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A review of changes to the media landscape

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Abstract

A profound truth insists, “If the map does not agree with the ground, the map is wrong” (Livingstone 2006: 1). I experienced this phenomenon while backpacking in Europe and posting a parcel home from Italy. Frustrated, I realised that posting a parcel in Italy was not the same as in South Africa. Although mechanistically the Italian postal service works much the same way as the South African one, there is a vastly different way of going about it. Wherein lies the point: the map was wrong. Similarly, the personal computer has changed the way people communicate. Although the mechanisms of communication remain the same, the ground has changed and the industry needs to redraw its map. Web 2.0, media convergence, interactivity, social networks, social media, online, mobile, wikis, crowdsourcing, and a plethora of other online tools have shifted the communication paradigm and its method of operation. This paper reviews the media environment, and examines what has changed and suggests possible consequences of these changes for the communication industry.

Keywords

Communication, Collaboration, Communities, Crowdsourcing, Convergence, Social Networks, User Generated Content, Web 2.0

Introduction

In this paper you will find my answer to the question “What is happening in the communication landscape?” which I discovered by asking three sub-questions: “What is new?” “What did it change?” and “What are the consequences of those changes?” In other words, “What happens next?”

It is important that the communication industry (i.e. professionals who use media to communicate to their target audiences) have this information so they are able to execute effective and efficient messages to target audiences. The collective term ‘communication industry’ includes professionals in public relations, marketing, branding and advertising. (Du Plessis, Van Heerden & Cook 2010: 8-17). To this list, this paper adds knowledge managers, publishers and journalists, but excludes information and communication technologists (ICTs). This paper reviews the communication environment, examines the changes wrought by Web 2.0 and suggests possible consequences for the industry, its tools and business models. It does not address the ICT elements other than to accept these developments as fact.

Literature survey

What is happening?

In his citation for “YOU, the online collaborator” as Time magazine’s ‘person of the year’ to highlight what was driving the social networking phenomena, an editor of Time Magazine, Lev Grossman says:

“It’s a story about a community and collaboration on a scale never seen before. It’s about the cosmic compendium of knowledge Wikipedia and the million-channel people’s network YouTube and the online metropolis MySpace. It’s about the many wresting power for the few and helping one

another for nothing and how that will not only change the world but also change the way the world changes. The tool that made this possible is the World Wide Web. Not the Web that Tim Berners-Lee hacked together (15 years ago, according to Wikipedia) as a way for scientists to share research. It is not even the overhyped Web of the late 1990s. The new Web is a very different thing. It is a tool for bringing together the small contributions of millions of people and making them matter. Silicon Valley consultants called it Web 2.0 as if it were a new version of some old software. But it is a really a revolution” (Grossman 2006: 26-27).

Time magazine was not the first to recognize the growing significance of online, its community and its user-generated content. Others include CNN Money Business 2.0 section, which honoured “You” as the top ‘50 who matter now’ and listed as number one: “You- the consumer as creator” (Business 2.0, 2006) and ABC News listed bloggers as “people of the year” (ABC News, 2004).

According to Bill Gates of Microsoft, convergence (the removal of differences between media) that has been predicted since the introduction of the PC (personal computer) in the late 1970s, “does not happen until you have everything in a digital form that the consumer can use on all the different devices. So, if we look at the three types of media of greatest importance – we look at photos, we look at music and we look at video – the move toward giving people digital flexibility on them is pretty incredible on every one of them. It’s been discussed for a long, long time. And now, it is really happening” (Cooper 2004).

The excitement expressed about convergence happening (Cooper, 2004) and revolution (Grossman, 2006: 26-27) are just two of many comments about the power of the internet and Web 2.0. However, these statements do not address the question “What changed?” or “What happened?” to make all this possible. The almost universal answer to this question is the advent of Web 2.0, which naturally raised the question “What is the difference between Web 1.0 and Web 2.0?”

“What is the difference between Web 1.0 and Web 2.0?”

However, there is considerable disagreement as to what Web 2.0 is. According to Tim O’Reilly, some are “decrying it as a meaningless marketing buzzword, and others accepting it as the new conventional wisdom” (O’Reilly 2005). Web founder Sir Tim Berners-Lee agrees that despite the common perception that Web 1.0 was about connecting computers and making information available and Web 2.0 is about connecting people and facilitating collaboration, the Web was designed “to be a collaborative space where people can interact” (Laningham 2006). To understand Berners-Lee’s perspective one would need to consider the development of the Web.

