

Emergent media and what they mean for society, politics and organisations

Jim Macnamara PhD, FPRIA, FAMI, CPM, FAMEC

Introduction

One of the most widely talked about topics today is the so-called ‘new’ media – also referred to as social media, citizen media, digital media, internet media, and a host of other terms. Therein lay one of the challenges that this lecture addresses – reviewing and untangling the web of terminology – along with looking past the hype, claims and counter-claims to try to identify the trends, key issues, and impacts of emergent media in society, politics, the media and organisations.

We are living at a time of enormous change. But we also are living at a time of aggressive global marketing and fashion-driven faddism, nowhere more so than in information technology – witness mobile phone ring tones and the ubiquitous white earphones of Apple iPods. An important imperative for governments, media, industry and society is interpreting what these developments mean and identifying the substantive effects, if any, they will have after their novelty and fashion appeal have passed.

Language and terminology

The first issue we come up against in trying to discuss media is nomenclature. A survey of the mediascape identifies at least 35 common media type descriptions.

<ul style="list-style-type: none">• Press, incorporating• Books• Newspapers• Magazines	<ul style="list-style-type: none">• Cinema, also referred to as• Movies• Film• Video
<ul style="list-style-type: none">• Television / TV	<ul style="list-style-type: none">• Radio
<ul style="list-style-type: none">• Broadcast media	<ul style="list-style-type: none">• Mass media
<ul style="list-style-type: none">• Mainstream media	<ul style="list-style-type: none">• Traditional media
<ul style="list-style-type: none">• Alternative media (<i>Graham Meikle 2002</i>)	<ul style="list-style-type: none">• ‘Indy’ media
<ul style="list-style-type: none">• New media	<ul style="list-style-type: none">• Digital media
<ul style="list-style-type: none">• Community media	<ul style="list-style-type: none">• Social media
<ul style="list-style-type: none">• Citizen media (<i>Clemencia Rodriguez 2001</i>)	<ul style="list-style-type: none">• Peer-to-peer or peer media, also P2P
<ul style="list-style-type: none">• Participatory media	<ul style="list-style-type: none">• User-generated media
<ul style="list-style-type: none">• Interactive media	<ul style="list-style-type: none">• Network media
<ul style="list-style-type: none">• Internet media	<ul style="list-style-type: none">• Online media
<ul style="list-style-type: none">• Multimedia	<ul style="list-style-type: none">• Public media
<ul style="list-style-type: none">• Web media	<ul style="list-style-type: none">• Web 2.0 (<i>soon to be Web 3.0</i>)

Figure 1. Terms used for media.

Many of these are increasingly problematic. For instance, the terms 'radio', 'television' or 'TV', 'internet' and 'Web' focus on media *distribution technology*. However, these divisions are no longer exclusive, with the launch of internet TV and radio being podcast as well as broadcast on VHF and UHF radio frequencies.

'Press' and 'digital' describe media from the perspective of their method of *production*. But the 'press' today includes *www.smh.com.au*, *The Guardian* online and thousands of other newspapers that are no longer only on paper and some of which are not on paper at all (eg. *Crikey.com* and *ohmynews.com* in South Korea). Even 'press' that are still printed on paper use digital production technologies. Digitisation is no longer a defining characteristic; digital is now *de rigueur*.

'Cinema' describes the *location* for consuming certain media content. But, of course, the same content (do we call them movies or films or video?) are also viewed on TV, VCRs and DVDs.

The terms 'film', 'video' and 'newspaper' describe the respective *medium*, its materiality, but this has been changing rapidly over the past few decades from paper and celluloid to magnetic tape, to plastic and to discs, rendering these terms increasingly unstable.

'Mainstream' privileges certain types of media over others based on current but rapidly changing use, while 'traditional' and 'new' are time-bound terms and increasingly out of date in today's fast-changing world. Notwithstanding, Terry Flew (2005, 2008) in *New Media: An Introduction*, Leah Lievrouw and Sonia Livingstone (2002, 2005) in *The Handbook of New Media*, and Virginia Nightingale and Tim Dwyer (2007) in *New Media Worlds*, continue to use the term 'new'. But as Terry Flew acknowledges:

"digital media technologies are now so pervasive in our work, our home lives, and the myriad everyday interactions we have with each other as well as with social institutions, that they are ceasing to be 'new' in any meaningful sense of the term" (p. 2).

The term Weblog shortened to 'blogs' was created in 1997 (Wortham 2007) and began appearing regularly in 1998-99 (Nightingale & Dwyer 2007, p. 109). Google celebrated its 10th anniversary in 2008 and MySpace will be 10 years old in 2009. Even though YouTube was established more recently in 2005, in terms of their age and adoption, with hundreds of millions of users worldwide (Technorati 2008; comScore 2008), emergent internet media are hardly new any longer.

'Interactive', 'participatory' and 'Web 2.0' come closest to identifying the key characteristics of emergent media. But the latter two are not terms that slip easily off the tongue, and a sequential numerical name like Web 2.0, as well as sounding 'techie', suffers from built-in redundancy as it faces inevitable replacement by Web 3.0.

We can see from this brief analysis that many media terms are problematic. It is not my intention to bog debate in semantics. But it seems that the first step to engaging in analysis of media today is reviewing and rationalising the terminology so we can be sure that we are talking about the same thing and focus the lens through which we examine media.

In the title of this lecture I have used ‘emergent’ not as a proposed name, but as a general adjective to describe the evolving range of media today. Others have used this term including Nightingale and Dwyer in their 2007 text on new media (p. 291) and Steven Johnson (2001) who has likened human activity online to slime mould, citing similarities with emergent biological forms. The term ‘emergent’ is also used in relation to artificial intelligence (AI), artificial life (AL) and generative art to discuss change including unplanned and unintentioned developments such as mutations that occur within genetic forms and digital code, and this connotation is useful. Artist Jon McCormack (2004) notes in relation to digital art that emergence can occur both within and outside the digital environment because of learnings gained in the digital environment.

From the outset, it is important to understand that it is not only the so-called ‘new’ media which began in digital form that are emergent. Other media products and practices that were developed pre-digital are also emergent. Roger Fidler (1997) coined the term *mediamorphosis* in the late 1990s to refer to the morphing of media types and forms. A number of studies have identified *intermediation* – the sharing and transfer of content between media types (Danielian & Reese 1989; Severin & Tankard 2001, p. 232) – and Jay Bolter and Richard Grusin (2000) have similarly discussed *remediation* saying “no medium ... can now function independently and establish its own separate and purified space” (p. 55). More recently, Henry Jenkins (2006) in *Convergence Culture* discussed the hybridisation of media, giving examples such as *Big Brother* which involves broadcast television, Webcasting, interactive audience voting by phone and Short Message Service (SMS) text, and fan communities in both the physical world and online (so-called virtual communities).

By focussing on emergent media, instead of only ‘new’ media or particular technologies or uses such as social media, we are able to ensure that our viewpoint takes in the full range of changes taking place. Myopia and what computer scientist John Seely Brown (Brown & Duguid 2000) calls ‘endism’ have flawed many assessments of media over the past 20 years. For example, George Gilder (1994) confidently predicted that the internet would mean the end of television. Philip Meyer (2004) in *The Vanishing Newspaper* predicts the last newspaper will be published in 2043 and Googlezon, a fictional company created from a merger between Google and Amazon gives traditional media even less time in a 2004 Flash movie, forecasting their demise in 2014 (Sloan & Thompson 2004). Endism fails to recognise that emergence is occurring in all types of media – new and traditional.

If we do need to specifically label emergent media and their distinctiveness from traditional media, there is a wide range of writing that identifies a key defining characteristic of emergent media – that of openness. Tim Berners-Lee (2000, p. 183), widely identified as the founder of the World Wide Web in 1989 along with colleagues at CERN, the European Organisation for Nuclear Research, has argued that the Web was always intended to be about *intercreativity*. Many writers such as Terry Flew (2008) cite the importance of open source software and open publishing (p. 41) in what he continues to call “new media” and lists among their key characteristics “embracing diversity and openness” (p. 83).

Open media can be understood and identified by contrasting them with *proprietary media* in terms of their intellectual property and user interaction. Proprietary media are usually copyright and largely closed in terms of access to contribute or comment, and many are closed even in terms of access to read, view or listen, requiring subscription or purchase. Open media content is usually freely available for re-use or remixing or available under

Creative Commons Licensing, and open media have open access to read, view or listen, to comment, contribute and collaborate, and sometimes even to edit.

Axel Bruns (2005a) has already provided some definition and description to give clarity and specificity to what we might mean by open media. Bruns proposes that there are levels of openness at input, output and response stages of media production. Expanding on his definition and discussion, it can be seen that openness begins at a basic level of machine interactivity such as menu selection (although it is arguable whether this is truly open), and ranges to open access (eg. free rather than subscription or purchase), open to comment or feedback, open to contributions, open to editing (eg. Wikipedia), through to open to full user production and control (eg. YouTube and blogs). Rather than fixed levels or definitions, Bruns discusses a “continuum of openness” in media ranging from mainstream media online news where the division between producers and users remains but there is scope for comment and feedback, through to ‘gatekeeping lite’ sites that promote user contributions, editor-assisted open news models such as South Korea’s *ohmynews.com*¹ and *Media Channel* in the US and, at the most open end of the spectrum, fully open media such as Indymedia, *YouTube* and some blogs (Flew 2008, p. 145).

Sally McMillan (2005) also has discussed interactivity and identified different levels which she describes as user-to-system interactivity, user-to-documents interaction, and user-to-user interaction.

Bruns’ “continuum of openness” is useful in avoiding a limiting dichotomy of pronouncing media either completely open or completely proprietary. It recognises that media are situated along a continuum from fully open to fully proprietary with many permutations in between and many will move up and down that continuum.

Philosophies and worldviews

In coming to a discussion of media, there are other issues that, along with the problems of language, ensnare discussion of emergent media and hinder progress. The first is a broad philosophical one. We all come to a subject with a worldview that frames our vision, and two dominant philosophical traditions have framed most discussion of emergent media. On one hand, *political economy* thinking, an objectivist structuralist approach grounded in Marxism and neomarxism of The Frankfurt School, sees media interconnected with and controlled by economic and political power. This worldview has generally presented a pessimistic view of the internet and emergent media, seeing them as becoming colonised by power elites, breaking down social capital (Putnam 1995, 2000) and perpetuating social inequities because of a digital divide² between rich and poor, computer literate and computer illiterate, and connected and unconnected (National Telecommunications and Information Administration 2000; Norris 2001; Novak & Hoffman 1998; Rice 2002, p. 106). Robert McChesney (2000, pp. 33-34) argues that the internet “will likely be dominated by the usual corporate suspects”. Terry Flew (2008, p. 55) seems to agree saying “the digital communications world will appear quite similar to that of the pre-digital commercial media world”.

