

Towards Web 3.0: Mashing Up Work and Leisure

by Andy Miah

PLEASE NOTE, THIS IS A PRE-PROOF.

Citation:

Miah, A. (2011) Towards Web 3.0: Mashing Up Work & Leisure. In: Bramham, P. & Wagg, S. The New Politics of Leisure & Pleasure. Palgrave. 136-152.

Introduction

Who are these people? Seriously, who actually sits down after a long day at work and says, I'm not going to watch *Lost* tonight. I'm going to turn on my computer and make a movie starring my pet iguana? I'm going to mash up 50 Cent's vocals with Queen's instrumentals? I'm going to blog about my state of mind or the state of the nation or the steak-frites at the new bistro down the street? Who has that time and that energy and that passion? (Grossman 2006, html)

In 2006, TIME Magazine announced its Person of the Year as 'You', drawing attention to the boom of online user-generated content made available by new online environments such as YouTube, Facebook, Second Life, Wikipedia and MySpace, collectively described as *social media* for their capacity to share content across multiple platforms. Grossman claims that the collective achievement of social media users is no less than 'the many wresting power from the few' (*ibid*, html). While the principles of these online environments have their roots in 1990s web architecture, with such platforms as eBay and Amazon, the mainstream utilization of social media, as a more accessible form of publishing, derives from the proliferation of blogging platforms, mobile devices and the optical web – when anonymity shifted towards heightened transparency and visibility. The term that is now used to describe these

digital environments is *Web 2.0*, a term coined by Tim O'Reilly in 2005 to denote a shift in how digital media content is generated and syndicated around the web. The concept describes a set of practices, protocols and interactions that have brought about a dramatic shift in how digital publishing and interaction takes place.

Two years later, TIME's Person of the Year for 2008 was U.S. President-Elect Barack Obama, whose successful Presidential campaign was claimed as being due partly to his use of Web 2.0 environments. The legitimacy of this claim is difficult to verify. Yet, by the time of his inauguration on 20 January 2009, Barack Obama had over 3 million fans on one single page within Facebook, the membership of which had collectively posted over 500,000 comments in a few months.ⁱ In addition to this, there are countless other Barack Obama Facebook pages with similar numbers, the members of which will have been linked to numerous other platforms where their affiliation is syndicated multiple times, thus exponentially amplifying the impact of his personality.

Speaking in Liverpool in 2008 just after the US election result, life-long civil rights activist Jesse Jackson played down the role of the Internet in the election, explaining that it was won on the back of decades of campaigning for African American civil rights, rather than due to videos on YouTube. Yet, the Internet was an integral part of Obama's campaign discourse and received considerable prominence in the media, which, at least, might reveal something about how politics is re-organized in a Web 2.0 era. In this sense, even in the absence of evidence to clarify the Internet's role in determining the outcome of Obama's campaign, it is apparent that being part of the newly upgraded electronic superhighway was nevertheless an integral part of being

newsworthy. Thus, being seen as an early adopter of new online environments offers some degree of cultural capital through which Obama was able to amplify his credibility.

Other governments have also invested in occupying Web 2.0 environments in order to reach people. For example, in the United Kingdom the home page of the 10 Downing Street website links to YouTube and Flickr accounts. Moreover, in 2007 at the height of YouTube's growth, UK opposition leader David Cameron set up 'WebCameron' as his way of speaking directly with the electorate. Most famously, when it launched, one of the first clips portrayed him in his kitchen talking direct to the camera about policy, while washing dishes and helping his child to clean her hands. In the camera shot, viewers also saw an indoor washing line in his living room, full of clothes, portraying a modest lifestyle and a relatively small home. While one might dismiss such performances as gimmicks calculated to humanize politicians, such exploits have now become a mainstay of political work in the West. A key reason for this has to do with how the Internet has changed as mode of publishing. Thus, the principal value of WebCameron is its capacity to be shared across other platforms by the process of automated syndication. Were it just a static html website, like those of the Web 1.0 era, far fewer people would have been able to engage with the content. Coming to terms with these conditions of online communication has become an essential component of public relations campaigns.

The mainstreaming of the political web is one prominent example of how work and leisure is 'mashed up'ⁱⁱ online. It is a clear case through which our consumption of leisure spaces becomes a subtle moment of leisure activism, if not leisurely activism.

Even if we may resist labelling signing up to Barack Obama's Facebook page as a form of political engagement, this act of clicking a mouse button two or three times expresses something about what voters value. This performative act also becomes a form of social activity, a public performance of sorts, which reaches our peers and often, wider communities. In short, by performing such acts, we become social and political devices – literally forces of political labour. Our leisure time activity becomes part of the campaign.

As we begin to inhabit the period between Web 2.0 and Web 3.0, what can we expect from future interactions online? Over twenty years ago Clarke and Critcher's *The Devil Makes Work* articulated an emerging computer era in the home and the workplace:

it is the home computer terminal which most clearly represents the potential of the new technology to overturn all our existing ideas of work, leisure and the home. The one piece of technology contains the worlds of work, entertainment, shopping, household responsibilities (accounts), and last, but not least, education. The whole world can be at our fingertips (p.192).

They highlight the possible 'decline of work, the terminal family, the information society, and the erosion of the social and geographical boundaries between work, leisure and the home' (p.192-3), as processes brought about by computer culture.