A brief review of the history of Web has been divided into three sections: World Wide Web (1991); World Wide Web (DotCom 1995 – 2001); and Web2.0 (2001 - Present), as per Grossman’s citation. However, it might be worth remembering that it was just over a decade ago that “when we were first getting used to the idea of an Internet, people described the act of going online as venturing into some foreign realm called cyberspace.” (Levy 2006)

World Wide Web (1991)

The internet has been called many things including: information superhighway (old fashioned), e-communication, cyberspace, digital communications, Web 1.0, Web 2.0, ReadWrite Web, social media

and so on. From its inception the Internet was created to share information and to facilitate collaboration (O'Reilly 2005) (Lawson 2005) and (Laningham 2006). With its origins in the 1940s (with MEMEX) and followed by the formation of ARPA (Advanced Research Projects Agency) in 1958, the Internet's core competency was competitive advantage. America launched ARPA to ensure that America, having lost the race to launch the first satellite, Sputnik (1957), to the USSR, America would be able to regain and maintain a lead in technology (Zakon 2010). ARPANET, an experimental network to link multiple computers and create inter-computer communication, was commissioned in 1969 and linked UCLA, Stanford Research Institute, University of California (Santa Barbara) and University of Utah. While South Africa waited for the introduction of television in 1976, developments on ARPANET continued. In 1971, the first email program was written; a 'quick hit, it was modified in March 1972. By 1973, 75% of ARPANET traffic was email. The 1980s saw TCP split into TCP/IP; the creation of DOS; the creation of the DNS (domain name system); and the registration of the first domain. When ARPANET closed in 1990, there were various other NETs in operation connecting educational institutions, countries, organisations and people. South Africa (ZA) connected to NSFNET in 1991.

In 1980, Sir Tim Berners-Lee created Enquire, a project management tool, which utilized the concept of hypertext whereby people were able to link random associations and create a linked data structure. Hyperlinking is the foundation of the Web. More than a decade later (1991), Sir Tim Berners-Lee (CERN) launched the World Wide Web. The Web was not an instant success and it did not gain popularity until the browser was developed (Mosaic, 1993; Netscape 1994, Microsoft 1995) and the browser wars of 1996 took place (Zakon 2010).

World Wide Web (DotCom 1995 – 2001)

Even as far back as the 1980, as the internet grew, there was a need to organize the data on the internet and to search that data. Archie (McGill University, 1990), WAIS, Gopher (1991), all predate the World Wide Web, indexed the Web and the Internet for several years. WebCrawler could search full text and not only Web titles. Yahoo and Altavista (1995) were industry leaders in the Web search engines and the Web directory market, but in 2001, the directory model gave way to search engines based on database management. Google was born in 1998, and database size gave way to relevancy as a measure of ranking.

One of the main attractions of using Google in the early days was how fast you could find things. This was largely due to Google seeing the Web as a platform and the use of a database management system being in place (O'Reilly 2005). Ranking methodologies and their manipulation saw the birth of Search Engine Optimization (SEO) as a management discipline in 2006 for Web developers to improve their search rankings. Seen as a 'killer application' during the DotCom bubble (1995 – 2001), the World Wide Web could reach and connect people across the world, in particular, buyers and sellers, to each other cheaply, instantly, and simultaneously. This new form of communication threatened to overturn existing business models in advertising, sales, customer relationships and many others. It was particularly exciting to businesses that believed they could bypass (i.e. not compete with) the distribution channels of established businesses. Often visualised as an online shopping mall, organizations needing a shop front (a presence) that simply placed their corporate brochure (brochureware) on the Web. At this time, the Web was static and its viewers connected to the Web from stand-alone computers. There was no user interaction with the Web and although viewers could read, they could not write or interact (O'Reilly 2005). Connectivity was limited via dial-up modems and therefore slow, placing limitations on the level and speed of connectivity. O'Reilly (2005) believes

that “the bursting of the dot.com bubble in the fall of 2001 marked a turning point for the Web” as it marked a shift in how people thought about the Web.

The Cluetrain Manifesto, considered the seminal work on social media, urged business to think about interacting with their market by having a conversation rather than having a one-way ‘lecture’ aimed to a demographically defined target audience (Levine, Locke, Searls, & Weinberger 1999). The DotCom crash allowed those companies using the Web as a platform to deliver a strategy or creative concept and utilize the strengths of the Web’s technology to survive (O’Reilly 2005). It is clear that some companies (eBay, Google) understood the Web from its beginning (O’Reilly 2005) (Levy 2006).

