

Chapter Three - Literature Review: Cyberspace

Introduction

As stated in Chapter One, until 1990 the terms 'Internet' and 'cyberspace' were unconnected, having originated and developed separately.¹ Chapter Three will review the literature on the Internet and cyberspace, and discuss how some of the authors have differentiated between the two. The different histories of the Internet and cyberspace will be examined, along with changes in how they are viewed due to both technological developments and to how the technology is actually being used. The three different waves of Internet research have produced a huge body of literature on the nature of the Internet and peoples' relationships with it. This literature will be reviewed, with reference to how peoples' views of cyberspace have changed over the years, alongside technological developments.

The first section of the chapter contains a review of the technical development of the Internet up to the introduction and spread of social networks and social media, and an account of the birth and growth of the concept of cyberspace. This is followed by a review of the literature from the early days of cyberspace in the 1980s up to and including recent research on social networks and social media. As the most widely used social network site, emphasis is placed on the research concerning Facebook.

Certain themes are featured in the cyberspace literature from the very beginning. As the way the Internet was used and the purposes for which it was used, changed over the years, some of the earlier concepts were challenged, while some are still debated in the most recent literature, including the literature on social media. Two of the most prominent of these debates are around the issue of cyberspace as

¹ John Perry Barlow, "Crime and Puzzlement," John Perry Barlow Library
http://w2.eff.org/Misc/Publications/John_Perry_Barlow/HTML/crime_and_puzzlement_1.html
[Accessed 19/09/2015]

dualistic, and that of the Internet as a facilitator of online community. Chapter Three contains a review of the literature on the Internet and dualism and on the Internet and community. Another thread in the literature is the issue of identity on the Internet, which is based around the fact that it is often possible for users to conceal their identity from other users, or adopt false identities. This debate about identity and the Internet is also discussed in Chapter Three.

The Birth and Growth of Internet and Cyberspace

The Internet

The Internet came into being in the US with the first message being sent across the network in 1969.² While initially used for military purposes, the Internet was released to the public in 1983. Technical developments, such as the creation of the World Wide Web in 1991, made the Internet user-friendly and accessible to people unfamiliar with complex technology. Further technical developments and a drop in the prices of computers lead to a rapid spread of the Internet.³ By 2015 there were three billion users worldwide.⁴

Internet Use

The Pew Internet & American Life Project produces reports exploring the impact of the Internet on individuals and society.⁵ Their figures for September 2009 showed that 93% of Americans between the ages of eighteen and twenty-nine were online, meaning they had Internet access.⁶ This was the highest usage ranking of any age group. In the sixty-five plus age group it dropped to 43%. In 2012, while the highest-ranking age group was still the eighteen to twenty-nine group and the numbers declined with increasing age, the percentage of people using the Internet had

² John Naughton, *A Brief History of the Future: The Origins of the Internet* (Phoenix and London: Weidenfeld & Nicolson, 2000), p. 79.

³ John Naughton, *A Brief History of the Future*, p. 47.

⁴ Michael Kende, *Internet Society Global Internet Report: Open and Sustainable Access for All*, Vol 1, (Geneva and Reston, VA: Internet Society 2014), pp. 70c-72a, [Accessed 08/08/2014].

⁵ Pew Internet, "About Us," <http://www.pewinternet.org/About-Us.aspx>. [Accessed 13/03/2015]

⁶ Pew Internet, "Latest Stats," Pew Internet, <http://www.pewinternet.org/Static-Pages/Trend-Data/Whos-Online.aspx>. [Accessed 19/12/2009]

increased in every age group. However, in 2012 Pew Internet began to include access to the Internet from phones, tablets and other hand held devices, in their statistics, which could account for some of the increase.⁷ The statistics for 2009 and 2012 for the US are displayed in *Table 3.1* below:

Age	2009	2012
18-29	93%	96%
30-49	83%	93%
50-54	77%	85%
65+	43%	58%

Table 3.1 - Pew Internet figures for the US in September 2009 and October 2012

In the UK a 2009 report from the Office for National Statistics, based on the previous three months, also showed a decline in Internet usage as age increased.⁸ In 2012, the decline was still present although Internet use had increased for all age groups. The 2012 report also noted a large increase in the frequency of Internet use with just under 70% of people, overall, using it daily.⁹ The figures are summarised in *Table 3.2*:

Age	2009	2012
16-24	96%	96%
25-44	92%	96%
45-54	81%	88%
55-64	72%	80%
65+	30%	47%

Table 3.2 - National Statistics Report for the UK in August 2009 and August 2012

⁷ Pew Internet, "Pew Internet Project Survey July 16 - August 7, 2012," Pew Internet, <http://www.pewinternet.org/Static-Pages/Trend-Data/Whos-Online.aspx>. [Accessed 11/01/2015]

⁸ Anon, 'Internet Access: Households and Individuals', ed. by Office for National Statistics (Cardiff: Office for National Statistics, 2009).

⁹ Anon, 'Internet Access: Households and Individuals 2012', ed. by Office for National Statistics (Cardiff: Office for National Statistics, 2012).

The Technical Environment

Web 2.0

The first decade of the twenty-first century saw the introduction and rapid spread of social media and social networks, such as Facebook, Twitter, and YouTube.¹⁰

Discussing social networks and social media, Rawn Shah differentiates between the two by explaining that social networking refers to how users build 'networks of relationships to explore their interests and activities with others', while social media refers to the 'online content, or methods to create, share, or build on such content through social means'.¹¹ Examples of social networks include Facebook, Twitter, and MySpace, while YouTube, which allows users to upload, share and view content, could be classed a social media site.

These sites are examples of what are known as Web 2.0 applications.¹² Web 2.0, which has been called the second wave of the Internet, began in the early 2000s.¹³ This second wave runs alongside the second wave in Internet research, as both began to appear in the mid-2000s. The term Web 2.0 does not refer to any technical changes to the World Wide Web, but rather to the way people use it. It is characterised by applications that not only allow users to participate in contributing, organising, and creating their content, but rely on the fact that many people will visit the sites and provide new content that keeps them fresh.¹⁴ Gorman and McClean explain the difference between the first and second waves as: 'A simple comparison is to see Web 1.0 as an information source and Web 2.0 as a participatory environment'.¹⁵

boyd and Ellison define social networks as:

¹⁰ Gary B. Shelley and Mark Frydenberg, *Web 2.0: Concepts and Applications* (Boston: Course Technology, Cengage Learning, 2011), p. 1.