Conversely, *cultural studies* approaches see audiences as active agents interpreting, filtering, using and appropriating media in their own ways to suit their own purposes. Grounded in subjectivism and poststructuralism, cultural studies identifies that texts are polysemic – that is, open to interpretation by audiences – and posits a much more user-empowered concept of

media. The term ‘audience’ which suggests passivity becomes problematised in this view and is further made redundant by emergent media developments which I will return to later.

A number of new media studies within cultural studies, although not all it must be emphasised, have led to optimistic views such as those of Howard Rheingold (1993) in *The Virtual Community* and Manuel Castells (1996, 2004) in his trilogy devoted to the rise of the “network society”. Many new media studies have tended to see a transcendent capability in emergent media (Flew 2008, p. 38), suggesting that they will transform the public sphere and society into a more open, connected, informed and equitable public space. Writers in this tradition also see transformative effects for business such as Chris Anderson (2006) in the *The Long Tail*.

Notwithstanding, there are critics in cultural studies and elsewhere who argue that these views are overly optimistic. For instance, Daniel Miller and Don Slater (2000) say that Castells (1996, 2004) “overestimates the transformative impact of new media technologies ... and underestimates the extent to which new media are incorporated into an already existing repertoire of socio-cultural activities and relationships” (Flew 2008, p. 92).

So there is a philosophical fork in the road with optimistic transformative and transcendent views on one side and, on the other, pessimistic views of emergent media as inaccessible to many, likely to be colonised by power elites, and/or subsumed within existing social, cultural and political practices.

The second trap which confronts us in discussing emergent media is the dichotomy between *technological determinism* which, in simple terms, claims that technology shapes society and focuses primarily on technology and its feature and capabilities, and the opposite view which maintains that society shapes technology. Marshall McLuhan (1964) was an early proponent of the technological determinism view, epitomised in his famous aphorism “the medium is the message”. More recently, Nicholas Negroponte (1995) lauded the transformative power of digital technology and Neil Postman (1993, p. 71) described modern societies as *technopolies* in which he saw the “deification of technology” dictating social and cultural practices. Contrary views have been presented by British sociologist Raymond Williams (1974) and others who argue that social, cultural, institutional and economic factors shape the choices made about which technologies are developed and how they are used (Flew 2008, p. 44).

Something that academics are often not good at doing as they go about building their theories, often by displacing or killing off other theories, is recognising that answers to questions can be an amalgam of multiple concepts and explanations. Natalie Fenton (2007) in a recent media text does a commendable job of proposing “a holistic approach” to the media by combining political economy and cultural studies theory, and a number of recent studies of emergent media (Flew 2008, p. 41) have attempted to avoid what Steve Woolgar (2002) calls *cyberbole* and identify a middle ground between the extreme positions which helps get past these philosophical roadblocks.

Pierre Bourdieu (1990) gives us a good illustration of the fruitfulness of the middle ground and integration of views in his discussions on the construction of human identity and *habitus*, which are relevant to this discussion as media play a key part in identity construction. Bourdieu incorporates both structuralist and poststructuralist concepts and explicitly combines objectivist and subjectivist thinking (Webb, Schirato & Danaher 2002, p. 36) – in

simple terms, the extent to which I construct my own identity versus the extent to which it is constructed by the social and cultural infrastructure around me. He sees identity as a combination.

In similar vein, we need to be cautious about the dysfunctions of emergent media and recognise the forces that would colonise them and make them like the media monopolies and oligopolies of the 20th century, while being open to the possibilities and opportunities of transforming, or at least significantly enhancing, our lives, our communities, our societies, our governments, and our businesses.

Drawing on a wide range of research, and framed within these philosophical positions, the following discussion seeks to identify the issues in relation to emergent media.

The internet – the network that got away?

Dan Schiller (2000) in *Digital Capitalism*, Robert McChesney and Schiller (2003, p. iii), and McChesney (2008) in his latest book take a critical political economy view of media and argue that the internet has developed as a transnational corporate-commercial communication system to meet the needs of business and that, despite some increased access for citizens, the internet remains overwhelmingly a controlled network and media channel.

The evidence is mounting that this view is flawed. It has to be recognised that modern capitalism has led to media monopolies – for example, Ben Bardikian's (2004) analysis found that five corporations dominate the output of daily newspapers and magazines, broadcasting, books and movies worldwide. Rupert Murdoch now owns MySpace. Similarly, Google owns YouTube. If Microsoft is successful in buying Yahoo! it would also own Flickr and del.icio.us. This suggests that a concentration and corporatisation of media ownership is again occurring as we have seen with press, radio and television.

But can and would Rupert Murdoch want to control access and content of 300 million MySpace users?³ Despite its ownership by Google, the corporate giant of the early 21st century, YouTube continues to operate openly and freely. Why? Emergent media have different DNA to newspapers and the highly regulated cartels of radio and television networks, such as dramatically reduced financial, technical and regulatory barriers. Also, the operations of many have not been monetarised and some show little potential or inclination to become monetarised. So it is difficult to conceive of internet media such as blogs and online communities becoming completely corporatised.

There inevitably will be ongoing endeavours to control and manage information flows and connectivity via the internet – indeed there are attempts underway in China, in the US intelligence community and other places. But the decentralised and ever-growing nature of the internet operating across national borders and continents frequently beyond the control of even powerful governments let alone corporations; the continuing momentum of open source software; the technological innovations that have broken down the technical and cost barriers to publishing and media production such as easy-to-use freeware for blogging; and the growth and enthusiasm of collaborative knowledge communities applying the power of collective intelligence (Lévy 1997a) means that control of media is becoming difficult if not impossible.

In the March 2008 Malaysian election, the long-reigning coalition, Barisan Nasional (National Front), despite owning and controlling the major traditional media in Malaysia, found itself decimated in the polls because the population turned to blogs for independent information and bloggers provided this (Study shows why BN lost media war 2008).

The internet was designed and built in its decentralised inter-networked way to withstand nuclear holocaust, so it is unlikely that power disruptions, equipment failure, government or even military might will bring it down short of global catastrophe. It may have started as a government scientific and military network, but there is considerable evidence that the internet is the network that got away.

The myth of cyberspace

An overriding concept that frames much discussion of the internet and what some call computer mediated communication (CMC) is the notion of *cyberspace*⁴. Despite the important contribution of Pierre Lévy's (1997b) book titled *Cyberculture*, cyberspace is a much over-imagined space that deflects our attention from the real issues.

The problem of generalising about all that is online as cyberspace is that it focuses attention on things happening in some other space, not here, and it posits interactions conducted through these media as *virtual* reality – that is, not real. One writer, Joseph Lockard (1997, p. 225) argues that “cyberspace is to community what Rubber Rita (an inflatable sex toy) is to human companionship”. This is typical of concerns about loss of social capital caused by media as espoused by Robert Putnam (1995, 2000) and investigated by many others since.

This discussion has echoes of the sometimes hysterical debate about alleged negative effects of television in the 1960s and 1970s in which it was argued that it would turn children into zombies. Since, we have seen television viewing by teenagers decline (Australian Communications and Media Authority, 2007; Jenkins 2006, p. 244) and prophecies of dire social consequences fail to materialise.

In their ethnographic research, Miller and Slater (2000) rejected assumptions about a distinction between ‘real’ and ‘virtual’. They say we “need to treat internet media as continuous with and embedded in other social spaces” (p. 5) and ongoing research being conducted at UTS confirms this view.

An interesting comparison to move discussion beyond the nascent and still highly emotive realm of computers is the telephone. The first time an infant is told that “Grandma is on the phone” she or he peers cluelessly into the piece of plastic and asks incredulously “Where’s Grandma?” “She’s *on* the phone” the parents assure the infant. Grandma on the phone is not a virtual grandmother and she is not an object suspended in cyberspace. She is real sitting comfortably in her home. After a few years, or even months, this mediated communication is as seamless and as part of reality as talking face to face for the child and grandma. Why is “Grandma on the phone” normalised and real to us and yet “Grandma on the internet” is Grandma in cyberspace? It suggests that we simply have not got used to emergent media. We are in what Pierre Lévy (1997a) calls an “apprenticeship” in recently developed media.

Ronald Rice (2002, p. 124) acknowledges claims that mediated communication can impoverish interaction, but reports that “surveys and ethnographic studies show that rich,

fertile, diverse and expanded interactions are possible through the internet". Don Slater (2002, p. 544) remarks that "it is more than likely that the online/offline distinction will be regarded as rather quaint and not quite comprehensible inside ten years".

We do not go to cyberspace when using the internet; we communicate from our space, in our time, and it is natural to do so for what Marc Prensky (2001) calls 'digital natives' along with assimilating 'digital immigrants'.

The disappearing computer

Another important development in emergent media is the disappearing computer. In the late 1990s, Donald Norman (1998) proposed the invisible computer and recent research such as the Disappearing Computer Initiative (2004) in the US and work at CSIRO highlights that computers are disappearing – although you might not think so looking around your office or UTS. While screens are ubiquitous and getting bigger, computers are getting smaller and being placed inside screens such as in the Apple iMac and inside many products we use daily.

However, the disappearing computer refers not only to the increasing physical invisibility of computers, but to the important notion that computers are disappearing from the consciousness of users (Streitz & Nixon 2005, p. 34; Disappearing Computer Initiative 2004).

As with the telephone, the TV set and the video player, it is only the first generation of computer users whose senses are assaulted by them and who harbour fears that they will wrest control from humans and take over our lives like Hal in *A Space Odyssey: 2001* or "The computer says no" in *Little Britain*. The phobias that have been expressed in science fiction as well as in much academic literature will inevitably require revision with the passage of time and experience as we pass beyond Pierre Lévy's (1997a) "apprenticeship" period.

