democratisation of culture, bypassing the problems of financing by large cultural industry corporations and financial institutions. Many worthwhile projects were financed in this way, and crowdfunding provided important hope for numerous symbol creators. As we shall see in Chapter 11, however, crowdfunding (and variants such as 'fan-ancing', whereby fans fund projects or symbol makers they admire) turned out not to be the solution to the problems of cultural production that many hoped it might be (see also Brabham, 2012, 2017 and Scott, 2015).

Another widely discussed concept was that of ***the long tail***. This was journalist and author Chris Anderson's idea that media and the cultural industries (and indeed modern economies in general) were moving away from a model whereby hits generate most of the attention and profit, towards one where millions of niche markets add up to a market that matches or exceeds that of the hits, partly because of the ability of online digital services to provide much greater amounts of 'inventory'. The metaphor derived from the appearance of a 'demand curve', with a nearly vertical head (representing a very small number of tracks with very large numbers of sales or downloads) and a very long nearly horizontal tail (consisting of many hundreds of thousands of products with just very few sales or downloads – see Figure 10.1 from Anderson's 2006 book, using data from Amazon (books), Netflix (films) and especially Rhapsody (music)). 'Combine enough hits on the Long Tail', wrote Anderson in his original article, 'and you've got a market bigger than the hits' (Anderson, 2004). This was a typical piece of digital optimism, where the online world provided an abundance that could overcome the limitations of the pre-digital world, as one would expect from the then editor-in-chief of *Wired*, the house magazine of Silicon Valley digital optimism (see Orlowski, 2009; Ruckenstein and Panzar, 2017). We shall discuss some of the evidence concerning the reality of the 'long tail' later in this chapter and the next.

A more recent manifestation of digital optimism has been the concept of ***big data***. A term originally developed for vast amounts of data that could only be handled by supercomputers, it was increasingly used to refer to two different though related phenomena: a) the undisputable fact that there is now much more information around

[5] The term 'crowd' was at the time associated with digital optimism, following the publication in 2004 of *New Yorker* writer James Surowiecki's book, *The Wisdom of Crowds*, which collected evidence showing that guesses and insights produced by large groups tend to be more accurate than those of their most intelligent members. This intriguing rebuttal of a longstanding tradition of suspicion of 'the madness of crowds' appealed to the populist ethos of the era.

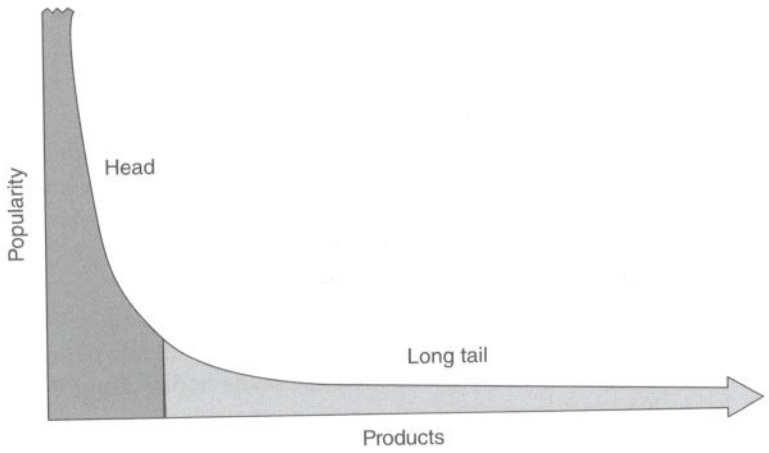

Figure 10.1 Anderson's concept of the long tail

than ever before in human history, that is, that the amount of data in the world is big;[6] and b), more interestingly, the use of data analysis to make predictions, often in a way that can then be sold, to inform business decisions and public policy. Once again, Chris Anderson was influential in triggering and framing debate about the idea, in a 2008 article about how 'massive amounts of data and applied mathematics replace every other tool that might be brought to bear' on understanding human behaviour. 'Who knows why people do what they do?' wrote Anderson. 'The point is they do it, and we can track and measure it with unprecedented fidelity. With enough data, the numbers speak for themselves' (Anderson, 2008). While very few serious commentators would endorse such naïve anti-theoreticism, many recent studies have paid attention to the increasing use of big data sets in the cultural industries, often rather speculatively.

A closely related concept prone to recent hyperbolic treatment is that of ***algorithms***, defined by the Oxford English Dictionary as 'a process or set of rules to be followed in solving a problem, especially by a computer'. These are significant for the cultural industries, because a particular set of algorithms, which Gillespie (2014) calls 'public relevance algorithms', have come to have a major influence on the kinds of knowledge, information and entertainment to which users of digital devices are exposed. One book purports to recount, in the words of its sub-title, 'how algorithms took over our markets, our jobs and the world' (Steiner, 2013). I return to the limitations and dangers of hype about big data and algorithms in the final main section of this chapter, but also discuss some of the real transformations to which they are related. In the next chapter, we examine whether and how they might be changing individual cultural industries.

[6] E.g., 'Data, data, everywhere', *The Economist*, 25 February 2010.

There were many other variants on these themes, produced by journalists, academics and business consultants – the ones discussed here are just some of the most prominent. Not all the optimistic treatments of digital networks were as facile as some of the concepts and treatments listed above. It is understandable that people were trying to make sense of rapid change, and that they would want to see hope. Some versions of digital optimism were more sophisticated and accomplished than others, and Box 10.1 critically analyses the ideas of three important and widely cited authors from the period of peak digital optimism in the decade leading up to 2008. Unfortunately, even some of the more careful and sophisticated writing provided a misleading picture of what was happening, one which ultimately helped lay the ground for the rise of the IT mega-corporations discussed in Chapter 9 and the problematic 'digital culture' that so many of us now inhabit globally.

BOX 10.1 A MORE SOPHISTICATED DIGITAL OPTIMISM? BENKLER, JENKINS AND CASTELLS

A now classic version of the optimistic view that digital technologies were transforming culture and communication for the better was Yochai Benkler's book *The Wealth of Networks*, published in 2006. In Benkler's words,

> A series of changes in the technologies, economic organization, and social practices of production … has created new opportunities for how we make and exchange information, knowledge, and culture. . . . [N]ewly emerging practices have seen remarkable success in areas as diverse as software development and investigative reporting, avant-garde video and multiplayer online games. Together, they hint at the emergence of a new information environment, one in which individuals are free to take a more active role than was possible in the industrial information economy of the twentieth century. (Benkler, 2006: 2)

Benkler outlined the emancipatory possibilities of this new autonomy for individuals:

> This new freedom holds great practical promise: as a dimension of individual freedom; as a platform for better democratic participation; as a medium to foster a more critical and self-reflective culture; and, in an increasingly information-dependent global economy, as a mechanism to achieve improvements in human development everywhere. (Benkler, 2006: 2)

Benkler offered a serious and scholarly analysis of the possibility that we are moving to a new 'information network economy' and he was clear about serious

(Continued)

impediments to the emancipatory possibilities of such a transition. But for Benkler these impediments mainly consisted in business interests trying to hold on to their privileges by restricting flows of information and culture through intellectual property. From Benkler's perspective, ultimately we could all be winners in the new era of what he calls 'the networked public sphere' if businesses and governments realise that the new networked information economy needed to be based on free flows of information and a greater role for 'nonproprietary production'. The problem with such a view is that contradictions and conflicts are too deeply rooted in capitalist forms of cultural production for such win–win scenarios to be truly realisable, as I shall show in this and the next chapter.

Another relatively sophisticated but problematic version of digital optimism relevant to the cultural industries was provided by Henry Jenkins in his book *Convergence Culture* (2006). We saw in Chapter 6 that 'convergence' became part of policy discourse in the 1980s and 1990s. At its heart was the notion that the lines between different forms of media and communication were blurring, so that wires, cables and airwaves might carry many different kinds of messages, and cultural forms (such as television, radio or the written word) might be conveyed in many different physical ways (Pool, 1983). Some were pessimistic about such convergence and envisaged that this process would allow a consolidation of corporate power. Jenkins, by contrast, was a fervent optimist and emphasised the way that such convergence enabled participation and collaboration. Jenkins provided enlightening and entertaining case studies of the ways in which audiences use digital technologies – for example, the charming *Daily Prophet*, a web-based, imaginary school newspaper for Hogwarts (the school in the *Harry Potter* books and films). He was also concerned with the creative experiences that people might have of media and this makes his book much more enjoyable than the dreary doom-mongering of some radical critics. There was also a sense of reasonable dialogue with sceptical opponents, by contrast with many of the more wide-eyed accounts of change. However, Jenkins did not really seem to address the potential objections and limitations he acknowledged. He frequently referred to the entrenched power of media corporations (2006: 11) – but strongly implied that such power was seriously challenged by new developments. He recognised that small numbers of rather privileged people are involved in the activities he was describing (p. 23) – but in a move typical of digital optimists he claimed that the early adopters of new technologies provided the best guide to how media would be transformed in the future.[7] He said that he

[7] The fact that many early adopters are young is a significant context for such claims. The bizarre idea that young people will carry on behaving in the same way as they grow older is a common assumption in studies of the media; see for example some of the claims in the debates about 'digital natives' – young people who grew up immersed in and comfortable with digital technologies (see Bennett et al., 2007). It's still not unusual to hear ideas that draw upon similar assumptions, such as 'TV is dying – my students don't watch it'. See Chapter 11 for more discussion of the long-predicted and still not realised 'death of television'.

was not trying to predict the future (p. 257) – but his book was full of predictions. He recognised that participation and collaboration can be 'bad news' as well as creative (p. 17) – but then provided case studies that were overwhelmingly positive.

A third and final version of sophisticated digital optimism was provided by Manuel Castells in his 2009 book *Communication Power*. In 1996 Castells published a remarkable trilogy of books that carefully delineated important ways in which economies and societies were evolving. I drew on that trilogy's valuable account of such evolution in Part Two of this book. However, in that early work, Castells overstated the degree to which the industrial age had given way to the 'information age'. His analysis of the media was criticised for overstating the degree to which the supposedly liberating capacities of digital networks had already been realised in the media. In particular, he showed little engagement with the continuing importance of television and radio broadcasting. Perhaps in response to some of the criticisms of that earlier work, Castells went on to offer, in his later work, an account of 'the network society' that placed networks of communication at the very centre of analysis and also provided a very detailed analysis of the contemporary communications environment. In the network society, this consisted of both the 'mass media' and a new set of 'interactive, horizontal networks … built around the Internet and wireless communication' (2009: 4). These made possible what Castells called 'mass self-communication'. The communication enabled by new digital networks was mass communication, wrote Castells, because it could potentially reach a global audience. But it was also self-communication because 'the production of the message is self-generated, the definition of the potential receiver(s) is self-directed and the retrieval of specific messages or content is self-selected' (2009: 55). All this, Castells stated, decisively increased 'the autonomy of communicating subjects vis-à-vis communication corporations, as the users become senders and receivers of messages' (p. 4).

Here again, as with the digital optimism discussed above, we see a rigid division into old media based on passivity, obedience and concentrations of power, and new, emancipatory digital communication possibilities based on new possibilities of control. But while Castells recognised that some forms of 'self-generated production' were problematic – for example using the term 'electronic autism' to describe blogging (p. 66) – he seemed unwilling to consider how the new mass self-communication might be constrained by problematic forms of modern selfhood: how these forms of communication might, for example, both draw on and in turn feed a frenzy of narcissistic self-realisation (Hearn, 2008). Self-generation and self-selection seemed to be equated with freedom.

The analysis of changes in various cultural industries brought about by digital networks in the next chapter will show that the views of the digital optimists were misplaced. (The effects on cultural *products* will be taken up in Chapter 15.) While there are indeed elements of the changed world of cultural production and

consumption that can be understood as empowering, digital optimists usually missed two key issues often stressed in political economy traditions: the particular nature of cultural work, and how it might be organised and rewarded; and the centrality of distribution or circulation in determining which products get to which audiences and in what form. Making something available is in itself no guarantee that anyone will ever find it amidst the abundance of products. In this respect, digital networks merely intensified the longstanding trend towards proliferation and abundance in culture – but whether this represents a meaningful democratisation is another matter. One way of putting the problem is that digital optimists downplayed recurrent dynamics surrounding the relationship of cultural production to circulation (see section 2.2) by focusing too much on production.

Nevertheless, there can be no doubt that digital technologies have transformed the ability for 'ordinary people' (people who don't work professionally in the cultural industries) to make cultural products to quite a high level of proficiency. They also transformed professional production techniques. Box 10.2 discusses some of the early ways in which computerisation and digitalisation affected the cultural industries in the 1970s, 1980s and 1990s, when the major effects were on *production*. But it was only as some of the potential and real effects of digitalisation on *circulation* took shape from the mid-1990s onwards that digital networks began to be understood as transformative of the cultural industries. The next chapter examines the effects of digital networks on various cultural industries, but first I address the question of 'digital culture' as a whole.

BOX 10.2 EARLY FORMS OF DIGITALISATION IN CULTURAL PRODUCTION

Digitalisation had begun to have effects on the ways businesses were run from the 1960s onwards, but this happened principally as a result of the effects of mainframe or 'mini' computers. People in industrialised countries had growing contact with airline reservation systems, electronic databases and so on during this period. These were systems in which remote terminals would be linked by phone lines to central mainframe computers. The effects of such systems on the cultural industries were first felt in news gathering, as news agencies such as Reuters began to provide electronic financial data and news services to news organisations (see Tunstall and Machin, 1999: 80).

It was only in the late 1970s and early 1980s, however, that digitalisation started to have a more substantial impact on the cultural industries as a whole. In many cases, the most immediate impact of digitalisation was on technologies of cultural production. With the development of the personal computer in the 1980s (see Chapter 5) this digitalisation of production spread through all of the major cultural

industries, with significant effects on the working practices of photographers, film animators, radio producers, television editors and so on. Even in the 1980s, before the internet was developed in its modern form, this dissemination of digital technologies was often accompanied by claims that they enabled a democratisation of production, by making the means of production more accessible to less powerful and well-resourced institutions, such as independents and alternative organisations, and even amateurs, by reducing costs and by making it possible to produce on personal computers.

As with later developments, music was at the forefront of such developments because of its low cost and low 'bandwidth' (it takes up less computer space than visual formats). In the music industries, musical instruments and, in some cases, recording studios were increasingly moving over to digital methods in the early 1980s, because they had the advantages of less interference, more accurate reproduction, and greater manipulability. There were intense controversies and debates over whether or not these new technologies made music-making less creative and less collaborative than traditional methods by making it possible for individuals to mix sounds themselves, drawing on the sounds stored and/or generated by computers (Théberge, 1997). As prices fell, digital technologies such as samplers, sequencers and MIDI (a standard digital interface) were then offered to the consumer market and marketed on the basis of their convenience and quality. These technologies made it possible to produce recordings without having to hire expensive recording studios. Especially in genres that placed less emphasis on sound quality, and that in some cases celebrated 'lo-fi' sound on the basis of its emotional power, authenticity or accessibility, the 'bedroom studio' became a real possibility. The electronic dance music boom of the late 1980s and early 1990s, for instance, was partly fueled by this development. (The drug ecstasy, or MDMA, also helped.)

In addition, digitalisation and miniaturisation had profound effects on publishing, and especially magazine publishing, as desktop publishing software (software that could be used to produce and design documents, magazines and other publications on a personal computer), and other digital technologies became cheaper and more widely available from the early 1980s onwards.[8] The culmination of this development is the widespread availability of high-grade digital cameras on mobile phones and tablets, along with editing software.