Web 2.0 (2001 - Present)

Credited for coining the phrase Web 2.0, Darcy DiNucci, an information architect, describes the Web of 1999 as “The Web (...) which loads into a browser window in essentially static screenfulls, is only an embryo of the Web to come (...) Ironically, the defining trait of Web 2.0 will be that it won’t have any visible characteristics at all” and “will be identified only by its underlying DNA structure.” (DiNucci 1999: 32). DiNucci argues that the Web is fragmenting and advises Web designers to code for an ever-increasing number of diverse hardware options (computer, mobile, ebook, tablet etc), which will fragment Web publishing, causing the Web to become a transportation mechanism, the “ether where interconnectivity happens.” She predicts that, as in the browser wars, product differences will dilute into ‘standards’ as they are seen as benefits to the marketplace. This position is shared by Arola (2010: 4) but for the reason of design becoming a template.

Berners-Lee (Laningham 2006) (Lawson 2005) and O’Reilly (2005) insist that Web 2.0 is not about new technology, nor is it an update to the Web’s technical specifications, but a mind shift. It is thinking about how to use the existing technology in new ways. It is about building applications and services that use the unique features (strengths) of the Internet. “Web 2.0 is the business revolution in the computer industry caused by the move to the Internet as a platform, and an attempt to understand the rules for success on that new platform” (O’Reilly 2005). Paul Graham (2005) agrees saying “Web 2.0 means using the Web the way it was meant to be used.” As does Anderson (2008) calling it a more “fully implemented Web.”

Therefore, the answer to the question “What is the difference between Web 1.0 and Web 2.0?” is not as straightforward as being able to categorise and define the changes. It is clear that the Web is a network that links multiple computers and enables communication, thus creating a platform or transport mechanism for communication as envisaged in 1969 and consequently one must conclude that there is no difference between Web 1.0 and Web 2.0. However, it is equally clear that how people view the Web, harness and use its capability has changed.

What are the perceived characteristics of Web 2.0

The inability to distinguish the core capability of Web 2.0 from Web 1.0 and therefore define each raises more questions. The questions are “What are the perceived core characteristics of Web 2.0?” and “How could these core characteristics be used?”

Although there are a number of views on the characteristics of the Web, O’Reilly (2005), in his discussions and meme map of principles and practices on Web 2.0, lists seven key principles to using the Web 2.0; Osterwalder (2006) presents a business model of Web 2.0 characteristics, as do others (Levy 2006) (Laningham, 2006) (Anderson P. 2008) (Brown 2011). These perceived characteristic contributions are mashed-up to categorize attributes of Web 2.0 into six sections, namely: Attitude; The

Web as a platform; Harnessing collective intelligence; User centred design and content generation; Connectivity level and speed; and Data ownership as the competitive edge. (Mash-up is a Web 2.0 term. It is the reconfiguring of information gathered from different sources to create something; the academic term would be synthesised.)

Attitude

According to O'Reilly (2005), it is all about attitude and the embracing of Web 2.0 is a change in attitude towards the internet, not a change in technology. Levy (2006) indicates a change in perception and perspective by saying, "Cyberspace was somewhere else. The Web is where we live." Sir Tim Berners-Lee supported this sentiment, in a BBC interview, "This is humanity, which is communicating over the Web, just as its communicating over so many other different media... We build a universal medium and... we have to work out, make sure, that it supports the sort of society that we want to build on top of it" (Lawson 2005). Therefore, Web 2.0 is about society changing its attitude from how to use the Internet and seeking to integrate (merge) an online/offline life.