¹¹ Rawn Shah, *Social Networking for Business: Choosing the Right Tools and Resources to Fit Your Needs* (Upper Saddle River, New Jersey: Prentice Hall, 2010), p. 2.

¹² Gary B. Shelley and Mark Frydenberg, *Web 2.0: Concepts and Applications*, p. 1.

¹³ Gary B. Shelley and Mark Frydenberg, *Web 2.0: Concepts and Applications*, p. 1.

¹⁴ Gary B. Shelley and Mark Frydenberg, *Web 2.0: Concepts and Applications*, p. 2.

¹⁵ Lyn Gorman and David McLean, *Media and Society into the 21st Century : A Historical Introduction* 2nd ed. edn (Oxford: Wiley-Blackwell, 2009)

Web-based services that allow individuals to (1) construct a public or semi-public profile within a bounded system, (2) articulate a list of other users with whom they share a connection, and (3) view and traverse their list of connections and those made by others within the system. The nature and nomenclature of these connections may vary from site to site.¹⁶

Friends lists are lists of people with whom participants wish to connect.¹⁷ Most sites require connections to be mutually confirmed before being displayed. Participants can allow friends on the list to view their personal information and their posts, and to make posts on their profiles. Posts and replies to posts are known as user-generated content.¹⁸

The most widely used of the social network sites is Facebook which, in March 2015, reported an average of 936 million daily active users, and 1.25 billion mobile users, making it the second most widely used website in the world.¹⁹ Each user has a page called a news feed which displays updates or posts by friends as they occur.²⁰ These updates are known as status messages and can be thoughts, shared links to photos or other websites, or invitations to attend events. Friends can comment on the status messages of their friends.²¹ In common with other social network sites (SNSs), Facebook users have a personal profile where they can upload information

¹⁶ danah m. boyd and Nicole B. Ellison, 'Social Network Sites: Definition, History and Scholarship', *Journal of Computer-Mediated Communication*, Vol. 13, Iss. 1 (2007), pp. 210-30, p. 210

¹⁷ danah boyd, 'Social Network Sites as Networked Publics: Affordances, Dynamics, and Implications', in *A Networked Self: Identity, Community, and Culture on Social Network Sites*, ed. by Zizi Papacharissi (New York and Oxon: Routledge, 2011), pp. 39-58, p. 45.

¹⁸ Joseph B. Walther and Jeong-Woo Jang, 'Communication Processes in Participatory Websites', *Journal of Computer-Mediated Communication*, Vol. 18, Iss. 1 (2012), pp. 2-15, pp. 4-5.

¹⁹ Anon, "Facebook Newsroom: Statistics," Facebook, <http://newsroom.fb.com/company-info/>. [Accessed 31/05/2015]

²⁰ Anon, "Facebook Factsheet," <https://www.facebook.com/press/info.php?statistics#!/press/info.php?factsheet>. [Accessed 20/11/2012]

²¹ Gary B. Shelley and Mark Frydenberg, *Web 2.0: Concepts and Applications*, pp. 170-71.

about themselves such as relationship status, political views, and other interests.²² Users can request friendship from other users, who can choose to accept or decline the request.²³

Web 3.0

Web 3.0 is a continually evolving development of Web 2.0. Web 3.0 is also known as the 'semantic web' or the 'intelligent web', due to its ability to make connections between pieces of data and to infer meaning.²⁴ Its goal is to identify and classify Web-based data, including the user-generated content of Web 2.0 applications, so that searches of the Web will be able to pick up this data and thus become more effective.²⁵ The World Wide Web Consortium (W3C) terms it a 'Web of Data'.²⁶

The identification of data is achieved by 'tagging' (naming or classifying) all data resources on the Web with labels that describe their content and meaning. Users contribute to this by tagging photos or other pieces of uploaded content in social network and social media sites.²⁷ A piece of data with multiple tags from different users, and therefore a corresponding amount of metadata, is known as a 'folksonomy'.²⁸ According to O'Reilly, the creation of data objects like folksonomies and what he terms, 'the harnessing of collective intelligence', is turning the web into a 'kind of global brain'.²⁹

²² Anon, "Facebook Factsheet,
<https://www.facebook.com/press/info.php?statistics#!/press/info.php?factsheet>. [Accessed 20/11/2012]

²³ Gary B. Shelley and Mark Frydenberg, *Web 2.0: Concepts and Applications*, p. 171.

²⁴ Kerry Maxwell, "Buzzword: Web 3.0,"
<http://www.macmillandictionary.com/buzzword/entries/web3.html>. [Accessed 08/08/2014]

²⁵ Anon, "Definition of Semantic Web," PC Magazine,
<http://www.pcmag.com/encyclopedia/term/51092/semantic-web>. [Accessed 08/08/2014]

²⁶ World Wide Web Consortium, "Semantic Web,"
<http://www.w3.org/standards/semanticweb/>. [Accessed 08/08/2014]

²⁷ Anon, "Definition of Semantic Web,"
<http://www.pcmag.com/encyclopedia/term/51092/semantic-web>. [Accessed 08/08/2014]

²⁸ Tim O'Reilly, 'What Is Web 2.0? Design Patterns and Business Models for the Next Generation of Software', in *The Social Media Reader*, ed. by Michael Mandiberg (New York; London: New York University Press, 2012), pp. 32-52, p. 41.

²⁹ Tim O'Reilly, *What Is Web 2.0?*, p. 41.