10.2 Problems with digital culture as a whole

Addressing the impact of digital networks on *individual* cultural industries is necessary in order to go beyond generalisations about overall effects. Nevertheless, before

[8] There is no space to address these developments in detail here, but see the first (2002) edition of this book, pp. 202–12, for a discussion.

doing so, we need to consider problems surrounding *digital culture as a whole*, beyond the cultural industries. The cultural industries, collectively and individually, now compete with other new ways of spending time that have developed with the rise of digital networks – most notably social media. News, entertainment and art are now thoroughly entwined with digital media and digital culture, and so the cultural industries are themselves implicated with a number of problematic features of digital culture. Most of these are longstanding issues, which digital optimists and neophiliacs often overlooked as they greeted the early period of transformation; some have crystallised more recently. I consider them relatively briefly in what follows, and return to some of them in the next chapter (on individual industries) and in later chapters, as we encounter how they affect other aspects of cultural production and consumption addressed there. Here are the main problems I want to address:

1. Critics have claimed that the ability of greater levels of participation and interactivity to contribute beneficially to culture, democracy and society are limited by **unequal access** to digital networks. Some have said that we need to consider different types of inequality that might hinder the beneficial aspects of the internet and web, besides access, such as the very different **levels of skill** that people might have.

2. Rather than the democratisation, interactivity and decentralisation claimed by digital optimists, critics have argued that there are **new dynamics of centralisation of power** associated with the internet, alongside the **continuing existence of concentrations of power in 'old media'** which the internet has not actually done much to shift.

3. Critics believe that digital networks have spawned **an intensification of commercialism** in the sphere of culture and communication.

4. For some critics, the interactive properties of digital networks enable **an unprecedented degree of information to be captured** about users, which in turn raise questions about **power and surveillance**.

5. Some critics say that the participation and interactivity in web-based activities (such as open-source software, blogging, putting clips on YouTube, and even posting messages on social media) in reality constitute a form of 'free labour' or **unpaid labour**. I argue below that there are problems in understanding the situation in this way, but that the widespread presence of such unpaid work in contemporary digital culture demonstrates that, in some important respects, users are certainly not 'empowered' by digital networks – in fact quite the reverse.

6. Finally, I summarise some reasons to be concerned about **the growth and power of the IT industries**, especially the largest corporations (and not just the famous GAFAM oligopoly), including their lobbying power, and their tendency to promote wasteful obsolescence, with damaging implications for local and planet-wide environmental conditions.

I now discuss each of these potential problems in turn, examining the degree to which the processes identified by critics might validly be seen as undermining the central claims of the digital optimists, looking across a range of practices of cultural production.

10.2.1 Digital divides: inequalities in access, skills and activity

A term that has been widely used in policy circles to describe inequalities in access to digital networks is *the digital divide*. Some conservatives claim that there is no problem and that those not connected to the internet generally don't want to be. This is to ignore the vital importance of communication and knowledge to the functioning of democracy. As Graham Murdock and Peter Golding (2004: 245) put it, in the era of the internet, 'to be disconnected is to be disenfranchised'. Proponents of cultural (and digital) markets claimed in response to early critiques of digital inequality that, as technology spread and markets grew, costs would come down, encouraging even those with the lowest incomes to gain access to the technology. Access to the internet has indeed broadened, but huge inequalities in access by class remain.

As home internet access spread, at least in some countries, research increasingly drew attention to the importance of *skills* as a persisting feature of digital inequality. Digital technologies are constantly evolving, and this means that once less technologically adept people have adjusted to a new set of technologies, skilled users move on to new uses: indeed, there is a process by which people engage in a kind of social competition to find new forms of communication. There is a great deal of difference between, on the one hand, using broadband to access information, post messages and create blogs and on the other, using it to check an email account and a weather website every few days. Many computers with internet access are bought (or even provided by policymakers in an effort to narrow the digital divide), but soon need to be replaced as systems move on. Also, owners often lack the skills, confidence or motivation to make use of them (Murdock and Golding, 2004). It is easy for people who work with computers or who have grown up with them to underestimate how much needs to be learnt in order to carry out even basic functions. The digital divide, then, is a much more complex matter than just whether or not it is possible to get access to the internet or broadband. Inequalities go much deeper than this suggests. Class, gender and age continue to be factors that strongly determine which kinds of people gain which advantages from the possibilities of internet communication, and sometimes in surprising ways. Although it is sometimes assumed that younger people have good internet skills and therefore may benefit more than older generations, this is by no means always the case.

Such inequalities in motivation and skill have significant repercussions for the claims made by digital optimists that digitalisation and the internet allow for substantially greater levels of control and/or creativity and/or participation on the part of non-professional 'users'. Hargittai and Walejko (2008) conducted research on the extent to which young adults create video, music, writing and artistic photography, and share their creations online. Their findings suggested that far fewer people

were engaging in the distribution of content than the rhetoric of the digital optimists implied. What's more, education and gender continue to play a key role in shaping who is involved in such 'participatory culture':

> Consistent with existing literature, creative activity is related to a person's socioeconomic status as measured by parental schooling. The novel act of sharing online, however, is considerably different by gender with men much more likely to engage in it. (Hargittai and Walejko, 2008: 239)

There is of course a further digital divide beyond that existing within individual countries: an international divide between high-income and low-income countries. I address this topic in Chapter 14.

10.2.2 Control of circulation, concentrations of attention, and the myth of the long tail

The idea that the internet (or the web, or Web 2.0) evades or seriously diminishes control because of its decentralised nature was for many years a key feature of optimistic writing about the phenomenon. In the words of Manuel Castells (1996: 352), 'the architecture of this network technology is such that it is very difficult to censor or control it'. For Clay Shirky, the collective action enabled by digitalisation and the internet 'challenges existing institutions, by eroding the institutional monopoly on large-scale co-ordination' (2008: 143). In theory at least, we can go anywhere we choose on the web by clicking on whichever icons and sections of text we choose. For some conservative celebrants of the potential of digital networks (Gilder, 1994), this supposed interactivity was what distinguished the online experience from offline cultural forms such as television, ensuring that the individual consumer could rule in cyberspace. The problem is that where we go will, to a significant degree, be determined by our existing knowledge and inclinations. So how do we know where to go? Early users – the amateur enthusiasts – got over this problem by spending enormous amounts of time on the internet. As the internet became more widespread, and uses of it became more routinised, a number of new cultural forms appeared that aimed to guide users through the web. In the 1990s, it was assumed that the main gateways to the web would be 'portal' sites, many of them associated with internet service providers (ISPs). This was partly what gave the company American Online (AOL) such great power in the late 1990s: it was valued very highly on the stock markets because such portals and ISPs seemed to represent the future of communication in a digital age. But by the early 2000s, it was becoming apparent that the main gateway to the web would in fact be constituted by search engines. It is impossible to assess claims about the decentralised nature of the web without reference to search engines.

Lucas Introna and Helen Nissenbaum (2000) provided a valuable early explanation of some major problems with search engines. They showed that the backlink method (so called because it uses a count of backlinks – that is, how many

links to the web page appear over the entire web) used by many search engines meant that less well-known autonomous sites were much less likely to be visited and hence indexed by the search engine than the ones with greater numbers of hits. The PageRank method – the main means used by Google to form its pages – was, they said, even worse, because it weighed very highly links from pages that themselves had lots of backlinks. Search engines are reluctant to reveal their ranking criteria and one of the reasons they give for this is that such openness would encourage further 'cheating' by search engine optimisers, paid to achieve crucial high rankings for businesses and other institutions. But at least this would help to make people more realistic about the limitations of the notion of the web as infinitely open and decentred. Introna and Nissenbaum's analysis preceded the rise of paid search (or 'sponsored search'), whereby content providers would pay to have their pages included or ranked highly in search engine listings. A later commentator noted that Introna and Nissenbaum 'could not have anticipated the prominence that paid search has in today's search engine marketplace' (Zimmer, 2005–2006). However, given the dominance of Google (which lists its sponsored links separately), a more pressing issue was the way in which Google's PageRank includes some sites and excludes others (anything listed lower than 20 is of course effectively excluded). Many claim that PageRank is the most effective system available because of its largely, though not entirely, automated nature. The keywords in the anchor text of external links are a key determinant of rankings.

The rankings of the leading search engines (especially Google – see Tables 8.2 and 8.3), it has been argued, have a strong self-reinforcing effect – highly ranked sites increase their popularity because they are ranked highly. This leads to what Matthew Hindman (2009: 55) called 'googlearchy: the rule of the most heavily linked'. Numbers of links determine site visibility, leading to a self-perpetuating domination of niches. Hindman (2009) analysed the consequences of this by providing a statistical analysis of US political blogs and websites, which showed the remarkable domination of the most popular sites in each of a number of key categories of political debate: abortion, the death penalty, gun control, the president, Congress, and general politics. These communities, Hindman claimed, function as 'winner-takes-all networks'.[9] The same dynamics are apparent in the various political spaces he examined: in overall web traffic, visits to news and media sites, political web traffic, and even sub-communities taking a particular side in a debate.[10] However, there is a difference here from the hit-driven dynamics of some cultural industries. Hindman

[9] See Chapter 2, above, for a discussion of how recurring features of the cultural industries produce 'winner-takes-all' markets in cultural production.

[10] Political websites also follow a power law distribution, where 'the size of an observation is inversely and exponentially proportional to its frequency' (Hindman, 2009: 41). Such distributions result in 'starkly inegalitarian outcomes'. A series of studies by computer scientists has shown that such power law distributions characterise both inbound and outbound hyperlinks.

also showed that a host of tiny websites gain most of the remaining visitors, and between the big hitters and the microsites there lies a 'missing middle'. Nevertheless, audiences for political websites are, he concluded, more concentrated on the top 10 or 20 outlets than 'old media' outlets such as newspapers and magazines. In spite of these problems, as Introna and Nissenbaum (2000) noted, few web users are aware of the issues involved in search rankings and many treat search engines as near-objective sources of information, much like a library catalogue. Hindman's argument has potentially serious implications for the 'long tail' thesis (see section 10.1 above and Box 10.3). Hindman's research demonstrated that 'for news and media sites as well as political sites, it is simply not true that the smallest outlets, taken together, get most of the traffic. Not even close' (p. 135).

BOX 10.3 THE 'LONG TAIL' AND THE RESILIENCE OF THE BLOCKBUSTER SYNDROME

Chris Anderson's long tail concept, introduced earlier in this chapter, was a typical piece of David versus Goliath digital optimism, whereby digital networks make possible the triumph of the small and the new over the big and the established. It was widely taken up not only by journalists and academics, but by Silicon Valley tech firms such as Google, whose Chief Executive Eric Schmidt hailed Anderson's book on its cover, and Netflix, who described themselves as a 'long tail company' (see Elberse, 2014: 157). Central to Anderson's account was a set of interrelated claims, applying not only to cultural industries, but discussed by Anderson in that context on the basis that changes there would provide a guide to the future:

- that consumers value niche products closely aligned to their own specific interests over mass appeal products;
- that the total of niche sales and revenues could outstrip those of hits;
- that the most successful businesses would therefore move away from the strategy of trying to gain big hits – especially profitable in the cultural industries for reasons outlined in Chapter 2 of this book;
- and that all this would lead to the end of a 'water cooler' era where the most popular cultural products were widely shared, giving way to a 'micro culture' era.

The concept and these associated claims soon came under attack. Economist Will Page and digital analyst Eric Garland (2009) showed, in a rigorous analysis of music sales across a number of 'platforms', that most music available digitally at the time was *not purchased at all*. Even on 'illegal' peer-to-peer consumption sites, they showed, most music remained untouched. There was indeed a long tail of

available tracks, but mostly no one accessed it, for the simple reason (presumably) that consumers didn't know it was there. Page (later chief economist at Spotify) and Garland referred to other studies that showed a similar focus on a small number of big hits in other emerging forms of digital distribution, such as Netflix. Circulation remained the central locus of power in the cultural industries.

A more prominent critic of the long tail concept and other predictions about the end of the 'blockbuster syndrome' has been Harvard Business School professor Anita Elberse, initially in a 2008 article (Elberse, 2008) and later in a substantial book, *Blockbusters* (Elberse, 2014). Elberse acknowledged that digital services or platforms make available a much greater range of products, but pointed out that the long tail idea goes considerably beyond that claim. She analysed iTunes data to show, like Page and Garland, that the vast majority of products in the 'long tail' hardly achieved any sales and that most revenues came from a small number of big hits: 58 per cent of all unique titles sold fewer than 10 copies, and just 102 out of 8 million tracks accounted for 15 per cent of revenue (Elberse, 2014: 160–64). She also showed that the blockbuster syndrome remains alive and well, because firms need to spend more money than ever on marketing in order to break through the clutter of abundance to make their products known.

There is also much evidence to suggest, against Anderson's thesis, that people highly value products that are widely consumed by others, partly because of the potential satisfactions and rewards involved in being aware of what other people are discussing. Elberse recounts how Google Chief Executive Eric Schmidt abandoned his initial enthusiasm for the idea of the long tail: 'the truth is that the vast majority of revenue remains in the head', rather than the tail (Schmidt, quoted by Elberse, 2014: 166). Schmidt suggested that Google made 90 per cent of its revenues from the top 10 per cent of its advertisers – not unlike 'legacy' media advertising markets. And Netflix turned itself from a 'long tail' company to one adopting blockbuster strategies by spending huge amounts on productions featuring lavishly expensive stars and creative talent, sets and marketing, notably its key early production success, *House of Cards* (see section 11.3). For Elberse, such developments suggested that, rather than 'long tail' effects, cultural industries were still marked more by 'winner take all' effects, whereby success for a few companies catering to 'mass' rather than niche markets generated disproportionate rewards.[11]

Some analysts have sought to bite back against Elberse's analysis. In their neophiliac celebration of big data (see below), *Streaming, Sharing, Stealing*, two economists, Michael D. Smith and Rahul Telang (2017) have argued for a much

(Continued)

[11] Elberse and Anderson debated Elberse's 2008 critique on the *Harvard Business Review* blog, still available in 2018.

more limited 'long tail' claim: that consumers gain value from long-term products, and that the 'processes necessary to capture this value' differ from traditional blockbuster strategies. But they downplay the fact that people who focus on the long tail are mainly the relatively few heavy users of cultural products.

The failure of the long tail concept demonstrates the resilience of features of the cultural industries identified in Chapter 2 of this book, such as the continuing centrality of circulation for cultural businesses, and the need to build repertoires where inevitable failures can be set against hits.

10.2.3 Commercialisation and advertising

The emphasis on participation in digital optimism is rooted in countercultural notions that rejected commercial prosperity in favour of deeper, richer notions of human flourishing. There was a strong emphasis in many early internet and web user communities on the 'free circulation of information' (Flichy, 1999: 36) and 'the rejection of … undeclared commercial interests' (Castells, 1996: 354). For all its later massive success, and undoubted ambition to build a large business, Google was originally founded on a suspicion of the problematic effects of commerce – especially advertising – on good engineering.[12] Founders Brin and Page wrote a paper in 1998 in which they declared that 'advertising-funded search engines will be biased toward the advertisers and away from the needs of consumers' (quoted by Taylor, 2014: 184).

