

These changes reflect broader shifts in the relationships between identity, place and community and raise important issues about privacy, but also how we narrate and attach meaning to place. This chapter also considers the changing role camera phones play in our understandings and visualisations of place, especially as they become entangled in locative media practices.

We end with a brief conclusion that summarises the main themes of the book. While we have written the chapters in this book to flow from one chapter to the next, the book can also be read randomly one chapter at a time. When concepts come up in each chapter that have been covered elsewhere, we refer the reader back to the relevant chapter. The major themes we cover in the book – empowerment and control, online and offline, non-Anglophonic contexts and intimacy – are woven into and across the chapters. You are encouraged to cherry-pick the pieces in the book that interest you if that method of reading suits you best.

2 What is Web 2.0?

Markets are conversations (Levine et al. 2000)

Focus on the user and all else will follow (Google).

Once the internet changed the world; now the world is changing the internet. Its mainstreaming is well and truly over, and the forgettable Web 2.0 saga has run its course. Now that society has overruled their freewheeling ethic, the notion of the internet as an exceptional, unregulated sphere evaporates. The moment of decision bears upon us: which side are you on? (Lovink 2012: 1)

As Lovink's quote above suggests, the internet is coming of age. With more than a decade of use in many parts of the world, the internet is embedded in the everyday. But along with its uneven development across the globe come issues concerning power and locality. There are many internets across the world, accessed and used in a variety of ways. In this chapter we engage with one of the major themes that underlie the emergence of social media: the tension between control and freedom and between exploitation and empowerment. We look at how business interests have attempted to commercialise the internet and how, over the course of a decade, they have shifted their strategies in order to align with how people are actually using the internet. This transition to user-focused business models is represented in the term 'Web 2.0'.

To begin this chapter, we indulge in a brief discussion of the web, highlighting the key technical features and its relationship with the development of the internet. When we think of the internet we must acknowledge that it encompasses multiple definitions and experiences. Rather than 'one' internet, there are multiple, intersecting imaginings and understandings of the internet that are informed by the user's background and experiences. The internet is not a parallel universe (as was suggested by early writings on cyberspace) but rather has always been a part of everyday life. Today, with the popularity of 'always on' mobile media allowing users to perpetually surf across social and locative media apps, the internet has become an embedded part of mundane social life.

For Lovink, the rise of Web 2.0 heralded a new definition of the term 'social' that no longer evokes the possibility for democratic empowerment and change as it did in the nineteenth or twentieth centuries. Instead, the 'social' has been tamed (2012: 6). As Lovink notes, '[p]latforms come and go, but the trend is clear: the networks without cause are time eaters, and we're only being sucked deeper into the social cave without knowing what to look for' (2012: 6). Representing internet culture as being 'caught between self-referentiality and institutional arrangements' (2012: 2), Lovink observes that:

It is no longer sufficient to complain about network society's dysfunctions in terms of usability, access, privacy, or copyright infringements. Instead, we need to investigate the slippery nexus between the internet's reinforcement of existing power structures, and parallel – and increasingly interpenetrating – worlds where control is diffused. (2012: 2)

In order to understand the current tensions around the relationship between internet cultures and the social, this chapter investigates the often-confusing notion of Web 2.0 so that some clarity can be brought into our understanding of social media. Unpacking social media necessitates us tracing how internet cultures have shaped, and been shaped by, the social. In this book we try to expand upon the often Anglophonic or Eurocentric assumptions residing behind notions of the social, cultural and technological (Goggin and McLelland 2009). We are also trying to avoid repeating the historical narratives that describe the development of the internet and the web because our goal here is to provide a broad context. Internet and web history has been done well elsewhere, and we strongly encourage you to read one of the recommended texts on internet history if you have not already done so.

Once we establish a shared understanding of the web, we will then go on to examine how business, through the problematic term 'Web 2.0', has come to understand the internet as a place where people, and organisations, engage with each other in a 'conversation'. This realisation, which is a central philosophy of Web 2.0, represents an important shift away from mass media conceptualisations of audiences and a re-imagining of the internet user. The last part of this chapter examines Web 2.0 and social media more critically, engaging with the contradictions between freedom, control and empowerment that, as Wendy Chun (2006) has so eloquently explained, coexist in the reality of contemporary networked media.

BACKGROUND: WHAT IS THE WEB?

While the internet was developed from the late 1960s, it was not until the early 1990s that the web evolved into what we understand as the 'online'

today. Prior to the advancement of the web, the internet was made up of a series of computers, connected to each other through numerous diverse methods but sharing a common basic data transfer protocol called TCP/IP. Each of the computers connected to each other via the internet were able to share data with each other, and as the internet developed, the ability to locate (or 'discover') resources became an increasingly large problem. The web provided an interface that allowed people to discover and access internet resources quickly and easily.

The TCP/IP protocol describes how data on one computer can be transferred to another computer across a vast network made up of anything from physical copper wires to wireless satellite connections. TCP/IP does not decipher the data, it just deals with lumps of zeros and ones – called packets – and makes sure each packet is delivered to the correct computer in the right order without any loss of data. On top of this protocol sit 'application protocols', which are concerned with making sense of data. Email is one such application protocol. The email protocols describe how an email can be turned into small chunks of information, sent over the TCP/IP protocol to another computer and then reassembled as an email at the other end. The web constitutes just one of these application protocols – a protocol called HTTP, or hypertext transfer protocol – but because the web is the main way in which we interact with the internet on a daily basis, people often conflate the terms 'internet' and 'web'. In day-to-day circumstances that is probably fine, but when we think about these things critically it is important to be precise.

For most people, the primary experience with the internet is through the web browser – of which there are many different brands such as Firefox, Internet Explorer, Safari and Google Chrome. While each of these browsers has slightly different features, they all use the same HTTP application protocol for sharing information across the internet, and they are all designed to assemble text, images, video and interactive components together into one coherent interface. It is this interface – which we call the web page – that constitutes our experience of the web. Because the browser is so good at assembling different kinds of media and presenting them in a single unified interface, the web browser becomes most people's entire interface with the internet.