Augmented Reality

Augmented Reality (AR) is a variation of a Virtual Reality (VR). VR is defined by Burdea and Coiffet as follows:

It is a simulation in which computer graphics is used to create a realistic looking world. Moreover, the synthetic world is not static, but responds to the user's input (gesture, verbal commands, etc.). This defines a key feature of virtual reality which is interactivity.³⁰

VR technologies completely submerge a user into a synthetic environment and, while immersed, the user cannot see the physical world around them. In contrast, AR takes computer-generated information such as images, audio, video, and touch or haptic sensations, and overlays them on a real-time environment. AR allows the user to see the real world with virtual objects superimposed on it.³¹ Alan B. Craig describes AR as a medium one experiences rather than reads, listens to or watches. He claims that although it is currently mainly a visual medium, the user must *engage* with it (*italics in original*), in order to gain the experience that it provides.³² He provides an example of an AR application,

Imagine for a moment that you visit a vacant lot where you intend to build your dream home. Now let's consider an AR experience where you go to that (vacant) lot, but through the use of technology you are able to see your dream home in place on that lot. You can walk around the house and see it from all different viewpoints just like you could if the house was actually completed on the lot. You can interact with the house, open the door, and so on just like you could in the real world. However AR can also offer the potential to do things that are not possible in a normal interaction in the real world. Perhaps you want to see the house in a different color, move the house on the lot, or see the house take off

³⁰ Grigore Burdea and Phillipe Coiffet, *Virtual Reality Technology, Volume 1* (Hoboken, New Jersey: John Wiley & Sons, Inc., 2003),p. 2.

³¹ Greg Kipper and Joseph Rampolla, *Augmented Reality: An Emerging Technologies Guide to Ar* (Waltham, MA: Elsevier Science, 2012),p. 1.

³² Alan B. Craig, *Understanding Augmented Reality: Concepts and Applications* (Waltham, MA: Elsevier Science, 2013),p. 2.

like a rocket ship. These are all possible with augmented reality.³³

Cyberspace

Cyberspace, as a concept, developed separately from the Internet. The term cyberspace was coined by American author William Gibson who first used the word in *Burning Chrome* in 1982, and developed it in his 1984 novel, *Neuromancer*, the first book of his *Sprawl Trilogy*.³⁴ In this much-quoted passage from *Neuromancer*, Gibson defines cyberspace:

Cyberspace. A consensual hallucination experienced daily by billions of legitimate operators, in every nation, by children being taught mathematical concepts . . . A graphic Unthinkable complexity. Lines of light ranged in the nonspace of the mind, clusters and constellations of data. Like city lights, receding ...³⁵

Neuromancer is possibly the most well-known example of the literary genre that was termed 'cyberpunk'. The term is also used to refer to the sub-culture of cyberspace enthusiasts, cyberculture itself, or an individual from that sub-culture.³⁶ According to Bell, the kinds of images produced by cyberpunk literature have had important effects in shaping how participants in cyberculture perceive themselves.³⁷ In *Neuromancer* and the two subsequent novels in Gibson's *Sprawl Trilogy*, the main characters were known as console cowboys, and the term 'console cowboys' became used in the literature to refer to all cyberpunk protagonists.³⁸ In *Neuromancer* and the novels that followed the protagonist, who is almost always male, lives in a world dominated by technology and spends a lot of time in cyberspace. He frequently breaks laws, flouts authority and takes risks. His

³³ Alan B. Craig, *Understanding Augmented Reality*, p. 2.

³⁴ William Gibson, *Burning Chrome* (London: Voyager, 1995 [1981]), p. 195.

³⁵ William Gibson, *Neuromancer* (London: Harper Voyager, 1995), p. 67.

³⁶ David Bell, *An Introduction to Cybercultures* (London and New York: Routledge, 2001), p. 141.

³⁷ David Bell, *An Introduction to Cybercultures*, p. 141.

³⁸ William Gibson, *Neuromancer*, p. 11; For example: Sharon Stockton, "'The Self Regained': Cyberpunk's Retreat to the Imperium', *Contemporary Literature*, Vol. 36, Iss. 4 (1995), pp. 558-612,

technical skills lead him into dangerous situations, but usually bring about his escape. Cyberspace is seen as both a place of adventure and excitement and a place where people can become rich.³⁹

The physical network that would become known as the Internet, and the cyberspace of cyberpunk were developing separately from and alongside each other, but bore little resemblance to each other.⁴⁰ Gibson's cyberspace and that of the other cyberpunk novelists such as the 'Metaverse' from Neal Stephenson's *Snow Crash*, were full VR environments.⁴¹ In Gibson's novels cyberspace was a place that was entered physically and could be experienced by all of the senses. For example, in *Neuromancer*, the protagonist, Case, connects to Molly, the novel's leading female character, using a device called simstim, which allows a person to experience what another person is experiencing. Molly is currently in cyberspace and, in cyberspace, has broken a leg. Over the simstim connection, Case can see, hear, and feel what Molly sees, hears and feels, and experiences the pain of her broken leg.⁴²

It was in 1990 that cyberspace was first associated with the physical Internet by John Perry Barlow, co-founder of the Electronic Frontier Foundation, in his essay 'Crime and Puzzlement'.⁴³ The term was quickly adopted. As Partridge put it, 'Certainly it is true that it didn't take long for 'cyberspace' to detach itself from the text [of Gibson's novels] and become the commonly accepted term for the world of digital information and communication.'⁴⁴ 1990 was also the year when the first cyberspace academic conference was held in Austin, Texas.⁴⁵ Benedikt's

³⁹ For example Case in William Gibson's *Neuromancer* or Bobby Newmark in William Gibson's *Count Zero*.

⁴⁰ Anon, *From Arpanet to the World Wide Web* (University of Leiden)

⁴¹ Neal Stephenson, *Snow Crash* (Penguin Books Limited, 1994) pp. 22-25.

⁴² William Gibson, *Neuromancer*, p. 217.

⁴³ John Perry Barlow, "Crime and Puzzlement," http://w2.eff.org/Misc/Publications/John_Perry_Barlow/HTML/crime_and_puzzlement_1.html

⁴⁴ Christopher Partridge, *The Re-Enchantment of the West, Vol 2: Alternative Spiritualities, Sacralization, Popular Culture and Occulture* (Bloomsbury Academic, 2006), p. 136.

⁴⁵ Michael Benedikt, 'Introduction', in *Cyberspace: First Steps*, ed. by Michael Benedikt (Cambridge Mass. and London: MIT Press, 1991), pp. 1-25, pp. 3-4.