They also consider some of the moral and political problems that could arise from computing, not least of which is the consequences of labour saving technology, the rise of a digital management elite, and the transformation of economic conditions.

However, in the 1980s there was little opportunity to foresee some of the major issues that now dominate debates about the Internet, such as privacy and surveillance, questions of identity, or indeed, what might be described as *leisure work*ⁱⁱⁱ, which is

characterised by the kinds of enterprise that have built contemporary digital artefacts such as Wikipedia, YouTube (Gehl 2009) or even eBay (Robinson and Halle 2002). Moreover, there is little that could have been imagined about the intricacies of file sharing (Rojek, 2005), with its early manifestations through Napster through to the BitTorrent driven platforms such as the recently controversial Pirate Bay.^{iv} Each of these leisure spaces have found themselves locked into legal battles with those who hold the right to exploit creative media. Alternatively, while today the miniaturization of media technology seems an obvious consequence of the microtechnology era, few could have foreseen the emergence of portable DVD players, Bluetooth headsets and so on. Each of these technologies has changed leisure experiences in some way, though the magnitude of this change is a matter of judgement.

These examples situate Internet politics firmly within the sphere of established leisure experiences. Yet, it is reasonable to ask whether any new leisure practices have emerged that are unique to the pervasive experience of new and mobile media (May and Hearn, 2006) and its emphasis on ubiquitous reporting. In short, is there anything new about leisure in an Internet era, or is it merely differences of degree rather than kind? After all, much of what happens online involves experiencing leisure activities that have been around for much longer: watching films, browsing pornography, listening to music and so on. Does, for instance, an Apple iPod – one of the many portable media players available now - constitute a fundamentally different personal music experience compared to the walkman stereo or even the record player? Alternatively, does the lifestyle appeal of an Apple notebook computer introduce a new aesthetic to computing which is qualitatively different to PCs? Each one of these devices, and many other nuances about the Internet era, has its own, distinct social

history that deserves investigation, but what interests me here is to document the different trajectories that have emerged online throughout this 20-year period since Clarke and Critcher.

Perhaps one of the most defining dimensions of the Internet era is that it has been accompanied by a series of new work and leisure practices. Recent examples of this include the rise of the new media entrepreneur, individuals who have a career history that crosses platforms (television, film, web, music, photography). It also encompasses the development of extreme programming as a new methodology of working within information technology industries, whereby new modes of collaboration have emerged. Thus, extreme programming describes a work force of computer programmers, where individual employees do not have a fixed role, but instead focus on tasks needing completion, thus allowing individual expertise to focus on tasks that they are most competent to handle. Additionally, open source technology has given rise to new communities of software development. Open source describes a form of software that, rather than protect the programming source code from outsiders, allows others to see how it is assembled, thus releasing the intellectual property of the proprietor. This allows others to collectively improve the code and the final product, whereby a large number of people within the user community become co-producers of the software, thus transforming the labour force that contributes to improving computing technology. These new forms of labour dominated popular discussions about the 'dot com' bubble and gave rise to new forces of capital and even new patterns of work. While the Internet has clearly not led to everyone working from home, as might have been imagined some years ago, new media work practices do often involve new conditions of office organization. For instance, it is common for a

new media developer – a programmer for instance – to also have their own creative practice, either as a photographer, film maker, or musician, for instance. Thus, one might argue that the distinct leisure activity that is afforded by the Internet is part of a broader shift towards what Florida (2002) calls a ‘creative class’, where people are able to experiment with computer programmes to make films, animate, compose, and so on. Thus, one might not be able to separate the rise of the Internet from the rise of the amateur digital photographer, or the YouTube film director. Of course, through these examples, one can also identify a crucial component of the Internet’s leisure work practice: advertising. Perhaps the most prominent labour presence online is generated through advertising campaigns, which underpin many of the freely available tools used by millions of people in online communities. Again, our role in shaping how advertising functions online has become increasingly important, as programmes approach a form of collective intelligence through such innovations as Google AdSense.^v

Anyone who has written about the Internet is conscious of how fast it changes and how quickly ideas date. Even the terminology one uses to describe certain digital practices can only be tentative since they change so quickly. Over the last twenty years, numerous dimensions of online activity have come and gone and the emerging redundancy or adoption of any platform is one of the most difficult aspects of the Internet to foresee.^{vi} These trajectories are also among the most interesting facets of online history, and they can easily be overlooked. Thus, it is tempting to talk about platforms as static environment, but actually they change constantly. Consider the recently prominent Twitter, which began as a micro-blogging device, but has become also an emailing and real-time search facility.

Thus, telling the story of any technological device – including the Internet generally - involves revealing a rich set of sociological configurations that characterize its use. Often, design intentions are usurped, re-written and betrayed and unforeseen user cultures emerge, along with reactions to such use. For instance, who might have foreseen the rise of the Diana retro plastic camera, as a response to compact digital photography or, the growing prominence of camera mobile phones and photo blogging?^{vii} Alternatively, what happened to the Palm Pilot personal digital assistants (PDAs) of the early 2000s, the handheld computers that were all but wiped out by the Apple iPhone and Blackberry devices. These new devices offered integrated telephone and internet services, along with sophisticated software applications that provided, among other things, global positioning system (GPS) navigation devices and even compasses.^{viii} Who might have foreseen that free wireless at airports would lead to people walking around with their laptop under their arm at airports making free telephone calls via Skype, one of the early, free voice-over internet devices?