The Web as a Platform

The Web as a platform is a shift in understanding from using the Web as a 'killer application' to understanding and using the Web as a platform. It is 'getting the concept' that platforms will always beat an application (O'Reilly 2005). It is 'getting the concept,' that the Web is a universal platform or a universal medium; it is open to everyone (accessible) and "it allows people to do what they want to do more efficiently; it allows people to exist in an information space that does not know geographical boundaries," says Berners-Lee (Lawson 2005). The Web as a platform has created a demand for Web services rather than prepackaged software. Web service software or SaaS (Software as a Service) makes use of cloud computing, which means there is no platform dependency at all (TechPluto 2009). Web services (built on the technology and open standards of the Internet and Web), are user processes such as blogs (including video blogs); wikis; multi-media including podcasts; and bookmarking to name but a few. RSS (Real Simply Syndication) allows people to receive updates from a number of sites (requested) without having to visit those sites and feeds off tagging content, which in turn encourages individual tags for personal use called a folksonomy. The social bookmarking site del.icio.us introduced large scale tagging to the Web. This has since extended to services like Flickr (photos), YouTube (video) and Podcasts. Social networks, loosely defined, are online services that allow users to create an online profile and build communities. Arola (2010: 4-14) highlights that they contain three key elements of Web 2.0: platform, participation and collaboration. According to TechPluto (2009) there are millions of blogs (including video blogs) in the blogosphere; many of whom generate content regularly enough that they (the bloggers) have overwhelmed mainstream media content production. Therefore, dynamic content is no longer the preserve of the media and Web 2.0 is an opportunity for citizens to enter in online spaces, gain a voice as well as generate tagged (searchable) content.

Other services include social and professional networks; aggregation services that gather information you are interested in and present it on a single Webpage; data mash-ups that aggregate and recombine selected data; wikis and more recently shareable documents for multi-collaboration with change tracking. However communication, participation and collaboration are not merely a function of software, they are also a function of ever-evolving interconnectivity and communication gadgets (Computers, iPad, Tablets, Mobiles, Laptops etc) demanding that software or services should always be developed above the level of a single device according to DiNucci (1999: 32). Therefore, Web 2.0 is the platform that connects and encourages the creation of a virtual global community that uses

multimedia on multi-social interfaces and multi-gadgets to generate content (participate) and share (communicate, collaborate) with or to everyone and anyone.

Harnessing collective intelligence

Whether you call this “collective intelligence” (O'Reilly 2005), “wisdom of crowds” (Surowiecki 2004), “here comes everyone” and “cognitive surplus” (Shirky 2008 and 2010), “mass collaboration” (Tapscott & Williams 2008) or “crowdsourcing” (Howe 2008), the concept is similar to the old fashioned idiom “two heads are better than one” and it is all about user-generated content (UGC) on the Web. In the true spirit of collaboration, UGC contributions are small, but valuable contributions, which, when taken together as one, make a difference. Shirky (2010) calls this donation of free time to share information ‘cognitive surplus’ and believes it will shift the consumer who previously wasted his spare time and intellect in passive pursuits to use time, intellect and energy to collaborate and create. The best example of what cognitive surplus can build is “Wikipedia” the online encyclopaedia, who displayed ‘radical trust’ (O'Reilly 2005) and allowed the users to provide both the content and the content check. There are many others examples where consumers are co-creators on the Web. In addition, according to Boulos & Wheelert (2007: 2) the collective intelligence of users encourages a more democratic use of the Web. Shirky (2008: 1-14) uses the story of “It takes a village to find a phone (The story of the lost Sidekick): to illustrate the raw publishing capability of the Web, its ability to connect people and the leverage it is possible to exert if focussed on the same goal.” Another example of user generated content would be in the production of generate content for OhmyNews. Chris Anderson (2006: 73) suggests that people participate because “The motives to create are not the same in the head as they are in the tail. One economic model does not fit all.” In *The Long Tail*, Anderson (2006) states that starting with the traditional monetary economy at the head and ending in a non-monetary economy in the tail who are people who “are motivated motivated by reputation, expression, fun, experimentation and any number of others reasons and this is why they give their time and intellect to contribute.” This dovetails with Shirky’s (2010) concept of generosity and creativity. Rollet, Lux, Strohmaier, Dosinger, & Tochtermann (2007: 87-107) believe UGC is based on co-operation rather than control, which indicates a shift of power or a decentralisation of power to the user as the Web becomes more and more a self-service platform. As users are able to more for themselves and for each other, they are also free to determine how they want to make use of the Web. Thus emergent user behaviour, according to O'Reilly (2005), is not predictable. It can only be observed and service producers need to trust the user as he/she determines how best to use the service or how best to play online. Therefore, Web 2.0 is about trust; trusting users to be trustworthy and to add value through contribution, collaboration and co-creation (remembering that two heads are better than one). Trust enables Web services to allow users to self-determine behaviour and contribution and reduces the necessity for control, thus it operates in borderline chaos.