'Introduction' to the conference proceedings gives ten different definitions of cyberspace.⁴⁶ His definitions can be summarised as follows:

- Cyberspace: A word from the pen of William Gibson...A word that gives a name to a new stage, a new and irresistible development in the elaboration of human culture and business under the sign of technology
- Cyberspace: A new universe, a parallel universe created and sustained by the world's computers and communication lines
- Cyberspace: A place, one place, limitless; entered equally from a basement in Vancouver, a boat in Port-au-Prince, a cab in New York City, a garage in Texas City, an apartment in Rome, an office in Hong Kong, a bar in Kyoto, a cafe in Kinshasa, a laboratory on the Moon
- Cyberspace: Everywhere and nowhere, a place where nothing is forgotten and yet everything changes
- Cyberspace: A common mental geography, built, in turn, by consensus and revolution...a territory swarming with data and lies, with mind stuff and memories of nature
- Cyberspace: Its corridors form wherever electricity runs with intelligence. Its chambers bloom wherever data gathers and is stored
- Cyberspace: Through its myriad, unblinking video eyes, distant places and faces, real or unreal, actual or long gone, can be summoned to presence. From vast databases that constitute the culture's deposited wealth, every document is available, every recording is playable, and every picture is viewable
- Cyberspace: Beneath their plaster shells on the city streets, behind their potted plants and easy smiles, organizations are seen as the organisms they are - or as they would have us believe them be
- Cyberspace: From simple economic survival through the establishment of security and legitimacy, from trade in tokens of approval and confidence and liberty to the pursuit of influence, knowledge and entertainment for

⁴⁶ Michael Benedikt, *Introduction to Cyberspace: First Steps*, pp. 1-3.

their own sakes, everything informational and important to the life of individuals - and organisations - will be found for sale, or for the taking, in cyberspace

- Cyberspace: The realm of pure information

Benedikt's definitions correspond to Ladd's cosmological dualism. Cyberspace is a place separate from the mundane, physical world or, in Ladd's terms, a separate level of existence.⁴⁷ Like Plato's world of Being, it is associated with the mind and is capable of containing all information. In its ability to be entered everywhere by anyone with a modem, it is portrayed as a democratic and revolutionary space, but where all is not what it seems. As will be discussed later in the chapter, the early beliefs of what cyberspace would become, differed greatly from what it actually became. Yet, the ideas contained in these definitions continue to reflect the way the Internet is viewed today.

Benedikt immediately follows the ten definitions with the statement 'Cyberspace as just described—and, for the most part, as described in this book—does not exist.'⁴⁸ But, he said, this stated a truth too simply.⁴⁹ He thought it soon would exist. In a statement that would capture the essence of one of the ways cyberspace would be viewed in the 1990s, he wrote:

Like Shangri-la, like mathematics, like every story ever told or sung, a mental geography of sorts has existed in the living mind of every culture, a collective memory or hallucination, an agreed-upon territory of mythical figures, symbols, rules, and truths, owned and traversable by all who learned its ways, and yet free of the bounds of physical space and time. What is so galvanizing today is that technologically advanced cultures - such as those of Japan, Western Europe, and North America - stand at the threshold of making that

⁴⁷ George Eldon Ladd, *A Theology of the New Testament* (Grand Rapids, Michigan: Wm E. Eerdmans Publishing Co., 1993 [1974]) pp. 435-36.

⁴⁸ Michael Benedikt, *Introduction to Cyberspace: First Steps*, p. 3.

⁴⁹ Michael Benedikt, *Introduction to Cyberspace: First Steps*, p. 3.

ancient space both uniquely visible and the object of interactive democracy.⁵⁰

With this statement Benedikt is claiming firstly, that cyberspace is a technological version of the mythical, other-worldly place that, he states, every culture has and, secondly, that everybody in the developed world would soon be able to access this new democratic space, described in his ten definitions summarised above. He further elaborates, 'Cyberspace can be seen as an extension...of our age-old capacity and need to dwell in fiction, to dwell empowered or enlightened on other mythic planes, if only periodically, as well as this earthly one'.⁵¹

Benedikt believed that the Internet was in the process of becoming a Gibsonian three-D virtual reality. He called it 'a technology very nearly achieved'.⁵² Describing it as 'now under construction', with echoes of Gibson's 'consensual hallucination', he prophesied that it would be a 'full-blown, public, consensual virtual reality that will indeed be cyberspace'.⁵³ This belief was shared by many of the early theorists. McFadden, describing the structure of cyberspace, called the Internet of 1990 a pre-cyberspace, in that it had not yet all the necessary criteria for a true cyberspace.⁵⁴ Like Benedikt, Davis thought that cyberspace would become a full virtual reality that could be jacked into (entered) by real-life console cowboys, although his comments contain a certain cynicism absent from Benedikt's. Davis wrote,

In fact many of the worlds we'll have the opportunity to jack into will more than likely resemble some unholy combination of theme park, bookstore, and mall. The banal fate of our culture may be to simulate the astral realms inside our machines, and then blanket them with Planet

⁵⁰ Michael Benedikt, *Introduction to Cyberspace: First Steps*, p. 3.

⁵¹ Michael Benedikt, *Introduction to Cyberspace: First Steps*, p. 6.

⁵² Michael Benedikt, *Cyberspace: Some Proposals*, p. 131.

⁵³ Michael Benedikt, *Cyberspace: Some Proposals*, p. 124.

⁵⁴ Tim McFadden, 'Notes on the Structure of Cyberspace and the Ballistic Actors Model', in *Cyberspace: First Steps*, ed. by Michael Benedikt (Massachusetts: MIT Press, 1991), pp. 335-62, p. 341.

Hollywood, Donkey Kong miniature-golf courses, and Lexis-Nexis fast-food data franchises.⁵⁵

However cyberspace did not develop in the way it had been thought it would. While the documents it contained and the uses made of it became much more varied and technologically complex, the sensual experience of cyberspace was limited to what could be seen and heard. In 2003 Benedikt admitted that 'Cyberspace—that wonderful, phantasmagoric three-dimensional alternative reality imagined by William Gibson—was not actually shaping itself on-line as I and many others thought it surely would'.⁵⁶ Similarly Woodford, et al., in 2002, called the Internet of then 'a far cry from the cerebral idealism of the Internet pioneers'.⁵⁷

The real-world Internet, in the early 1990s, was little more than text documents connected by hyper-links.⁵⁸ Yet during the 1990s, as it began to expand and become a commercial arena, many of the Internet theorists—for example, Stockton in 1995—consistently treated the cyberpunk novels as the canonical source, frequently using them to back up their statements about the Internet and how people react to and interact with it.⁵⁹ As late as 2005, Campbell wrote that the prevailing views of cyberspace were both utopian and dystopian, and backed up her statements with examples from Gibson's *Johnny Mnemonic*.⁶⁰ Even when it became clear that there would be large differences between the fictional cyberspace and the real world version, many of the same themes, which will be discussed in the next section of this chapter, continued to be explored.