The other important piece of software on the internet that makes the web possible is the web server. The server is a computer program that is constantly running on a computer that is always connected to the internet. The software waits until someone contacts it, and then responds to this contact by sending data – mostly text and images, but often also things like video or perhaps interactive content like games. When you type in a website address

(called a URL or Uniform/Universal Resource Locator) you are typing in the name of a computer on the internet (called a 'host') and also specifying what resource you want to retrieve from that host. Clicking on a hyperlink does the same thing – the URL is contained in the hyperlink. The server is a vital piece of software, and although it can be installed and run on any computer that is connected to the internet, most organisations purchase dedicated computers which are optimised to run server software. A busy website may in fact require several servers to share the load, although through various techniques these often appear as only one site as far as the person accessing the website is concerned.

It is essential to understand that communication between a browser and web server is always two-way – the browser sends information about what it wants to access, and the server responds with the information, or an error message if it doesn't have the requested information. This is different from a technology like radio or television where the receiver never sends information, only receives it. This two-way communication is fundamental to the way the web works, and, as we will see below, this has a number of important implications for the way that people can, and do, use the web. In particular, this two-way process means practices such as participation and collaboration become increasingly possible and relevant to the fabric of the internet.

We could go into a discussion of the people and events that surrounded the development of the web in the early 1990s, but there are other references that do a great job of this (such as Bell and Kennedy's *The Cybercultures Reader*). An important factor here is the idea of hypertext – that is, the methods of making text interactive – which was invented by Ted Nelson in 1963. By the 1970s and 1980s, hypertext was playing a pivotal role in computer applications and design of the web.

For Tim Berners-Lee – the inventor of the World Wide Web – hypertext was crucial in the designing of the web as part of a networked environment. Berners-Lee's contribution was to use hypertext to link texts that could be located on any computer on the internet. This meant that texts could be connected to other texts, forming a complex series of relationships that Berners-Lee visualised as a web-like structure, hence the name 'web'. Not only did this make accessing resources much easier, it also made discovering resources much easier. Before long people were setting up web servers that presented lists of links to other web pages which contained information they found useful.

The other important thing that the web provided was a single piece of software for handling different kinds of media. Apart from text and hypertext,

the web can also allow computers on the internet to share images, audio, video and other forms of media. When these are mixed together, the result is a multimedia interface – a single view that can incorporate elements of many different media. Almost every web page you access contains a variety of media elements.

The web quickly became the quintessential 'killer app' – a phrase that denotes a software application that is so successful that it sells the platform that it runs on. Early killer apps sold computer platforms, and the web, if seen in a similar light, has sold the internet, at least in a metaphorical sense. The growth in internet use is closely correlated to the development of the web and, although we should always be careful not to confuse correlation with causation, it seems quite clear here that the web's ability to bring together multiple digital media sources through a single easy-to-use interface was a significant innovation in the development of the internet.

COMMERCIALISING THE WEB

In this section we explore the ways in which businesses have tried to commercialise the web, and how an initial understanding of the web as a kind of television station with many channels has given way to a more nuanced definition. An important part of this shift has been the realisation that media was no longer delivered in a sealed package to audiences but that audiences played a participatory role in its creation (Jenkins 2006). The commercialisation of the web is marked by this change in attitude, which is described in business literature as the emergence of Web 2.0. For critics such as Lovink (2012), this commercialisation not only profits from the labour and creativity of internet users, but also simplifies the complex history and definition of the 'social' into little more than a prefix for Web 2.0 practice (i.e. 'social media').

We will come back to analyse the term 'Web 2.0' a little later in this section. For now, we use Web 2.0 as a placeholder within a discussion about the commercialisation of the web. Because Web 2.0 is a term that is fundamentally derived from the logic of capitalism, marketing and commercialisation, it seems reasonable that we should mobilise it in this critical examination. Thus, in this section, we will arbitrarily break the discussion of the commercialisation of the web into two segments, separated by the emergence of the term Web 2.0. In deference to this term, we will start with the period preceding it, a time that logically (from a software development perspective, anyhow), is defined by the term 'Web 1.0'.

WEB 1.0

Web 1.0 is a phantom term, constructed after the event. People did not speak of Web 1.0 until after the concept of Web 2.0 had been defined. In this respect Web 1.0 is an arbitrary historicisation, not much different from the way historians used to break history into the time before the birth of Jesus Christ (BC), and after (AD). Just as nobody walked around Europe 2,500 years ago talking about how nice it was to be living in 500BC, nobody talked about Web 1.0 until the term Web 2.0 emerged. The tag '2.0' evokes the idea of software versioning and its associated marketing,¹ and so suggests that Web 1.0 was less evolved, less sophisticated and less refined.

In the introduction to this chapter we suggested that the web was a significant factor in the rapid development of the internet. In a field that is quite liberally scattered with hyperbole and invective, the one fact that is probably fair to say is that the growth of the internet has been nothing short of remarkable. With so many people going online so quickly, it was only a matter of time before companies started to realise the potential of this medium. Where there are people, there are markets, and the internet, which is by design a two-way digital medium, had the potential to offer up something that mass media broadcast technologies could not: a source of highly detailed information about audiences.

Inevitably, initial attempts by large companies to control this digital environment were based upon their experience with traditional media. Television used content to aggregate audiences with similar interests: a science-fiction show attracted a certain demographic, soap operas another, and so on. Consequently, an apparently reasonable strategy in the online space was to accumulate attention, in a similar way, and then to sell products and services to a captive audience. Attracting attention in the online environment proved to be relatively easy, but turning that attention into money was problematic.

Commercialisation of the web has not been the straightforward process that many early internet entrepreneurs felt it might be. Roger Clarke (1999) has suggested that one of the key problems for those looking to make money from the internet in the early days was a simple unwillingness of internet users to pay for online services. Straightforward subscription models were only marginally successful and many initial attempts to set up internet pay sites were undermined by other sites that gave away information in a rush to build large user-bases.

Web 1.0 emerged out of a desire to make money from internet users, or to 'monetise' them (to use the rather ugly word that is widespread in marketing and business circles). It also built on pre-internet dreams which involved computer services of some kind that would be delivered to the home: at this

time, the idea of the domestic computer service has been an ongoing theme in the media, information technology and telecommunications sectors for almost four decades (Haddon 1999). Attempts by businesses to establish information networks in people's homes before the internet emerged as a viable domestic networking technology – such as Videotex – were largely unsuccessful and generally very expensive mistakes for the companies that backed them.