Influential early commentators on the internet, such as Manuel Castells, took the view that the liberatory nature of the medium would survive its commercialisation because of the inherent properties of the technology. Castells (1996: 354) saw that commercialisation was changing the medium, but he believed that 'while its most heroic tones and its countercultural ideology fade away … the technological features and social codes that developed from the original free use of the network have framed its utilisation'. Technologies do have lasting features, based on the social codes and discourses surrounding their development, it is true, but these features can be reshaped by powerful users and interpreters – digital networks need massive revenue resources, and are reliant on three main sources of funding: advertising; financing in the hope of achieving advertising revenue at a later date; or the sale of data about users (see the next section on 'surveillance'). All have their problems, including advertising, which I focus on here.

Online advertising expenditure boomed in the 2000s, with search advertising (as opposed to 'display' advertising on other websites) a particularly strong area

[12] An engineering versus commerce tension is present in the IT industries, just an art versus commerce or creativity versus commerce dialectic underpins cultural industries. It is too simplistic to dismiss expressions of such values as insincere or hypocritical in cases where commercial success is eventually achieved.

of growth. Forms of communication that come to rely on advertising as their main source of income tend to become beholden to their advertisers (see Curran, 2011: 153–67, on the history of advertising in newspapers). As C. Edwin Baker (2002: see especially 24–30) argued, this can have various deleterious effects on content. These are difficult to predict in advance and need to be assessed case by case, but in general, Baker showed, advertising favours content that is increasingly connected to marketable products and services and tends to militate against that which is useful to, or valued by, poorer groups in society.[13] Advertising encroaches on nearly all aspects of web communication, appearing as banner headings and pop-up advertisements, the automatic start-up pages on web browsers, portals and search engines (including concealed forms, such as the paid search discussed in the previous section) and, of course, websites themselves. Signing on to services and buying products can still bring about a flood of unwanted email messages – though initiatives such as the European Union's General Data Protection Regulation or GDPR, passed in 2016, and taking effect from 2018, may partly stem the tide. Spam remains a huge irritant. Much web content is permeated by advertising to the extent that it is sometimes difficult to tell where advertisements end and the content begins. While the effects of the migration of online advertising away from forms such as newspapers and television have led to the growth of subscription-funded forms that may seem to offer an alternative to advertising, these video streaming and news services are often used in a digital context submerged in advertising and marketing materials.

10.2.4 Surveillance, big data and 'datafication'

The interactive properties of digital networks enable an unprecedented degree of information to be captured about users. The capture of information is essential to the economics of the new hybrid cultural products created by the information technology industries, including search engines and social media. This intensified with the spread of third-generation mobile telephony and the subsequent rise of smartphones, which allowed for the even more efficient capture of a much wider range of data, including location. As we have already seen, many of these new forms of interactive technology, at one time often dubbed 'Web 2.0', were interpreted by digital optimists as empowering ordinary people. But the profound reliance of such technologies on capturing and selling information about users raises important and difficult questions about power and surveillance (see Gillmor, 2014). Is allowing companies to capture information about us a worthwhile price for the conveniences and pleasures afforded by search engines and social media? Or does such information capture represent a worrying step in the way that societies conceive of

[13] Advertising on other companies' websites is just part of web commercialism. As Dan Schiller (1999: 132) points out, corporate websites must also be seen as a category of web advertising and billions of dollars have been spent on them.

people's behaviour, habits and values? This goes beyond the question of privacy, and the way in which people might defend themselves from intrusion, to questions of social and cultural power.

Facebook, for example, gains most of its revenue by providing information it can glean about its users to third parties. Because people produce a great deal of information about themselves on Facebook and via its extension into other sites across the web, including indications of their habits, tastes and practices, Facebook offers advertisers the potential to target advertising closely to customers. Such targeting, with its promise to advertisers that there will be minimal waste, is the basis of massive transformations in advertising – and in the marketing industry of which advertising is just a part. Joseph Turow (2012) has written about these transformations and some of their potentially damaging social and cultural consequences, claiming that 'companies that work for marketers have taken the lead in surveilling internet users' and in the process 'destroying traditional publishing ethics by forcing media outlets to adapt their editorial content to advertisers' public-relations needs and slice-and-dice demands' and 'performing a highly controversial form of social profiling and discrimination by customizing our media content on the basis of marketing reputations we don't even know we have' (Turow, 2012: 2).

Turow sees the activities of marketers as fundamentally damaging to cultural production and founded upon an unethical way of understanding the behaviour and values of ordinary people. He also showed how measures to protect consumers from the worst aspects of this system through regulation were not adequate (whether more recent regulation such as Europe's GDPR will prove effective remains to be seen). The protocols by which we sign up to have our data used are lacking in transparency, and the wording of agreements is incomprehensible to many users.[14]

This represents the flip side of the hype about big data referred to at the beginning of this chapter: the idea that the ability of computers to gather and process data would enable a new analytical precision to bear on just about every aspect of society, nature and culture, including the management of the cultural industries (see Anderson, 2008). This was an approach that put enormous faith in products of IT industries, and saw previous human achievements as dispensable and outmoded. But Anderson's 2008 article on big data was only the beginning of a wave of hype that peaked around 2013–2014, with the publication of a number of books with the term in the title, some of them using other coinages such as ***datafication*** (Mayer-Schönberger and Cukier, 2013) – in the gloss of one critic, 'the transformation of social action into online quantified data, thus allowing for real-time tracking and predictive analysis' (Van Dijck, 2014: 198), including analysis of people's behaviour, attitudes and emotions (the term 'sentiment analysis' became widely used at around the same time).

[14] See Laura Stein's valuable discussion of the user policies of YouTube, Facebook and Wikipedia (Stein, 2013).

At much the same time, there was increasing interest in the concept of algorithms and their use in a number of processes, including the prediction of financial markets and sports results (Steiner, 2013). Algorithms were sometimes treated by digital pessimists quite crudely as the main cause of the various problems of surveillance and power mentioned above, when they are better understood as one key element in the way in which a great deal of information is now collected and produced automatically. Nevertheless, it would be wrong to be complacent about the degree to which such automation, including the use of algorithms, is tied to problematical processes of categorisation and classification, including within cultural production and consumption.

Critics have raised a number of questions about the flood of enthusiasm for the business and cultural possibilities of big data. danah boyd and Kate Crawford (2012), while accepting that 'the era of Big Data' had begun (p. 662), at least in the kind of computing academic cultures they were speaking to, asked 'what all this data means, who gets access to it, how it is deployed, and to what ends' (p. 664). boyd and Crawford argued that numbers do *not* speak for themselves, as Anderson had claimed; that much internet and social media data are unreliable, poorly archived and searchable only with great difficulty; that combining data from multiple sources is extremely challenging; that, taken out of context, data lose meaning; that interpretation was needed to select data; that 'just because it is accessible doesn't make it ethical' (p. 671), and that 'limited access to Big Data creates new Digital Divides' (p. 673). It would be naïve to think that the intervening years have significantly changed this situation, as though these were just teething problems for a brave new world of computing.

Similarly, José Van Dijck (2014) has criticised the widespread acceptance, among researchers and policymakers, of datafication as a desirable and even necessary part of the contemporary communications environment, and she has coined the term **'dataism'** to refer to both a) the pervasive belief in the efficacy of digital tracking and quantification as a means to objective knowledge, and b) extensive trust in the institutions that 'collect, interpret, and share (meta)data culled from social media, internet platforms, and other communication technologies' (Van Dijck, 2014: 198), including surveillance data of the kind exposed by former CIA employee Edward Snowden's leaking of documents from the US National Security Agency in 2013. That belief and that trust need to be questioned, as Van Dijck rightly urges. At the same time, it would be good to bear in mind that data mining is not only used by powerful, profit making institutions but also by a range of 'ordinary', more humble institutions, such as local authorities seeking how to improve their museums.[15] We need a balanced approach that keeps sight of the potential of computing to enhance health, education, welfare and other goods, while critically examining the problematic ways in which computing has become tied up with power.

[15] See Kennedy (2016) for a rich, thoughtful study of 'ordinary social media data mining'.

There are various ways in which this culture of reliance upon and trust in data (sometimes accurately and sometimes simplistically associated with the use of algorithms) is relevant to cultural production and consumption. As Napoli (2014) points out, algorithms are fundamentally involved in how audiences (increasingly called 'users') navigate through an abundant and fragmented cultural environment. More significantly in the context of this book, they are increasingly involved in predicting demand and, linked to this, content creation. These issues are addressed in the next chapter.

10.2.5 Free labour, unpaid labour

For some researchers, working in Marxian traditions, the way in which digital businesses draw upon the activities of ordinary internet and social media users is best understood as a kind of **exploitation**. In a seminal essay, Tiziana Terranova wrote about the phenomenon of 'free labour', which she described as 'an important, yet unacknowledged, source of value in advanced capitalist societies' (Terranova, 2004: 73).[16] Free labour was, Terranova wrote, 'simultaneously voluntarily given and unwanted, enjoyed and exploited'. Its manifestations on the internet included 'building web sites, modifying software packages, reading and participating in mailing lists and building virtual spaces' (p. 74). In using the term 'free labour', Terranova actually meant unpaid work, rather than work not undertaken under conditions of slavery or serfdom, which is how the term 'free labour' has been more generally used.

Others have pointed to the increasing use of such unpaid labour in other domains, such as television and games. Greig De Peuter and Nick Dyer-Witheford (2005), for example, explained how, from the 1990s onwards, 'authoring tools' were increasingly packaged with computer games, helping to foster a vibrant participatory culture of game 'modding', or modification. They argued that the unpaid labour of such 'modders' represented a 'space-defying' process of exploitation of 'collective intelligence' and a mode of informal training for the future game development workforce. Mark Andrejevic, reacting against celebratory accounts of 'active audiences' in media studies, wrote powerfully about 'the ways in which creative activity and exploitation coexist and interpenetrate one another within the context of the emerging online economy' (2008: 25). Andrejevic (2008) argued that online viewer activity serves television producers in two ways: by providing feedback, which saves the producers from having to undertake expensive market research; and by, in effect, publicising television programmes, which saves marketing costs. Andrejevic critiqued digital optimists' equation of participation and activity with real democratisation and shared control, and claimed that regimes of surveillance and imperatives of profit making compromised the pleasures and progressive elements of online participation. For example, Andrejevic saw YouTube users as exploited by Web 2.0 businesses. Web 2.0 style

[16] Terranova's essay was originally published in 2000, and was reprinted in only a slightly revised form as part of her book *Network Culture* in 2004.

technologies, claimed Andrejevic (2009), gained their popularity by offering users an escape from alienation by offering 'a modicum of control over the product of their creative activity in return for the work they do in building up online community and sociality upon privately controlled network infrastructures' (p. 419) and allowing themselves to be monitored. For Andrejevic, an important distinction needed to be made between 'user-created content' and 'user-generated data' (p. 418). It was the latter and not the former that was extracted under conditions of private ownership and turned into a commodity. For Andrejevic, such developments also represented a generalisation of the forms of subjection traditionally associated with women. Time spent building social relations in 'affective labour' (such as caring work that especially involved controlling and displaying emotion) was *both* autonomous *and* subject to exploitation, he wrote; so was the kind of 'immaterial labour' involved in sites such as YouTube. There were important echoes of older debates in perspectives such as Andrejevic's concerning the way in which media industries turn audiences into commodities by selling their attention to advertisers (see Box 10.4).

BOX 10.4 DO (DIGITAL) AUDIENCES WORK FOR THE CULTURAL INDUSTRIES?

In 1977, the influential Marxist political economy analyst Dallas Smythe wrote an essay about how other Marxists, including political economists of communication, had failed to analyse the functions that the media and related industries such as marketing and PR served for capitalism and capitalists. This, he said, was a 'blindspot' in Western traditions of Marxism (though he had surprisingly little to say about what non-Western Marxism would offer). Political economists such as Graham Murdock (1978) responded by criticising Smythe's perspective for its economic reductionism. One aspect of Smythe's piece was, however, widely taken up in later debates by other researchers, and has recently been revived as the nature of audiences has been changed by the onset of digital networks. Smythe, followed by other writers (such as Jhally and Livant, 1986), argued that, when they paid for advertising from cultural industries, advertisers were buying 'the services of audiences with predictable specifications who will pay attention in predictable numbers and at particular times to particular means of communication' (Smythe 1977: 5). In this system, Smythe and his adherents were claiming, people had been turned into audiences and thereby into *commodities*. Moreover – and this is where the link to more recent debates on 'free' or unpaid labour is particularly apparent – these services were, Smythe claimed, a kind of work: 'The work which audience members perform for the advertiser to whom they have been sold is to learn to buy particular "brands" of consumer goods, and to spend their income

(Continued)

accordingly. In short, they work to create demand for advertised goods, which is the purpose of the monopoly capitalist advertisers' (p. 6). Media audiences, in other words, work on behalf of advertisers, thereby serving capitalism as a whole. This (somehow) led to a situation in which, for all but the very rich and the very poor (the latter because they have no disposable income and were therefore not part of this system), there was not really any such thing as 'free time' or 'leisure'. All our non-working time, except for sleeping, must be spent trying to figure out what we are going to consume (p. 14). Media products were just a 'free lunch', a cheap way of buying people off for the services they rendered. Smythe also stated that if European readers felt sceptical about such claims, it was because they had been relatively protected from the version of 'monopoly capitalism' that was by then in operation in North America.

A number of later writers have discussed Smythe's contribution. This has become known as **the 'audience commodity' debate**, and sometimes **the 'blind-spot debate'** (see Lee, 2011) – though this latter term risks confusing the specific idea of the audience commodity with the broader claims that Smythe was making about problems in 'western' Marxism. In recent years, because search engines and social networking sites seem particularly to be based on the tracking of audiences, and on free or unpaid labour, various writers have sought to clarify some of the confusion surrounding the concept of the audience commodity in order to assess its potential relevance to cultural production and consumption in the age of digitalisation and the internet. For example, rather than seeing audiences as working for media industries, Goran Bolin, drawing on the earlier work of Eileen Meehan (2000), suggested that it would be more fruitful to see statistical representations of audiences as raw material that is shaped into a commodity by market research agencies and departments and sold as a commodity: 'It is not the viewers who work, but the rather the statisticians' (Bolin, 2009: 357).[17]

Micky Lee (2011) built on the earlier response of Richard Maxwell (1991) to debates about the audience commodity. She argued that Google's vertically integrated, non-competitive structure created a peculiar market in information, rooted in a strange commodity fetishism where advertisers bid blindly for keywords, without really understanding Google's system. For Lee, the audience commodity debate, if not Smythe's original formulation, provides a potentially valuable way in which to understand and critique the changing nature of advertising in the online world. Finally, Brett Caraway (2011) provided a critique of Smythe's contribution, and its echoes in later formulations such as those of Andrejevic. Caraway wrote from a Marxist perspective, but one concerned with agency, contradiction and struggle. He pointed out the problems of assuming that audiences are providing services,

[17] It would be an empirical mistake, Bolin argued, to see these statistics as representative of reality. They are notoriously slippery and inaccurate. He believed that Smythe, Jhally and Livant, and Andrejevic had all made this mistake.

and performing work, without their knowing that they are doing so. He suggested that Smythe overestimated the accuracy of audience measurement techniques, and that later contributors who analysed the use of surveillance to ensure that audiences 'work' underestimated the ways in which people question or bypass surveillance techniques. Portrayals of the media, search engines and social media as merely a 'free lunch' needed, Caraway suggested, to pay much greater attention to the 'use values' that people gain from these products.

It's possible that, in creating the content for sites based on 'user-generated content', people are involved in a form of work, but we should be careful not to assume that this work is completely controlled, as is implied in many analyses. Smythe's account was crude, reductionist and functionalist, totally underestimating the contradiction and struggle in contemporary societies. The underlying but underdeveloped normative position was that all the time we spend under capitalism contributes to a vast negative system called capitalism, which hardly anything evades. Much of the discussion Smythe's intervention has generated has barely transcended these reductionist origins. Yet it has somehow also spawned a potentially helpful and stimulating debate about how to understand the changing relationships between cultural industries, technology companies and audiences in a critical way.