The disappearing telecommunications network

Similarly, while some scholars such as Manuel Castells (1996, 2004) and Jan van Dijk (1999, 2005) attach great importance to networks, telecommunications as well as human, we are also seeing the disappearance of the communications network in terms of its structure and even its rules and protocols for connectivity. The first example of this is the change from being 'logged on' to being *always on* (Flew 2008, p. 250). In the early days of the internet and the Web, users had to 'log on' which was a process that took several minutes, accompanied by lots of scratchy static coming out of a modem. It sounded like you were connecting to a space ship in a distant galaxy. It took a mental shift to 'log on' and you were reminded at every step that you were 'talking' to computers.

Compare the requirements and language of 'logging on' to today. An Australian Communications and Media Authority (2007) report on use of media by Australian families released in December 2007 reports that 98 per cent of Australian homes now have a computer, which is more than the percentage that have DVD players (97 per cent), and 91 per cent have internet access, with 76 per cent having broadband. Three-quarters of homes and close to 100 per cent of offices with broadband have permanent connections to Internet Service Providers (ISPs) which means they are permanently on the internet. Furthermore, wireless networks have extended the internet and telecommunications to provide almost 'anywhere, anytime'⁵ communication.

Today, computers and communications networks are ubiquitous and always on, but becoming physically and psychologically invisible for the growing population of ‘digital natives’ and assimilating ‘digital immigrants’ (Prensky 2001). We have to look beyond the wires and cables and computers for what it all means. Historian Lisa Gitelman says that media operate at two levels, first as a technology that enables communication and, second, as a set of protocols and social and cultural practices that grow up around that technology (Jenkins 2006, p. 13). In the *Second Media Age* that Mark Poster (1995) says we have entered with internet media, the protocols and social and cultural practices become more significant and are foregrounded, as the technology becomes commonplace and backgrounded.

Media are becoming immaterial

As we close in on understanding emergent media, recognising that (1) the wide range of terminology can be rationalised as much of it is redundant and unnecessary, (2) cyberspace is not some other mysterious place but is right here – it’s our space, albeit our space on steroids; and (3) computers and telecommunications networks are not the key elements that define media and communications today, I would like to go further in this narrowing down of elements and suggest also that media themselves are becoming immaterial.

That is not to say that media per se do not matter. The term ‘immaterial’ is used here in a specific way to denote that the materiality of media is no longer their key defining characteristic. With digitisation and convergence⁶, media content pays no mind to the material on or through which it is presented. Increasingly, with convergence and media hybridisation, content traverses multiple media. Also, increasingly users do not come to content by way of choosing a medium. They seek out content and applications for a particular use. Media are more about *software* than hardware – applications and content that we produce or seek to access. Distribution systems and materiality of media are of decreasing interest except the manufacturers and technical managers of those systems, the *technorati* of media.

The concept of *media as immaterial* is similar to what Lev Manovich (2006) in a paper on media in art calls “post-media”. Studies in art further inform our understanding of media when we examine the site of art today. Attention has shifted from the object (the painting, piece of sculpture or installation) to the process of making – or, to draw on Gilles Deleuze, the process of *becoming* which is increasingly seen as an ongoing collaborative process between producers and viewers, readers and other participants (Colebrook, 2002; Deleuze & Guattari, 1988). Media are *becoming* software – that is, *becoming* (in the Deleuzian sense) content and applications.

Against that background, let me then try to identify some of the key impacts that emergent media with the characteristics described are having and are likely to have on society, politics, culture, media practitioners, and on business and organisations

The impacts of emergent media

Paul DiMaggio and his colleagues provided one of the first detailed assessments of internet impacts, particularly in relation to the Web, in 2001. Figure 2 draws on DiMaggio, et al (2001) and expands and updates the positive and negative impacts that various scholars and observers have identified and those which have been noted in this analysis.

IMPACT	POSITIVE EFFECTS	NEGATIVE EFFECTS
Social equity	Increased access to information Declining cost of information access Access to communities unlimited by geography Online education	'Digital divide' means those without digital access or literacy miss out Online pornography, paedophilia and financial fraud
Community	New forms of social interaction Opportunities for collective intelligence and knowledge communities to share knowledge and gain power through collaboration	Loss of social capital – reduced personal interaction Creation of digital enclaves of like-minded people feeding each others prejudices Loss of privacy
Politics	New opportunities for political engagement A more effective 'public sphere' of debate Opportunities to reach isolated communities and for isolated communities to reach politicians and institutions	Domination by power elites which colonise cyberspace Popular culture corruption of politics, lowering of political debate (eg. spoofs and parodies) Creation of pseudo-organisations
Organisations	Flexible organisations – eg. homeworking Networked interaction for collaboration More horizontal channels of communication	New forms of internal surveillance (eg. e-mail) Online communication remains top-down Online becomes a low-trust environment
Business	Engagement with stakeholders Low-cost e-commerce (online sales) 'Long Tail' business models to cost-effectively reach niche and small markets (Anderson 2006) Market research from tracking user Web trails New forms of individual marketing	Fragmentation of 'audiences' requiring more micro-targeting Increased opportunities for criticism and public attack (eg. blogs, YouTube videos) Loss of control over brands in participatory media
Culture	Demassification of access to content Everyone can become a media producer	Hyper-segmentation, digital enclaves, fragmentation and dilution of common culture

Figure 2. Impacts and effects of the internet and emergent media (based on DiMaggio, Hargittai, Neuman & Robinson 2001 and this analysis).

An interesting overall observation illustrated in this table is that there are near equal numbers of potential positive impacts and negative impacts from emergent media. That underlines the tensioned dialectic of emergent media. They are software and networks that can work for the forces of darkness and the forces of light – and sometimes both at the same time.

Social effects

While Marshall McLuhan's views were largely in the tradition of *technological determinism* privileging technology as the driver of change rather than users, and have been criticised for that, his oft-quoted aphorism that "the medium is the message" (McLuhan 1964) reminds us that media have effects beyond those of their specific content. Media often wreak broad-based social change. For example, television changed dining habits, created a new category of packaged food – the TV dinner; spawned new teaching methods in schools; led to the restructuring of scheduling and even the rules of sports such as World Series cricket; and caused a host of other impacts in societies.

What will be the social impacts of emergent media beyond the immediate effects of their content? Some change is evolutionary and a continuum of previous media effects. We are seeing further revolution in education because of the internet. Other changes that we see emerging are the disappearance of photo albums and personal diaries, as these become replaced by blogs and digital images posted to Flickr, MySpace or Facebook. Shopping is changing, with product research, price comparisons and functional buying increasingly done online. Mobility will continue to become a feature of society, triggering further changes in family, organisational and business relationships.

Emergent media provide additional tools for the construction of identity – both human and brands in the commercial sector. Dealing with the former first, human identity is constructed through what Michel Foucault (1988, 2000) called “technologies of the self”⁷ and Anthony Giddens (1991, p. 100) terms “narratives of the self”. Along with identity narrowcasting through dress, mannerisms and lifestyle, media provide ways of constructing and amplifying identity. Australian feminist writer Bronwyn Davies (1993, p. 11) elegantly says “we write ourselves into existence” using resources available to us. When someone can build a great Facebook site and publish a blog, perhaps they may not have to throw themselves in front of television cameras at sporting fixtures or ‘streak’ across public playing fields. However, on a sombre note, recent court cases over harassment on the internet, in some cases leading to suicide of young people, illustrate the duality that the internet presents.

Emergent media are also having profound effects on politics, culture, journalism, advertising, and on business and organisations and these impacts, discussed in the following, should also be read back on to society.

The Public Sphere

While research by UTS found that the 2007 Australian federal election was not “the YouTube election” as it was dubbed by some newspapers (Australian Centre for Public Communication 2008), it found major change is underway in the ‘public sphere’ of political debate which Jürgen Habermas (1989) proposed is “part of the bedrock of liberal democracies” (2006, p. 412) and which, despite criticism, remains an enduring concept.

Habermas (1989) conceived the public sphere as an important forum of “rational-critical debate” in which “citizens come together and confer freely about matters of general interest”. Noting that politics in modern societies, particularly democracies, is largely mediated (Corner 2007, p. 212), a number of scholars such as Nicholas Garnham (1992), Kevin Howley (2007, pp. 343, 358) and Mark Poster (1997, p. 209) note that today media constitute a key discursive space for the public sphere.

The Habermas-envisioned public sphere has been criticised as utopian and unachievable by some scholars because of its “idealisation of public reason” (Curran 2002, p. 45). Others argue that it is an important element of deliberative democracy and remains unrealised because of social inequities that need to be addressed such as unequal distribution of power (Foucault 1980, 1998) and limitations on individuals’ access to this discursive space – eg. domination by white bourgeois men (Howley 2007, p. 345).

In the age of the internet, the public sphere has been seen by some to deteriorate further. Habermas (2006, p. 423) and others such as media theorist and internet activist Geert Lovink (2007) and Henry Jenkins (2006, p. 237) have expressed concern that emergent internet media have contributed to a fragmentation of society into “digital enclaves” of like-minded citizens reinforcing their own narrow range of views and prejudices rather than interacting to gain information and reach consensus. Indeed, a number of scholars propose that instead of a single public sphere, there is a multitude of overlapping public spheres and “public sphericles” (Fraser 1992; Gitlin 1998; Goode 2005; Howley 2007; Meadows 2005).

Also, Habermas and critical theorists of the Frankfurt School saw the rise of consumer culture promoted by *mass media* with their focus on commercialism and entertainment as a primary influence eroding the public sphere (Howley 2007, p. 343). Michael Margolis (1996)

and Margolis and David Resnick (2000) argue that this has continued with internet media, saying “ordinary” politics has invaded and captured cyberspace” stifling its transforming capabilities. A 1997 Markle Foundation review (cited by Bentivegna 2002, p. 56) commented that “at worst, the internet produces a web of deceptive information, at best it offers a flow of decontextualised information that is hard to decipher and utilise”.

Popular culture politicking was evident in UTS research into use of emergent media in the 2007 Australian Federal election which reported that “there was more use of some Web 2.0 type media for producing and distributing parodies and spoofs of political communication than for official political communication” (Australian Centre for Public Communication 2008, pp. 10-11). This research cited YouTube posted videos capturing inopportune moments such as Kevin Rudd apparently picking and eating his ear wax in parliament; mash-ups⁸ that parodied and sometimes ridiculed politicians and political issues such as numerous remakes of John Howard’s 2007 climate change speech; and pop-culture campaigning such as the music video ‘I Got a Crush on Obama’ sung by ‘Obama Girl’ which was allegedly viewed by 20 million people in just a few months (Crabb, 2007; Davies, 2007).