Nevertheless, undeterred by past experience, and spurred on by the phenomenal growth rate of the internet subscription base, entrepreneurs courted the internet as a commercial domestic network as soon as user numbers began growing in the mid-1990s. Despite initial enthusiasm, the commercialisation of internet users (as distinct from commercialisation of internet access, which was very successful for major ISPs and telecommunications companies) proved to be highly elusive.

Wired magazine claims that it was the first organisation to launch banner ads on its website Hotwired in October 1994 (Clarke 1999). Other companies followed this trend, and there soon began a rapid appearance of advertising banners on search engines and other websites. This was a substantial imposition on the slow, low-bandwidth connections of the time. Although this kind of advertising has since proven one of the more effective ways for websites to make money, these initial attempts were less than successful. As Clarke pointed out:

The investments made in electronic marketing proved to be anything but 'patient money', however. Little over 12 months after Hotwired's launch, another *Wired* author wrote of 'The Great Web Wipeout', with such heralded new businesses as The Spot, *The New York Times* site, and Hotwired already licking their wounds. (Clarke 1999)

This initial failure was blamed on technological and economic factors. The argument was that the web was simply not (yet) capable of maintaining internet commerce, the network was not technically sophisticated enough and slowed things down too much, and as soon as sites and services became popular they crumpled under the weight of user attention. There was a certain amount of truth to this, although there was an underlying lack of interest in actually attempting to understand how people were using the internet, and how this affected business models that were still treating internet users like TV audiences.

As an extension of success enjoyed by some of the non-internet online services that had emerged in the 1980s (CompuServe and AOL, for example), some internet entrepreneurs attempted to create internet services that

provided the same kind of isolated walled-off space, but on the internet rather than on a proprietary online system. Microsoft even attempted to establish the Microsoft Network (MSN) as its own proprietary network quite apart from (and perhaps imagined to compete with) the internet. The idea was to get users to sign up for an online service that integrated directly into Microsoft's desktop environment – Microsoft's plan here was to use their market dominance in operating systems to establish a new online service. Generally speaking, such 'gated' areas of the internet also failed to appeal to users, and were not successful in generating revenue. Why voluntarily stay behind a walled-off zone that you have to pay subscription fees to live within when there's a free garden of earthly delights just a modem's dial away?

The failure of MSN was a particularly significant experience for Microsoft who, until this time, had gone from strength to strength with almost every new product or idea achieving immense commercial success. Within months of launching MSN, Microsoft relegated the service to a content-aggregation node of the internet, making a hasty about-face. A previously unknown software company – Netscape – became a multi-million dollar business virtually overnight by giving its web browser software to users and selling web server software to companies.² One of the young engineers who helped establish the company found himself on the cover of *Time* magazine, declared one of a new breed of 'instantaires' (Collins, 1996).

While academics had been developing more sophisticated understandings of internet users through the 1990s – as we will discuss in the next section – John Hagel's 1997 *Net Gain* attempted to explain how online communities could be considered an important commercial resource. According to Hagel, the aggregation of internet communities around certain areas of interest provided an opportunity for so-called 'info-mediaries' to deliver audiences to advertisers and marketers. This concept was engaged with literally by some businesses, who then constructed web portals – sites that aim to aggregate users around centralised content – in an attempt to concentrate user attention.

Because of their importance for internet resource discovery, search engines formed some of the earliest portals. America Online (AOL), and certain other companies who provided dial-in access, sought to aggregate users by channelling them into their sites as the user connected to the internet. But, aggregation of users was only part of the problem. The more difficult goal was to make money from those users in some way, either directly (through, for example, subscription fees) or indirectly (for example, advertising).

Many of these so-called portal sites were to become emblematic of the folly of initial attempts to commercialise the internet. The problem with portals

was a lack of a firm underlying business model stemming from an almost dogged refusal of marketers to understand that the web was not simply a push medium – that people were going online and doing things, making things, and talking to one another. While many sites tried to aggregate users around expensively produced content, other non-commercial sites like forums and online games exploded in popularity. Indeed, the influx of new users into what were once the sanctum of the internet elites was bemoaned by some, who dubbed the new internet experience 'the Eternal September'.³

Nonetheless, the potential for users to make money for online businesses created a gold-rush mentality in the late 1990s. Billions of dollars were invested in dotcom start-up businesses that claimed to have found a way to make money online, or which in many cases made no such claims but were able to boast large numbers of (non-fee-paying) users who were somehow going to turn into cash in some kind of mysterious process of transmutation. Armed only with rapidly diminishing investor capital, and devoid of proven business models, these businesses led the charge into economic oblivion.

Investment in dreams of commercialising the internet saw a rash of public companies appear on the stock market. The so-called dotcoms were typically run by young entrepreneurs who had the technical skills to develop internet sites and the contacts and audacity to acquire the venture capital that would establish themselves as a viable company. Tales of fabulous overnight wealth creation abound from the dotcom era. One online grocery retail company called WebVan, established in 1999, came to be valued at US\$1.2 billion at the height of the market (German n.d.). Others were simply fantasies. Infospace, for example, debuted on the stock market with a share price of \$20 a share. By early 2000 this had sky-rocketed to over \$1,305 a share. This high valuation was despite a lack of any proven business model, and perhaps more strangely, upon an almost complete dearth of profits. Time, it was felt, was all that was needed to prove business models, see profits, and for dotcoms to take their place as the commercial giants of the new economy.

However, by 1999 some analysts were warning of an impending dotcom bust. Over-valued companies with little or no profits were operating on money from hopeful investors. When the money began to run out, companies disappeared, leaving large holes in the stock market. When the bust finally came in early 2000, many dotcoms vanished as fast as they had appeared. On 10 March 2000, Wall Street suffered the biggest single-day crash in its history. The crash wiped billions of dollars of value from the stock market, and the NASDAQ technology stocks index lost 78 per cent of its value (Alden, 2005).