In an essay on user-generated content (Hesmondhalgh, 2010b) I tried to show that Andrejevic's analysis seems actually to be dependent on questions of **freedom and ideology** rather than on a coherent notion of **exploitation**. I also tried to emphasise the importance of finding a critique of activities covered by the term 'free labour' that would continue to highly value various forms of activity that are carried out without payment in modern societies. Otherwise, I argued in that essay, there is a danger that a critique of commodification of social activity might end up implying that all unpaid social activity that contributes to the profits of an industry is exploited labour. An example I gave was of volunteer football/soccer coaches, who unwittingly contribute to the profits of the football/soccer industry by providing a pool of football talent that the clubs can then draw on. At the very least, we need to balance the social gains made by the provision of such 'free labour' against the harms it causes. Part of the problem here is the way that ideas such as 'free labour' are taken up in casual academic discourse. For many years it was common to hear at conferences and in academic conversations a crude version of the 'free labour' thesis.[18]

[18] The most common version of this crude version of the free labour thesis concerns use of social media such as Facebook: that we are involved in exploitative unpaid labour when posting on social media. For sophisticated critiques of Facebook along 'free labour' lines, but one that may still be vulnerable to criticisms of the 'free labour' thesis I make elsewhere (Hesmondhalgh, 2010b, 2016), see Cohen (2008) and Hearn (2008). On the other hand, boycotts of or withdrawal from 'platforms' such as Facebook may well be desirable for reasons other than that they supposedly require us to 'labour', such as objections to opaque surveillance or to its addictive tendency to tether people to devices.

Terranova and Andrejevic did not offer such a crude critique, and it was not their fault that their ideas were sometimes simplified by others. But even their critiques of digital optimism need to be grounded in a more careful conceptualisation of the problems surrounding the use of information by Web 2.0 companies. In this respect, Peter Jakobsson and Fredrik Stiernstedt (2010) provided a valuable contribution. They connected such activity to the idea that, in social networking (social media) sites, the very quality of social relations as such – the sense of community and social trust necessary for social interaction – is commodified. This was because sociality was being incorporated into the legal structures determining cultural property. Google and Facebook are involved in the appropriation of cultural material, in ways that are every bit as open to legal challenge as the activities of so-called pirate sites, but the juridical frameworks of the USA and the EU have, in a series of rulings, protected these large corporations as they make use of the activities of users. This suggests that in at least one vital respect users are not at all 'empowered' in the way that the digital optimists have claimed. Through the extremely opaque and confusing ways in which terms and conditions are presented (Stein, 2013) they have no intellectual property rights whatsoever. (This can be seen as a more fully theorised version of Turow's objections, discussed earlier). Instead, the problems of user data capture are presented in terms of privacy, an extremely amorphous concept that allows companies to claim that users can be protected via self-regulation on the part of the IT industry, rather than by more robust government regulation. However, it is disempowerment via a deceptive lack of transparency that is really the basis of this critique, not 'free' or unpaid labour.

10.2.6 IT giants and their operations: policy and environmental impact

Until recently, IT corporations have mainly been involved in the circulation or distribution rather than the *production* of content.[19] But recently these corporations have begun to invest considerable resources in the development and creation of film and television content.[20] Netflix, a tech company from the heart of Silicon Valley, heralded the new era when in 2011 it began to commission expensive fare for its video streaming service. Amazon soon followed, and as I write these words in early 2018, Apple are poaching star executives from the television industry, investing a billion dollars a year in production, and almost certainly planning their own video streaming site to compete with Netflix, Amazon Prime, HBO Now, etc. Google and Facebook have announced their plans too. This shift is not, as some would have it (e.g., Levy, 2017), a case of boring old 'legacy' media companies giving way to a smart, dynamic tech-driven sector that will give the world better television. It is

[19] This sub-section draws on Hesmondhalgh (2017a).

[20] See *The Economist*, 'Facebook, Apple and Twitter get into the television business', 24 August 2017.

better understood as an effort by IT corporations to further extend their power and influence in the cultural industries.

We have seen already in Part One that there is a precedent for media being dominated by a bigger neighbouring sector: in the twentieth century, many key developments in media and culture were driven by electronics corporations (cf. Hesmondhalgh and Meier, 2018). The recording and radio industries were essentially created in order to provide content to play on electronics devices – where initially the biggest profits lay. However, the new IT oligopoly (see Chapter 9) has even more power than the consumer electronics corporations and media giants of former generations and there are numerous reasons to be concerned about them:

- As we have seen at earlier points in this book, IT firms have been much more lightly regulated than rival firms in sectors such as media, telecoms and consumer electronics. Indeed, this helped to fuel their spectacular growth.
- They exert considerable lobbying power, potentially distorting public policy in their favour – see the discussion of the 'fifth wave' of policy in section 6.5.
- We saw above that dubious forms of surveillance and data gathering are at the heart of their operations.
- They assiduously avoid tax (see BBC, 2017).
- There is considerable evidence that, in spite of some efforts to conform to green goals, their business models, based on cycles of obsolescence and replacement, are deeply damaging to the environment (see Good, 2016; Maxwell and Miller, 2012).
- Their rise is a threat to valuable ideals of public service media. Public service media have many failings, but were founded on principles of serving citizens with high quality information and entertainment. They will increasingly struggle against the vast budgets of Silicon Valley and their Big Media allies. The 'fake news' storms of 2016–2017 (see Chapter 15) suggest how little the IT corporations care about responsibility to society and democracy, even if they are now belatedly monitoring content more carefully.[21]

The tech companies are further extending their reach over our experience of the world, and capturing huge amounts of data about us as they do so. Over the last couple of years there have been increasing calls by commentators and policymakers for stronger scrutiny and regulation, and there have been some movements in this direction, though mainly on the grounds of competition law, such as the European Commission's €2.4 billion fine of Alphabet/Google in 2017 for promoting its own

[21] See Mark Andrejevic's (2013) call to extend public service media provision beyond its existing domains into social media and search engines.

online shopping service in its search results. Yet even such actions, based on principles of competition rather than on broader questions about the well-being of citizens and societies, represent only small dents in the armour of these vastly powerful corporations. Some critics are beginning to advocate much more radical interventions such as the public ownership of data repositories, under systems of democratic control by citizens (see Morozov, 2018).

Recommended and further reading

The optimists versus pessimists opposition in relation to any media, including digital media, is overfamiliar, tired, and yet unavoidable. In spite of my critical remarks about digital optimists, the texts by Benkler, Castells and Jenkins discussed earlier in the chapter were illuminating and intelligent. As I point out above, the critical literature has grown rapidly in recent years. The best general critical book on the internet, media and communication I have encountered is James Curran, Natalie Fenton and Des Freedman's *Misunderstanding the Internet* (2nd edition, 2016). *The People's Platform: Taking Back Power and Culture in the Digital Age* (2014) by film-maker Astra Taylor is a powerful and very readable critique of the effects of digital networks on media.

The best overall critical academic accounts I know of **digital culture in general** are José van Dijck's *The Culture of Connectivity* (2013) and Ulises Ali Mejias' *Off the Network* (2013). The last part of Tim Wu's *The Attention Merchants* (2017) provides a first-rate overview and critique of social media and the activities of major IT corporations. Vincent Mosco's recent *Becoming Digital* (2017) is a concise crystallisation of that scholar's consistently excellent critical writing on digital networks over many years, from a political economy perspective; it also looks ahead to the next stages of development of digital culture. Earlier important studies by Mosco include *To the Cloud* (2014), on cloud computing and big data, and *The Digital Sublime* (2005). Robert McChesney's *Digital Disconnect: How Capitalism is Turning the Internet Against Democracy* (2013) also applied political economy to debates about digital networks. Elizabeth van Couvering (2011) broke important new ground in providing a political economy of search engines, and various others have sought to provide an analysis of bias and power in search engines; see also Bernhard Rieder and Guillaume Sire (2014).

I haven't had space to pay sufficient attention to the important issue of the degree to which digital networks promote or inhibit radical political change. Jodi Dean's *Democracy and Other Neoliberal Fantasies* (2009) is an intelligent polemic against the effects of digital networks on political action, based on the idea that the ensuing 'communicative capitalism' has generated a disabling and difficult-to-resist sense of the possibilities of such technologies. An early and very good critique of excessive claims for the emancipatory effects of digital networks is Matthew Hindman's *The Myth of Digital Democracy* (2009). Equally thoughtful and critical, but ultimately more optimistic, is the work of Stephen Coleman, including

his recent *Can the Internet Strengthen Democracy?* (2017) with its humane focus on people's ordinary experiences of democracy and politics, in a world of Brexit, Trump and online right-wing populism. Natalie Fenton's study of political activism in the era of digital technologies, *Digital, Political, Radical* (2016), valuably calls for less focus on the technologies and more on the politics. *Blogistan* (2010), by Annabelle Sreberny and Gholam Khiabany, is a fine study of the internet and politics in a country that was at one point the subject of a great deal of speculation about the liberating potential of digital media: Iran.

Joseph Turow's *The Daily You* (2012) was a powerful account of how digital networks have transformed advertising and marketing in worrying ways. Alice Marwick's *Status Update* (2013) offers a critical analysis of 'Web 2.0' and the forms of subjectivity it tends to encourage, based on her ethnographic research in San Francisco during the heyday of digital hype. Helen Nissenbaum's *Privacy in Context* (2010) seems to me to be an eminently sane and thoughtful treatment of the difficult and often simplified concept of privacy.

11 The Effects of Digital Networks on Individual Industries

The second half of the previous chapter examined how digital networks helped shape a general 'digital culture', with significant implications for cultural industries and for everyday life across the world. Major cultural industries were affected quite differently however, and to different degrees. In this chapter I examine what happened to four industries – recorded music, newspapers, television, books – and I also look at the case of a new cultural industry that was in a sense a product of digital technologies: digital games. As well as examining change, I also show throughout that there was significant continuity, largely a result of the distinctive dynamics concerning business and profit in the cultural industries established in Chapters 1 and 2 of this book: the distinctive features that arise from the fact that the cultural industries are in the business of making and circulating a particular kind of product centred on meaning and communication. My general concern, in line with the aims outlined in those chapters, is with whether or not digital networks have brought about a fundamental shift in the cultural industries, in terms of power and in terms of the contribution of cultural production and consumption to culture, society and democracy. More specifically, to recap from Table 4.1, **to what extent have digital networks transformed cultural production and consumption? Have digital networks opened up access to the means of cultural production and circulation? Are barriers between production and consumption breaking down?**

We will see a number of common and interlinked processes across the five industries, but also substantial differences. In each case, I begin from the fundamental question of financial resources: whether, and to what extent, digital networks challenge the revenues and investment that shape the success or otherwise of industries, and firms within it. But in line with the cultural focus of this book, this is only a means to an end of understanding how industry and business dynamics might affect cultural outcomes. I briefly indicate here the content of what follows, and expand on each in the sections that follow.

The music recording industry was the first major cultural industry to be affected by what was understood as 'digitalisation', suffering massive declines in revenue, profit and investment for many years, and floundering in their efforts to deal with the copying and sharing enabled by digital networks. As a result, the industry was treated by many commentators, influenced by digital optimism (see Chapter 10), as a paradigm case of the replacement of outmoded 'legacy media' by a digitally

democratised future in which musicians would have more direct access to audiences, supported by new means of support such as 'crowdfunding'. But this did not transpire. Instead, what happened eventually, after a period of uncertainty and chaos, was that a) the major record companies, even though they saw profits and revenues fall, retained their position as the organisations that signed, recorded and marketed the world's most popular, widely known music and artists, and b) firms from the IT industry came to play a significant role in circulating and mediating music to audiences, working with the major record companies. These IT intermediaries displaced the retail chains of record shops that briefly formed in the 1980s and 1990s, and joined broadcast media as the main institutions determining how audiences became aware of particular songs and artists. There was increasingly easy, ubiquitous access to a vast abundance of music for the wealthiest half of the planet, but few musicians were able to form sustainable careers from their music.

Another industry widely treated as doomed from early on in the penetration of the internet into everyday life was **newspapers**. Here too there were many utopian claims, as commentators foresaw a future of 'citizen journalism', and here too the real outcome was less rosy. Many titles went out of business, as advertising expenditure migrated to search and social media. Many journalists lost their jobs and the resources available for public interest reporting diminished. The most visible and widely read news sources are very often associated with 'legacy' brands that became well known in the era when newspapers made considerable profits. Yet there have been numerous encouraging initiatives, and a new generation of non-profit companies, funded by new sources such as charitable foundations. There is now considerable diversity in online news, but quality journalism in the public interest remains rare and hard to pursue.

Predictions about the death of **television** were always more tentative and long term than those concerning recorded music and newspapers, and in fact television has expanded its reach globally. More people spend more time watching television than ever before, and more money than ever is spent on television globally, both in terms of advertising and subscriptions (Ofcom, 2017). But as a result of the growth of digital networks, television now exists in a complex set of relations with 'online video' as well as with film. In this new environment, there has resulted in a slow drift away from 'linear television' to more varied practices for consuming audio-visual products, especially among younger audiences. The online video world is diverse and abundant, but poorly regulated. As with music, recent events suggest an increasing presence of large transnational IT corporations in this key industry.

Book publishing was yet another industry assumed by many commentators to be dying, or at least transmuting into a new industry based on an almost entirely digital product. Here the entry of IT giants (Amazon) came earlier than in any other industry. E-books have indeed grown, at least in some markets, genres and sectors, but printed books have proven surprisingly resilient. The most notable 'digital' trend has been a massive increase in self-publishing, but the few well-publicised cases of large-scale self-publishing success have served to *complement* existing industry processes, rather than substantially disrupting them.

By contrast, **digital games** was often touted as an industry that would thrive much more than the industries above, given that it was largely 'born digital'. While games have indeed expanded, their growth and size have often been overstated. Growth has mainly been in mobile and online forms, as further waves of digitalisation have continued to transform this youthful sector.

11.1 The music recording industry: the surprising resilience of the majors and the rise of streaming

Music takes up less disc space and bandwidth than other non-print media and can be experienced via computer without too much discomfort (unlike print); this is why the recording industry was the first cultural industry to face head-on the threat posed by digital networks. The first major challenge that digital networks presented to the music recording industry was to make copying and sharing music relatively easy, accurate and affordable. Various interrelated developments and innovations made this possible, notably the MP3 compression standard (Sterne, 2012), the spread of broadband connections, ripping and web-crawling software, and most devastatingly the development of ***file-sharing*** over ***peer-to-peer (P2P) networks*** (Bakker, 2005). These technologies seriously challenged the artificial scarcity that, as we saw in Chapter 2, many cultural industries rely upon. As a result, in the 2000s the major record companies that dominated the music business faced two major challenges. The first was how to preserve some scarcity by working with governments and police to reduce 'piracy', or the unlicensed copying and sharing of music. The second was how to find a profitable way of 'legally' distributing music in digital form rather than in the form of hard copies (vinyl records, audio cassettes, compact discs).

The considerable fall in revenues from sales of recorded music shown in Figure 11.1 make clear that the record companies failed to do either of these things successfully. They pursued litigation against the second-generation file-sharing companies operating such services and began lawsuits against downloaders of music. The Recording Industry Association of America (RIAA) prosecuted many thousands of individuals, and other trade associations followed suit across much of the world. This was ineffective, and 'illegal' file-sharing continued to grow; moreover, these actions consituted a PR disaster that made the recording industry companies look oppressive and made the file-sharing sites appear to be heroic defenders of the public interest.