However, British politics professor John Street (2001) says it can be argued that, far from being a deterioration of the public sphere, emergent media with their more open access and more user-friendly interface, format and language offer the potential for its reinvigoration. Lisbeth Van Zoonen (1998, pp. 49-50) suggests that the reconnection of politicians with popular culture is necessary for “constructing the politician as a human being with her or his individual peculiarities, rather than as the representative of particular policies or ideologies”. With newspaper readership and television viewing declining, especially among young citizens (Australian Communications and Media Authority 2007; Newspaper Association of America 2005; Roy Morgan Research 2007), voters need to find new frameworks and environments in which to gain political information and discuss political issues. An alarming reverse implication is that, if they do not, many more may disengage from politics.

David Buckingham (2000) in *The Making of Citizens* reports that children find the language of politics unfamiliar and uninvolved compared with popular entertainment (Jenkins 2006, p. 227). So the playing out of politics and political discussion within popular culture, or at least on the borders of popular culture, is perhaps a healthy change and an opening up of political discourse, even though it raises new challenges to address.

The internet is a “more crowded, noisy, chaotic, competitive, and rancorous communications space than was envisaged for the modernist public sphere”, according to Brian McNair (2006, cited in Flew 2008, p. 165). However, perhaps it is time to abandon the political elite view of the public sphere and consider a broader and more inclusive definition which accepts a wider range of communication that expresses individuals’ and groups’ views on political issues. Is a scream any less authentic and any less evocative than a rational statement? Whether one is reviewing the art of Munch (1893) or considering the metaphorical scream of culture-jammers and cyber-graffitists, a viewpoint is being expressed and when it relates to matters political should it not be recognised as a vital and dynamic part of the public sphere?

The Australian Federal Government has recently endorsed emergent interactive media as a forum for public policy debate and consultation with an announcement by the Minister for Finance and Deregulation, Lindsay Tanner, at the CeBIT conference in Sydney on 21 May of

a trial government consultation blog as part of an *e-government* initiative (Tanner 2008). This will be a major development to watch.

Culture

This also raises the issue of cultural production more broadly. Traditionally people made their own culture in tribes and villages and communities. Then cultural production was taken over by *mass media* and culture industries. They raided folk culture for their ideas and narratives, but cultural production became centralised. Emergent internet media give people a way back to culture making. They can begin to make their own culture again and this includes raiding big media culture and appropriating it, which seems only fair.

Alvin Toffler (1970, 1980) first prophesied the *prosumer*, the consumer who would turn the tables and also become a producer, as far back as 1970 in his book, *Future Shock*. He elaborated on *prosumers*, what others call *producers* (Bruns 2005b; M/Cyclopedia 2008) in his 1980 book, *The Third Wave*. Charles Leadbeater and Paul Miller (2004) refer to the crossing of this professional/amateur divide as the PRO-AM revolution. They and many writers such as Jean Burgess (2006) see the growing capacity for ‘ordinary’ people to participate in cultural production across the professional/amateur divide that has existed in media for most of the past 200 years as a democratising force in society – although it must be noted that some see loss as well as gain in this transition. For instance, Geert Lovink (2007) sees blogs helping users escape from single universal ‘Truth’ and “lecture” in traditional media only to reach nihilism, a nothingness as truth dissolves into pluralities of viewpoints and banalities produced by what he terms “pyjama journalists”.

At this point is perhaps appropriate, even necessary, to raise the problems that surround the term ‘audience’ and to suggest that it, like many other media terms I have mentioned, also has become redundant. Throughout most recorded history of literature, arts and media, we have privileged the position of the speaker, the author, the artist, the producer, the journalist, and used a range of terms for the ‘others’ who listen, read, view or contemplate their work. Along with specific terms such as readers and viewers, one of the most common terms for these others is ‘audience’. In the main, audiences have been conceived as passive recipients of culture and communication. In the theatre they sit hushed in darkness and are rebuked sharply for any transgression, while the white cube art gallery has seen them similarly cowed and quieted. In advertising and marketing, we invented other terms including ‘consumers’ (their’s is not to reason why, their’s is but to consume and die). Even further, marketers and public relations practitioners lined them up in their sights and called them ‘targets’, ‘target audiences’ and ‘target markets’.

Not so any more. In the interests of accuracy, we need a new term for the objectified ‘others’ whom we enjoin in communication – those who Professor of Journalism at New York University Jay Rosen (2006) calls “the people formerly known as the audience”. Whether they are invited to contribute or decide to communicate publicly by themselves, *prosumers* or *producers* will be major influences in 21st century societies.

What term then can represent this hybrid receiver/transmitter in communication? The terms *prosumer* and *producer* are jargonistic and the latter is even difficult to say. Therefore, despite advocacy by Axel Bruns (2008) in his latest book *Blogs, Wikipedia, Second Life and Beyond: From Production to Prodisage* and the Web site <http://produsage.org>, such terms are unlikely to find their way into general usage. We need something simpler. Some have

adopted the term media 'user' which is a simple and more accurate description. We all use media in some way – and the implication of drugs is not altogether irrelevant. Another suggestion is to refer to people involved in mediated communication as 'participants'. Journalist, authors, producers, bloggers, video makers, and so on are all participants – as are voters in TV shows, comment posters in Web sites and MySpace and Facebook creators. Even the lurkers on the internet who observe without contributing and the couch potatoes who simply sit in front of a TV or computer are participants in the sense that they are engaged in interpreting information and using it in various ways. People participate at different levels and one could usefully establish a scale such as professional participants, semi-professional participants, active amateurs, and passive participants.

Journalism

A 2007 seminar titled 'Journalism Matters' sponsored by the Engineering, Printing and Manufacturing Union (EPMU in New Zealand was told by several media speakers that "technology is redefining journalism, changing the way journalists do their work, and providing new means by which that work is presented to the public" (du Fresne 2007, p. 5). Some journalists express concerns that the entry of 'citizen journalists' to distribution of public information, bypassing media 'gatekeepers'⁹ such as editors, is resulting in misinformation being propagated. Also, journalists express concerns that the pressure of online reporting which involves filing stories quickly and often updating them as information comes to hand denies journalists time to check information and "does little to facilitate reflection" which may lead to a deterioration in journalism (Jackson & Paul 1998, cited in Boczkowski 2002, p. 274). Others are concerned that a requirement for news reporters to be interviewers and writers as well as photographers, video camera persons and sound persons (Foley 2007, p. 6) places debilitating demands on media professionals.

Nevertheless, traditional media cannot ignore the falling readership, viewership and listenership of their products at the same time as an unprecedented increase in blogs, estimated at 112.8 million in early 2008 (Technorati 2008) and the popularity of YouTube which has an average of more than 80 million video viewers per month (comScore 2008). The 'people formerly known as the audience' (Rosen 2006) are voting with their fingers and ears and eyes.

A recent paper by Mark Deuze, Axel Bruns and Christoph Neuberger (2007, p. 20) comments that "whether the practitioners in ... news publishing are enthusiast participants in the process or not, the process of increasing hybridisation and convergence between the bottom-up and top-down models of newswork is already in full swing around the world". Major journalism schools such as the University of California, Berkeley Graduate School of Journalism and the University of Southern California Annenberg School for Communication which jointly house the Knight Digital Media Center (2008) are now actively teaching and encouraging journalists to embrace interactive online media.

In a speech to the Future of Journalism Summit in Sydney in 2008, Jay Rosen described the future as "frightening and exhilarating. Frightening because livelihoods and long-cherished cultures may be threatened, and exhilarating because new online media forms offer ways of re-engaging with a disenchanted audience" (Ricketson 2008, p. 4).

The relationship between traditional media professionals and emergent media participants is likely to continue to be tensioned and at times competitive, but it is also symbiotic and

synergistic. In a world of open unedited citizen reporting and commentary, the role of journalism would appear to be more important than ever as a source of reliable, verified and balanced information. But journalism must be open to change and dynamically embrace the future, not cling to past elitist notions of the 'power of the press' and entrenched work practices and cultures.

Advertising

Advertising, which is the underpinning business model of most media, is also being significantly impacted and profound, even revolutionary, change in advertising is occurring.

Online advertising has grown to over US\$40 billion in just 15 years, increasing by 23 per cent in 2008 over 2007 and is now larger than radio advertising (Deloitte 2008, p. 6). While total global advertising spending in 2007 was US\$446 billion, online advertising is predicted to grow six times faster than traditional media advertising through till 2010 and by then is forecast to represent 10 per cent of all advertising (Deloitte 2008, p. 6). However, online advertising faces a number of major challenges, according to a leading industry report, including criticisms for poor research methods in measurement from advertisers, growing antipathy to online advertising among internet users, and growing opposition to tracking of online behaviour (Deloitte 2008, p. 6).

After rapid growth in online advertising in 2005 and 2006, online advertising growth rates slowed in 2007 (Morrison 2008) causing speculation that the 'bubble' had burst and that emergent media are a passing fad. However, a closer analysis shows that advertisers are reducing or holding back on internet advertising not because of lack of impact, but because of lack of reliable measurement of impact and effects. A survey conducted for the Australian Marketing Institute by research company Colmar Brunton in association with the University of NSW, has found "that most senior executives are dissatisfied with the quality, timelines and depth of marketing metrics available to them", particularly with online media (Shoebridge 2007). In early 2008, the global head of media strategy for IBM publicly called for improved internet measurement (Sharma 2008). In response to criticism and pressure for better understanding of online communication, the Internet Advertising Bureau has called for proposals for a new single standard internet audience measurement method from research companies such as Nielsen NetRatings, Hitwise, comScore and Roy Morgan (Sinclair 2007, p. 33; Waugh 2007, p. 50).

With emergent media, the tasks of reaching target groups and measuring effects appear to be more difficult because of what is termed *audience fragmentation* which has been widely written about (de Sola Pool 1990; Jenkins 2006, pp. 238, 243). The term *mass media* was coined in the 1920s, leading to the concepts of *mass audiences* and *mass markets* and these have been pre-eminent paradigms of media management, marketing and media effects research for the past 80 years (Curran & Gurevitch 2000; Hoggart 2006).