WEB 2.0

Web 2.0 is not a technology, it is an attitude. (O'Reilly 2005)

'Web 2.0' is a weird phrase. It began as the name of a conference, but the people organising the conference didn't really know what they meant by it. Mostly they thought it sounded catchy. However, 'Web 2.0' has since taken on a meaning. There are some interesting new trends on the Web, and it's the nature of a phrase like that to adhere to them. (Graham 2006)

Nobody really knows what it means ... If Web 2.0 for you is blogs and wikis, then that is people to people. But that was what the Web was supposed to be all along. (Berners-Lee 2006)

The dotcom bust scared many investors, although a number of companies came through the bust bloodied, but alive. In the final quarter of 2001, Amazon.com turned in its first profit in some five years of operation (BBC Editorial 2002) proving that although many companies had been a bad bet, others were based on something more than speculative hype. Following the dotcom crash, numerous other companies, operating on a more cautious approach to internet commerce, also managed to survive, and some began to thrive. Perhaps the biggest factor behind the success of post-dotcom companies has been the realisation that online users are not like TV audiences. This awareness, or at least the way it has been rationalised, can be summed up by the phrase 'Web 2.0'.

According to believers in Web 2.0, Web 2.0 doesn't refer to any changes in the internet's architecture. Rather, it refers to the types of software employed and changes at the level of user practices. While Web 2.0 is often associated with internet entrepreneur Tim O'Reilly, it has more recently been recognised that the term was first used by Darcy DiNucci in 1999 to describe a new type of 'fragmentation' that would occur with the rise of mobile web devices:

The Web has already become an almost iconic cultural reference – ubiquitous and familiar. We think we know what it is by now. The Web we know now, which loads into a window on our computer screens in essentially static screenfuls, is an embryo of the Web as we will know it in not so many years ... The first glimmerings of Web 2.0 are now beginning to appear, and we can start to see just how that embryo might develop ... The Web will be understood, not as screenfuls of text and graphics but as a transport mechanism, the ether through which interactivity happens. It will still appear on your computer screen, transformed by the video and other dynamic media made possible by the speedy connection technologies now coming down the pike. It will also appear, in different guises, on your TV set (interactive content woven seamlessly into programming and commercials), your car dashboard (maps, yellow pages,

and other traveler info), your cell phone (news, stock quotes, flight info), hand-held game machines (linking players with competitors over the Net), maybe even your microwave oven (automatically finding cooking times for the latest products). (DiNucci, 1999)

In DiNucci's somewhat science fictional future gazing, she is linking Web 2.0 to the rise of ubiquitous computing. The spectres of Mark Weiser's (1991) prescient words about the importance of context-awareness and embeddedness within the constitution of ubiquitous technologies can be felt in her vision. Weiser imagined a time in the future where computer technology would vanish into the background as we moved beyond big, clunky machines and into a world where ever-present (ubiquitous) but essentially invisible computers became as commonplace as the written word. In his vision, Weiser imagined a time when computer technologies were always available and able to provide extra information about every conceivable aspect of life – not too far different from the experience afforded by today's mobile technologies. DiNucci's focus is, however, from a designer's point of view rather than, as the term later gets recruited, from a business perspective.

Web 2.0 and business

While personalisation and content creation are fundamental concepts that have been associated with Web 2.0, the term has also been widely employed as a model for business in the post-dotcom era. For such figureheads as Tim O'Reilly, Web 2.0 has provided new ways to conceive of the internet in terms of economic value (Allen 2009: 17). In this respect, the term Web 2.0 gained currency through the O'Reilly Media Web 2.0 conference in 2004, wherein he and John Battelle defined Web 2.0 as a platform in which customers play an active role in building one's business. In doing this, they were building on ideas that had been gaining currency since the dotcom crash. O'Reilly's language and position epitomises the shift of focus away from conceiving the internet as a technological space and, instead, towards it being embedded within the social (and, in O'Reilly's case, with particular focus upon the commercial).

In recalling why O'Reilly and his associates used the term Web 2.0, O'Reilly harkens back to the dotcom crash and notes it as a 'turning point for the web' (2005). He and his colleagues felt that the crash had weeded out the bad business models, and through some kind of Darwinian process the fittest had survived, and new businesses were starting up. 'Could it be', asked O'Reilly in a 2005 post to his website, 'that the dotcom collapse marked

some kind of turning point for the web, such that a call to action such as “Web 2.0” might make sense?’

O’Reilly’s concept of Web 2.0 indicates that business in this new internet age is tightly related to active, engaged internet users noting that ‘(n)etwork effects from user contributions are the key to market dominance in the Web 2.0 era’ (O’Reilly 2005; original emphasis). Hints of this shift towards recognising the importance of internet users – cast as customers – had begun appearing as early as 1997. As previously mentioned, Hagel’s *Net Gain* first extolled the virtues of engaging with users, and was followed in 1999 by a website (later published as a book in 2000) called *The Cluetrain Manifesto*, which consists of 95 short essays or ‘theses’ that argue that the real power of the web is in connecting businesses with their clients. One of the key ideas from this book is that:

... markets are conversations. Their members communicate in language that is natural, open, honest, direct, funny and often shocking. Whether explaining or complaining, joking or serious, the human voice is unmistakably genuine. It can’t be faked. (Levine et al. 2000: xi)

Signposting the already emergent movement of user created content (UCC), the authors essentially argued that such activities could be ‘harnessed’ to create value for businesses, a point reiterated six years later by O’Reilly. Here we can begin to see the emergence of a complex relationship between the creative and communicative practices of internet users and corporations who were interested in ways of harnessing online activities for profit.

Web 2.0 and creative production

Web 2.0 encapsulates the idea of making it easy for anyone to publish information on the internet: this is clearly linked to the new ways Web 2.0 was to work as a business. This idea encapsulates the transition from Web 1.0, which was all about reading or watching content, to Web 2.0, which is much more concerned with providing users with the means for producing and distributing content.

However, as Tim Berners-Lee’s quote at the beginning of this section aptly signals, the rhetoric behind the so-called Web 2.0 revolution can be seen as an extension of the original designer’s intentions. Reflecting this, early versions of web browsers like Netscape Navigator included web page editors that allowed people to make web pages, although the processes involved in getting these online were not for the faint hearted. In a fascinating devolution of technology, such features were first separated into different versions of the applications and then discontinued altogether.