Other anecdotes from the Internet's history provide beguiling articulations of work and leisure innovation and integration. For instance, it is widely known that if one wants to see cutting-edge innovation online, then a good place to look is at pornographic websites (see Perdue 2002), which, in the 1990s excelled in utilizing 'pop-up' windows that would force users to shut down their computers completely or be drawn into an infinite loop of closing browser windows one after the other. Also, who might have predicted that, in the era of pervasive email, by 2009 around 94% of it would be spam? (Stone, New York Times 2009). Another rich layer of this computer culture is the way in which technologization leads to the emergence retro cultures of

creative media practice – consider the digital gaming environments of MiniClip.com or even ZX Spectrum games console emulators, and so on.

These introductory remarks offer a starting point for discussion about how the Internet has created a wide range of tensions between work and leisure practice. They also convey how a space of popular activity has been created somewhere between the two. Perhaps the single concept that best describes such activity is citizen media, a term that has emerged to recognize the way in which personal publishing online breeds the information economy and makes manifest the emancipatory potential of Castell's 'network society'. Yet, key questions remain about whether we should treat these practices as leisure activity or otherwise. Moreover, limitations to its popularity exist around the precise conditions that enable participation. Today, we speak more of a digital literacy divide than a digital divide, which implies accessibility differences. However, one cannot ignore the remaining technological barriers, which shift as the technology evolves. For instance, despite an advanced infrastructure, it was recently shown that broadband users in the United Kingdom have far less band width than they pay for, or would need to use many cutting edge platforms. Additionally, the original concerns about the digital divide remain, where there is much more work needed to bring the internet to most homes. Each of these matters, along with the question of how the Internet has emerged as a dominant media form over this period will be considered in this chapter, which will aim to articulate various periods of Internet development in the context of leisure experiences. Today, these eras may be conveniently characterized as Web 1.0, Web 2.0 and, soon, Web 3.0.

Web 1.0: The Internet as a Blurred Boundary

In what ways do leisure and work activities occur within digital spaces? Is space even an appropriate metaphor through which to describe virtual information networks?

Alternatively, how does our experience of being online compare to, say, watching television, listening to the radio or going to the theatre? These questions were asked when the Internet was first popularized as a publicly accessible environment. In some areas, debates focused on the subject of regulation, where the central question was (and remains) whether the Internet can (or should) be regulated. Perhaps, unlike any media form before it, our early experience of the Internet was as a loosely regulated space. Many of the regulatory devices that exist today emerged partly as a consequence of legal action arising from absences in how content was regulated, as for file sharing platforms or privacy invasions by web-based companies. This is not to say that internet service providers or, indeed, our own use of the Internet was not governed by rules or codes of practice. Rather, it is to draw attention to the fact that a great deal of user experience involved performative acts of freedom despite these rules (Cairncross, 1997; Castells, 1997; Jones, 1997; Turkle, 1995). For instance, Markham (1998: 35) describes how using a pseudonym online – a precursor to the use of an avatar^{ix}– provided a “sense of freedom in a dislocated place where one can be anyone or anything simply by describing oneself through words and names.”

While it is difficult to claim that Web 1.0 was a wholly democratized environment, it was perhaps the most democratized form of publishing available which had a capacity to reach a wide and large audience. It also appeared to make geographical boundaries redundant (Cairncross 1997). Nevertheless, the technical and financial costs were still

significant obstacles to participation and, quickly, it became clear that a ‘digital divide’^{3x} would emerge, as a defining feature of digital culture.

During this first Internet era, questions also emerged about how the broadly positive dimensions of the Internet compared to its darker side, perhaps as a vehicle for exploitation, anti-social behaviour and ill-health. What should we make of these kinds of activities and how should their existence affect our responses to the discussions about Internet regulation? One of the early episodes that drew attention in academic research was the virtual rape of a character within a text-based online game called LambdaMOO (MacKinnon 1997). The event involved one character hacking into the other, taking control of it and then proceeding to violate the character sexually using text-based descriptions. The mythology surrounding the episode describes it as the event that turned a “database into a society” (Dibbell, 1993 cited in MacKinnon, 1997), appealing to the idea that the community’s subsequent reaction and self-organization to establish laws of behaviour and an internal legal system and codes of conduct, denoted their becoming a tangible society, rather than just players of a fictional game.

In 2007 – deep in the midst of Web 2.0 – such questions arose again in the context of Second Life, the popular multi-player game from Linden Labs (Lynn 2007). It transpired that a playground environment within this virtual world was being used by adults to covet young people in what the media called a ‘paedophile’s playground’ (Associated Press 2007). The episode – and its widespread reporting – led swiftly to the playground’s removal from the virtual world, though the range of assumptions that are made about this action is deeply engaging. After all, isn’t Second Life just a

fictional environment, much like films, where the exploration of such behaviours should be treated as non-serious, trivial even? If we prosecute such behaviour, do we move closer and closer to prosecuting thought crimes? Thus, are we justified in treating such environments as fictional spaces, where only propositions of crime, rather than crime itself, take place? If the latter, then we should treat such environments as we treat other forms of fictional participation.