For a time, protected by patented technology, strict regulatory environments, and commercial monopolies and oligopolies, media organisations did succeed in herding people into mass viewing, listening and reading of content. In 1954, 74 per cent of Americans clustered around TV sets to watch *I Love Lucy* every Sunday night (Anderson 2006, p. 29). Commercial deals can still wrap up exclusive rights to the Super Bowl, Formula One Grand Prix and the AFL Grand Final creating, for short moments, large numbers of viewers and listeners and readers.

However, as far back as 1927, John Dewey argued that thinking of the public as some mass or aggregate is not useful in understanding how society works (Grossberg, et al 2006, p. 390). In 1958, the noted British sociologist Raymond Williams (Anderson 2006, p. 185) wrote in *Culture and Society*: “There are no masses; there are only ways of seeing people as masses.” Mass audiences, mass markets and mass media have been artificially-created and largely illusory groupings of people (Deuze 2005). They existed mainly in the wishful imaginations of media proprietors and marketers who have defied and ignored fundamental realities of human society. Even when people were forced into large audiences because of limited choice, regulated technology, and cosy commercial oligopolies, they were always individuals and small communities of interest.

As US media analyst Vin Crosbie says of emergent media and the alleged fragmentation of audiences: “The individuals haven’t changed; they’ve always been fragmented. What’s changing is their media habits. They’re now simply satisfying the fragmented interests that they’ve always had” (Anderson 2006, p. 181). People now have choices and they can be expected to increasingly exercise those choices.

Emergent internet-based media have characteristics that provide opportunities to better identify and engage with people and to better measure use of media. This is not the place for a discussion of the detail of how emergent media can be measured, but a few points are worth noting.

Simply counting users’ clicks and measuring what marketers refer to as ‘eyeballs’ are crude and unreliable methods of measurement. Also simple page views tell us very little about what people actually looked at and thought about. The online advertising industry is under great pressure to come up with a reliable method of measuring emergent media, with billions of dollars at stake, and also those concerned with media and their effects in society from social, cultural and political perspectives have similar interests in understanding the impacts and effects of emergent media.

A number of unique characteristics of emergent media need to be recognised and these require new approaches to measuring impacts and effects. These characteristics exist on the positive and negative side of the equation. For instance, with emergent media we often do not know the author or even the media product, such as in the case of an unknown blogger. How do we determine source credibility which, as far back as the late 1940s, Carl Hovland and Walter Weiss (1951) found to be important in communication? One suggestion is that this can be done through tracing links that show interconnections. For instance, if a blogger is unknown, but has been linked to by other A-list bloggers and journalists from well-established known media, that information suggests some credibility. This demonstrates that brands, whether they are media products or people, are likely to remain key touchstones in the future. They provide signs and beacons for people to navigate commerce and culture. Also, tagging¹⁰ and other folksonomies of internet practice such as user ratings can help establish source credibility.

On the other side, emergent internet-based media provide additional unique opportunities to track usage. Software readily available today on servers can track the duration of time spent with media (an indicator of engagement); return visits (identifying what marketers call ‘stickiness’); where users go next (showing intertextuality); and links between users (revealing networks and nodes). Along with selections from menus, downloads, and what

users click on next, this data establishes trails and patterns which, over time, can form vast databases of information about users.

While many are still grappling with the concept of Web 2.0, Web 3.0 is being built. Web 3.0, described as the *Semantic Web*, is a more intelligent Web in which the largely unstructured information that we have at present (i.e. lots of separate documents in natural language) will be steadily replaced by structured information that will be more easily found and matched with users. Web 2.0 is characterised not only by introduction of intercreativity and interaction, but also by a transition from ‘surfing’ to ‘searching’ and search engines such as Google, Yahoo!, NineMSN and Baidu in China have made finding relevant information much easier and faster. But they still work on a rather basic method of matching search words to words in pages and meta names. The *Semantic Web* involves publishing information using a sophisticated data language such as Resource Description Framework (RDF) which categorises and describes people, products and concepts in machine language (i.e. metadata to describe textual data) that then allows more information to be found more easily by computers. Also, new technologies employed in Web 3.0 will ‘remember’ information about users and use its ever-growing profile to match them to information, other people, products and services (MacManus 2007). The first signs of the *Semantic Web* can be seen at Amazon.com when, once you have bought a few books, the system starts to make suggestions based on what it has learned about you from your past viewing and purchases. On one hand that is a user benefit. But imagine if that mapping of you happened not only inside Amazon.com, but right across the entire Web.

This is the second side of Web 3.0, an invisible underside that new technologies are able to read to retrieve explicit information provided by users such as their name and other data deposits that they leave in various places around the Web, as well as implicit information gleaned from *clickstreams*. Every time we click, everywhere you click, we are leaving a trail that new technologies can trace to see where we have been, what we have viewed and downloaded to understand our interests, desires, preferences and even our secrets. Over time, a vast amount of information is able to be accumulated. Web 3.0 will provide vast new resources for market research and market intelligence. But for social scientists, Web 3.0 will be a significant concern. Web 1.0 was an online beachhead established by the incumbent powers of media and communication; Web 2.0 is a liberating phase opening up proprietary spaces for creative and entrepreneurial individuals and small communities; Web 3.0 will continue the dialectic, the struggle, as the needs of and opportunities for organisations and business are pursued in a tensioned relationship with the desires and rights of individuals for privacy and protection.

Media business models

What has not been built to date, but is needed, is an alternative business model to traditional advertising. While subscription has offered a revenue source to fund media communication to some extent, subscription seems to be successful only at the value-add level such as advanced features and services. A Deloitte Technology, Media and Telecommunication report in 2005 on ‘Television Networks in the 21st Century’ (Deloitte 2005) identified a need to find alternate business models and proposed options including operating as ‘gateways’ to the media market at large, becoming service providers, or diversifying into consumer products. However, most media content remains funded by advertising.

The problems with the current advertising-based business model are three-fold. With emergent open media, it is losing the structure (read captive audience) that made it successful. Second, methods and formats that suited the previous structure such as 30-second TV commercials designed for inattentive mass audiences and large format print ads do not readily transfer to emergent media. Third, traditional advertising is facing public resistance evidenced in channel hopping and the uptake of TiVo[®] technology, pop-up blockers and other ‘ad strippers’ that have been developed. A 2007 media survey of 2,200 US citizens found that 76 per cent find online advertising more intrusive than print ads and 28 per cent said they would pay to avoid seeing advertising (Deloitte 2007). This resistance can be expected to grow, served by continuing development of anti-advertising technologies within the open source software sector.

One new approach to advertising has been identified in what is termed the *Attention Economy* (Iskold 2006; Iskold & MacManus 2007). The Attention Economy is about buying attention. We know that attention is hard to get. Therefore it is valuable. But, traditionally, advertising has offered no reward for people’s attention. It has paid the medium for its space or time when the real product being purchased in advertising is the attention of media users. There are three key features of the Attention Economy approach. First, advertisers would pay a proportion of advertising fees to media users for their attention – either directly in cash or in credit points that they could use to buy products or services – and the balance to the media. Second, media users would have the option to receive advertising or not and to select the categories of advertising that they receive. Alex Iskold and Richard MacManus who write about this model extensively say “the key ingredient of the attention game is relevancy” (Iskold & MacManus 2007, para. 6). In fact, this model could well be called Relevance-Based Advertising. User selection or nomination of relevant content could be built into Web browsers or occur via a third-party plug-in. A user would – one could argue should – be able to set up their profile and check boxes either for ‘no advertising’, or select subjects such as ‘Travel’ and then specific items in sub-menus such as ‘New Zealand’. Then the user would only receive advertising on that topic. Profiles could be changed so that a user who comes into the market for a holiday could invite advertising from airlines and travel operators and then deactivate this advertising once they had selected their product. Users could also record their name, age, gender and other personal details such as tastes, preferences and interests in their profile.

This leads to the third important element of the proposed Attention Economy model of commercial media which is that, rather than hold users’ personal information in vendors’ databases, all user information would be held in a third party database where it would be available in Read Only form to advertisers in user-agreed segments, but password protected and unavailable to others.

This approach provides benefits to both media users and advertisers. Users would control their personal information and be able to update or remove it at any time, as well as be able to select relevant advertising and reduce invasive and interruptive advertising. Advertisers would have access to few media users, but those to whom they have access would be qualified prospects in marketing terms with an interest in the products or services advertised and advertisers would have access to media users’ information across the entire internet, a vast and valuable store of market research and intelligence.

A more interactive and personalised online advertising environment would enable delivery of richer information to media users than frenetic 30-second television commercials and glib short-copy press advertising which were designed to achieve 'cut through' in the world of scheduled mass broadcast television and mass circulation publications.

A responsible business model that recognises public issues such as privacy is essential to address tensions that will arise between media users of various types and improve the experience of media engagement which must be part of product improvement for the media and marketing industries. The days of ramming advertising down the throats of powerless 'punters' are rapidly drawing to a close. On the other hand, new opportunities for richer, more relevant media engagement are available.

Organisations and business

In addition to flow-on effects from social, political, cultural and advertising changes already discussed, emergent media will have other impacts on organisations and business. Some of these include:

- Transparency and accountability will be under scrutiny more than ever. With every mobile phone potentially a recording and publishing device, it will be near impossible to hide or cover up anything. A review of governance policies and standards would be a good investment for organisations;
- Also, this will require much widened media monitoring to track brands, products and corporate reputation. Media monitoring now needs to include blogs, YouTube, and conversations and chat in public Web sites. A 2008 survey of senior marketing managers in global 'blue chip' companies by TNS in the US, Canada, UK and France found that a majority believe that blogs and what they termed social media sites such as MySpace and Facebook are not a passing fad (TNS 2008);
- In public relations, the rules and practices of media relations are being rewritten. While traditional media are typically contacted by phone, e-mail, media releases, or invited to events such as news conferences or briefings, bloggers and other emergent media participants typically do not take phone calls, do not use media releases, and do not attend events. Some media participants, such as bloggers, may not be known to public relations practitioners and established media directories and databases are of little use. On the other side, public relations practitioners will need to guide their employers in using emergent media, ensuring understanding of the protocols and practices involved;
- Clear policies need to be established on public communication within organisations such as employee blogging, distribution of work-related content on the internet, and use of 'social media' such as YouTube, MySpace and Facebook at work. Issues of commercial confidentiality, defamation, harassment, and reputation management as well as employee expectations will increasingly arise and risk-benefit will need to be carefully considered.