User centred design and content generation

The foundation to sharing information is ease of use. It is easy for users to add content today (Arola 2010: 4-14) due to a user-centred design focus and an emphasis on content creation rather than content consumption (Boulos & Wheelert 2007: 87-107), although this approach has raised concern regarding the role of design on Web 2.0 as it has become standardised, a template, and thus invisible (Arola 2010). It is clear, according to Boulos & Wheelert (2007: 87-107), that Web use is not limited to those with programming knowledge, or Web design knowledge, and now anyone can contribute or play in this space; especially as content is easily generated and published. It is easy to ‘post,’ to customise content, to navigate sites and to create links so much so that you can do virtually anything you want (O'Reilly 2005) with the advantage (Brown 2011) of being able to control your data (privacy settings).

In addition to ease of use, sites are able to use “rich media producing technologies, which make Web service lighter, faster and less cluttered” (O’Reilly 2005). Nevertheless the design of the Web, from inception, was a decentralised model. According to Chaffee and Metzger (2001: 369) this means that control was “distributed to users who have relatively equal opportunity to contribute content.” Therefore, Web 2.0 makes it easy for users to live online – to interact, to design, to contribute, to create, to converse, to share, to socialise, to play, to control, to enjoy etc – and basically to do what they want with what site or Web service as control is relinquished to chaos.

Connectivity level and speed

One aspect that has changed since the early days of the internet is the level and speed of connectivity; the shift from dial-up modem to broadband and wifi, which allows the world to be online constantly, continuously, operating symmetrically and interacting in real time. Chaffee and Metzger (2001: 369) agree that the increased bandwidth of the Internet “enhances the users ability to become content producers and to produce... content at low cost.” According to Levy (2006), this presence is what makes it the “Living Web,” as it is people activity at “the speed of broadband... constant and mandatory.” (Levy 2006). Therefore, it is possible to conclude that speed of access has made a difference to the way the world communicates on the Web as it has become easier and cheaper to be a content producer and more people are embracing this technology.

Data ownership as the competitive edge

Based on this “architecture of participation” or what O’Reilly (2005) calls “lightweight programming” is the opportunity to join pieces together loosely so they are flexible and can be assembled (remixed) into different components to create new things. This lightweight approach encourages products which are hackable (user-remix and creativity) so that the user will be able to customise the widgets into something unique or new. This type of business model would encourage reconfiguration of data, but there would also be a need to reserve some originator rights, perhaps similar to the Creative Commons approach to open source software; which would allow data to evolve and transform.

A core capability of database management

Although it is clear that database management is a core competency for companies operating on the Web (for example Google) to handle the amount of information available online, it is common knowledge that users generate more content than the media. It appears that it is almost an acceptable principle that user generated content, in participation, contribution or collaboration mode, adds value.

Who controls your data?

Brown (2011) maintains that users control their data. Control, it is assumed, is about whether you can personalise your own data and whether you can limit the data that you allow others to view on the internet sub-platforms via terms of privacy settings. There has been debate about privacy and the value of privacy settings, especially on social networking site Facebook.

Although everyone is for keeping data private, there are business opportunities for not doing so according to O’Reilly (2005) who cites Flickr, for example, using data publically to build communities. O’Reilly (2005) believes that the race to own certain core data (location, identity, calendaring of public events, product identifiers and namespaces) will be fiercely competitive. Data ownership will create a competitive advantage especially if it can be mashed-up (aggregated and recombined) to create a service. The value of this data, as well as the difficulty to recreate it, is what he refers to as “Data as the next Intel inside.” However, this does not answer the question “Who owns the data?” Control is only one aspect; ownership is the another as are privacy, copyright and publishers rights.

Conclusion

Although it is clear that Web 1.0 and Web 2.0 are the same Web, it is equally clear that how people view the Web, harness and use its capability has changed. However, as Seth Godin in his book *Meatball Sundaes: Is your marketing out of sync* reminds us, it is not about working out how to make Web 2.0 work for you and adapting it; it is about adapting your organization to support your marketing on Web 2.0.

Chaffee and Metzger (2001: 369) put forward that the new developments in communication technology will make existing mass communication theory less relevant and “the fundamentals of mass communication are not as true today as they once were.” Baran and Davis (2009: 348) agree that mass communication theory or media theory will be challenged by the rapid changes in communication technology. Hand in hand with these technological changes is the growth of ‘mediated’ communication and its mechanistic environment.