These episodes articulate one form of how boundaries become blurred when identity is played out online and, for this reason, they demonstrate the need to create new understandings of society and of governance. For instance, it requires explaining how behaviour in a virtual computer game can imply the same kind of criminal action as may take place in physical space, as it is apparent that some forms of social space permit the exploration of ideas and behaviours that would otherwise be considered immoral or even criminal. The way in which film and literature explore ideas are indicative of such exploration, though the question remains as to whether environments like Second Life are more like such fictional narratives or more comparable to life offline. They also demonstrate how similar issues pervade different eras of the Internet. Thus, discussions about what is public or private space, or how we make sense of such concepts as gender have been of interest since the early Internet years. Moreover, they continue to raise similar questions, specifically how we make sense of such concepts online. In the early 1990s, virtual leisure communities provoked various claims about the cultural politics of cyberspace. These new cyberspaces were seen to have activist and emancipatory tendencies, made manifest by such hacktivist^{xi} interventions as the Zapatistas, an almost mythical example of

digital political activism (Cleaver 1998, Russell 2005), the modern equivalent of which may be the use of Twitter during the 2009 Iran elections.

From the mid-1990s to the early 2000s, the (first) *dot com* (.com) bubble grew and burst, provoking the creation of numerous spaces where consumption, labour and leisure were blurred. Prominent examples of this include *eBay*, perhaps the paradigmatic example of such blurring. Moreover, digital technology ushered in an era of *convergence*, whereby a number of leisure practices were oriented around the capacities of digital systems (e.g. gambling, film, television) the result of which reconstituted the Internet as an integral component of leisure systems and their institutionalization. Indeed, institutions with limited funds paid large amounts of money for websites, which did not allow owners the ability to manage their content. Instead, funds were allocated on the basis of, what seem to day to be extraordinary principles - such as paying per hyperlink added to a website. During this period, sociological studies of the Internet, focused on identity (Miah, 2000). The internet was, primarily, a mechanism of self expression. The backlash to this was a concern that we had become distracted from more prominent issues, such as the growing digital divide or, indeed, the increasing monopolization of certain platforms over our online experiences. The user community became focused on specific search platforms to find information – AltaVista, Yahoo and finally stuck with Google and very little attention was given to how the Internet operated in different languages, or whether its emergence was to the detriment of linguistic diversity (though everyone did have to learn new programming languages).

Web 2.0 Social Media as a Distinct Leisure Form

In the mid 2000s, the concepts of social software, social networking sites, open source software mobility and their collective designation as ‘Web 2.0’ spaces became prominent. Their rise was accompanied by claims over the emergence of a new, digital intelligentsia led by the citizen journalist, who would hold traditional media to task, destabilizing their power base and reconstituting mediation. Steadily, in key environments, the growing community of bloggers began to occupy some of the spaces that were traditionally reserved for the mass media, though almost concurrently, traditional media began to inhabit such environments themselves. A good example of this was the merger – and subsequent divorce – of America On-Line (AOL) and Time Warner. Their marriage for £163.4 billion in 2001:

brought together two huge corporations involved in TV, film, magazines, newspapers, books, information databases, computers, and other media, suggesting a coming synthesis of media and computer culture, of entertainment and information in a new infotainment society (Kellner, 2004: 34)

Their subsequent separation in 2004 signalled the end of the convergence era, ushering in a period where new media needed to become newer, in order to retain its primary capital. The expansion of new, online leisure spaces in the era of Web 2.0 brought renewed optimism – a new bubble – and new playful leisure environments, which re-centre knowledge hierarchies and leisure practices (eg. Second Life, videoblogging, Wikipedia). This era also marked a shift from informationalism to ludology, as increasing numbers of platforms became playful environments, bringing together expertise from the communication technology and the creative design sectors. The mashing-up^{xiii} of data that is made possible by open source programming is a critical dimension of this period, as is the transient quality of media.

Afterall, as was mentioned earlier, the way that any digital environment begins its life is nearly always different from how it is used or how it evolves. The rise of Twitter Search for instance, has the capacity to rival the omnipotence of Google search by providing real-time search results. Thus, while Twitter is often considered a means of instant messaging to people within one's social network, the function of 'Twitter Search' is to provide results about the most immediate and personal kind. This value is likely to have been the main incentive for Google to attempt a takeover of Twitter in 2009 and their eventual agreement (Mayer 2009). Alternatively, the original design of a Web 2.0 platform only partially reveals its cultural significance and value. These *transient media* also convey the most significant contribution to how the Internet looks today. Consider Facebook, for instance, - one of the most prominent Western social networking websites, at least between 2005 (it began in 2004) and 2009, when this chapter was written. Its success is located in numerous dimensions of its capacity to generate ad-generating clicks, but it is centrally located in its capacity to work with other applications and through its promotion of application authorship. In short, one might describe its core value as an application aggregator, an environment that works because of its openness to sharing programming script.