In conclusion, 10 maxims of modern media can be drawn from this discussion and posed for debate.

Conclusions – 10 maxims of modern media

1. **There is no mass audience** and, in reality, there never was;
2. **Cyberspace is a myth** – online is just a phone on steroids;
3. **Computers are becoming invisible**. We spin folklore about them and weave myths like previous generations did about ships and trains, but they are simply devices for getting to places;
4. **Communications networks are also becoming invisible**. Today they are always on;
5. **Media are becoming immaterial** – that is, their materiality is increasingly unimportant with content moving across multiple media;
6. **Media are now primarily software** – content and applications;
7. **The networks that matter are participants**. People are positive resources in the media production and distribution cycle – not ‘audiences’ which have been seen in the past as passive receptacles;
8. **Brands and products will survive the age of media dinosaurs and evolve and proliferate**. They provide visible and tangible markers in an otherwise confusing plenitude;
9. **Web 3.0 is being built now** and it has two sides – on the surface it will be a more intelligent, more easily searched *Semantic Web* with enhanced human computer interaction (HCI), while under the surface it comprises myriad clickstreams and data deposits that commercial organisations will seek to exploit, generating opportunities for market researchers and business but increasing concerns over privacy and intrusion;
10. **New business models are urgently needed** as traditional advertising becomes increasingly ineffective in new environments.

Henry Jenkins (2006, p. 11) warns that “convergence does not mean stability or unity. It operates as a constant force for unification but always in dynamic tension with change”. In one paragraph, Henry Jenkins who has been called “the 21st century McLuhan” (Rheingold 2006) uses the words “prolonged transition”, “struggle” and “compromises” (Jenkins 2006, p. 24). Clearly, Jenkins recognises and cautions us that emergent media are not a simple evolution with a linear development path. Media are contested spaces, increasingly they are spaces of multimodality, and spaces of multidirectional communication. Continuing research into emergent media is therefore important, as continuing profound changes will characterise the mediascape throughout this decade and into the next.

© Copyright 2008
Jim Macnamara

Jim Macnamara PhD is Professor of Public Communication and Director of the Australian Centre for Public Communication at the University of Technology Sydney and a consultant to one of Australia’s largest media information companies, Media Monitors. He came to academia in 2007 following a successful career working in the media, in public relations and advertising, and for more than a decade in media research including founding and heading the Asia Pacific office of the world’s leading media analysis firm, CARMA International. He is the author of 11 books and a regular speaker nationally and internationally on media and communication research.

References

- Anderson, C. 2006, *The Long Tail*, Hyperion, New York.
- Australian Centre for Public Communication 2008, 'E-Electioneering: Use of New Media in the 2007 Australian Federal Election', research report, University of Technology Sydney, January.
- Australian Communications and Media Authority 2007, *Media and Communications in Australian Families 2007*, report of the Media and Society Research Project, Canberra, December.
- Bardikian, B. 2004, *The New Media Monopoly*, Beacon, Boston.
- Battelle, J. 2005, *The Search: How Google and Its Rivals Rewrote the Rules of Business and Transformed Our Culture*, Penguin Group, Portfolio, USA.
- Baudrillard, J. 1983, *Simulations*, trans. P. Foss, P. Patton & P. Beitchman, Semiotexte, New York.
- Baudrillard, J. 1988, 'Simulacra and simulations', in M. Poster (ed.), *Jean Baudrillard's Selected Writings*, Stanford University Press.
- Baudrillard, J. 1988, *The Ecstasy of Communication*, trans. B. Schutze & C. Schutze, Semiotexte, New York.
- Bentivegna, S. 2002, 'Politics and new media', in L. Lievrouw and S. Livingstone (eds), *Handbook of New Media*, Sage, London, pp. 50-61.
- Berners-Lee, T. 2000, *Weaving the Web: The Past, Present and Future of the World Wide Web by its Inventor*, Texere, London.
- Boczkowski, P. 2002, 'The development and use of online newspapers: What research tells us and what we might want to know', in L. Lievrouw and S. Livingstone (eds), *Handbook of New Media*, Sage, London, pp. 270-86.
- Bolter, J. & Grusin, R. 2000, *Remediation: Understanding New Media*, MIT Press, Cambridge, MA.
- Bourdieu, P. 1990, *In Other Words: Towards a Reflexive Sociology*, Stanford University Press, CA.
- Breen, M. 2007, 'Mass media and new media technologies', in E. Devereaux, *Media Studies: Key Issues and Debates*, Sage Publications, London, pp. 55-77.
- Brown, J. & Duguid, A. 2000, *The Social Life of Information*, Harvard Business School Press, Boston, MA.
- Bruns, A. 2005a, *Gatewatching: Collaborative Online News Production*, Peter Lang, New York.
- Bruns, A. 2005b, 'Anyone can edit: Understanding the Producer', The Mojtaba Saminejad Lecture for the Institute for Distributed Creativity, presented at SUNY Buffalo, 28 September 2005; New School, New York City, 11 October 2005; Brown University, Providence, 12 October 2005; Temple University, Philadelphia, 14 October 2005.
- Bruns, A. 2008, *Blogs, Wikipedia, Second Life and Beyond: From Production to Producership*, Peter Lang, New York.
- Bryant, J. & Zillman, D. (eds) 2002, *Media Effects: Advances in Theory and Research*, 2nd edn, Lawrence Erlbaum Associates, Mahwah, NJ.
- Buckingham, D. 2000, *The Making of Citizens: Young People, News and Politics*, Routledge, London.
- Burgess, J. 2006, 'Hearing ordinary voices: Cultural studies, vernacular creativity and digital storytelling', *Continuum: Journal of Media and Cultural Studies* 20(2), pp. 201-14.
- Chester, J. 2006, 'The Google YouTube tango', viewed 14 October 2006, <<http://www.thenation.com/doc/20061030/chester>>
- Castells, M. 1996, *The Rise of the Network Society*, Blackwell Publishers, MA.
- Castells, M. 2004, 'Afterword: Why networks matter', in H. McCarthy, P. Miller, & P. Skidmore (eds), *Network Logic: Who Governs In an Interconnected World?*, DEMOS, London, pp. 221-4.
- Cole, J. 2000, *Surveying the Digital Future*, University of California Los Angeles Center for Communication Policy, Los Angeles.
- Colebrook, C. 2002, *Understanding Deleuze*, Allen & Unwin, Sydney.
- comScore 2008, 'Number of online videos viewed in the US jumps 13 percent in March to 11.5 Billion', press release, 12 May, viewed 16 May 2008, <<http://www.comscore.com/press/release.asp?press=2223>>
- Corner, J. 2007, 'Media, power and political culture', in E. Devereaux, *Media Studies: Key Issues and Debates*, Sage, London, pp. 211-30.

- Crabb, A. 2007, 'The YouTube election', *Sydney Morning Herald*, 14 July, p. 23.
- Curran, J. 2002, *Media and Power*, Routledge London.
- Curran, J. & Gurevitch, M. 2000, *Mass Media and Society*, 3rd edn, Hodder Headline, London.
- Cutlip, S. Center, A. & Broom, G. 2006, *Effective Public Relations*, 9th edn, Pearson Prentice Hall, NJ.
- Dahlgren, P. 2005, 'The internet, public spheres and political communication: Dispersion and deliberation', *Political Communication*, 22, pp. 146-62.
- Danielian, L. & Reese, S. 1989, 'A closer look at intermedia influences on agenda setting: The cocaine issue of 1986', in P. Shoemaker (ed.), *Communication Campaigns About Drugs: Government, Media and the Public*, Lawrence Erlbaum Associates, Hillsdale, NJ, pp. 47-66.
- Davies, A. 2007, 'Young voters caught hook, online and sinker', *Sydney Morning Herald*, 23-24 June, World, p. 21.
- Davies, B. 1993, *Shards of Glass*, Allen & Unwin, Sydney.
- de Sola Pool, I. 1990, *Technology Without Boundaries: On Telecommunications in a Global Age*, Harvard University Press, Cambridge, MA, pp. 261-2.
- Deleuze, G. & Guattari, F. 1988, *A Thousand Plateaus: Capitalism & Schizophrenia*, The Athlone Press, London.
- Deloitte 2005, 'Television networks in the 21st century: Growing critical mass in a fragmenting world', report, Deloitte Technology, Media and Telecommunications, US and Sydney.
- Deloitte 2007, 'The future of media: Profiting from generational differences', report of a survey conducted by Harrison Group of 2,200 US citizens on media use, Deloitte Ross Tohmatsu, Sydney.
- Deloitte 2008, *Media Predictions: TMT Trends 2008*, report by Technology, Media & Telecommunications Industry Group of Deloitte Touche Tohmatsu, viewed 5 May 2008, <<http://www.deloitte.com/dtt/article/0,1002,sid%253D3207%2526cid%253D186514,00.html>>
- Deuze, M. 2005, 'Towards professional participatory storytelling in journalism and advertising', viewed 16 May 2008, <http://www.firstmonday.dk/issues/issue10_7/deuze/index.html>
- Deuze, M. Bruns, A. & Neuberger, C. 2007, 'Preparing for an age of participatory news', *Journalism Practice* 1(3), pp. 322-38.
- DiMaggio, P. Hargittai, W. Neuman, W. & Robinson, J. 2001, 'Social implications of the Internet', *Annual Reviews of Sociology*, 27, pp. 307-336.
- Disappearing Computer Initiative, 2004, viewed 16 December 2006, <www.disappearing-computer.net/artefacts.html>
- Du Fresne, K. 2007, 'Hot off the press', *The Dominion Post*, 16 August.
- Dunleavy, D. 2005, 'Camera phones prevail: Citizen shutterbugs and the London bombings', *The Digital Journalist*, viewed 16 May 2008, <<http://www.digitaljournalist.org/issue0507/dunleavy.html>>
- Fenton, N. 2007, 'Bridging the mythical divide: Political economy and cultural studies approaches to the analysis of media', in E. Devereaux (ed.), *Media Studies: Key Issues and Debates*, Sage, London, pp. 7-31.
- Fidler, R. 1997, *Mediamorphosis: Understanding New Media*, Pine Forge, Thousand Oaks, CA.
- Flew, T. 2005, *New Media: An Introduction*, 2nd edn, Oxford University Press, South Melbourne.
- Flew, T. 2008, *New Media: An Introduction*, 3rd edn, Oxford University Press, South Melbourne.
- Flichy, P. 2002, 'New media history', in L. Lievrouw & S. Livingstone (eds), *Handbook of New Media*, Sage, London, pp. 136-150.
- Foley, S. 2007, 'Integrated newsrooms', *PANPA Bulletin*, Pacific Area Newspaper Publishers Association, June.
- Foucault, M. 1980, 'The history of sexuality: An interview', *Oxford Literary Review*, 4:1.
- Foucault, M. 1988, *Technologies of the Self: A Seminar with Michel Foucault*, L. Martin, H. Gutman & P. Hutton (eds), University of Massachusetts Press, Amherst, MA.
- Foucault, M. 1998, *The Will to Knowledge: The History of Sexuality, Vol 1, The Care of the Self* (R. Hurley, trans), Penguin, London.
- Foucault, M. 2000, *Essential Works of Foucault 1954-1984: Ethics*, P. Rabinow (ed.), Penguin, London.