⁵⁵ Erik Davis, *Techgnosis: Myth, Magic and Mysticism in the Age of Information* (London: Serpents Tail, 2004 [1998]) pp. 231-32.

⁵⁶ Michael Benedikt, 'Towards a General Theory of Value: An Interview with Michael Benedikt', *Gain*, (2003) <<http://gain2.aiga.org/content.cfm?ContentAlias=michaelbenedikt1>>. [Accessed 31/05/2015]

⁵⁷ Christos J. P. Moschovitis Chris Woodford, Hilary W. Poole, Moschovitis Group, and Laura Lambert, 'The Internet: A Historical Encyclopaedia', Vol. Iss. (2002), p. 193

⁵⁸ Anon, *From Arpanet to the World Wide Web*.

⁵⁹ Sharon Stockton, 'Self Regained', p. 594.

⁶⁰ Heidi Campbell, *Exploring Religious Community Online: We Are One in the Network* (New York: Peter Lang Publishing Inc, 2005), p. 10.

Starting around the year 2000 some of the literature began to, once more, separate cyberspace from the Internet, this time in terms of how cyberspace and the Internet were being viewed. In a separation of the physical from the non-physical that encouraged a view of cyberspace as Cartesian, some authors differentiated between the physical network of the Internet and the concept of cyberspace as a virtual place. Discussing the public's tendency to use the terms 'Internet' and 'cyberspace' interchangeably, in 2006 Karaflogka argued that, although she sees them as entirely distinct from each other, the notion of cyberspace as a place contributed to the growth of the Internet, even though, as she stated, the Internet of the twenty-first century is 'a far cry' from the cyberspace described by Gibson.⁶¹ According to McFadden, 'a cyberspace may be maintained by a computer network but is not identical with it'.⁶² Bell also differentiates between cyberspace and the physical hardware and software that allows the Internet to exist, or what he calls:

The network of computers, modems, communication links, nodes and pathways that connect users into something (or some things) like the Internet, the World Wide Web, the information superhighway and so on.⁶³

Like Karaflogka, he believes there is another dimension to the Internet which he calls 'everywhere and nowhere', a term also used by Benedikt in one of his ten definitions of cyberspace, listed above: 'Everywhere and nowhere, a place where nothing is forgotten yet everything changes'.⁶⁴ In Bell's words:

We have to move beyond the simple answer that physically we are seated in front of a monitor . . . We are simultaneously making ourselves over as data, as bits and

⁶¹ Anastasia Karaflogka, *E-Religion: A Critical Appraisal of Religious Discourse on the World Wide Web* (London: Equinox, 2006), p. 3.

⁶² Tim McFadden, *Notes on the Structure of Cyberspace*, p. 342.

⁶³ David Bell, 'Cybercultures Reader: A User's Guide', in *The Cybercultures Reader*, ed. by David Bell and Barbara M. Kennedy (London: Routledge, 2000), pp. 1-12, p. 2.

⁶⁴ David Bell, *Cyberculture Reader*, p. 2; Michael Benedikt, *Introduction to Cyberspace: First Steps*, p. 1.

bytes, as code, relocating ourselves in the space behind the screen, between screens, everywhere and nowhere.⁶⁵

In this other parallel universe the person in front of the monitor is not just visiting a website, they are clearly entering another world. This world is what Karaflogka calls cyberspace or, as she puts it, 'where the act of connectivity and interactivity takes place'.⁶⁶ She describes it as a place which, although part of the network, is nevertheless completely different from it.⁶⁷ To clearly differentiate between the two she uses the term 'Internet' to refer to the physical network and 'cyberspace' to refer to the place Bell calls 'everywhere and nowhere'.⁶⁸ Karaflogka envisages the Internet and cyberspace as two entities. Bell, while seeing the Internet and cyberspace as two entities, also envisages a third. He writes,

I think of it as combining three things....: it has material, symbolic and experiential dimensions. It is machine, wires, electricity, programs, screens, connections, and it is modes of information and communication: email, websites, chat rooms, MUDs. But it is also images and ideas: cyberspace exists on film, in fiction, in our imaginations as much as on our desktops or in the space between our screens. Moreover, and this is the important bit, we experience cyberspace in all its spectacular and mundane manifestations by mediating the material and the symbolic.⁶⁹

Like Corbin's tri-part view of space, Bell's three dimensions include a physical dimension, a mental dimension and a dimension of the imagination.⁷⁰ However unlike Corbin, Bell's third space, like that of Foucault, Lefebvre, and Soja, contains the other two spaces, or as Bell puts it, is experienced by 'mediating the material and the symbolic'.⁷¹ In his view the human experience of cyberspace, like Shiner's

⁶⁵ David Bell, *Cyberculture Reader*, p. 3.

⁶⁶ Anastasia Karaflogka, *E-Religion*, p. 24.

⁶⁷ Anastasia Karaflogka, *E-Religion*, p. 25.

⁶⁸ Anastasia Karaflogka, *E-Religion*, p. 25.

⁶⁹ David Bell, *An Introduction to Cybercultures*, pp. 1-2.

⁷⁰ Henry Corbin, *Mundus Imaginalis: Or, the Imaginary and the Imaginal* (Ashuelot: Golgonooza Press, 1976), p. 5; David Bell, *An Introduction to Cybercultures*, pp. 1-2.

⁷¹ David Bell, *An Introduction to Cybercultures*, pp. 1-2; Michel Foucault, *The Order of Things* (London and New York: Routledge, 2004 [1970]), p. 23; Henri Lefebvre, *The Production of Space*

lived world and Lefebvre's social space, comes from negotiating the other two elements.⁷² Bell's writing is from the first wave of cyberspace literature. However his idea of cyberspace as a thirdspace or a space that is somehow created from the other two spaces was, as will be seen later in this chapter, ahead of its time. The alleged creation of a separate world somewhere behind the computer screen, a mythic plane, and a world that a person needed to jack in to, as well as a mental rather than a physical experience, led to cyberspace being labelled dualistic by many of the cyberspace authors. The dualism of cyberspace is dealt with extensively in the next section.