Facebook is also a helpful example of how the blurring between Web 1.0 and Web 2.0 endures. While there are few social studies of Facebook that can guide us, it is evident that individuals negotiate the Facebook space as both a professional device and as a leisure space (Ellison, Steinfeld and Lampe 2007). It is also evident that this creates tensions, as stories emerge about people who have posted photographs on Facebook being watched by prospective employers. Facebook is also the most prominent manifestation of how public and private space is conflated online, as the privacy

settings within the platform are often obscured from people's minds, until they encounter a moment that leads to some realization of undesirable exposure.^{xiii}

Digital gaming also features heavily in the web 2.0 era, but is notable for how it transforms the sociology of gaming cultures and, indeed its history. For instance, a prominent game within Facebook is 'Scrabulous' – essentially, a digital version of Scrabble™. Its existence on Facebook re-constitutes the history and contemporary status of the board game, but also brings into existence new populations of computer game players, who might otherwise have been alienated from the console generations of PlayStation, Microsoft X-Box, Nintendo and so on.^{xiv} In addition to this, online platforms like MiniClip.com recreate early digital gaming experiences and, along with online games console emulators – they are providing additional chapters to the history of computer gaming.

As was noted earlier, leisure experiences within such spaces are often made possible because they are forms of leisure work. Each of the examples I have used is brought about by the support of advertising revenue, which underpins the business model of each environment. To this extent, one might describe leisure experiences online as consumerist practices, as they become part of market research or advertising campaigns. Consider another example from Facebook called 'Are You Interested'. This third-party application is probably best described as a dating application. It allows users to scan photographs of individuals and select whether they 'like' or 'dislike' them, a judgement based solely on a photograph and brief biography.^{xv} Once chosen, the other individual is notified and must reciprocate the 'like' in order for a 'match' to be created. From there, the couple can exchange messages and perhaps

eventually meet. It is clear that the use of this space might be more for flirting than dating, or indeed, as a mechanism for some kind of sexual encounter. In any case, what interests me here is the mechanism of our engagement within such spaces.

Within AYI, one of the principal advertising encounters occurs when scanning photographs, where every 11 clicks on the mouse – ie. after clicking on 11 different photographs – an advert appears in the same space as the photos.

For a participant of this environment, it is apparent that the muscle memory involved in multiple repetitive clicking creates a high probability that the user will click the advert – which is sometimes also portrayed as a photo – and so the enabling intention of the platform is realized. In addition, other experiences emerge through the application, which work against its being neatly categorized as one type of leisure activity or another. First, it is apparent that some users within Are You Interested are, what might be called stooges, i.e. profiles generated by institutions which will take you to a subscription-based dating site. Alternatively, it is clearly populated by individuals who are, in some sense, operating as actors within the adult entertainment industry, though this is also a broader situation within Facebook.^{xvi} A final component of this third-party application is how other applications link to it, generally with the intention of encouraging users to spend money on additional functionality, a common characteristic of Web 2.0 spaces (the basic functions are made available for free, but higher capabilities are licensed). On this basis, the collective intelligence that emerges from our shared online leisure experiences is not that of the user community, but rather is purposed intelligence, intending specifically to generate revenue or create new markets.^{xvii}

Web 3.0: Where next for the Internet?

Opinions differ as to what era the Internet is currently in. There is considerable overlap between Webs 1.0 and 2.0 and it is likely that we are already at about Web 2.5. However, discussions have already emerged about the character of Web 3.0. This offers some opportunities to speculate on the third era of the Internet, though these speculations are not entirely without doubt. Nevertheless, a starting point should be those practices of online leisure activity that are just beginning to arise. For instance, if one looks at mobile computing, it is apparent that only a few are able to embrace the many new forms of digital leisure experience it provides. For example, the Apple iPhone, which has become the mobile device *par excellence*, remains too expensive for most people to afford while its functional capacities are also uneven. For instance, its camera is far inferior to even a modestly priced digital camera. Its storage capacities are much lower than a small notebook computer. It is, for want of a better term, a sub-optimal product and will remain so until miniaturization reaches the nano scale, at which point user needs will align with the technology. In comparison, we already see such alignment occurring in the development of notebooks. Consider hard disk space, for instance. Today, the hard disk space of a notebook, along with screen size, processing power and so on, are able to compete adequately with desktops, which, as a result, is becoming an increasingly redundant technological form.

Other indicators of issues as yet unresolved by Web 2.0 are questions of identity. Early research into cyberculture discussed its status as the postmodern culture, wherein identity is visibly fragmented. Today, such fragmentation takes various forms, but none so fundamental as the login name and password. Web 2.0 has still not solved the problem of maintaining a permanent identity online and individuals

frequently create new profiles with complex passwords that they are unable to remember. Intimations of solving this problem are visible through OpenID, a standard device that should allow users to have one login for all platforms, though it has yet to bridge the 'trust' gap perhaps. Alternatively, it is for some years now that computers have had built-in finger print technology, as a security device.

Other prospects for the internet involve its trajectory towards what might be called the semantic web. If Web 1.0 was characterized by the perceived freedom brought about by anonymity and Web 2.0 celebrates and visualizes identity through photo sharing, profile creation and so on, Web 3.0 might be best understood as a 3-Dimensional space infused with contextual meaning. Again, intimations of this are offered by Google Earth and Google StreetView, which allow us to virtually walk down streets seeing their precise visual form, thanks to the Google surveillance cars.^{xviii} The layering of context that such spaces provide signals the end of the era of information saturation and a return to building narratives around our online social experiences. This is also what explains the rise of such platforms as Twitter, which provide us with certainty about there being a real person that informs our navigation through the internet, rather than an algorithm.