- Fraser, N. 1992, 'Rethinking the public sphere: A contribution to the critique of actually existing democracy', in C. Calhoun (ed.), *Habermas and the Public Sphere*, MIT Press, Cambridge, MA, , pp. 109-42.
- Fuller, M. 2005, *Media Ecologies: Materialist Energies in Art and Technoculture*, MIT Press, Cambridge, MA.
- Garnham, N. 1992, 'The Media and the Public Sphere', in C. Calhoun (ed.), *Habermas and the Public Sphere*, MIT Press Cambridge, MA.
- Gauntlett, D. 2002, *Media , Gender and Identity*, Routledge, London.
- Gauntlett, D. 2005, *Moving Experiences: Media Effects and Beyond*, 2nd edn, John Libbey Publishing, Eastleigh, UK.
- Giddens, A. 1991, *Modernity and Self-Identity: Self and Society in the Late Modern Age*, Polity Press, Cambridge.
- Gilder, G. 1994, *Life After Television*, W.W. Norton & Company, New York, p. 49.
- Gitlin, T. 1998, 'Public spheres or public sphericules?' in T. Liebes & J. Curran (eds), *Media Ritual and Identity*, Routledge, New York.
- Goode, L. 2005, *Jürgen Habermas: Democracy and the Public Sphere*, Pluto Press, London.
- Graber, D. 2005, 'Political communication faces the 21st century', *Journal of Communication*, 55, p. 479-507.
- Griffin, E. & Park, E. 2006. 'Media ecology of Marshall McLuhan', in E. Griffin, *A First Look at Communication Theory*, 6th edn, online chapter, viewed 10 May 2008, <<http://www.afirstlook.com/docs/mediaecology.swf>>
- Grossberg, L. Wartella, E. Whitney D. & Wise, J. 2006, *Media Making: Mass Media in a Popular Culture*, Sage, Thousand Oaks, CA.
- Habermas, J. 1989, *The Structural Transformation of the Public Sphere*. Cambridge: Polity. (Original work published 1962)
- Habermas, J. 2006, 'Political communication in media society: Does democracy still enjoy an epistemic dimension? The impact of normative theory on empirical research', *Communication Theory*, vol. 16, no. 4, November, pp. 411-26.
- Hoggart, R. 2006, *Mass Media in a Mass Society: Myth and Reality*, Continuum, New York.
- Hovland, C. & Weiss, W. 1951, 'The influence of source credibility on communication effectiveness', *Public Opinion Quarterly*, 15, pp. 633-650.
- Howley, K. 2007, 'Community media and the public sphere, in E. Devereaux, *Media Studies: Key Issues and Debates*, Sage Publications, London, pp. 342-60.
- Iskold, A. 2006, 'From attention economy to attention architecture', in Alex Iskold Technology Blog, 19 September, viewed 12 May 2008, <<http://alexiskold.wordpress.com/2006/09/19/from-attention-economy-to-attention-architecture/>>
- Iskold, A. & MacManus, R. 2007, 'The attention economy: An overview', in ReadWriteWeb blog, 1 March, viewed 9 May 2008, <http://www.readwriteweb.com/archives/attention_economy_overview.php>
- Jackson, M. & Paul, N. 1998, *Newspaper Publishing and the World Wide Web*, Poynter Institute for Media Studies, St Petersburg, FL.
- Jenkins, H. 2006, *Convergence Culture: Where Old and New Media Collide*, New York University Press.
- Johnson, S. 2001, *Emergence: The Connected Lives of Ants, Brains, Cities and Software*, Scribner, New York.
- Katz, E. 1959, 'Mass communication research and the study of popular culture', editorial note, *Studies in Public Communication*, 2, pp. 1-6.
- Katz, E. 1960, 'The functional approach to the study of attitudes', *Public Opinion Quarterly*, 24, pp. 163-204.
- Katz, E. Blumler, J. & Gurevitch, M. 1973, 'Uses and gratifications research', *Public Opinion Quarterly*, 37, pp. 509-23.
- Katz, E. Blumler, J. & Gurevitch, M. 1974, 'Utilization of mass communication by the individual', in J. Blumler & E. Katz (eds), *The Uses of Mass Communications*, Sage, Beverly Hills, CA, pp. 19-32.

- Knight Digital Media Center 2008, 'Multimedia and technology training', online tutorials for journalists, viewed 15 May 2008, <<http://multimedia.journalism.berkeley.edu/>>
- Lasswell, H. 1927, *Propaganda Techniques in the World War*, Knopf, New York.
- Leadbeater, C. & Miller, P. 2004, *The Pro-Am Revolution: How Enthusiasts are Changing our Economy and Society*, DEMOS, London.
- Lévy, P. 1997a, *Collective Intelligence: Mankind's Emerging World of Cyberspace*, Perseus Books, Cambridge, MA.
- Lévy, P. 1997b, *Cyberculture*, Editions Odile Jacob, Paris.
- Lievrouw, L. & Livingstone, S. (eds) 2002, *The Handbook of New Media*, Sage, London.
- Lippman, W. 1922, *Public Opinion*, Macmillan, New York. Chapter 1 reprinted in W. Schramm (ed.) 1960, *Mass communications*, University of Illinois Press, Urbana.
- Lockard, J. 1997, 'Progressive politics, electronic individualism and the myth of virtual community', in D. Porter (ed.), *Internet Culture*, Routledge, New York.
- Lovink, G. 2007, ' Blogging, the nihilist impulse', *Eurozine*, 1 February. First published in *Lettre internationale* 73 (German version), viewed 1 June 2008, <<http://www.eurozine.com/articles/2007-01-02-lovink-en.html>>
- MacManus, R. 2007, '10 future Web trends', 5 September, viewed 7 April 2008, <http://www.readwriteweb.com/archives/10_future_web_trends.php>
- Macnamara, J. 1999, 'Research in public relations: A review of the use of evaluation and formative research', *Asia Pacific Public Relations Journal*, vol. 1, no. 2, University of Canberra, pp. 107-133.
- Macnamara, J. 2002, 'Research and evaluation', in C. Tymson & P. Lazar, *The New Australian and New Zealand Public Relations Manual*, Tymson Communications, Sydney, pp. 100-34.
- Macnamara, J. 2005, *Jim Macnamara's Public Relations Handbook*, 5th edn, Archipelago Press, Sydney.
- Manovich, L. 2006, 'Post-media aesthetics', viewed 27 March 2008, <http://netart.incubadora.fapesp.br/portal/referencias/Post_media_aesthetics1.pdf>
- Margolis, M. 1996, 'Electioneering in cyberspace: parties, candidates and interest groups and the 1996 presidential race in the internet', paper presented at the American Political Science Association Annual Meeting, San Francisco.
- Margolis, M. & Resnick, D. 2000, *Politics as Usual: The Cyberspace 'Revolution'*, Sage, Thousand Oaks, CA.
- Markle Foundation 1997, *The State of 'Electronically Enhanced Democracy: A Survey of the Internet*, October.
- McChesney, R. 2000, 'So much for the magic of technology and the free markets: The World Wide Web and the corporate media system', in A. Herman & T. Swiss (eds), *The World Wide Web and Contemporary Cultural Theory*, Routledge, New York, pp. 5-35.
- McChesney, R. 2008, *The Political Economy of Media: Enduring Issues, Emerging Dilemmas*, Monthly Review Press, New York.
- McChesney, R. & Schiller, D. 2003, *The Political Economy of International Communication: Foundations for the Emerging Global Debate about Media Ownership and Regulation*, United Nations Research Institute for Social Development, Technology, Business and Society Programme Paper no. 11, October.
- McCormack, J. 2004, 'Art emergence and the computational sublime', in *Impossible Nature: The Art of Jon McCormack*, Australian Centre for the Moving Image, Melbourne.
- McGuire, W. 2001, 'Input and output variables currently promising for constructing persuasive communications', in R. Rice & C. Atkin (eds), *Public Communication Campaigns*, 3rd edn, Sage, Thousand Oaks, CA, pp. 22-48.
- McKenna, K. & Bargh, J. 1999, 'Causes and consequences of social interaction on the Internet: A conceptual framework', *Media Psychology*, 1, pp. 249-269.
- McLuhan, M. 1964, *Understanding Media: The Extensions of Man*, McGraw-Hill, New York.
- McLuhan, M. & Fiore, Q. 1967, *The Medium is the Massage*, Bantam, New York.
- MacManus, R. 2007, '10 Future Web trends', blog post 5 September, viewed 5 May 2008, <http://www.readwriteweb.com/archives/10_future_web_trends.php>