As the crisis unfolded, many commentators, often drawing on digital optimism, hoped that a more democratic set of production relations would emerge from the mess. They foresaw a future whereby artists might be able to market and sell their products directly to audiences via the web without the need for multinational entertainment corporations, and where lowly professionals and even amateurs would be able to reach appreciative listeners. There was some vertical disintegration, as the major record companies sold off their manufacturing and distribution operations to third

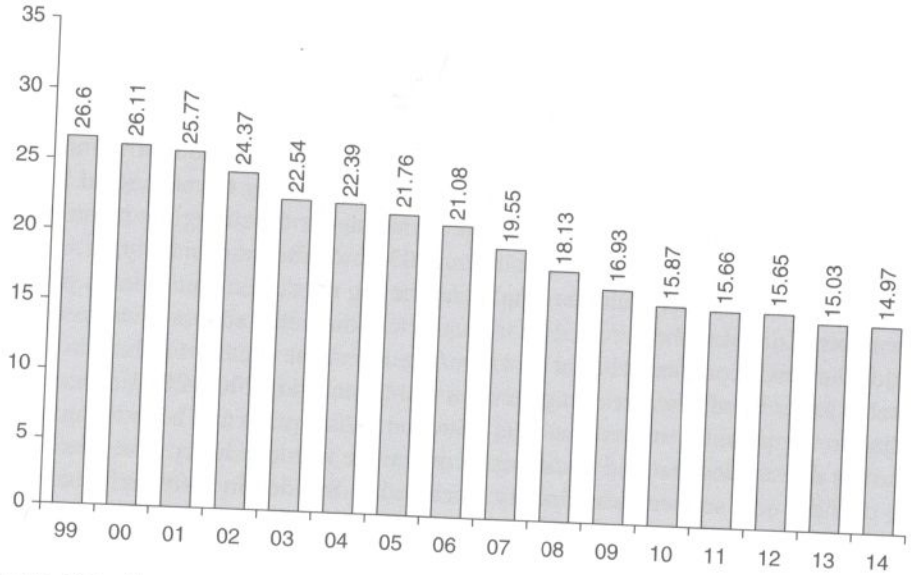

Figure 11.1 Annual global recorded music income, 1999–2014

Source: IFPI

parties, but this should not be read as a sign of a democratising 'disintermediation' – the removal of intermediaries between creators and consumers – for the major corporations still retained crucial control over the marketing and promotion that largely determined what music most consumers get to hear and know about. Indeed, such marketing became increasingly centralised in order to produce the blockbuster hits upon which the industry relies; television pop talent shows became central to the blockbuster economics of the industry, across much of the world.

What's more, the major companies dominating the industry were less vulnerable than the media coverage suggested. The music business never consisted entirely of the sale of commodities such as CDs to consumers by record companies. It always involved other ways of exploiting its copyrights, such as charging to allow recordings to be played, or songs to be performed, in public places, or on the radio and television channels that proliferated across the world in the twentieth century. These 'secondary' uses of music expanded internationally, as such copyright payments became increasingly 'normalised' owing to increasing government and police action, often in response to the lobbying efforts of cultural industry trade associations. As a result, music publishing (the ownership and control to rights in the composition of songs and other music as opposed to the actual recordings; see Box 1.1, footnote 10), often owned by the very same multinational corporations that controlled recording, remained highly profitable. Such companies engaged in intensive and often successful efforts by record companies and their trade associations to lobby governments in favour of extended copyright terms and stronger copyright enforcement, as we saw in Chapter 6. These measures diminished the public domain and favoured private, corporate interests, even if a substantial minority of consumers were able to bypass

such restrictions by using digital networks to share files. The multinational record companies also benefited from growth in emerging markets. These developments, often unnoticed, helped lay the basis for the recovery of the major corporations.

As financial analysts predicted the 'end of the music industry as we know it' (the title of a Forrester Research publication from 2008), salvation came from an unlikely source when Apple launched its App Store in 2008, following the successful launch of the iPhone in 2007. Apple had provided the means for the struggling record companies to sell their product via iTunes from 2003 onwards, but decidedly on Apple's own terms. It was widely felt that Apple had the big music companies in its grip, so it was surprising that they created an infrastructure that allowed new, vital means by which the music companies might find new 'legal' revenue streams for their products, notably a variety of new streaming services that launched in 2008–2010, as investors began to see potential in new markets based on subscription and advertising rather than the direct sales that had traditionally driven the music industry. The most durable of these new services was Spotify, launched in Sweden in 2008 and which had achieved over 70 million paying subscribers (and more than 70 million further regular users who use the 'free' advertising-supported service) by the end of 2017. Like many tech start-ups (including companies such as Amazon that later became fully fledged tech giants) Spotify made substantial losses for many years, but it has become a major force in music, surviving on the basis of investors betting on the idea that its 'first mover' advantages would eventually allow it to reap super-profits – or for it to be sold at a very high price to an acquiring corporation. In spite of such losses at Spotify, Apple's launch of its own streaming service (based on its acquisition of Beats Music), Apple Music, followed in 2015, providing important Big Tech legitimation for music streaming as a business strategy, eventually achieving rapid worldwide growth in subscriber numbers.[1] This led to considerable increases in record company revenues from around 2014 onwards.

Spotify and Apple now form an international duopoly in the world of paid music streaming services, and both are decidedly technology companies. Alphabet/Google's YouTube, paid for by advertising rather than subscription, remains a major force. The rise of streaming services or music 'platforms' has sealed the integration of music circulation/distribution into the IT industries, and confirmed the end of the era when consumer electronics corporations such as Sony, Philips and Thorn dominated the international music industries via their recorded music and music publishing subsidiaries (see Hesmondhalgh and Meier, 2018).

So how did the above changes affect music culture in the twenty-first century? Did musical experience benefit from them? It seems clear that, in terms of *consumption*, relatively privileged audiences with a moderate interest in music, and with access to

[1] Other streaming services, such as the French-based Deezer, and Tidal, the latter associated with rap superstar Jay-Z and other music figures, currently lag way behind, and seem destined to be acquired by larger corporations. Amazon offers Amazon Prime Music (with a relatively small catalogue) as part of its Amazon Prime subscription, which also provides film and television.

the internet and other digital technologies, gained some benefits from the digital revolution. In many countries, it became possible, at a relatively low cost, to gain access to vast repertoires via streaming services or platforms such as Spotify, Apple Music and Amazon. In addition, there was an explosion of helpful and enjoyable ancillary information about music and musicians: lyrics, background information and critical commentary, plus an abundance of information via social media about musicians' activities (tours, new recordings, media appearances, side projects). These features suggest a greater degree of choice and control for consumers. Yet there were significant negative aspects to such consumption as well, involving problems raised in the previous chapter's discussion of 'digital culture': the way in which consumer activities are increasingly tracked and monitored; concentrations of power that still determine the flow of information to consumers; and inequalities of access to this potentially rich diet of sounds and secondary texts. Because of continuing digital, social and cultural inequalities, it was privileged audiences who were able to make the most of this panoply of music and connected information.

In terms of *production*, there were many claims about the digital democratisation of music. At the peak of digital optimism (c. 2004–2008) it was tediously common to read or hear simplified claims that musicians could now achieve success 'via the web', without any assistance from 'the music industry'. Press and broadcast journalists gave considerable coverage to breakthroughs by acts who used web technologies such as webcams to publicise their work. Canadian pop superstar Justin Bieber is often said to have achieved fame via YouTube. The truth is more complicated (Herrera, 2010). His manager, Scooter Braun, discovered him while searching YouTube for another artist. At the time, Bieber 'had only "six or eight" videos on his account, with a few thousand views each'. The ambitious Braun had experience at a fairly high level in music industry marketing, and once Bieber and his mother moved to Atlanta to join Braun, Bieber was soon signed to a major record label, Island-DefJam (part of Universal, the world's biggest record company). Another example was the Sheffield indie rock band Arctic Monkeys, who became hugely successful in 2005–2006, selling hundreds of thousands of copies of their debut album in the week of its release in the UK. Their success was widely attributed to the internet, and in particular to MySpace, the social networking site that was widely predicted at the time to represent the future of Web 2.0.[2] But while the band had a website where their tracks could be downloaded, they pointed out in interviews that they had never even heard of MySpace at the time of the success of their first single. Their success owed much more to their repeated exposure on traditional media, notably radio.

[2] MySpace, acquired by Rupert Murdoch's News Corporation in 2005, failed to establish itself as the prime site for social media (at the time known as 'social networking') and rapidly lost ground to Facebook after 2007. One way of telling the story of its decline was that a nimble IT start-up was ruined by a cultural industry corporation. But the social media market at the time was one where, after a tipping point, network effects entailed that only one company would prevail. MySpace may have over-reached itself by trying to offer other services besides 'social networking'.

Box 11.1 presents three notable cases of musicians using digital communication to achieve or sustain success, each of which generated a huge amount of often misleading media coverage. These case studies suggest that while the individual action of uploading tracks or videos to streaming sites is relatively easy, the 'new DIY' world enabled by digital technologies is in many respects even more complex than the old industry. The case of the recorded music industry suggests that the 'digitalised' world of the cultural industries seems likely to produce more intermediaries rather than fewer, and achieving success requires just as much risk and hard work as in the 'old' system. Digital technologies offer new routes for self-promotion and marketing, but they must be used skilfully, and only a limited number of artist managers and musicians will have these skills. Early notable successes involved an effect whereby the publicity generated by the use of new distribution and marketing technologies was itself responsible for some of the success of the products. At the same time, the considerable changes in consumption already mentioned have undoubtedly changed the conditions under which musicians work. But it is not at all clear that these conditions are more democratic and progressive than those that formerly prevailed.

BOX 11.1 DIGITAL DEMOCRATISATION OR HYPE? THE CASES OF RADIOHEAD AND AMANDA PALMER

In 2007, a well-established and critically acclaimed English rock band, Radiohead, made their new album *In Rainbows* available via their own website for whatever people wanted to pay for it, in advance of its release on CD in early 2008. The move prompted immense worldwide media coverage, much of it taking the view crystallised by one journalist (Jason Deans, quoted in Gibson, 2008): that Radiohead (and their management company, Courtyard) 'managed to revolutionise the way music is sold and marketed almost overnight'. In truth, this was not a model that could really be operated by any musical act that had not already established itself via the 'old' music recording industry model. As Morrow (2009) points out, only because of their widespread international renown, developed over many years with a multinational entertainment corporation (EMI), could Radiohead's gesture generate so much publicity. What's more, Radiohead's refusal to sign with EMI was a product of an old-fashioned battle over control of their copyrights. Radiohead and Courtyard had let the band's contract with EMI lapse, and when they renegotiated, with the album already recorded at Radiohead/Courtyard's expense (itself a sign of the band's considerable independent financial power), 'their demand for control over their back catalogue was rebuffed' (Morrow, 2009: 163). It is relevant too that this was at a time when EMI had been taken over by a private equity company, Terra Firma, led by the flamboyant and controversial Guy Hands. Terra Firma and Hands had no experience of cultural industry management, and established artists started to rebel, at

a time when acts of rebellion against the established recording industry were more likely than ever to go down well with rock fans.[3]

The *In Rainbows* incident can be seen as an exploration of how far it was possible, at a time when 'legal' streaming services had not emerged, to draw fans away from online 'illegal' or 'illegitimate' file-sharing sites, notably BitTorrent, and towards a band's own site – with the benefit of collecting data, especially email addresses, which might be used in further publicity, especially regarding tours and merchandise. In fact, Page and Garland (2009) show that, even though the album was available potentially free from the band's own site, millions of people downloaded it from the 'illegitimate' site instead: 2.3 million people in the first month. Yet the incident also illustrated the resilience of an older way of listening to music. The album sold 1.75 million copies in just nine months after its release on the large independent record label, XL (NME, 2017) and, according to lead singer Thom Yorke, made more money for the band than any other previous Radiohead release. Radiohead's strategy was not the democratising revolution that some proclaimed it to be, but it was a fascinating and exhilarating act at a moment of chaos for the recorded music industry.

A second wave of internet hype came somewhat later as the concepts of crowdsourcing and crowdfunding became popular with creative workers, business gurus and journalists (see section 10.1). Devon Powers (2015) tells the story of how in 2011 a fairly prominent US alternative musician, Amanda Palmer, who already had a sizeable following from when she made up half of a duo known as Dresden Dolls, left her record label, a subsidiary of Warner Music Group, and turned to the burgeoning crowdfunding website Kickstarter to raise funds to record a second solo album. This New York start-up company 'allows visitors to its website to contribute small amounts of money towards independent arts-related projects, where creators only receive money if they reach a pre-determined funding goal' (Powers, 2015: 124). Palmer successfully (and sincerely) presented her departure from the label as a DIY quest for liberation from the shackles of corporate control, a long-running theme in the cultural industries (see Chapter 12). She managed to gain over a million dollars in funding for what became her 2012 album, *Theatre is Evil*, released on her own label and distributed via medium-sized independent distributors in various countries. Rather than treat the Palmer crowdfunding story as an instance of a new democratised industry,[4] Powers recounts how the crowdfunding exercise led to a

(Continued)

[3] Radiohead were not the only major act finding ways of challenging the industry by giving their music away. Prince, at loggerheads over many years with the record companies with which he 'partnered', gave away over 2 million copies of his CD Planet Earth free with the UK newspaper *Mail on Sunday* in the same month that Radiohead made *In Rainbows* available.

[4] As Palmer herself does in her own account, available as a TED talk called 'The art of asking' that had been viewed nearly 5 million times on YouTube alone by September 2017.

huge amount of work for Palmer and her associates, online and off, as they struggled to meet their promises of gifts in return for donations, and to ride the wave of publicity generated. In Powers' words, 'as cultural entrepreneurialism returns a great deal of intermediating back to the musicians, their responsibilities often grow so immense that few musicians are willing or able to do the work themselves' (p. 127). Like Justin Bieber, Palmer continued to use many of the aspects of the 'old' music business, including publicity firms, booking agents, lawyers, accountants, designers and manufacturers. Finally, Powers points out that the success of projects such as Palmer's depends on a huge investment of time, energy and money by her most committed fans – and this relates to debates about 'unpaid labour', to be addressed in Chapter 13 (see also Baym and Burnett, 2009, on 'fan labour').

11.2 Newspapers and news: legacy brands remain powerful, the public interest remains vulnerable

News is obviously one of the most important products of the cultural industries. Any coherent notion of a good society relies on the provision of up-to-date, accurate, relevant and reliable information, investigation, analysis and commentary. Newspapers have often fallen very far short of those ideals. In many countries they ceded a great deal of their journalistic importance to television news from the 1950s onwards. But they remained integral to the everyday cultural life of hundreds of millions of people throughout most of the twentieth and into the twenty-first century. Even after years of decline, from the 1950s in many countries, they remained central to the provision of news in general, and to journalism as a profession.[5] In those systems where newspapers have been primarily commercial rather than government concerns, they were primarily reliant on advertising for funding and profit; sales were a relatively small part of their revenues. National newspapers were able to offer geographical *reach* to advertisers; local newspapers could offer geographical *targeting*. Both could charge very high advertising rates in a market where there was relatively little competition for advertising.