From a theoretical view, it is clear that media communication or mediated communication theories adapted or new, will need to address the impacts and implications to the communications’ social and cultural context. Media cognitive skills required for media production, as well as media translation (reworking a message on multi-platforms or across platforms), will most likely impact on automatic medium-audience selection especially as the digital divide narrows. The structure-agency debate will change as individual’s generate more media content and media production diversifies. Pioneer Harold Lasswell’s five point analysis process, present in his chain of communication model or formulae (Lasswell, 1971), i.e. control, content, media, audience and effect, will become more difficult to use as audiences (media consumption) become harder to categorize and monitor. In addition, it may no longer be possible to assume all communication is persuasive and therefore will have an effect suggested by McQuail and Windahl (1993).

From a practical view, it is clear that the number of free applications available on the Web, from Facebook, Google, Wordpress and millions more, has generated a belief that anything on the Web is free, but is it? Chris Anderson (2009: 251-254) presents 50 business models built on the concept of free, but essentially they are a trade off although not as obvious as a barter or monetary exchange. Both parties benefit. It has crossed my mind that the benefit of free online applications could well be a similar trade off. A superior social networking site might well gather superior data and superior data can be re-worked into a service (O’Reilly 2005). However, Howe (2008) reminds us that the concept of free software is the same free as in free speech and not free beer; the difference between use and consumption.

A point not yet made sufficient strongly is the concept of globalisation, but not purely in the economic sense. The Web has made the world a global community as well as a digital community. Global in media, telecommunications, purchase (spending), and markets, Friedman (2005: 26) argues that the technological revolution has “levelled the global economic playing field (...); enabling (...) people around the world to compete, connect and collaborate.” Patel (2005: 9) supports this global concept of the Web and its compression of time, distance and access (i.e. time is faster, distance is not far anymore and access is easy) but does not ignore the amplification information as well as demands for attention, but this statement does not address the needs of poorer countries where accesses to the global community is poor or non-existent. The ever increasing digital divide serves to hinder them more than help them. On the other hand a digital community is a community which is organised according to

common interests, it might be global or it might be local but it doesn't matter where, geographically, people are located.

The digital divide whether in the economic playing field or the common interest one needs further investigation. As does the forthcoming debate on who owns what data online promises to be an interesting one as does the debate on the online right to privacy. Both will have impact on current media theory.

List of references

ABC News. December 2004. *People of the year: Bloggers*. [Online] Available at: <http://www.abcnews.go.com/WNT/PersonOfWeek/story?id=372266&page=1> [Accessed on 27/6/2011].

Anderson, C. 2009. *Free: The Future of a radical price*. New York: Hyperion.

Anderson, C. 2006. *The Long Tail. How endless choice is creating unlimited demand*. London: Random House.

Anderson, P. January 2008. *What is Web 2.0? Ideas, Technologies and Implications for Education*. [Online] Available at: <http://www.jisc.ac.uk/media/documents/techwatch/> [Accessed on 29/6/2011].

Arola, K. L. 2010. The Design of Web 2.0: The rise of the template, the fall of design. *Computers and Composition* 27: 4-14.

Baran, S. J. and Davis, D. K. 2009. *Mass Communication Theory: Foundations, Ferment and Future* (5th ed). Boston, MA, USA: Wadsworth Centage Learning.

Boulos, M. N. and Wheelert, S. 2007. The emerging Web 2.0 social software: an enableing suite of sociable technologies in health and health care education. *Health Information and Libraries Journal* 24: 2-24.

Brown, S. A. 2011. Seeing Web 2.0 in Context: A study of academic perceptions. *Internet and Higher Education* doi.

Business 2.0. July 2006. *50 Who matter now*. [Online] Available at: <http://www.money.cnn.com/magazines/business2/peoplewhomatter/> [Accessed on 26/06/2011].

Chaffee, S. H. and Metzger, M. J. 2001. The end of mass communication? *Mass Communication and Society* 4: 365-379.

Cooper, C. January 2004. *Gates: Convergence is for real*. [Online] Available at: <http://news.cnet.com/2008-7353-5137118> [Accessed on 27/6/2011].

DiNucci, D. 1999. Fragmented Future. *Print*. 32-222.

Du Plessis, F., Van Heerden, N. and Cook, G. 2010. *Integrated marketing communication: A contemporary approach* (3 ed.). Pretoria, Gauteng, South Africa: Van Schaik Publishers.