Under the ‘read’ model of Web 1.0, if you wanted to provide information online you would need to create your own website. This generally required a lot of technical knowledge, and may have required you to run your own web server, which was a fairly daunting technical task. The Web 2.0 model sees the computer take over the task of managing technical details of formatting and presentation, allowing the user to focus on the production of content. Blogs, for example, provide a way for users to publish information online with few more technical skills than are required to use a web browser and type at a keyboard. Thus, Web 2.0 makes creating content vastly less complicated, and this, in turn, leads to much more content being put online as the technical barriers to creation are removed. Once content could readily be created by just about any user, the technological prerequisites were met for the emergence of social network sites (SNSs; see Chapter 3 for details).

For Ethan Zuckerman, in his ETech paper entitled the *Cute Cat Theory of Digital Activism*, ‘Web 1.0 was invented to allow physicists to share research papers and Web 2.0 was created to allow people to share pictures of cute cats’ (2008). While this somewhat facetious comment could be read in light of the shift towards experiencing and conceptualising the internet as a social space, it also highlights that, behind the oft-banal activities of users, new forms of affective sharing and communities are emerging. As Zuckerman observes, while Web 2.0 ‘was designed for mundane uses, it can be extremely powerful in the hands of digital activists, especially those in environments where free speech is limited’ (2008). But for others such as Lovink, this ‘cute cat’ phenomenon is part of a simplification of the ‘social’ in which all journalism becomes a series of secondary references and divisions (2012: 4).

However, we could say that the personalisation of technology had been occurring long before Web 2.0, mobile media and the ‘cute cat’ phenomenon. Indeed, countries such as Japan have excelled globally in their ability to spearhead the ‘personal technologies’ revolution from the Sony Walkman onwards. Mizuko Ito (2005), for example, argues that it is the notion of the ‘personal’ – along with pedestrian and portable – that have characterised Japanese technologies for decades (Fujimoto 2005; Okada 2005). Part of the success has been their deployment of high-level customisation, particularly apparent in what anthropologist Brian McVeigh has called ‘techno-cute’; that is, the usage of the cute to make ‘warm’ and ‘friendly’ the coldness of new technologies (2000).

Given that the kinds of behaviours attributed to Web 2.0 seem to have their roots in older and well-established cultural uses of computer and media technologies, one could argue that some formulations of Web 2.0

are somewhat hindered in their understanding of the genealogies of ICTs (information and communication technologies) and especially the internet, particularly from non-Western or Anglophonic points of view (Goggin and McLelland 2009). This sentiment is shared by World Wide Web (WWW) pioneers such as Berners-Lee who define Web 2.0 as little more than a 'piece of jargon' (2006) – and he is far from alone. O'Reilly himself acknowledges that the practices that he associates with Web 2.0 are not always novel:

But as with many areas of Web 2.0, where the '2.0-ness' is not something new, but rather a fuller realization of the true potential of the web platform, this phrase gives us a key insight into how to design applications and services for the new platform. (O'Reilly 2005)

For Australian new media theorists Anna Munster and Andrew Murphie (2009), the confusion around rhetoric to do with Web 2.0, and the type of attendant agency it affords, is due to the fact that its semantics have been misunderstood. They argue that O'Reilly got it wrong:

Web 2.0 is not an 'is', or not only this. Web 2.0 is also a verb or, as they taught us in primary school, it's a *doing* word. Here's a list of some Web 2.0 things to do: apping, blogging, mapping, mashing, geocaching, tagging, searching, shopping, sharing, socialising and wikkiing. And the list goes on. Yet as the list goes on it becomes apparent that part of what Web 2.0 does, while doing all the things on this list and more, is colonise everything in the network. It seems that there is no part of networked thought, activity or life that is not now Web 2.0 ... Anything can become or be 2.0 as long as it demonstrates or is affiliated with a certain set of qualities. A list of typical Qualities 2.0 might look something like this: dynamic, participatory, engaged, interoperable, user-centred, open, collectively intelligent and so on. Clearly an 'attitude' can go a long way. (Munster and Murphie 2009)

As Munster and Murphie note, '2.0' characteristics include 'participatory', 'dynamic' and 'user-centred' – and while these features are presented as positives that sell Web 2.0 to users and excite us with enticements of the possible futures they promise, these features are offered within the framework of marketing and business. This 'attitude' points to important questions about the emerging relationship between users and businesses in the new, 2.0, post-dotcom web. On the one hand, Web 2.0 promises users empowerment by supporting a new model of media production (and consumption) that does away with the domination of production by a few. On the other hand, it threatens control and colonisation of users' social lives. In this way, Web 2.0 is a contradiction: it is simultaneously empowering and exploitative,

a platform for both control and freedom. This paradox and contestation is at the heart of social media, and it is a topic we will further examine in the second half of this chapter.

USING OR BEING USED?

The danger of participation is that there are hundreds or even thousands of potentially critical eyes watching every entry. A faulty fact will be challenged, a lie will be uncovered, plagiarism will be discovered. Cyberspace is a truth serum. (Rushkoff 1994: 36)

The signs are growing that the once-anarchic, perhaps emancipatory internet is subject to increasing attempts to privatize, commercialise, control and profit from the activities of consumers online. (Livingstone 2005: 2–3)

The term 'user' has two connotations: controller and controlled. In computer parlance, the user is in charge of the machine. The user is in control (at least apparently) of the computer's operation – the computer seemingly does nothing unless a user clicks a mouse button or presses a key. On the other hand, within software development circles the user is often derided. When we think about users in the context of social media, and particularly within the construct of Web 2.0, which one of these categories is most applicable? Are users the controllers, who are powerful because they can create the content in stark contrast to the powerless audience of mass media, or are users the subjects of control, as their personal information and creative and cultural labour is monitored and commodified by social media companies?

These questions are phrased here as binary opposites, and as such they represent ideal positions at the extreme ends of a spectrum of different possibilities. Certainly, social media can be seen as empowering or it can be seen as a set of tools for commercialising the social, affective and creative efforts of the user. The ambient intimacy of everyday SNS practices (the way the SNS can sit idle in the background while the user works on something else, or the way that Twitter is always at hand on the mobile device but not always actively engaged with) makes it hard to pin down how much work the user is doing and how this translates to value for the social media company. Work by Banks and Humphreys (2008) in the area of game players, along with Bruns' model of the 'produser' (see Chapter 3 for detailed discussion), have attempted to provide more useful models for conceptualising the often tacit labour that accompanies contemporary media practice today.