As with the recorded music industry, the rise of the internet rapidly eroded the business model of newspapers. In just a few years, a huge amount of information, analysis and commentary of a kind previously provided by newspapers could be found online, and available free, at least at the point of delivery. Even though newspapers were relatively cheap, the lure of 'free' content lured readers away from newspapers in high-income industrialised countries in substantial numbers in the 2000s and newspaper advertising revenues in such countries plunged, partly in response to the

[5] Nielsen (2016: 53) reports that in 2012 newspapers still accounted for 'more than 60 per cent of all journalists employed by media companies'.

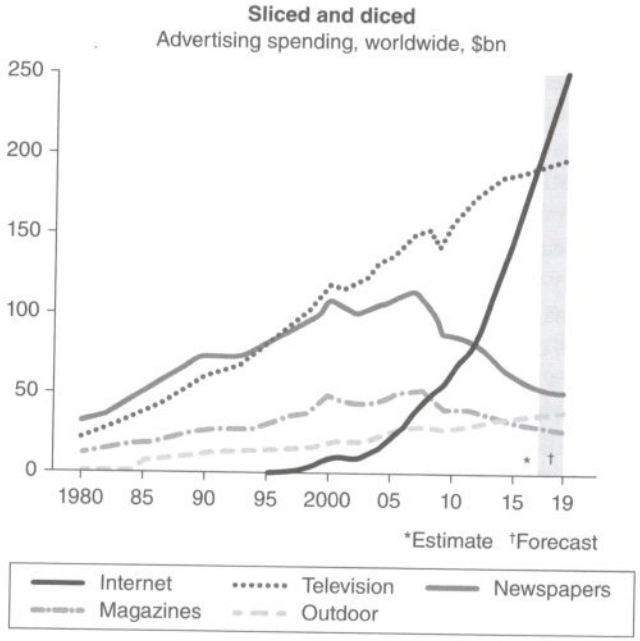

Figure 11.2 Global advertising spending, 1980–2019

Source: Zenith, *The Economist*, 30 March, 2017

declining figures for audience reach, and partly because digital advertising tends to be much cheaper. Figure 11.2 depicts the patterns in global advertising expenditure on different media. Note the particularly steep decline for newspapers (and magazines).

As profits began to fall, investors, fearing further decline withdrew funding from newspapers, and this meant that stock in newspapers diminished in value, furthering the funding crisis. Established owners sold off their interests, sometimes to new owners with much less sense of the social and democratic value of journalism. Newspapers were closed and budgets were cut, leading to much discussion of a crisis in journalism (e.g., on the USA, McChesney and Nichols, 2010) and speculations about the death of newspapers and even the news (Kamiya, 2009; *The Economist*, 2006).

The effects of new digital technologies on news, as with recorded music, were framed by digital optimists as democratisation. Rupert Murdoch declared in 2006 that 'power is moving away from the old elite in our industry – the editors, the chief executives and, let's face it, the proprietors' to audiences, empowering 'the reader, the student, the cancer patient, the victim of injustice' (Brook, 2006). Numerous academic commentators proclaimed that newspapers and other journalistic institutions should embrace change, for example shifting the role of the journalist from that of 'a gatekeeper who delivers to a facilitator who connects', thereby taking 'traditional journalism and liberat[ing] it through public participation', using the social media

and mobile devices that were increasingly part of everyday life (Beckett, 2008a; see also Beckett 2008b).

News organisations were already complying with such exhortations to embrace digitalisation, and were to do so even more assiduously as time passed. Journalists were retrained so that they were increasingly expected to perform multiple roles, including the generation of digital online content – with implications for journalistic professionalism and working conditions that will be discussed in Chapter 13. As social media spread, along with mobile phones capable of taking photographs and video, and grainy mobile footage and photos rolled into newsrooms via Twitter feeds and other means, it seemed that every major visible news event (natural disasters, terrorist attacks, clashes between demonstrators and police, plane crashes) was treated by academics and journalistic commentators on the media as an instantiation of the superiority of a new kind of 'citizen journalism' (see section 10.1), 'participatory journalism' or 'networked journalism'. As it turned out, according to various studies (e.g., Canter, 2013; Wall, 2015), professional journalists responded in a variety of different ways to the new possibilities of public participation enabled by mobile video and social media. Some embraced regular amateur contributors or 'citizen journalists' as reporters. Often aspirant journalists seeking to establish a foothold in the profession, they were nearly always cheaper than professional journalists – and sometimes they offered new, fresh perspectives. In some cases this has served valuably to extend the range of voices represented within the news media (see Chapter 15 for discussion). Other journalists and editors resisted the use of such 'user-generated content', and while this may in some instances be understood as an effort to maintain professional privilege, it may also often have genuinely been through fear of a dilution of professional values, for the contributions made by passers-by are often banal and add little to public understanding – though the same of course could be said of much professional journalism. Meanwhile, real collaboration between journalists and amateurs remained relatively rare.

The main newspaper organisations have undoubtedly had their power and influence dented, but now that the post-digital newspaper industry can be viewed more clearly, it transpires that, as with record companies, there has been considerable continuity, and a great deal of money still to be made. In spite of digital optimist rhetoric suggesting that the newspaper companies were analogue dinosaurs (here too echoing coverage of the recorded music industry), by the 2010s many of the most viewed and trusted websites internationally were owned and operated by 'legacy' media organisations, such as ABC, NBC CBS and the *New York Times* in the USA, or the BBC, *Daily Mail*, *Guardian* and *Telegraph* in the UK. There were rather few new 'digital native' news entrants challenging the established forces (see Curran, 2016: 23–4). On the other hand, this should not be seen as a sign of the wondrous adaptability of the 'legacy' companies. They drew upon deep financial reserves created out of the high profit margins they had once achieved, which had been enabled by the features discussed in Chapter 2 of this book, including the very low marginal costs of reproduction once initial

investment had been made in production facilities such as printing. Meanwhile, amidst the doom; it was hardly noticed by Western commentators that in some non-Western countries during this period, newspapers and periodicals thrived as never before, often printed on paper and transported by train and plane (see, e.g., Auletta, 2012, on India).

There has undoubtedly been significant change. Journalism scholar Rasmus Klaus Nielsen (2016: 57) gets to the crux: 'audiences and advertising has moved from sectors such as newspapers, that have historically invested in news production', first of all to television, which invested less than newspapers in news reporting, and then to digital, which invested even less than television. Nielsen (p. 52) also summarises the effects of digitalisation nicely: for all the potential that digital media offer the *practice* of journalism, they 'represent a series of serious challenges to journalism as a *profession* because they undermine the [...] business models that have sustained private sector news production in the twentieth century, and so far they offer few new examples of sustainable business models' (original italics).

Faced with the decline of advertising, many publications and organisations have shifted to subscription models, often known as 'paywall' models in the newspaper and magazine industry, but this is only viable for companies that have already created a significant brand name. A common strategy is to offer a certain amount of free content per month, after which payment is required. A great many news companies now seek other ways of making money besides news itself (such as organising events, conferences and courses) and this extension of activities may in some instances distract from the core news missions of information, investigation or analysis. Some newspapers, such as the UK's *Guardian*, seek donations from their readers in the form of 'memberships' to support their work, as a museum or an orchestra might. Importantly, many 'digital native' news organisations have been 'funded by venture capitalists, wealthy entrepreneurs offering seed funding, or venture arms of large media companies' (Usher, 2017). Well-known and well-funded examples of such sites have included Gawker (closed in 2016 due to legal action), BuzzFeed, Vox and Huffpost (formerly the *Huffington Post*).

Many digital news sites have expanded into content production from their origins as tech companies involved in, for example, the creation of content management systems or digital advertiser marketplaces. Their brands were often built on blogging, and content is often produced by writers who cut their teeth as bloggers. The collection and close monitoring of audience data are central to their operations. Their hybrid nature as both tech and media organisations no doubt helps to explain some of the considerable investment involved, as the patenting and sale of new technological systems is likely to be much more profitable than journalism. Such funding has helped to create, alongside the sensationalism and 'clickbait' of sites such as Gawker (inheritors of the tradition of tabloid journalism), a surge of 'explanatory journalism' at sites such as Vox. Some sites, notably BuzzFeed, combine both (see also Carlson and Usher, 2015; Hindman, 2017). Some of these born-digital companies are international in orientation. Such companies make marked use of social media

promotion and aggressive search engine optimisation. Some are entirely reliant on major platforms such as Facebook for distribution. Their financial basis is digital display advertising, which is likely to be vulnerable in an age of widespread use of ad-blockers (Nicholls et al., 2017). Few of these companies are showing a profit, and they face competition not only from the established news brands. Meanwhile, there is evidence that the use of ad-blockers is driving many news organisations towards the use of ***native advertising***, a form of advertising that closely resembles – and can often be said to be disguised as – editorial content (see Chapter 12); BuzzFeed is one prominent company that makes widespread use of this means of funding. This is not the future that the digital optimists envisaged.

However, certain aspects of the post-digital news ecology offer more reasons to be hopeful. Another group of new organisations are non-profit, often funded by charitable foundations, and serve to provide the kind of public service and often investigative reporting that many have feared that news organisations in the digital age will under-supply (Konieczna, 2018). Notable examples include ProPublica and the Center for Public Integrity. Very active funders include the MacArthur Foundation. There have even been examples of charitable foundations funding commercial news organisations to cover 'unprofitable' issues such as immigration and prisons (as in the case of the Ford Foundation's 2012 grant to the *Los Angeles Times*). As we shall see in Chapter 15, in discussing the effects of these changes and continuities on actual news product, there are reasons to think that there have been both losses and gains, though Chapter 13 will suggest that the effects on journalistic working conditions have generally been negative.

11.3 Television and online video: abundance, streaming and the increasing presence of IT companies

Even in the early 1990s, futurologists were declaring that the internet and web would mean the death of television (Gilder, 1994), and such prophecies continued into the 2000s.[6] Digital networks have by no means killed the television industry, but they are changing television in such a way that it may be in the process of *gradually* becoming something else.

Television had already been transformed across the world in the years between 1980 and 2010, largely as a result of the policy decisions discussed in Part Three. The introduction of various technologies under the marketising and information society led policies of the 1980s and 1990s, most notably cable, satellite and digital

[6] Amanda Lotz (2014: 2) lists a number of examples. She points out that when television survived, technology and culture journalists started predicting the end of cable television instead (e.g., Fisher, 2010: 'Cable TV is doomed').

television, helped to bring about a new era of 'multichannel' television. In the early 2000s, governments across the world made a concentrated push towards 'digital switchover' converting analogue systems into digital ones, complete in many countries by 2015, and laying the basis for convergence between 'terrestrial', cable and satellite systems.[7] There was a huge growth in some countries in 'pay-TV' subscriptions. Not only were there ever greater numbers of channels, people spent more money on television subscriptions than ever before. The bundling of television services with broadband and telephone packages, via cable or fiber optic, was the crucial means by which multichannel pay television spread in many places.[8]

As all this was happening, a parallel world and parallel industry of 'online video' was developing, not replacing television but supplementing it. The key development was of course YouTube, which contains a great deal of material produced by the 'legacy' cultural industries, such as television and pop videos commissioned by major record companies, but also an abundance of other material.[9] For a while, YouTube was central to debates about the future transformation of television, and digital optimism framed much of the discussion (see Box 11.2). However, discussions of the remarkable rise of YouTube sometimes obscured other developments based around rather more familiar modes of television. Major television networks began to introduce sites and apps that allowed consumers to stream their content, such as BBC's i-Player in 2007, and the US subscription channel Hulu, introduced in 2008 and owned and operated by major US 'legacy' television networks.

But then, from 2010 onwards, enabled by the global spread of high-speed broadband and the spread of tablets and other devices, new subscription video streaming services began to develop, owned and operated by companies from the IT sector rather than the 'legacy' cultural industries. Netflix (originally a subscription-based online DVD delivery site) and Amazon began video streaming services for films in 2007 and gradually began to make more television content available. By 2010, the growth of video-enabled tablets and smart TVs, plus considerable investment backing, helped Netflix take off as a subscription service in the USA (Lotz, 2018: 134). Both Netflix and Amazon began to expand their online video services internationally, and both began to produce (or rather commission) their own content from 2012. Huge amounts of commentary have been devoted to Netflix's rising subscription

[7] See Galperin (2004) for an excellent account of the introduction of digital television, emphasising the important role of consumer electronics industries, seeking to make 'high definition' television sets and systems the basis of a new round of consumer spending.

[8] It is often forgotten now that cable, satellite and digital television were all surrounded by claims about greater degrees of interactivity and freedom. This preceded and happened quite separately from what the digital optimists were claiming about computers and digital networks. See Curran (2011: 99–110)

[9] In China, the video hosting service Youku also transitioned from user-generated content to commissioning content from its 'partners'. It has now been overtaken by iQiyi, launched in 2010 and owned since 2013 by Baidu, China's largest search engine.

numbers and cultural presence, partly based on their sudden rise in the USA, but Amazon are just as significant internationally, and they are only part of a wide range of services delivering video via the internet.

BOX 11.2 YOUTUBE: A NEW COMMERCIAL SCREEN ECOSYSTEM

YouTube, introduced as a 'start-up' for amateur content in 2005 and purchased by Google in 2006, enabled a new type of screen viewing and an unprecedented mixture of content. Its remarkable rise in the 2000s was greeted as a prime example of what at the time was known as 'Web 2.0' participatory culture, a new site for interactivity. While some of the writing about YouTube was naïve, even more sophisticated analysts echoed YouTube's own rhetoric by strongly emphasising its reliance on 'community' elements. For example, legal scholar and intellectual property activist Lawrence Lessig (2008: 194–6) saw it as an example of a new hybrid economy, based on a community where people interact on terms 'which are commerce free, though the motivations for interacting may or may not tie into commerce' (p. 186). In fact, interactivity on YouTube has been rather limited. As is the case with other sites based on so-called user-generated content, the vast majority of users do not produce or upload video (Van Dijck, 2009).

YouTube was also widely understood in early commentary as an invigorating disrupter of legacy media. It was certainly true that YouTube's hosting of a great deal of content made for and by the cultural industries placed it at loggerheads with the corporations dominating television production. In the late 2000s, and into the 2010s, this fundamental reliance on video produced by the cultural industries resulted in battles between Google/YouTube and copyright holders, most notably Viacom – just one instance of the tensions between the IT and cultural industries that have been a major feature of the twenty-first century cultural environment. The lawsuits famously led to videos of toddlers dancing to copyrighted recordings being removed from YouTube until the courts had done their business. The resulting settlement, in the form of an undisclosed agreement between YouTube and Viacom reached in 2014, have not dispelled tensions; for example, music industry bodies have complained bitterly about a 'value gap', claiming that YouTube pay far less in royalties to rights holders than subscription streaming services such as Spotify and Apple, which is highly significant, given that 'more music is played on YouTube than Spotify, Apple Music and every other audio streaming service combined' (*Music Business International*, 30 April, 2018). Nevertheless, YouTube continues to provide a massive promotional forum for the products of the cultural industries. By August 2017, the top 10 most-watched items on YouTube were all music clips produced by multinational corporations.