Cyberspace and Dualism

In the literature, cyberspace has been called dualistic and many examples of both anthropological and cosmological dualism can be found. Examples of anthropological dualism include Benedikt, who referred to cyberspace as 'a mental geography', and Michael Heim, who spoke of the cybernaut or, cyberspace visitor, escaping 'the prison of the flesh'.⁷³ These views of cyberspace as a form of anthropological dualism are discussed below.

Cyberspace has since its birth been viewed as a space or place, separate to the material world, existing inside the computer or behind the screen - a form of cosmological dualism. In Ladd's definition of cosmological dualism, the non-earthly half of the dualism is viewed as heavenly or divine; in the examples of earlier cosmological dualisms of Plato, the Gnostics, and early Christianity, the non-material world was considered sacred and associated with knowledge, perfection

(Oxford: Basil Blackwell, 1991), p. 3; Edward W. Soja, *Thirdspace* (Oxford and Cambridge Massachusetts: Blackwell Publishers, 1996), p. 11.

⁷² David Bell, *An Introduction to Cybercultures*, p. 7; Larry E. Shiner, 'Profane Space, Human Space', *Journal of the American Academy of Religion*, Vol. 40, Iss. 4 (1972), pp. 425-36, p. 432; Henri Lefebvre, *The Production of Space*, p. 3.

⁷³ Michael Benedikt, *Introduction to Cyberspace: First Steps*, p. 3; Michael Heim, 'The Erotic Ontology of Cyberspace', in *Cyberspace: First Steps*, ed. by Michael Benedikt (Cambridge: MIT, 1991), pp. 59-80, p. 64.

and the divine.⁷⁴ In the literature on the nature of space, scholars differentiate between space and place and between sacred space and non-sacred or profane space. As the debates concerning space and place and the nature of sacred space are relevant to the discussion on cyberspace as a non-physical space in itself and, in comparison with the other non-physical spaces, this literature will be discussed in relation to cyberspace and its cosmological duality.

Another topic that appears in the literature in connection with the world of cyberspace is what has been called 'The Myth of the Frontier'. The Internet is an American invention and the concept of cyberspace originated in America. Karaflogka and Healy, for example, make this point and compare cyberspace to the American frontier of the nineteenth century, particularly in connection with the lawlessness of the American West, which was seen as outside the borders of the civilised world.⁷⁵ This section contains an examination of literature on cyberspace and the frontier.

Descartes' belief that he could separate his body from his senses and operate in his mind is echoed in the writing of Tomas and Heim, who both contributed to the first wave of Internet research. Tomas refers to jacking in as, 'the instantaneous rite of passage that separates body from consciousness'.⁷⁶ Heim visualises the cybernaut or console cowboy as detached from his physical body.⁷⁷ In 1990, Heim wrote,

The cybernaut seated before us strapped into sensory input devices, appears to be, and is indeed, lost to this world.

⁷⁴ George Eldon Ladd, *A Theology of the New Testament*, pp. 435-36; Plato, *Timeaus*, Translated by Donald J. Zeyl, Plato: Complete Works (Indiana: Hackett Publishing Company, 1997), 28d; *The Teachings of Silvanus*, Translated by Malcolm L. Peel and Jan Zandee, The Nag Hammadi Library (The Gnostic Society Library), <http://gnosis.org/naghamm/silvanus.html>; St. Augustine of Hippo, *The City of God* Kindle edn (Dublin: Veritatis Splendor Publications, 2012), XI.I.

⁷⁵ Anastasia Karaflogka, *E-Religion*, p. 19; Dave Healy, 'Cyberspace and Place: The Internet as Middle Landscape on the Electronic Frontier', in *Internet Culture*, ed. by David Porter (New York and London: Routledge, 1997), pp. 55-68, p. 55.

⁷⁶ David Tomas, 'Cybercultures Reader: A User's Guide', in *The Technophilic Body: On Technicity in William Gibson's Cyborg Culture*, ed. by David Bell and Barbara M. Kennedy (London: Routledge, 2000), pp. 175-89, p. 183.

⁷⁷ Rene Descartes, *The Philosophical Works of Descartes* Vol 1, (Cambridge: University Press, 1972), p. 171.

Suspended in computer space, the cybernaut leaves the prison of the body, and emerges in the world of digital sensation.⁷⁸

In this quote, with its reference to sensory input devices, Heim is describing Gibson's cyberspace where the cybernaut is strapped into a deck and experiences himself as physically present in cyberspace and out of touch with the physical world, where his body remains in a chair. In *Neuromancer*, when the console cowboy jacks in to cyberspace he, for console cowboys are almost always male, straps electrodes to his head and enters cyberspace. He is no longer consciously aware of events in the offline world and experiences the world of cyberspace with all five senses.⁷⁹ With the words 'prison of the body', Heim echoes Gibson who also described the body as prison. In Gibson's *Neuromancer* the main character, Case, finds himself unable to access cyberspace due to neurological damage. Gibson, with the use of a capital F in 'Fall', is using the analogy of the garden of Eden and echoing the Gnostic concept of the soul imprisoned in the body:

For Case, who'd lived for the bodiless exultation of cyberspace, it was the Fall. In the bars he'd frequented as a cowboy hotshot, the elite stance involved a certain relaxed contempt for the flesh. The body was meat. Case fell into the prison of his own flesh.⁸⁰

Gibson's 'prison of the flesh' and Heim's 'prison of the body', depicts the body as the place where the mind is trapped, echoing the Gnostic belief that the body is the prison of the divine spark, the piece of the deity that has fallen to Earth.⁸¹ Rudolph's claim that Gnostic anthropological dualism parallels its cosmological dualism to the extent that it is sometimes difficult to distinguish between statements about the individual and those about the world, could be applied to Gibson's Case and Heim's cybernaut.⁸² Both are described as being in a prison of their own body; yet it is not

⁷⁸ Michael Heim, *The Erotic Ontology of Cyberspace*, p. 64.

⁷⁹ William Gibson, *Neuromancer*, p. 11.

⁸⁰ William Gibson, *Neuromancer*, p. 12.

⁸¹ *The Teachings of Silvanus*.