The way we experience places offline is also changed dramatically by new media. Consider the traveller arriving in a new city. Traditionally, this person might have bought a guide book, pre-booked hotel and thought of important landmarks to visit before arriving. Today, through microblogging on Twitter, that individual arrives in the city, receives advice from the online community about where to go and what to do. Moreover, these users become the tourist's real-time guide and part of their

extended social network. To this end, mobile devices re-constitute tourism experiences by providing the means for meeting up with others upon arrival. Here, again, we see the frustration of dubious traditional tropes about the Internet – that it isolates us from others. In this case, social experiences are enabled by the technology. Indeed, some of the most recent research into Facebook users demonstrates precisely these socializing effects of Web 2.0 (Ellison, Steinfeld & Lampe 2007).

Conclusion: The Rise of Transient Media

What would Clarke and Critcher have made of Web 3.0 back in the 1980s? What for them would have been the most profound transformations in how leisure is organized and experienced? Would it have been the way in which leisure consumers became complicit in their own surveillance by large corporations who seek to sell data about their leisure activity to any number of third parties? Would it have been the debates about censorship that rely heavily on highly questionable claims about media effects. Alternatively, would the way that internet labour is organized by communities through open source programming have been seen as the major transformation of our leisure practices. For example, consider how users of the blogging community Wordpress create templates and scripts, which can be freely used by many wordpress bloggers or how Twitter users re-distribute information on behalf of news providers. Each of these mechanisms is re-defining how information is shared over the Internet, though each also involves the use of informal labour brought about by volunteers who find value in these tasks, perhaps because it is a performative act of demonstrating knowledge or because it helps build reputation online.

Over the years, one overarching concern seems to have been the potential harm that such technology could create for society at large. Back in the 1980s, the connectivity and communication opportunities that would arise from the rise of the Internet were hardly evident. Tim Berners Lee had yet to type the note that became the first description of the Internet on November 12 1990. Indeed, the word Internet did not even appear in Clarke and Critcher's index. That said, speculations about the networked society were present in the lived reality of science fiction works, such as *Neuromancer*, the definitive cyberpunk romance novel. In the two decades since Clarke and Critcher, the Internet has more than one story to tell about how it has altered our leisure experiences.

Ten years after the publication of *The Devil Makes Work*, around 35million people were online worldwide (Kitchin 1998). Another ten years later in 2009, over 1.5 billion people are online and growth in all regions of the world remains high, though penetration varies considerably (5.6% in Africa versus 74.4% in North America) (see Internet World Stats 2009). In terms of the global digital divide, change is also still occurring. For example, the Chinese online population exceeded the US in 2008 and its mobile 'phone population exceeds the entire UK population four times (China Internet Network Information Center, 2007). We can observe how the Internet has evolved and answer tentatively what sort of space it has become. We know that people use the Internet for many kinds of pursuit, from watching movies to having 'cybersex', with many different practices in between. It is also clear that the Internet is an arena for work-based activity and that, with the rise of social media environments, there is an increasing level of leisure based interactions in the

workplace as a result. In fact, one of the dimensions of the internet in the 21st century is how leisure activity can be construed as a kind of labour.

The Internet has not transformed leisure completely. Instead, its most dramatic effect has been its ability to create new questions about issues the culture industries had thought were resolved, such as the attribution of intellectual property or censorship. There is no clean break between the Internet and these other leisure experiences, though it is frequently clear how the emergence of some new online artefact creates catastrophic consequences for other leisure forms. The sharing of music and film through such platforms as the early Napster, the more recent Pirate Bay and the newest Spotify are exemplars of this temporary system failure.

At a time of financial instability and amidst considerable optimism within the online world, one might wonder when the Web 2.0 Internet bubble will burst. It seems far too early to predict, but the collapse of the first bubble seems to have brought a maturity of expectations to online entrepreneurialism, there is a different culture of risk taking evident in how collaboration takes place. However, perhaps the most defining dimension of computer culture is its transient character. After all, the era of Web 2.0 remains difficult to isolate from previous periods of computer culture and, over the years, academics have prematurely attempted to characterize paradigm shifts of Internet use. Even the notion of social media is contested as a way of distinguishing how today's digital technology should be characterized. Yet, the transient quality of media environments may best capture the way that populations move through different environments. It might also capture the way in which specific platforms evolve and become redundant as more compelling alternative emerge. Thus, we

cannot commit to the idea that any single digital platform we see today will be in use in 5 years from now. As noted earlier, Twitter's challenge to Google – which tried to buy it in 2008 for \$500 million – is testimony to this idea. Consequently, the concept of *transient media* may be a reasonable way of describing today's media culture, as it draws attention to the fluidity of digital environments. It describes both the labour markets that underpin their development and the leisure communities that use them. The mashing-up of data described in the title also talks to this notion, since the relevant, enduring condition of the digital space will not rely on form, but on the cultural value attached to the performative act of mashing up. To this end, the prospect of Web 3.0 has its roots in coming to terms with the transient quality of media environments and the way that institutions orientate themselves around these mobile user communities.

References

Arvidsson, Adam. "Quality Singles': Internet Dating and the Work of Fantasy." *New Media and Society* 8, no. 4 (2006): 671-90.

Associated Press (2007). Pedophile Playground Discovered in 'Second Life' Virtual World. FoxNews: <http://www.foxnews.com/story/0,2933,306937,00.html>.