Targeting user-generated video content as a basis for establishing itself as the dominant player for internet video content was part of YouTube's ambitious and

well-funded business model from the early days of its development in 2005, as Vonderau (2015: 364–5) shows. But YouTube has become a massive international and diverse 'commercial ecosystem' (Lobato, 2016: 2) in ways that no one could have predicted. As it sought to professionalise and formalise (Burgess, 2013) the unruly proliferation of videos on its site, Google sought to work with external companies, which it designated *multichannel networks*, 'a new breed of intermediary firm that link entrepreneurial YouTubers with the advertising, marketing and screen production industries' (Lobato, 2016: 4), providing (initially) non-professional creators with technical and promotional services in return for an often-hefty commission. These networks were made possible when YouTube introduced revenue sharing of video advertising, and automated content identification, which allowed third-party management of advertising accounts. The generation of revenue was in turn reliant on the earlier successful introduction of 'programmatic advertising' software: systems that match advertising to content automatically. Many of the most prominent firms have now been taken over by cultural industry firms; the most widely reported was Disney's takeover of Maker Studios in 2014. Most are based in Southern California, and they are rapidly becoming part of the Los Angeles entertainment world.

However, what happened should not be understood simplistically as a process by which YouTube's exciting disruptive visions were captured or co-opted by the cultural industries. No one could have predicted the take-off of these networks, or the emergence of distinctive genres of 'social media entertainment' (Cunningham and Craig, 2016) that have thrived on YouTube internationally, especially among young people: vlogging, gameplay and style tutorials. The content of such sites is heavily branded and commercialised and they can be easily dismissed. But they also involve ethnically and sexually diverse talent and often draw similarly diverse audiences.

A bewildering variety of terms has been used for these services, and for their effects on television and other audio-visual industries such as film and radio. They are sometimes called *OTT ('over the top') services*, because they do not require a set-top box of the kind that allows cable, satellite or digital television viewing. They are also widely known as VOD or video on demand. Some services are paid for mainly by advertising or on the basis of individual transactions (i.e., paying to watch a particular film), but the most important development has been the growth in subscription-based television beyond the bundled packages that consumers have paid for in cable and satellite for some years. Lotz (2016) and others use the term *internet-distributed television* to refer to these new forms of television delivery existing alongside digital and cable television. In analysing the transformations wrought by internet-distributed television, some commentators emphasise a shift away from watching television in a 'linear' sequence determined by television schedulers. This began with the spread of recording devices such as video cassette and DVD recorders from the 1980s, and intensified with digital recording

devices such as TiVO in the early 2000s. But now increasing numbers of viewers access video content 'anytime, anywhere' on a number of devices, including home-based television sets, personal computers, tablets and mobile phones. The use of such devices to access video content is extremely varied internationally, however. The USA has 84 subscriptions to OTT video on-demand services per 100 television households, and no other country comes close to this figure: Sweden has 40, whereas Italy and China have 8, and India and Russia have 1 (Ofcom, 2017).

Non-linear television is one term that has been used for this emergent new environment, even though at the time of writing, the degree to which people eschew scheduled, linear television varies enormously between different countries, and television viewing is still predominantly 'live' (Ofcom, 2017). This may begin to change as younger viewers change their habits. *The Economist* (9 February 2017) reported Nielsen data compiled by Redef, a media newsletter, suggesting that viewing of broadcast and cable TV by all age groups fell by 11 per cent between 2010 and 2016, and by 40 per cent among 12–24 year olds. An emergent trend towards 'cord cutting' in the USA (abandoning cable in order to watch TV via the internet) led to non-OTT pay-TV slipping from 90 per cent penetration in 2010 to just over 80 per cent in 2016. But that is still a massive cultural and industrial presence, and amidst varying statistics it is too early to be sure whether 'linear' television will disappear, as some are predicting.

What is clear, as with developments in recorded music and news, is that there has been a proliferation of the ways in which video content (including, but not confined, to television and films) can be experienced.[10] Superficially at least, this involves a greater degree of audience control over the television experience. In an intelligent overview of changes in how media industries (primarily television and radio) understand audiences, Philip Napoli claimed that there had been two major evolutions in the early twenty-first century: **audience fragmentation** and **audience autonomy**. In using the latter term, Napoli was referring to his view that a range of features of the new media environment (interactivity, mobility, 'on-demand functionality' and 'increased capacity for user-generated content') all 'enhance the extent to which audiences have control over the process of media consumption' (Napoli, 2011: 8).

The degree to which such facets constitute *meaningful* control and autonomy for consumers is another matter, however. Very few people contribute content that is seen by more than a handful of people. Mobility and 'on-demand functionality' are certainly convenient and even pleasurable. But the term 'autonomy' has significant connotations beyond consumer choice and control, referring to ideas about freedom and agency that are fundamental to contemporary democracies. Beyond questions

[10] I focus here on television, but many of the issues here apply to ways of experiencing film beyond the cinema. This has led some analysts to merge discussion of film and television industries into entities called 'screen entertainment', addressing 'screen distribution' and even 'screen industries'.

of convenience and pleasure, there are more fundamental issues. Is the new television environment serving the cultural and social needs of the societies in which they operate, by providing the information and entertainment that people need to make sense of their lives, communities and democracies? Some commentators have pointed to how increasing fragmentation and personalisation (see section 10.2) accelerated by certain key aspects of digital networks – including the use of 'big data' by advertisers – may threaten 'the ecology of connections that link citizens and groups via information, argumentation, empathy, and celebration as members of a shared social and civic space' (Couldry and Turow, 2014: 1710). There is also the related but somewhat different question of what *quality* of television we are getting in the new ecosystem of 'connected viewing' (Holt and Sanson, 2014). In North America and Europe, many viewers, especially affluent and highly educated ones, feel that there has been a remarkable amount of high-quality production in recent years, particularly in the fields of drama and comedy, and some cultural commentators have hailed the post-2000 period as a new 'golden age' for television. Certainly, unprecedented amounts are being invested in production. But has this genuinely enhanced the diversity of quality content available for broad sectors of the population? As well as YouTube, web television 'platforms' have sought to provide distinctive content for communities that are often under-served by mainstream television, including communities of colour and LGBTQ people. Aymar Jean Christian (2018) has written powerfully about some such ventures in the US context, including a web television platform or channel he himself helped to develop in Chicago: Open TV. Some are funded by donations and charitable foundations, similar to some of the news initiatives discussed in section 11.2. Meanwhile, in China, web television for a while offered alternatives to the dominant state-sanctioned channels, until new regulations controlling content in 2016 were introduced.

Perhaps the most striking feature of the emerging effects of digital networks on television and video in the long-term industrial context has been the increasing presence of IT corporations, such as Netflix, Amazon, Apple and Baidu, alongside the 'legacy' television companies. Reasons why citizens might be concerned about the increasing presence of the big IT corporations in contemporary cultural production and consumption were summarised in section 10.2. By contrast with the recorded music industry, where there have been few signs of companies such as Spotify and Apple investing in musical production, tech companies such as Amazon, Netflix and more recently Apple have begun to make significant investments in content production. Some commentators worry that public service mandates that have served television well in some countries are threatened by the vast resources that the tech companies, and the telecommunications and cable companies increasingly running cultural industry firms, are able to mobilise (Lowe et al., 2018). This in turn may have implications for cultural identity in many countries, especially smaller ones (McElroy et al., 2018). Studies by the European Audiovisual Observatory suggest that approximately half the television titles in Netflix catalogues in the 28 countries of the European Union were

American, and about a third European, mainly British, French and German, with content from many other countries largely absent; US film dominance was even more pronounced (Lobato, 2017a: 7).

11.4 Books: print survives, self-publishing thrives

Book publishing was yet another industry widely predicted to be imminently endangered. Yet again, we see unpredictable evolution, the increasing presence of IT giants (notably Amazon) and an increasing but problematic abundance.

The 1970s saw the rise of an oligopoly of multinational publishing conglomerates, which swallowed up many smaller publishers. Book retailing consolidated in the 1980s and 1990s, with the rise of giant retail chains such as Borders and Barnes & Noble, and increasing sales in supermarkets (Rønning and Slaata, 2011). Independent bookshops went into decline. This was obviously an important development, but the real digital revolution in the book industry during this phase, in John B. Thompson's (2005, 2010) view, was in the production process: operating systems, content management, sales and marketing, and content delivery all radically digitalised in the early years of the century. This change had a basis in longer-term modifications in the production process, some of which were akin to those taking place in musical recording (see section 11.1).

The rise of Amazon as an online retail giant from 1999 onwards, beginning with books, saw Amazon rapidly gain market share at the expense of the chains in leading North American and European markets, and, as with music retailers, many book retail chains went out of business in the 2000s.[11] In spite of Amazon's desire to make e-books the new basis of the book industry, the final object purchased and experienced by book consumers has remained mainly non-digital. The printed book has proven surprisingly durable.

This wasn't how things were supposed to happen. In the late 1990s and early 2000s, a number of consultants had predicted that e-books would very soon achieve significant market share. Yet sales of e-books remained tiny, defying the projections of the analysts. But then in 2006 and 2007, respectively, Sony launched its e-book reader and Amazon launched its Kindle. These used non-reflective screens and digital 'ink' that better approximated actual print. The wi-fi-enabled version of Kindle had dropped substantially in price by 2010, and this led to a surge in the purchasing and free downloading of e-books, as new owners hurriedly (over-) accumulated content for their devices. Many commentators asserted or assumed that events in the music recording industry would provide a model for what was going to happen in other digitalising cultural industries, and many inside and

[11] As discussed elsewhere in this book, Amazon used its increasing domination of book retailing to diversify into a wide range of products, thereby becoming the 'Walmart of the web' (*The Economist*, 1 October 2011), i.e., equivalent to the vast US hyper-market chain.

outside the publishing industry predicted a rapid rise for the e-book. According to this view, the decline of sales of CDs presaged declines for books. Yet the death of the printed book did not ensue. Thompson (2010) summarised some of the reasons why some sceptics in the book publishing industry felt, even with the onset of Kindles, that music was 'a poor analogy for the book' (p. 319) in understanding developments. Many consumers wanted to listen to songs rather than albums, and were happy to skip tracks – this was much less true of books, which were still mostly read sequentially. While some hi-fi enthusiasts felt that laptops and mobile phones provided inferior musical experiences, many music listeners were comfortable with hearing music through such devices; by contrast, reading a book on screen remains a substantially worse experience for most readers than reading a printed book, even with improved e-ink technology. Carrying lots of music on a mobile device such as an i-pod is clearly an advantage, but most people don't need to carry around lots of books and publications – 'one book will do' (p. 319).

Thompson (2010: 331–3) also put forward a number of reasons for the very slow and erratic progress of the e-book revolution. Reading devices had tended to be clunky, and even with the new Kindle era of improved e-book readers, polls continued to show that a vast majority of readers preferred the printed book.[12] There was a bewildering array of formats, and as a result, consumers feared obsolescence and a lack of usability across different devices. There was great uncertainty on the part of publishers about rights ownership. E-books still cost a great deal to produce, but consumers reacted negatively to being charged a price only just below that of the physical object, the book – which remained cherished by hundreds of millions of people. Thompson (2010: 318) wisely remarked that although digitalisation was in the process of transforming the book industry, it was too soon yet to be certain about what form these transformations would take.

In the years since Thompson's account, e-books have certainly increased their presence. E-books went from global sales of practically nothing in 2008 to around US$3.5 billion by 2013 ('The future of the book', *The Economist*, 10 October 2014). In China's strictly controlled but booming book publishing market, both physical and digital sales increased markedly. But while sales of printed books accounted for nearly all the US$13 billion global sales in 2008, they had only declined to just under US$12 billion by 2013 – nothing like the widely predicted fall. From about 2014, rather unexpectedly, there were signs – though somewhat disputed – that e-book sales had stalled and physical book sales had recovered. There was widespread discussion of this phenomenon from 2015 to 2017, with some sources even referring to books' 'peak digital' having been passed (Jenkins, 2016).

While future trends are unclear, and this book is not a work of futurology, two clear developments can be noted. One is that Amazon continues to exert extraordinary power and influence over the book market, even as it focuses on a huge range

[12] See, for example, *The Guardian*, 21 July 2010: 'Better read than dead.'

of other activities beyond the book sector, where it began its rise to dominance. Since 2010, it has spread beyond the USA, the UK, Germany and Japan, and has rapidly increased its market share in the rest of the world, from 8 per cent in 2010 to 24 per cent in 2016 (Global e-book report, 2017). Books are a cultural industry where Amazon's influence is likely to be profound. It is able to offer huge discounts for printed books on the basis of its ability to buy in vast bulk; and it has a strong interest, as a tech firm and seller of e-book readers, in promoting further growth in the e-book market. Amazon also, however, operates as a 'platform' for many small publishers who operate with very low budgets and low levels of professionalism – including extremely poor design and proofing standards.[13]

A second major trend is a huge increase in self-publishing that digital networks have partly brought about– a development that often evades official statistics. A number of new intermediaries offer authors basic self-publishing facilities, including Smashwords, Author Solutions, Lulu, and most importantly of all, Amazon itself (Waldfogel and Reimers, 2015). Such 're-intermediation' means that potential authors can evade the traditional author–publisher relationship, still mediated by 'literary agents' in many genres. There is much media coverage of books that have initially been self-published or published by tiny, poorly funded virtual publishers. A key instance was the 'erotic' novel *Fifty Shades of Grey*, first published in 2011 and a massive international hit in 2012–2013. However, much of its success, and its continuing prominence in popular culture, depended on its being picked up and marketed by a multinational corporation, Penguin Random House.

Books demonstrate the resilience of certain features of the cultural industries even in the face of massive technological change, and they show how difficult it is to predict the effects of digital networks.

11.5 Digital games

Digital games are interesting, among other reasons, because they represent a new cultural industry that emerged from digitalisation, rather than an existing 'legacy' industry that was reshaped by it. They have also involved unusually high levels of hardware/software 'synergy' or integration (see Chapter 8) in that the companies that have dominated the production of the expensive games machines or consoles have also been key players in the production of the games played on them. Here too, though, digital networks have begun to shift the nature of the market for digital games.

For many years, games were condemned or worried over as simple, violent fare for the young. It was apparent by the 1990s, however, that the video games industry (as it was then usually known) was going to last. As it developed in the 1990s and 2000s, the industry came to be based on a number of sectors: producers of

[13] Sorry, I couldn't resist the joke!

games machines or consoles; games developers; the companies that published, marketed and distributed those games (controlling their circulation); and retailers. The console games industry, unlike all other cultural industries, was initially dominated by three Japanese corporations – Nintendo, Sony and Sega – based on hardware/software synergies. The hardware companies, in turn, were reliant on games development for their profits as the hardware (consoles) was sold at relatively small profit margins, whereas games had a very high mark-up (Caves, 2000: 215). When Sega's Dreamcast console failed to match sales of Sony's PlayStation 2 in 1999–2000, Sega withdrew from console production, though it continued to produce games. Microsoft entered the market in 2001, with their Xbox. They soon established themselves as a new third power in console production and games commissioning, alongside Nintendo and Sony. There was also at this stage still a lively sector producing games for PCs.

In its 'software' (that is, games) development and publishing sectors, the digital games industry conformed to patterns established in the cultural industries more generally. In its organisational form, the industry has followed the ***publishing logic*** (or 'editorial model') of commodity production identified by Miège (1987) as characteristic of the production of books, records and films. In this model of cultural production,

- texts are sold on an individual basis to be owned;
- a publisher/producer organises production;
- many small- or medium-sized companies cluster around oligopolistic firms;
- creative personnel are remunerated in the form of copyright payments.

Miège contrasted this 'publishing logic' with a number of other 'logics' of production – mainly, the ***flow logic*** associated with broadcasting, where, instead of individual commodities for sale, the emphasis is on the provision of an uninterrupted flow of entertainment (an idea Miège borrowed from Flichy, 1980) and the production of written information – that is, principally the press, including magazine publishing. The 'software' part of the computer games industry, according to this understanding, has followed a logic not unlike that of books, music and films. However, the arrival of online and massive multiplayer games introduced flow logics into the games industry alongside the sectors conforming more to publishing logics.