Social media as empowering

It is tempting to look at social media as a democratic revolution in the media, and indeed it has been trumpeted as such in some of the earliest writings about the internet (Lovink 2012). At the heart of these arguments is the idea that the internet bypasses old structures of control and power – instead of a few powerful people controlling what the majority see and hear, the majority can now produce (and reproduce) media. This decentralisation of the production of media content also decentralises media control, which poses vast challenges for media companies that established their media empires based upon a monopoly over distribution. This, in turn, leads some observers to see the internet as an inherently democratising or emancipatory medium because of the way it seems to empower individuals and undermine old monopolies and systems of power.

This narrative of empowerment has a long history that pre-dates the popular internet and has its roots in the techno-utopianism of counter-culture movements of the 1960s and with libertarian ideals that are fundamentally intertwined with the political landscape of the US. Metaphors that engaged concepts such as the ‘virtual frontier’ invoked notions of new, open spaces that were free of the controls of an old order, a kind of ‘Wild West’ without the dust and guns. Given that the early development of the internet was driven largely by the US, it is hardly surprising that these ideals should hail from the cultural and political traditions of that nation. In this particular Anglophonic evolution, issues such as race and gender performativity have become key battlegrounds (Nakamura 2002). As Lisa Nakamura has so eloquently discussed, often locations such as Tokyo have become a ‘default’ setting for Western imaginations of the future and technology.

A number of influential commentators managed to capture people’s imaginations with romantic concepts that meshed US libertarianism with 1960s alternative culture and the emergence of new technologies. John Perry Barlow, for example, presented a firmly libertarian view of the internet in his *A Cyberspace Independence Declaration* (1996), as did Douglas Rushkoff in *Cyberia* (1994). These influential works cast the internet as something that was above and beyond the reach of industrial governments, which John Perry Barlow described as ‘weary giants of flesh and steel’ (1996).

Adding to these romantic concepts of the internet as being beyond the reach of old power structures (understood by Barlow in true US-libertarian style primarily as governments) were claims that the technology itself was inherently democratising. It became a known ‘fact’ that the internet was developed to withstand nuclear attack (Chun 2006: 65), and this robustness

in the face of the greatest threat known to humankind helped to elevate the internet – often referred to as cyberspace – to the sublime. This immunity to nuclear war extended beyond physical attacks and into the political realm. The internet, according to John Gilmore ‘treats censorship as damage, and routes around it’ (Elmer-Dewitt 1993). In this light, the internet could not be stopped, let alone tamed.

In the decade following these initial works, a great deal changed on the internet. As described above, the demographic profile of internet users changed as more and more people came online, and businesses started colonising the internet. The dotcom crash was for some a kind of proof that the internet was resistant to control. The emergence of Web 2.0 and the near simultaneous emergence of mobile internet has again raised questions about the ability of the internet to bypass conventional control and bring about social change. Some of these themes, like citizen journalism and online activism, are addressed in more detail in Chapter 3. Others are less visible, and are represented in a variety of ways, but all focus on the ways that social media empower the individual.

Certainly, it is difficult to ignore the way that social media has greatly expanded the networked individual’s access to information. For the lucky ones, answers to many questions are only a Google search away (though veracity may be a little further afield). SNSs, as we will discuss in Chapter 4, provide them with access to a wider social network, allowing them to find employment or maintain social relationships that once would have died owing to distance. Networked individuals have access to a large repository of media almost at whim (YouTube, for example), and can make creative works that can be enjoyed by thousands or millions of people where once they might have been consigned to the back of a cupboard, to be discovered by relatives sometime after they had died.

On a larger scale, social media has been implicated in regime change and is playing an increasingly important role in the political: from unofficial uprisings like the Arab Spring to political campaigns. With the uprising of the Arab Spring in the Middle East, we have seen ways in which social and mobile media can be used to help mobilise new forms of politics while at the same time amplifying paradoxes around media *effects* and *affects*. For example, the control/freedom paradox of the online addressed by Chun (2006) can be seen in the recent ‘liberation technology’ (Diamond and Plattner 2012) rhetoric of the Arab Spring in which media can both be a site for emancipation (in the case of Egypt and Tunisia) and a reinforcing authoritarian state (Iran). Governments in some countries are becoming interested in social media as a way to engage more directly with citizens, and citizens are using

social media to draw attention to local issues (Shirky 2009). We give this aspect of user participation more treatment in Chapter 4.

Social media as control

A medium that allows users to create things and develop a voice which also eludes regulation by authorities can lead to significant positive (perhaps even emancipatory) impacts in many areas of society, from the economy to politics (see Chapter 4 for a detailed discussion of the changing nature of citizen journalism through vehicles such as Twitter). On the face of it, social media gives a great deal more control back to the majority of people. Yet there are also arguments to the contrary: while social media undermines many existing media models, it also establishes new ones.

As James Beniger showed in the 1980s, computers and communications technologies were developed primarily to increase centralised management and control of industrial processes, not to diminish them. It is probably a little rash to simply dismiss this argument as irrelevant to the internet, although in the face of so many internet-led changes that seem to be undermining industrial economic structures (the music industry springs to mind), it is tempting to ignore arguments to the contrary.

Since the beginning of the industrial revolution, control has been an ongoing concern. As production sped up and more goods were produced and moved faster and in greater variety to diverse markets, increasingly sophisticated information systems were required to maintain control. Seen in this light, the evolution of digital computers is a response to the need for increased control in industrialised countries (Beniger 1986). Although Beniger was writing well before the rise of the internet – let alone social media – it is possible to extrapolate and see the rise of social media as part of the refinement in control that Beniger identified. While in some respects social media is democratising, empowering and emancipatory, it also makes us all more dependent upon the digital. Consider how ‘lost’ a typical teenager is without a mobile phone or access to SNSs like Facebook. For many young people today, even the idea of being without their phone or social media for a day causes great distress. This dependency makes us all more subject to the control mechanisms of the information society; to be counted, sorted and organised into groups that can be matched with products and processed as fast as materials and services can be produced and distributed.