Fourie, P. J. 2007. *Media Studies: Media History, Media and Society* (2 ed). Cape Town, Western Cape, South Africa: Juta & Co.

- Friedman, T. L. 2009. *Hot, Flat and Crowded* (2 ed). London, UK: Penguin.
- Friedman, T. L. 2005. *The World is Flat*. (2 ed). London, UK: Penguin.
- Graham, P. November 2005. *Web 2.0*. [Online] Available at: <http://www.paulgraham.com/web20.html> [Accessed on 28/6/2011].
- Grossman, L. December 2006. Time's Person of the Year: You. *Time Magazine*: 26-27.
- Hornung, D. M. June 2009. *Social Media: Confusing the "thing" with the "think"*. [Online] Available at: <http://www.hodes.com/resources/library/whitepaper/confusing-the-thing-with-think> [Accessed on 28/6/2011].
- Howe, J. 2008. *Crowdsourcing: How the power of the crowd is driving future business*. London: Random House.
- Laningham, S. August 2006. *Tim Berners Lee*. [Online] Available at: <http://www.ibm.com/developerworks/podcast/dwi/cm-int082206txt.html> [Accessed on 29/6/2011].
- Lasswell, H. 1971. *Propaganda Technique in the World War 1*. Cambridge, MA: MIT Press.
- Lawson, M. August 2005. *Berners-Lee on the read/write web*. [Online] Available at: <http://news.bbc.co.uk/2/hi/technology/4132752.stm> [Accessed on 29/6/2011].
- Levine, R., Locke, C., Searls, D., and Weinberger, D. April 1999. *Internet Apocalypso*. [Online] Available at: <http://www.cluetrain.com/book/apocalypso.html> [Accessed on 29/6/2011].
- Levy, S. April 2006. *The new wisdom of the web*. [Online] Available at: <http://www.newsweek.com/2006/04/02/the-new-wisdom-of-the-web.html> [Accessed on 29/6/2011].
- Livingstone, G. 2006. *Too Soon Old, Too Late Smart: Thirty true things you need to know now*. London, UK: Hodder and Stoughton Ltd.
- Nel, F. 2001. *Writing for the Media in Southern Africa* (3 ed). Cape Town: Oxford University Press.
- O'Reilly, T. September 2005. *What is Web 2.0*. [Online] Available at: <http://oreilly.com/web2/archieve/what-is-web-20.html> [Accessed on 28/6/2011].
- Osterwalder, A. March 2006. *Web2.0 Business Model Characteristics*. [Online] Available at: <http://www.businessmodelalchemist.com/2006/03/web20-business-model-characteristics.html> [Accessed on 28/6/2011].
- Patel, K. J. 2005. *The Master Strategist: Power, Purpose and Principle*. London, UK: Hutchinson.
- Rollet, H., Lux, M., Strohmaier, M., Dosinger, G., and Tochtermann, K. 2007. The Web 2.0 way of learning with technologies. *International Journal of Learning Technology* 3(1): 87-107.
- Shirky, C. 2010. *Cognitive Surplus: Creativity and Generosity in an Connected Age*. Penquin Press.
- Shirky, C. 2008. *Here comes everybody: The power of organising without organizations*. New York: Allen Lane/Penguin Books.

Slywotzky, A. J., Morrison, D. J., Moser, T., Mundt, K. A. and Quella, J. A. 1999. *Profit Patterns: 30 ways to anticipate and profit from strategic forces reshaping your business*. Chichester, UK: John Wiley & Sons Inc.

Surowiecki, J. 2004. *The Wisdom of Crowds: Why the many are smarter than the few and How collective wisdom shapes business, economies, societies and nations*. USA: Anchor.

Tapscott, D. and Williams, A. D. 2008. *Wikinomics: How Mass Collaboration Changes Everything* (Paperback ed). London: Atlantic Books.

TechPluto. 2009. *Core characteristics of Web 2.0*. [Online] Available at: <http://www.techpluto.com/web-20-services/> [Accessed on 28/6/2011].

Weber, L. 2009. *Marketing to the Social Web* (2 ed.). Hoboken, New Jersey, USA: John Wiley & Sons Inc.

Zakon, R. H. January 2010. *Hobbes' Internet Timeline: The definitive ARPAnet and Internet History*. [Online] Available at: <http://www.zakon.org/robert/internet/timeline> [Accessed on 28/6/2011].