From 2001, Sony, Nintendo and Microsoft formed the oligopoly controlling the console and hand-held device sectors at the core of the industry, but with significant interests in publishing (i.e., distribution or circulation of games); US-based Electronic Arts was a fourth powerful 'publisher', but with no stake in hardware. The companies tended to balance in-house and commissioned games, and often bought third-party game developers, bringing them in-house. Although the competition for market share between the various formats has been fierce, the corporations and their software associates have competed for expanding revenue as games

devotees continued to buy games in their twenties and thirties, and the next generation of boys and girls joined the audience. This also led to formidable creativity and innovation. Even in the 1990s, *Screen Digest* (October 1999) attributed the success of the game industry to 'a far greater depth of quality product than the filmed entertainment market'. A number of writers noted the increasing sophistication and quality of games and a considerable variety of genres (see Poole, 2000: 35–58): games involving shoot-em-ups, racing, fighting, strategy, sport, role play and puzzles. Henry Jenkins (2000) noted the possibility that a new generation of games would legitimate digital games as a new popular art form, just as the films of the late 1910s and 1920s legitimated the then infant cinema. The industry has continued to produce many high-quality games, alongside the inevitable dross, now accompanied by burgeoning and often intelligent online critical commentary, including via blogs and on YouTube, plus various awards.

Some misinterpreted the growth of the games industry as meaning that games were replacing music, film, books or television (or any other industry as it experienced any sort of period of crisis, especially if youth audiences were diminishing). It was certainly the case that the digital games industry achieved high rates of growth in the early twenty-first century (see Kerr, 2006: 50) whereas, as we saw above, revenues from recorded music stagnated or declined. However, Aphra Kerr (2006: 51–2) showed that claims about how games were outstripping other industries were often based on dubious data. For example, the sales of hardware (consoles, hand-held devices) were usually included alongside games software. This was like including the figures for sales of DVD players and recorders in the figures for film, or iPods in the figures for music. These figures were then compared to the box office figures for industries such as film or sales figures for music, thus ignoring 'secondary' film markets such as DVD sales and rental, or the exploitation of rights in the music industry. When sales of *games* (as opposed to devices such as consoles) were compared with revenues from cinema box offices *and* DVD sales and rentals, it was apparent that the games industry had not yet reached the size of television or even film, and the same remains true today, even after many further years of growth. Nevertheless, this is a huge industry and still fast-growing – without doubt the most important new cultural industry (as I define it in this book) to emerge since 1980.

By the time of the launch of 'seventh generation' consoles in 2006–2007 (Nintendo's Wii, Microsoft's Xbox 360, and Sony's PlayStation 3), the video games industry had achieved a significant degree of business maturity. Randy Nichols (2014) provided an account of the state of the global games industry around 2010. By this stage, debates about the effects on young people of playing games had receded, as video games became integrated into everyday life in industrialised countries, and content and age rating systems served to combat establishment anxieties. Audiences had become older; the average player age in the USA had risen from 29 in 2004 to 35 in 2010. Women and girls were players and purchasers to an increasing extent – estimates cited by Nichols vary between 20 per cent and 40 per cent

depending on territory, player age and games genre. The oligopoly of Microsoft, Nintendo and Sony, supplemented by large international publishers Electronic Arts and Activision Blizzard, dominated software publishing. Development and marketing budgets soared, as the industry increasingly relied on hits that were launched with huge fanfare, such as *Call of Duty: Modern Warfare 3*, which was published across all three major consoles in November 2011.[14]

From around 2010 onwards, the games industry began to mutate. It was created out of digital technologies, but was then reshaped by the further development of digital networks. Aphra Kerr (2017: 39–40) identifies the following segments of the current global games industry and I draw upon her discussion here, updating it a little:[15]

Console and hand-held devices and games (increasingly downloadable and/or upgradeable) games, played on expensive and sophisticated consoles (Sony's PlayStation, Microsoft's Xbox, Nintendo's Wii) and often involving large budgets for game development, produced by developers who have to maintain close relationships with the three main hardware corporations (that jostle for domination, based on 'generational' upgrades of their consoles). The hardware side of the industry is organised around 'generational' reboots of consoles, with each generation for five years or more. The 'eighth generation' was launched in 2013 (Wii U, Xbox One, PlayStation 4). It seems the generational system is now breaking down because of much greater 'backward compatibility' (being able to play games from previous generations on the new machines); and the successful launch of Nintendo's new Switch in 2017 disrupted the established rhythm. As a result of significant growth in the third and fourth segments below, the console/hand-held segment – and the Japanese – US console oligopoly at the core of it – now dominate the games industry much less than they did in the first decade of the twenty-first century.

PC games, not based on proprietary hardware in the way that console games are, with lower budgets, and very large numbers of developers less tied to the hardware oligopoly of Sony, Microsoft and Nintendo, consisting of smaller development teams, including 'indie' game developers.

Online clients: massive multiplayer online (MMO) games and multiplayer online battle arena (MOBA) games, based on subscriptions or (increasingly) 'free to play' or 'freemium' models, funded by 'microtransactions' that take place in the game space; such microtransactions have become a feature of the other segments too, and are increasingly unpopular with gamers.

Online, social and mobile applications, many of them played on smartphones and social media and involving what the industry often calls 'casual' users – as

[14] See Nieborg, 2015, on the political economy of seventh-generation console games.

[15] There are various other ways of dividing up the industry (see Kerr, 2017: 34–6). Kerr has five segments; I've collapsed online and mobile applications, which she keeps separate, into one.

opposed to committed gamers. This has been where most of the growth in games revenue has occurred in recent years, and where the impact of digital networks on the games industry has been most apparent. In some markets, these now account for most revenue. The increasing popularity of games played on smartphones and other digital devices brought about new entrants such as the Finnish company Rovio (responsible for Angry Birds) and the Californian company Zynga. More significantly, 'application stores like Apple, Google and platforms like Facebook are emerging as key gatekeepers who are able to license, control and moderate game content in ways not dissimilar to the major hardware players in the console market' (Kerr, 2017: 42). Asian companies, such as the Chinese giant Tencent, are increasingly prominent here – and in other sub-sectors too.

In games, then, as with some of the other cultural industries discussed above, notably music and television, the increasing presence of tech giants such as Google, Facebook, Amazon and Tencent is apparent; and of course Microsoft has been a dominant presence for some time in the console segment (and before that in PC games).

As long as leisure time and expenditure on it expand, new cultural industries and forms such as digital games can be accommodated without necessarily destroying or even substantially eroding previously existing industries. And 'synergies' can be found as well – games based on films, films based on games, music publicised via games, games publicised via music, synergies with sport and television, and so on. The digital games industry, then, has been a significant new entrant in the cultural industries sector, partially brought about by the affordances of digital technologies. And digital games are an interesting and significant cultural form. They represent yet further evidence of the increasing influence of IT companies, but otherwise do not represent a major shift in the prevailing structures and organisational forms of the cultural industries generally.

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This and the previous chapter have shown that the claims of digital optimists and neophiliacs about the impact of digital networks on cultural production and consumption need to be treated with great caution. They are founded on a particular discourse about the emancipatory effects of connected computers, which the IT and consumer electronics industries have a great deal of interest in promoting. Digital networks have of course brought various benefits and I have tried to register some of these – in part by moving beyond some of the excessively pessimistic accounts offered in response to the digital optimists. What's more, many of the predictions about the degree of transformation or 'disruption' in particular industries have turned out to be unfounded. The internet and the web, combined with mobile communication and digital forms of broadcasting, have, to a limited extent, altered existing social relations of production and consumption. They have produced huge amounts of small-scale cultural activity. They have enabled new

ways for people to communicate with each other, and to find information easily and quickly. They have provided mechanisms to enhance political activism. The internet is full of material that is arcane, bizarre, witty and profane, as well as inept, mundane and banal. These many minor forms of subversion, insubordination and scepticism don't cancel out the enormous concentrations of power in the cultural industries, but they might be thought of as representing a *disturbance*. However, this disturbance of existing relations of cultural production and consumption has happened mainly within a very specific section of the world's population. The radical potential of the internet has been largely, but by no means entirely, contained by its partial incorporation into a large, profit-orientated set of cultural industries. Commercialisation has been rampant, and surveillance is a major concern.

Claims that digital networks have resulted in entirely new arrangements for cultural production, heard with remarkable regularity over recent years, need to be rejected. Recurring features of cultural production under capitalist modernity continue to be present in the cultural industries, even as they interact with telecommunications, IT and consumer electronics in new ways. The resilience of 'the blockbuster syndrome' and reliance on expensively produced and marketed hits is just one example of that. Inequality, concentrations of power, and the negative effects of unregulated commercialism still remain in the cultural industries of the twenty-first century, even if privileged individuals (such as myself) often feel empowered by their access to new and exciting creative possibilities.

Recommended and further reading

Various books sought to understand **the music industries** as they descended into chaos and crisis in the first decade of the twenty-first century. Musicologist Joanna Demers' *Steal This Music* (2006) is a good study of how intellectual property was affecting musical creativity at the time. Patrick Burkart was ahead of his time in providing critical analysis of the manoeuvres of tech companies in relation to music: see *Digital Music Wars* (2006, with Tom McCourt) and *Music and Cyberliberties* (2010); Aram Sinnreich's *The Piracy Crusade* (2013) skilfully pursues similar themes in critiquing the actions of the music companies. Greg Kot's *Ripped: How the Wired Generation Transformed Music* (2009) is a readable journalistic history of what happened to the recorded music industry, heavily focused on rock and rap. Patrik Wikström's *The Music Industry: Music in the Cloud* (2009, 2nd edition 2012), like many accounts of the time, strongly emphasises copyright. I tried to place the 2000s crisis in the long-term context in Hesmondhalgh (2009b). The second decade of the twenty-first century saw a wave of studies as the emerging music industries began to take shape. They include Jim Rogers' political economy account, *The Death and Life of the Music Industry in the Digital Age* (2012), Tim Anderson's *Popular Music in a Digital Music Economy* (2014), Andrew Leyshon's *Reformatted* (2014), and so far best of all in my view, Jeremy Wade Morris' *Selling Digital Music, Formatting*

Culture (2015). There are also many fine articles on change in the music industries by, among others, Devon Powers and Lee Marshall.

On **newspapers, news and journalism**: Robert W. McChesney and Victor Pickard's collection, *Will the Last Reporter Please Turn Out the Lights* (2011), provides a valuable range of perspectives, from journalists, academics and other commentators, on the crisis in US journalism and what might be done about it. Another good collection, *New Media, Old News*, edited by Natalie Fenton (2011), addresses the early effects of digitalisation on news and democracy. Since then, the digitalisation of news has produced a new wave of journalism studies. Some valuable examples are collected in Pablo J. Boczkowski and C.W. Anderson's *Remaking the News: Essays on the Future of Journalism Scholarship in the Digital Age* (2017). I also found Nikki Usher's book on *Interactive Journalism* (2014) illuminating. A highly readable book on the history of news media, including its present and past state, is *The News Media: What Everyone Needs to Know* (2017), co-written by another star of the new journalism studies (C.W. Anderson), a renowned journalist (Leonard Downie) and the doyen of academic writing on news (Michael Schudson). An excellent textbook overview is Lance Bennett's *News: The Politics of Illusion*, currently in its tenth edition (2016). Reports by the Pew Research Center on the state of the US news media and by Oxford University's Reuters Institute for the Study of Journalism provide regular updates on changes in news production and consumption. The best writing I have found on changes in news as a business is a fine essay by the Reuters Institute's Rasmus Nielsen (2016) in *The SAGE Handbook on Digital Journalism*, a comprehensive collection edited by Tamara Witschge, C.W. Anderson, David Domingo and Alfred Hermida.

The television industry has been much written about by academics. The leading analyst of the vast US industry is Amanda Lotz. Her *The Television Will Be Revolutionized* (2nd edition, 2014) also has one of my favourite academic book titles. (No UK academic publisher would have allowed a Gil Scott Heron allusion.) Also helpful are her short book, *Portals: A Treatise on Internet-Distributed Television* (2016) and *We Now Disrupt this Broadcast* (2018). Good collections on television in an era of digital networks have included the following, though only some of the essays in them concern the television *industries*: Graeme Turner and Jinna Tay's *Television Studies After TV* (2009); James Bennett and Nikki Strange's *Television as Digital Media* (2011); Jennifer Holt and Kevin Sanson's *Connected Viewing* (2014). *Distribution Revolution* (2014), edited by Michael Curtin, Jennifer Holt and Kevin Sanson, consists of interviews with film and TV professionals about the changes taking place at the time. Hernán Galperin's *New Television, Old Politics* (2004) is a definitive study of the transition to digital television in the UK and USA. Stuart Cunningham and Jon Silver's *Screen Distribution and the New King Kongs of the Online World* (2013) was, like all Stuart Cunningham's research on television, well-informed and worth reading, if (from my perspective) marred by excessive digital neophilia; Cunningham and David Craig's forthcoming *Social Media Entertainment* (2019) is an important study. A good collection, edited by

Gregory Lowe, Hilde van den Bulck and Karen Donders, examines the challenges facing *Public Service Media in the Networked Society* (2018), and this includes a 17-country comparison by Corinne Schweizer and Manuel Puppis. A special issue of the journal *Critical Studies in Television* (2018), edited by Simone Knox and Elke Weissmann, contains numerous articles on how European 'cultures of production' are responding to the challenge of digitalisation. Jean Burgess and Joshua Green's short book *YouTube* (2009) is a good survey of this important phenomenon; a new edition is due after this book is published. *The YouTube Reader* (2009), edited by Pelle Snickars and Patrick Vonderau, provides a rich variety of perspectives. The work of Ramon Lobato is breaking new ground in understanding the international operations of the tech companies as they enter the cultural industries; see his *Netflix Nations* (2018). I have no space here to consider how films fit into the new world of 'screen entertainment' or 'online video', but Chuck Tryon's *On-Demand Culture: Digital Delivery and the Future of Movies* (2013) provides very good treatment of this terrain.

On the **book publishing industry** in the digital era: Albert Greco's *The Economics of the Publishing and Information Industries* (2014) and his older book with Clara E. Rodriguez and Robert M. Wharton on *The Culture and Commerce of Publishing in the 21st Century* (2007) are rich in information, as is the work of Angus Philips, such as *Inside Book Publishing* (5th edition, 2014) and his history, *Turning the Page* (2014). John B. Thompson's *Merchants of Culture: The Publishing Business in the Twenty-First Century* (2010) is one of the best books on an individual cultural industry to be published in recent years. His preceding book, *Books in the Digital Age* (2005), which focused on academic publishing, was also very good, though inevitably now out of date. A classic that is still well worth reading is Coser, Kadushin and Powell's *Books* (1982). A recent and highly readable historical study of book publishing, including recent developments, is Michael Bhaskar's *The Content Machine* (2016).

On **games**, I have found the work of Aphra Kerr extremely helpful. Her *The Business and Culture of Digital Games* (2006) has a useful chapter on the games industry, and her more recent book, *Global Games* (2016) is even better. Randy Nichols' *The Video Game Business* (2014) takes a political economy perspective, as do writings by David Nieborg (2015). Steven Poole's *Trigger Happy* (2000) provides an entertaining and informative journalistic treatment of digital games at the turn of the century. Steven Kline, Nick Dyer-Witheford and Greig De Peuter's *Digital Play* (2003) is a sophisticated and readable Marxist study of the games industry.