- McMillan, S. 2005, 'Exploring models of interactivity from multiple research traditions: Users, documents and systems', in L. Lievrouw and S. Livingstone (eds), *Handbook of New Media*, 2nd edn, Sage, London, pp. 205-29.
- McNair, B. 2006, *Cultural Chaos: Journalism, News and Power in a Globalised World*, Routledge, New York.
- Meadows, M. 2005, 'Journalism and indigenous public spheres', *Pacific Journalism Review* 11(1), pp. 36-41.
- Meikle, L. 2002, *Future Active: Media Actions and the Internet*, Routledge, New York.
- Meyer, P. 2004, *The Vanishing Newspaper: Saving Journalism in the Information Age*, University of Missouri Press, Columbia.
- Miller, D. & Slater, D. 2000, *The Internet: An Ethnographic Approach*, Berg, London.
- Morrison, S. 2008, 'Google may fall short of forecasts as clicks on its search adverts drop', *Weekend Australian*, 19 March, p. 38.
- Mostaghim, L. 2008, Interview with the author, personal communication, 22 April.
- Munch, E. 1893, *The Scream*, oil painting on cardboard, National Gallery, Oslo, Norway.
- M/Cyclopedia 2008, Creative Industries Faculty, Queensland University, viewed 6 April 2008, <http://wiki.media-culture.org.au/index.php/E-Commerce_-_DIY_Business_Opportunities_-_Producer>
- National Telecommunications and Information Administration 2000, 'Falling through the net: Toward digital inclusion', a report on Americans' access to technology tools, US Department of Commerce, October.
- Nature 2005, 'Internet encyclopedias go head to head', viewed 28 March 2006, <http://www.nature.com/news/2005/051212/pf/438900a_pf.html>
- Naughton, J. 2007, 'Blogging and the emerging media ecosystem', viewed 1 May 2008, <<http://reutersinstitute.politics.ox.ac.uk/about/discussion/blogging.html>>
- Negroponte, N. 1995, *Being Digital*, Knopf, New York.
- Newspaper Association of America 2005, newspaper circulation statistics, Scarborough Research, viewed 1 November 2005, <<http://www.naa.org/ResearchPages>>. Also cited in *Media Monitoring News*, 2005, 'Readership studies: New media gains eyeballs across all demographics', December, viewed 1 November 2005, <<http://www.cyberalert.com/newsletter07.html>>
- Nielsen Online 2008, 'Aussie internet usage overtakes TV viewing for the first time, news release, 18 March 2008, viewed 4 April 2008, <http://www.nielsen-netratings.com/pr/pr_080318_AU.pdf>
- Nightingale, V. & Dwyer, T. (eds) 2007, *New Media Worlds: Challenges for Convergence*, Oxford University Press, South Melbourne.
- Norman, D. 1998, *The Invisible Computer*, MIT Press, Cambridge, MA.
- Norris, P. 2001, *Digital Divide: Civic Engagement, Information Poverty, and the Internet Worldwide*, Cambridge University Press.
- Novak, T. & Hoffman, D. 1998, 'Bridging the digital divide: The impact of race on computer access and internet use, Project 2000, Vanderbilt University, viewed 2 January 2006, <http://www.vanderbilt.edu/News/register/April20_98/vr13.html>
- Pew Research Center, 2005. 'Trends 2005', viewed 20 March 2005, <<http://pewresearch.org/trends>>
- Poster, M. 1995, *The Second Media Age*, Polity, Cambridge, UK.
- Poster, M. 1997, 'Cyberdemocracy: Internet and the public sphere', in D. Porter (ed.), *Internet Culture*, Routledge, New York and London.
- Postman, N. 1993, *Technopoly: The Surrender of Culture to Technology*, Vintage, New York.
- Prensky, M. 2001, 'Digital natives, digital immigrants', viewed 2 December 2006, <www.marcprensky.com/writing/Prensky%20-%20Digital%20Natives,%20Digital%20Immigrants%20-%20Part1.pdf>
- Putnam, R. 1995, 'Bowling alone: America's declining social capital', *Journal of Democracy*, 61(1), pp. 65-78.
- Putnam, R. 2000, *Bowling Alone: The collapse and Revival of America Community*, Simon & Schuster, New York.

- Rheingold, H. 1993, *The Virtual Community: Homesteading on the Electronic Frontier*, Addison-Wesley, Reading, MA.
- Rheingold, H. 2006, 'Henry Jenkins is the 21st century McLuhan', book jacket, in H. Jenkins, 2006, *Convergence Culture: Where Old and New Media Collide*, New York University Press.
- Rice, R. 2002, 'Primary issues in internet use: Access, civic and community involvement and social interaction and expression', in L. Lievrouw & S. Livingstone (eds), *Handbook of New Media*, Sage, London, pp. 105-29.
- Ricketson, M. 2008, 'Reports of news' death are greatly exaggerated', *The Age*, 10 May.
- Rodriguez, C. 2001, *Fissures in the Mediascape: An International Study of Citizens' Media*, Cresskill, Hampton, NJ.
- Rosen, J. 2006, post in *PressThink* weblog, 27 June, viewed 16 May 2008, <http://journalism.nyu.edu/pubzone/weblogs/pressthink/2006/06/27/ppl_frmr.html>
- Roy Morgan Research 2007, Finding 4182, 27 June, viewed 26 May 2008, <www.roymorgan.com>
- Schiller, D. 2000, 'Digital capitalism: A status report on the corporate commonwealth of information', in A. Valdivia (ed.), *A Companion to Media Studies*, Blackwell, Malden, MA, pp. 137-56.
- Scoble, R. & Israel, S. 2006, *Naked Conversations*, John Wiley & Sons, Hoboken, NJ.
- Severin, W. & Tankard, J. 2001, *Communication theories: Origins, Methods, and Uses in the Mass Media*, Addison Wesley Longman, New York.
- Sharma, M. 2008, 'IBM looks for better web measurement', *The Australian*, 31 March, p. 34.
- Shoebridge, N. 2007, 'Campaigns are just not measuring up', *Australian Financial Review*, 19 November, p. 50.
- Sinclair, L. 2007, 'Call for accurate hit count data', *The Australian*, 19 July.
- Slater, D. 2002, 'Social relationships and identity online and offline', in L. Lievrouw & S. Livingstone (eds), *Handbook of New Media*, Sage, London, pp.533-46.
- Sloan, R. & Thompson, M. 2004, *EPIC 2014*, a Flash movie on the future history of the media, viewed 30 April 2008, <<http://robinsloan.com/epic/>>
- Street, J. 2001, *Mass Media, Politics and Democracy*, Palgrave, Basingstoke, Hampshire, UK.
- Streitz, N. & Nixon, P. 2005, 'The disappearing computer', *Communications of the ACM* 48(3), pp. 33-5.
- Study shows why BN lost media war 2008, *New Straits Times*, 2 April, viewed 27 April 2008, <<http://derstrasse.wordpress.com/2008/04/02/study-shows-why-bn-lost-media-war/>>
- Tanner, L. 2008, 'Keynote address to the e-government forum', CeBIT Australia conference, 21 May, viewed 27 May 2008, <http://www.financeminister.gov.au/speeches/2008/sp_20080521.html>
- Technorati 2008, Web statistics, viewed 14 March 2008, <<http://www.technorati.com/about>>
- TNS 2008, 'Marketers must harness the power of social media: Study', TNS Canadian Facts, Taylor Nelson Sofres, Canada, 28 February.
- Toffler, A. 1970, *Future Shock*, Random House, New York.
- Toffler, A. 1980, *The Third Wave*, William Morrow, New York.
- van Dijk, J. 1999, *The Network Society, Social Aspects of New Media*, Sage, Thousand Oaks, London.
- van Dijk, J. 2005, *The Network Society, Social Aspects of New Media*, 2nd edn, Sage, Thousand Oaks, London.
- van Zoonen, L. 1998, "'Finally I have my mother back": Politicians and their families in popular culture', *Harvard International Journal of Press/Politics*, 2(1), pp. 48-64.
- Waugh, N. 2007, 'Researchers keen to see who's browsing', *Australian Financial Review*, 27 August.
- Webb, J. Schirato, T. & Danaher, G. 2002, *Understanding Bourdieu*, Thousand Oaks, CA.
- Williams, R. 1974, *Television – Technology and Cultural Form*, Fontana, London.
- Winseck, D. 2002, 'Wired cities and transnational communications: New forms of governance for telecommunications and the new media' in L. Lievrouw & S. Livingstone (eds), *Handbook of New Media*, Sage Publications, London, pp. 393-409.
- Woolgar, S. 2002, 'Five rules of virtuality', in S. Woolgar (ed.), *Virtual Society? Technology, Cyberbole, Reality*, Oxford University Press, Oxford, pp. 1-22.

Wortham, J. 2007, 'After 10 years of blogs: The future's brighter than ever', *Wired*, 17 December, viewed 2 June 2008, <http://www.wired.com/entertainment/theweb/news/2007/12/blog_anniversary>

-
- ¹ Ohmynews.com was established in South Korea in 2000 and has as its theme "every citizen is a reporter". Only around 20 per cent of the online 'newspaper' is produced by staff, with a claimed 50,000 citizen reporters providing content. An English version (Ohmynews International) has also been launched with 3,000 global citizen reporters (See <http://www.ohmynewsinternational.com>)
 - ² The National Telecommunications and Information Administration (NTIA) in the US used this term in its *Falling Through the Net* reports in the late 1990s and it has been taken up by many researchers and writers since.
 - ³ MySpace reached 300 million members in February 2008.
 - ⁴ The term 'cyberspace' is believed to have first been used by William Gibson in his 1984 novel *Neuromancer*.
 - ⁵ 'Anywhere anytime' was a marketing slogan adopted by AT&T (see http://www.att.de/emea/docs/pb/ras_6pg.pdf) and is now widely used by telecommunications companies.
 - ⁶ Henry Jenkins (2006, p. 2) defines convergence as "the flow of content across multiple media platforms, the cooperation between multiple media industries, and the migratory behaviour of media audiences".
 - ⁷ Foucault's term 'technologies of the self' has multiple definitions and interpretations related to identity, ethics and self. See Gauntlett 2002, pp. 125-130 for discussion of this concept.
 - ⁸ Mash-ups are a multimedia application of the concept of 'sampling' pioneered in the music industry in which segments of content from different sources are remixed. For instance, footage from one or more videos, still images, voice, and overlays or retouching in software such as Adobe Photoshop or Macromedia Director can produce new 'works' from existing content.
 - ⁹ 'Gatekeepers' is a term coined by social psychologist Kurt Lewin (Schudson, 2000) and applied to editors and others who control access to and content of the media by White (1950); Gieber (1964) and a number of other social scientists and media scholars including McCombs & Shaw (1976).
 - ¹⁰ Tagging is an internet practice of placing a marker on content with keywords that help others locate the information.