Bolt, D. and R. Crawford 2000. *Digital Divide: Computers and our Children's Future*. New York, TV Books.

Boyd, Danah. "Facebook's Privacy Trainwreck: Exposure, Invasion, and Social Convergence." *Convergence: The International Journal of Research into New Media Technologies* 14 (2008): 13-20.

Cairncross, F. (1997). *The Death of distance: How the communications revolution will change our lives*, The Orion Publishing Group Ltd, London

Castells, M. (1997). *The Information Age: Economy, Society and Culture: Volume II: The Power of Identity*. Oxford: Blackwell.

China Internet Network Information Center. 2007. *Statistical Survey Report on the Internet Development in China*.

Cleaver, H. M., Jr (1998). "The Zapatista Effect: The Internet and the Rise of an Alternative Political Fabric." *Journal of International Affairs* 51(2): 621.

Compaine, B. M., Ed. 2001. *The Digital Divide: Facing a Crisis or Creating a Myth?* Cambridge, Massachusetts, MIT Press.

Ellison, Nicole. B., Charles. Steinfield, and Cliff. Lampe. "The Benefits of Facebook "Friends:" Social Capital and College Students' Use of Online Social Network Sites." *Journal of Computer Mediated Communication* 12, no. 4 (2007): <http://jcmc.indiana.edu/vol12/issue4/ellison.html>

Florida, R. (2002). *The Rise of the Creative Class: And How It's Transforming Work, Leisure, Community and Everyday Life*. New York, Basic Books.

Gardner, S. and K. Krug. (2005) *BitTorrent for Dummies*, John Wiley and Sons.

Gehl, Robert. "YouTube as Archive: Who Will Curate This Digital Wunderkammer?" *International Journal of Cultural Studies* 12, no. 1 (2009): 43-60.

Grossman, L. "Time's Person of the Year: You." *TIME*, 13 December, 2006. Available online at: <http://www.time.com/time/magazine/article/0,9171,1569514,00.html>

Gye, Lisa. "Picture This: The Impact of Mobile Camera Phones on Personal Photographic Practices." *Continuum: Journal of Media and Cultural Studies* 21, no. 2 (2007): 279-88.

Jones, S.G. (ed) (1997). *Virtual Culture: Identity and Communication in CyberSociety*, SAGE, London.

Kellner, D. "The Media and the Crisis of Democracy in the Age of Bush-." *Communication and Critical/Cultural Studies* 1, no. 1 (2004): 29-58.

Kiss, J. (2009, April 17). *The Pirate Bay Trial: guilty verdict*. The Guardian. London: <http://www.guardian.co.uk/technology/2009/apr/17/the-pirate-bay-trial-guilty-verdict> [Last Accessed: April 22, 2009].

Loader, B. D., Ed. (1998). *Cyberspace Divide: Equality, Agency and Policy in the Information Society*. London, Routledge.

Lynn, Regina. "Virtual Rape Is Traumatic, but Is It a Crime?" *Wired* (2007): http://www.wired.com/print/culture/lifestyle/commentary/sexdrive/2007/05/sexdrive_0504.

MacKinnon, R. (1997). Virtual Rape, *Journal of Computer Mediated Communication*, 2:4, <http://www.ascusc.org/jcmc/vol2/issue4/mackinnon.html>, [accessed: June, 1999].

Markham, A.N. (1998). *Life Online*. London: AltaMita Press.

McCourt, T. and P. Burkart (2003). "When creators, corporations and consumers collide: Napster and the development of on-line music distribution." *Media, Culture & Society* 25: 333-350.

Mayer, M. (2009, October 21). RT @google: Tweets and updates and search, oh my! The Official Google Blog.

Miah, A. "Virtually Nothing: Re-Evaluating the Significance of Cyberspace." *Leisure Studies* 19, no. 3 (2000): 211-25.

Middleton, Catherine. A. "Illusions of Balance and Control in an Always-on Environment: A Case Study of Blackberry Users." *Continuum: Journal of Media and Cultural Studies* 21, no. 2 (2007): 165-78.

O'Reilly, Tim. "What Is Web 2.0: Design Patterns and Business Models for the Next Generation of Software." O'Reilly Net, Accessed 8 July 2006 2005, <http://www.oreillynet.com/pub/a/oreilly/tim/news/2005/09/30/what-is-web-20.html>.

Perdue, L. (2002). *Eroticabiz: How Sex Shaped the Internet*, iUniverse.

Perryman, Neil. "Doctor Who and the Convergence of Media: A Case Study in 'Transmedia Storytelling'." *Convergence: The International Journal of Research into New Media Technologies* 14, no. 1 (2008): 21-39.

- transmedia storytelling – how programming in TV is operating across media platforms, not just one. Example of convergence and breakdown of the linear story.
- Describes a case in Doctor Who where a domain created by the BBC to boost audience engagement appears within the programme as part of the story line.

Raphael, Chad. (2001) *The Web*. In Maxwell, R. (Ed.) *Culture Works: The Political Economy of Culture*. University of Minnesota Press: Minneapolis.

Robinson, Laura., and David. Halle. "Digitization, the Internet, and the Arts: Ebay, Napster, Sag, and E-Books." *Qualitative Sociology* 25, no. 359-383 (2002).