⁸² Kurt Rudolph and Robert McLachlan Wilson, *Gnosis: The Nature and History of Gnosticism* (New York: HarperCollins Publishers, 1987), p. 60.

their mind that they, unlike Descartes, seek to escape to, but the world of cyberspace.⁸³

Case's 'contempt for the flesh' in *Neuromancer* is highly reminiscent of Descartes' distrust of the body and his perception of it as inferior to the mind, the Gnostic association of the material with evil, and what Filoramo interpreted as Plato's concept of the body as an obstacle to the free development of the life of the spirit.⁸⁴ In cyberspace Gibson's hero experiences a 'bodiless exultation', just as Descartes experienced clarity when he separated his mind from his physical senses. Likewise, the Gnostic divine spark escapes the body to fly up through the spheres to reunite with the deity.⁸⁵

Some of the first wave literature contains challenges to the claims that cyberspace is a manifestation of the Cartesian split, in that it allows the cyberspace visitor to leave the body and enter the world of the mind, associated by Descartes with God.⁸⁶ While Stockton believes that it is Cartesian, arguing that it posits a separation of mind and body, Stone argues against this statement and against the view that cyberspace is dualistic.⁸⁷ Using the same argument, that thought cannot be separated from matter, put to Descartes by Hobbes in the seventeenth century, Stone writes:

No matter how virtual the subject may become, there is always a body attached. It may be off somewhere else – and

⁸³ Rene Descartes, 'Meditations on First Philosophy', in *The Philosophical Works of Descartes Vol 1*, (Cambridge: University Press, 1972), pp. 131-200, p. 171.

⁸⁴ Rene Descartes, *The Principles of Philosophy*, p. 221; *Apocryphon of John*, Translated by Frederik Wisse, The Nag Hammadi Library (The Gnostic Society Library), <http://gnosis.org/naghamm/apocjn.html>; Giovanni Filoramo, *A History of Gnosticism* (Oxford: Blackwell, 1990), p. 54.

⁸⁵ William Gibson, *Neuromancer*, p. 12; Rene Descartes, *Meditations on First Philosophy*, p. 171; *Tripartite Tractate*, Translated by Harold W. Attridge and Dieter Mueller, The Nag Hammadi Library (The Gnostic Society Library), 1.15, <http://gnosis.org/naghamm/tripart.htm>. [Accessed 30/05/2015]

⁸⁶ Rene Descartes, *Discourse on the Method*, p. 103.

⁸⁷ Sharon Stockton, 'Self Regained', p. 609; Allucquere Rosanne Stone, 'Will the Real Body Please Stand Up?: Boundary Stories About Virtual Cultures', in *Cyberspace: First Steps*, ed. by Michael Benedikt (Massachusetts: MIT Press, 1991), p. 111.

that 'somewhere else' may be a privileged point of view – but consciousness remains firmly rooted in the physical.⁸⁸

Bell also argues that cyberspace is not Cartesian. While, as stated above, he differentiates between the hardware of the Internet and the place called cyberspace, he argues against an anthropological dualism of mind and body. Coming to the same conclusion that Hobbes did in the seventeenth century, Bell does not believe that the body and mind can separate.⁸⁹ He refers to the idea that the mind can split from the body as a working version of Gibson's 'consensual hallucination' and, using Gibson's analogy of the body as meat, he argues that this is because the meat is not that readily discarded; it's the meat that sits at the screen, typing and reading.⁹⁰

While Descartes concluded that the evidence of the body was less reliable than that of the mind, Boler claims the opposite applies with cyberspace users.⁹¹ She challenges what she calls 'a neo-liberal version of the Cartesian binary of mind and body', which she claims is hailed as enabling users to transcend discrimination based on race, gender, or physical appearance, and as having brought about a 're-emphasis of the mind'. In her view there has been 'a twist'.⁹² The twist is what she terms 'New Digital Cartesianism', where 'although the body is allegedly "transcended" in virtual environments...it actually functions as a necessary arbiter of meaning and final signifier of what is accepted as "real" and "true"'.⁹³ She discusses the importance users ascribe to knowing a person's age, sex, and location, and states that users who have been 'deceived' about another user's identity often demonstrate anger. She writes 'In the case of "deception", the physical attributes

⁸⁸ Allucquere Rosanne Stone, *Will the Real Body Please Stand Up?*, p. 111.

⁸⁹ Thomas Hobbes, 'Third Set of Objections, First Objection', in *The Philosophical Works of Descartes*, (Cambridge: University Press, 1982), p. 62; David Bell, *An Introduction to Cybercultures*, p. 141.

⁹⁰ David Bell, *An Introduction to Cybercultures*, p. 141.

⁹¹ Rene Descartes, *Philosophical Works*, Vol 1, p. 161.

⁹² Megan Boler, 'Hypes, Hopes and Actualities: New Digital Cartesianism and Bodies in Cyberspace', in *The New Media and Cybercultures Anthology*, ed. by Pramod K. Nayar (Chichester: Wiley-Blackwell, 2010), pp. 185-208, pp. 188-89.

⁹³ Megan Boler, *Hypes, Hopes and Actualities*, pp. 185-86.

of one's "real" biological identity functions to determine the "real" person'.⁹⁴ She concludes 'It is the body that is the final arbiter or what is "true"'.⁹⁵

Lefebvre argued that our world view frames our perception of space, and Tilley argued that it affects our perception of place.⁹⁶ The same argument is made by Cobb about cyberspace. In her view, the dualism of cyberspace reflects a cultural issue; people want 'to escape the messy and mortal sphere of the body' but are simultaneously afraid of losing touch with the physical world.⁹⁷ She believes that it echoes Plato's desire to leave behind the imperfect world of the body for the perfect world of Being and states that, in this, cyberspace reflects a culturally entrenched habit of splitting the mind from the body, thereby reducing the primal power of the physical self. However, just as Lefebvre and Soja argued for a unitary theory of space, she argues that the two halves of the dualism can be integrated into a unified world that contains both cyberspace and the material world.⁹⁸ In her words,

This scenario reflects our own reality, not the reality of cyberspace itself. If we approach cyberspace from the perspective of a splintered self, we will re-create this dualism in cyberspace. If however we see cyberspace as part of a larger, integrated, sacred experience of the world, the picture begins to change dramatically.⁹⁹

Like Bell, Cobb is proposing a view of cyberspace as a thirdspace.