For Andrejevic, networked social interaction moderated by SNSs, for example, are structured around a ‘storable and sortable’ separation between users and the means of socialising. In other words, in order to participate in an SNS, a person must create an account, and in so doing they are immediately

creating online information about themselves. Because the information is digital, it can be processed and compared, allowing the owners of the SNS to create ‘collections of data’ that can then be repurposed by companies and marketing campaigns (Andrejevic 2011: 88). Following on from the work of Terranova on today’s ‘social factories’, Andrejevic argues that commercial interests are ‘colonising’ narratives of personal self-presentation and sociality. Sonia Livingstone would appear to concur. She writes:

[W]e must instead ask questions about how, and with what consequences, it has come about that all social situations (whether at home or work, in public or in private, at school or out shopping) are now, simultaneously, mediated spaces, thereby constituting their participants inevitably as both family, workers, public or communities and as audiences, consumers or users? (2005: 25–6)

Cast in this light, social media can be seen as a step in increasing the control afforded by the information technologies. This point becomes clearer if we compare social media with television, and consider how much more useful consumer information can be gathered relatively easily. While television provided an important means for product makers to connect with audience through advertising, television also suffered from a number of shortcomings. Under a broadcast model, for example, nobody can tell what television station is being watched at any one time. Broadcast companies pay top dollar to media ratings companies like ACNielsen who go to extraordinary lengths to determine ratings for television programmes. Broadcasters simply don’t know who is watching their channels without polling the audience. Unless somebody is watching you from across the street, you can be completely certain that when you are watching a broadcast TV programme, you are the only person who knows you’re watching it.

On the internet, however, every time you sit down at your computer and access a website, your activity is instantly recorded by multiple sources – if not your ISP, then at the very least, the website that is receiving your request, and generally by a much more complex array of monitoring systems that help website owners and search companies develop a profile of each individual’s online habits. No matter how little information you provide to sites and services (and many people provide quite a lot), the mere fact you are connected to the internet immediately compromises your privacy. People who wish to maintain their privacy online must go to significant lengths to do so, and require a level of technical proficiency that eludes most internet users. When seen in this light, the internet seems to be as much an advance in control as an empowerment of the user.

The fact that everything is logged and available for analysis opens up a new and valuable source of information for companies – very precise information

about the browsing habits of internet users, which in turn allows for a much, much greater targeting of advertising and the prospect of direct sales to the consumer, or simply the sale of collected information about users to other parties. Instead of undermining central authority and power, this seems to be doing the opposite. The processes of control are now beginning to move further into our private lives, and users and their cultural and interpersonal activities are being monitored, regulated and managed like never before.

In Wendy Chun's (2006) excellent book on the internet, the dichotomy of control and freedom are presented as a paradox. Chun argues that the meaning of freedom has gradually been shifted to incorporate control as an implicit precondition. In other words, if you want freedom, then you have to submit to control. This apparent contradiction makes a strange kind of sense in a post-9/11 world where phantom terrorists lurk in every airport terminal. According to this logic, there can be no greater threat to individual freedom than death, and the only thing standing between us and death at the hands of a terrorist is often control applied through surveillance – full-body scanners, constant monitoring through security cameras, the tightly regimented processing of people.

Conversely, our sense of freedom is realised through a sense of control because the more control one has, the argument goes, the more freedom you have to do what you want. Here we return to the earlier point mentioned near the beginning of this section about users, and the ambiguity of the term. The user is understood as a powerful individual, and this notion is reinforced in information technology and the internet all the time. Microsoft's slogan 'Where do you want to go today?' embraces the notion of the all-powerful user who is in absolute control of his or her destiny within the online environment.

As Chun points out, this draws upon earlier conceptions of cyberspace as being a place beyond space (as we noted above), and also draws upon popular representations of cyberspace from fiction which preceded and accompanied the development of the internet. From William Gibson's cyberpunk novels and Neal Stephenson's *Snow Crash* to a raft of thematically similar books and films, images of cyberspace have been constructed as a place where the individual is in control. From the utopian holodeck of *Star Trek: The Next Generation* to the dystopian virtual reality that featured as a central plot device in the Wachowski Brothers' *Matrix*, virtual online cyberspaces have been represented as a place where the user exerts control over his or her destiny by knowing or learning how to control their online environment.

SNSs, as one example of Web 2.0 applications, also place the user at the centre of their own universe, a platform on which to stand to engage with and control their online space. As discussed above, underlying this so-called user-centred media is the fact that the data is then mined and sold to advertisers (Vaidhyanathan 2011; Lovink 2012; boyd and Crawford 2012). Consider that Facebook has some 800 million subscribers at the time of writing, and yet each and every one of these subscribers (users) has a network of friends in which they are the central nodes that organises everything else. The user can switch off unwanted contacts, send messages out to hundreds (or millions, just as easily), all the while developing the illusion of freedom through control. This isn't just any space that the user is (apparently) controlling, it is not even cyberspace; it is their own 'personal' space. YouTube places *you* at the centre of the universe, and MySpace, as this SNS so helpfully points out, creates an online space that is supposedly *mine*.

However, as Chun argues, it is in the interests of the companies behind these services to foster and develop the illusion of control. Providing users with a certain kind of control (the ability to create profiles and interact with others and produce cultural objects), all mediated within the company's platform, actually establishes broader economic and political controls over the whole system. We have used the term 'platform' here a couple of times to draw attention to another way of thinking about Web 2.0. Tarleton Gillespie notes that a platform has a number of definitions in English language, which together suggest 'a progressive and egalitarian arrangement, lifting up those who stand upon it' (Gillespie 2010: 350). When applied to Web 2.0 applications such as YouTube, Facebook or Twitter, the term suggests that the role of the company is impartial – they are just there to provide a platform that users can stand on and be treated as equals.

The principles of the platform are enshrined in Facebook's 10 principles that, at the time of writing, contain the word 'free' or 'freedom' no less than 14 times (<http://www.facebook.com/principles.php>). Facebook's role as an open, free conduit for users to become empowered through their networked agency is also reinforced through its mission statement, which reads in part: 'to give people the power to share and make the world more open and connected' (www.facebook.com/facebook). Supposedly, Facebook is simply the catalyst that makes these things possible. It is a wonder, then, that Facebook should have been at the forefront of debates about privacy and intellectual property. Given that many of its changes have given few rights to their users, and in many cases have appeared to be self-serving rather than user-empowering;

arguments that social media are purely about putting the user in control need to be taken with more than just a grain of salt.