Ruggill, Judd.Ethan., Ken.S. McAllister, and David. Menchaca. "The Gamework." *Communication and Critical/Cultural Studies* 1, no. 4 (2004): 297-312.

Russell, A. (2005). "Myth and the Zapatista movement: exploring a network identity." *New Media and Society* 7(4): 559-577.

Author

Professor Andy Miah, BA, MPhil, PhD, is Chair of Ethics and Emerging Technologies in the Faculty of Business & Creative Industries at the University of the West of Scotland, Fellow of the Institute for Ethics and Emerging Technologies, USA and Fellow at FACT, the Foundation for Art and Creative Technology, UK. He is author of 'Genetically Modified Athletes' (2004 Routledge) and co-author with Dr Emma Rich of 'The Medicalization of Cyberspace' (2008, Routledge) and Editor of 'Human Futures: Art in an Age of Uncertainty' (2008, Liverpool University Press and FACT). For correspondence: email@andymiah.net Prof Miah is present on Twitter, Facebook, Skype, Slideshare, Issuu, Wordpress, LinkedIn, Dopplr, YouTube and Flickr.

ⁱ The idea of *membership* is also made more complex in social media environments. To what extent does clicking on a page convey membership of a community?

ⁱⁱ The phrase ‘mashing up’ has become prominent in the Web 2.0 and describes the opening up of programming language, which allows different applications to integrate. A good example of this is the micro-blogging platform Twitter and the Facebook status updates. Each of these involves a small piece of text – approximately the size of an SMS (text message) – conveying something about what is happening at any one time. By Facebook and Twitter opening up their application programming interface (API), users are able to combine the best facilities of each, so when, say, someone ‘tweets’, their Facebook status update is automatically changed as well. Here, I borrow the phrase to convey how work and leisure have begun to function similarly online.

ⁱⁱⁱ Arvidsson develops a similar concept, ‘fantasy work’, though I wish to emphasize the location of this productive force within the leisure industries specifically. Moreover, he locates the concept in the contexts of dating sites, whereas my notion is broader. I also encompass the notion of ‘gamework’ offered by Ruggill, McAllister and Menchaca (2004).

^{iv} Napster was one of the earliest examples of media sharing platforms, which created considerable legal controversy around 1999-2001 (McCourt & Buckart, 2003). BitTorrent amplified the potential of file sharing (Gardner and Krug, 2005), while The Pirate Bay is a major BitTorrent tracker, which gave rise to a major legal case into breach of copyright – the Web 2.0 equivalent of the Napster case (Kiss 2009).

^v Google AdSense allows website hosts to integrate advertising that is tailored to their users, rather than using generic adverts to a broad audience.

^{vi} However, it is useful to note that offline or traditional media assists the rise of any online platform remarkably. Consider the rise of Twitter in the first part of 2009. Within the UK, its popularization by Stephen Fry – who, at that time, was in the top 10 Twitter users in the world, where the highest tended to be major media feeds, such as the New York Times or CNN – along with other BBC presenters played a central role in its popularization.

^{vii} Gye (2007) provides a very useful case study of the camera phone, which is particularly relevant here because the mobile phone has become the ubiquitous device, always taken around with people.

^{viii} For a detailed study of Blackberry users, which draws attention to its infiltration of non-work spaces, see Middleton (2007).

^{ix} An avatar is a computer users virtual representation of themselves, often as a graphic or animation.

^x The phrase *digital divide* has been utilized by numerous authors, though particularly in Bolt & Crawford (2000), Compaigne (2001) and Loader (1998).

^{xi} The concept ‘hacktivism’ has been used to describe various forms of political action that utilize digital technologies as their primary device. A good example of this is the creation of ‘Add-Art’ (add-art.org) an art project aiming to hack Google, which transformed all commercials presented to browsers into art works.

^{xii} Mashing-up is a phrase common in the Web 2.0 to describe how data from more than one source is combined to create a new kind of online experience, such as embedding photo content from Flickr into Google maps.

^{xiii} See Boyd (2008) for an analysis of one of Facebook’s encounters with privacy settings. In 2009, a similar challenge arose around Facebook, though the user community rebelled and Facebook withdrew the proposed changes.

^{xiv} We can also look to such examples as moments of intellectual property debates. Scrabulous specifically encountered such difficulties.

^{xv} Actually, the platform began by offering the chance to say you dislike a person, but evolved to simply choosing to ‘skip’ that individual, which tells us something about how the etiquette evolved within this space.

^{xvi} I do not wish to dwell too much on this, but it is apparent how some users have created profiles to draw in people to their online pornographic activities or, indeed, for hacking purposes. Such individuals are easily identified by promiscuous profile photographs, along with having an

unfeasibly large number of ‘friends’, most of which are male.

^{xvii} The common ground between this experience and other leisure pursuits is important to stress. For instance, consider how sponsorship operates around major sporting activities, such as the Olympic Games or professional soccer. Arguably, similar processes are at work.

^{xviii} Any number of issues might be discussed from this. For instance, should we think of Google as part of the governmental desire to increase the reach of CCTV. Can the Google cameras be used by the police to assist in fighting crime? Any number of issues has already emerged from Google StreetView, such as individuals protesting at their being published online or automobile licence plates being visualized (they are now blurred by Google).