While the platform metaphor seems to support the empowerment of the user, it also plays another role, echoing Chun's paradoxical alignment of freedom and control. As we discussed above, Web 2.0 companies – those that emerged after the dotcom bust, or which rode it out – are companies that recognise the importance of and value of a user's online practices, and use those practices to enhance their businesses. This works for users, because it means there are many services available that are cheap or free. Writing a blog, putting videos online, developing software, creating or participating in online communities – all these activities are free, given away by companies whose actual motivations are less clear. What does an SNS like YouTube, Facebook or a search engine company like Google get in return for their apparently altruistic motives? The answer, of course, is control.

Google is a prime example of a company that has embraced (or helped define) the Web 2.0 platform mantra. As a search engine company, Google's most prominent service is its almost universally known search page – a web page that's incredibly simple given the behemoth that lies behind it. Every day Google's computers index content on the internet, creating a massive searchable database of most of the pages on the web. This vast database is then provided to us via the Google homepage, or directly within our browser software, and provides us with virtually instant access to many topics, and with a little effort, many more beyond. Yet for all this, Google does not charge its users a cent. The service is free.

Google's revenue stream is drawn primarily from its advertising business. When you type in a search term like 'price of tulips', Google's AdWords advertising engine will attempt to connect your search term with terms that advertisers have purchased. If a match is found, you will not only get your search results but also a list of results directing you to advertisers – in this case, mainly florists. Google is at pains to keep this part of their business separate from the search business. They don't try to integrate the advertisements into the actual search results, and they do not allow anyone to pay money to have their sites appear at the top of search results. Google's search algorithms – the methods they use to locate and present relevant information – are sacrosanct. The reason for this is quite simple: if the search engine becomes less effective, users will start using other engines, and that will cost Google market share. So, while Google's Adwords advertisements are presented in strategic places on search results pages, Google uses various techniques to visually separate them from the list of unpaid search results.

The main point here is that Google's business model is ostensibly about users. Google's 'about' page says that the number one thing they know to be true is 'focus on the user and all else will follow' (www.google.com/intl/en/about/). However, as Siva Vaidhyanathan notes in *The Googlization of Everything*, 'we are not Google's customers: we are its product' (2011: 3). Here Vaidhyanathan echoes Chun's position – that the publicly touted importance of Google as a platform for the user lies within a more fundamental Web 2.0 business model where *users* are actually the source of value, not the information on the web that Google indexes. When we search on Google, Google builds profiles that match search terms with sites visited. Websites install Google Analytics, which allows them to quickly and easily see who is visiting their pages, but also allows Google to see where people are going. This is generally aggregated – Google doesn't care so much where you went today, but does care where 'you all' went today.

More than that, companies like Google are engaging in a process that might be seen as horizontal integration. In traditional hierarchical markets (lemonade manufacturers, say), horizontal integration is where one company buys out its competitors and by so doing is able to corner the market for lemonade. Google's purchases of YouTube and its integration of other services like Gmail into one happy family doesn't immediately appear to be horizontal integration because all the companies it is buying are all doing different things: YouTube serves video, Gmail is an online email application, Google is a search engine and Google+ is a social network tool. If, however, we accept Vaidhyanathan's argument, that users are Google's product, then critically, the same could be said for the sites. YouTube is a platform creating users, as is Gmail, as is Google+. Therefore, Google's purchase of YouTube allowed them to horizontally integrate, dominating not the streaming video market but the user-as-commodity market.

CONCLUSION

Web 2.0 is a notion that encapsulates a lot more than the idea that users are important, or that markets are conversations. It is a philosophy of doing business in the online environment and it is a response to the challenges of control in a networked society where many of the structures established by industrial societies are not always as effective. According to this philosophy, Web 2.0 is the more advanced, updated, better version of Web 1.0. What's updated and improved here is not the technical architecture of the web

itself, but the way that business has come to think about the web, and most importantly, the ability of business to exert control in an environment which had previously been seemingly resistant to it.

The changes said to be part of Web 2.0 are sold to users as desirable primarily because they apparently increase users' control over their environments: freedom through control. The changes improve the agency of the networked individual, and through doing this apparently give us all more freedom. However, while Web 2.0 can be regarded as internet companies embracing the user and giving them more control over what they can do online, it can also be regarded as a way for the same companies to gain more control over their operating environments by building better knowledge of their users. The real revolution encompassed by Web 2.0 is a revolution in thinking, where internet companies have finally come up with a way of understanding the internet and working out effective methods for using it as a technology of control in the networked society.

Here we should go back to one of the points we made earlier. The tensions between control and freedom should not be treated as absolute positions, where you take a side and fight it out to the end. Instead, these represent extreme ends of a spectrum in which complex interactions play out. Sometimes social media is empowering, and may work very effectively to increase a user's agency and ability to control and interact with their environment. Other times social media can be controlling, providing significant financial benefits to the social media company but little or no compensation to the user for their time and energy. Most often social media is both controlling and empowering at the same time, in an uneasy relationship where a certain amount of exploitation is negotiated as the price for a certain amount of empowerment. In the following chapters we will explore some of these themes further.

NOTES

- 1 The use of a number like 1.0 is something adopted from computer programming practice. When a computer program was finished, it was given a version number – version 1.0 for the first final, complete version of the software. As the software was further developed other versions would be given a number like 1.1 or 1.2 to indicate that they represented minor developments. When the software underwent a major overhaul, it might be given a whole new version number to indicate the significance of the update – version 1.5 might be upgraded to version 2.0, for example. During the 1980s, this quickly became part of the marketing strategy for software, with companies offering up new versions

of software regularly, exhorting their users to continue buying new software so they could take advantage of the latest features.

- 2 Although it's worth noting that Netscape itself ended up losing market share to Microsoft's Internet Explorer and eventually folded, only to be reborn as project Phoenix, which due to trademark issues ended up being renamed Firefox.
- 3 The Eternal September – the rapid growth of internet users mirrored experiences on forums each year when new people started at college in the northern hemisphere. The influx of new users created problems within the social fabric of online forums and each year took weeks in which the relatively small number of 'newbies' were initiated into the correct modes of behaviour. Massive influxes of new internet users, particularly from AOL, overwhelmed these social systems, leading to the Eternal September.