Cyberspace and Place

The relationship between the place called cyberspace and the material world has frequently borne strong resemblance to the relationship between Plato's worlds of

⁹⁴ Megan Boler, *Hypes, Hopes and Actualities*, p. 196.

⁹⁵ Megan Boler, *Hypes, Hopes and Actualities*, pp. 185-86.

⁹⁶ Henri Lefebvre, *The Production of Space*, p. 39; Christopher Tilley, *A Phenomenology of Landscape* (Oxford: Berg, 1994), p. 15.

⁹⁷ Jennifer Cobb, 'A Spiritual Experience of Cyberspace', *Technology in Society*, Vol. 21, Iss. (1999), pp. 393-407, p. 399

⁹⁸ Henri Lefebvre, *The Production of Space*, p. 11; Edward W. Soja, *Thirdspace*, p. 11; Jennifer Cobb, 'A Spiritual Experience of Cyberspace', p. 394.

⁹⁹ Jennifer Cobb, 'A Spiritual Experience of Cyberspace', p. 394.

Being and Becoming, between the Gnostic transmundane abode of the deity and the evil material plane, and between the Christian heaven and the Earth, with cyberspace being likened to the divine half of the cosmological dualism, the sacred space as opposed to the mundane space.¹⁰⁰ This next section examines the concept of sacred space and what is written in the literature about cyberspace as a sacred space.

Cyberspace as Sacred Space

Chapter Two discussed the cosmological dualism of Plato, the Gnostics and Christianity. Each of these cosmologies contains two worlds, one sacred and one profane. Cyberspace, as discussed earlier, has been viewed by some authors as representing one half of a dualistic cosmos. As with Plato, the Gnostics, and Christianity, one half of the cosmos was seen as qualitatively different from the other; for example, Cowan claims that cyberspace is portrayed as 'somehow qualitatively different from the more mundane places from which we access the online world'.¹⁰¹ It is seen as associated with the divine and therefore a sacred place. This section considers cyberspace in relation to the sacred spaces of the Plato, the Gnostics and Christianity, as discussed in Chapter Two.

Many of the early theorists such as, Benedikt, portray cyberspace as a place or space separate from the material world.¹⁰² Much of the discussion centred around the nature of the place called cyberspace, and whether or not it existed as a separate imagined or mentally constructed entity from the physical network. In 2005, Cowan pondered the issue, 'Where do we go when we are online?'¹⁰³ There was a tendency to view cyberspace, as Cowan put it, 'as qualitatively different', as

¹⁰⁰ Michael Benedikt, *Introduction to Cyberspace: First Steps*, pp. 1-3.

¹⁰¹ Plato, *Timeaus*, 28a-28c; *On the Origin of the World*, Translated by Hans-Gebhard Bethge and Bentley Layton, The Nag Hammadi Library (The Gnostic Society Library), <http://gnosis.org/naghamm/origin.html>. [Accessed 22/09/2015]; St. Augustine of Hippo, *City of God*, XI.I; Douglas Cowan, 'Online U-Topia: Cyberspace and the Mythology of Placelessness', *Journal for the Scientific Study of Religion*, Vol. 44, Iss. 3 (2005), pp. 257–63, p. 257

¹⁰² Michael Benedikt, *Introduction to Cyberspace: First Steps*, pp. 1-3.

¹⁰³ Douglas Cowan, 'Online U-Topia', p. 257.

divine or somehow superior to the material world.¹⁰⁴ Partridge described it as 'numinous',

There is, it would seem, something peculiarly numinous about the very existence of cyberspace and what it enables the human imagination to achieve. Cyberspace has a transcendent quality. There is something enchanting about its very existence, not to say its exotic possibilities.¹⁰⁵

If, as stated by Ladd, cosmological dualism is a contrast between two levels of existence, the earthly and the heavenly, then cyberspace has been seen as the heavenly level.¹⁰⁶ Wertheim, comparing cyberspace to the Christian Heaven, writes, 'The attraction of cyberspace is that it is a re-packaging of the Christian Heaven in a secular and technologically sanctioned format'.¹⁰⁷ Benedikt described the Heavenly City from the *Book of Revelation* as a religious vision of cyberspace, claiming that both have weightlessness, radiance, numerological complexity and stand for a state of wisdom and knowledge.¹⁰⁸ On the same topic, Stenger writes:

On the other side of our data gloves we become creatures of coloured light in motion, pulsing with golden particles. We will all become angels, and for eternity. Cyberspace will feel like Paradise, a space for collective restoration of the habit of perfection.¹⁰⁹

The heavenly worlds of Plato, the Gnostics, and Christianity contain a god, and so too did the original cyberspace. In *Mona Lisa Overdrive*, the third and final novel in the *Sprawl Trilogy* that began with *Neuromancer*, an artificial intelligence (a computer), when asked if the Matrix (cyberspace) is God, stated that it would be more accurate to say that the Matrix has a god since this god's omniscience and

¹⁰⁴ Douglas Cowan, 'Online U-Topia', p. 258.

¹⁰⁵ Christopher Partridge, *Re-Enchantment of the West - Vol 2*, p. 154.

¹⁰⁶ George Eldon Ladd, *A Theology of the New Testament*, pp. 435-36.

¹⁰⁷ Margaret Wertheim, *The Pearly Gates of Cyberspace: A History of Space from Dante to the Internet* (New York and London: Norton, 1999), p. 21.

¹⁰⁸ Michael Benedikt, *Introduction to Cyberspace: First Steps*, p. 15.

¹⁰⁹ Nicole Stenger, 'Mind Is a Leaking Rainbow', *Cyberspace: First Steps*, Vol. Iss. (1991), p. 52

omnipotence are assumed to be limited to the Matrix.¹¹⁰ The being is not assumed to be immortal, as its existence is dependent on the life of the Matrix.

Ulansey also believes cyberspace contains a god or gods. Comparing the modern world to the time of Plato in terms of a lack of communication with the gods, Ulansey wrote:

At a time when the old gods were experienced as withdrawing and a sense of communication with them difficult to achieve, the new cosmology introduced by Plato answered the question of where they had gone – to the sky. The world once more has a radical new cosmology and this time the question of where the gods are will be answered by cyberspace.¹¹¹

While Ulansey views cyberspace as a new home for the gods, an association between cyberspace and the divine has been described in other ways. Some of these are described in the next few paragraphs.

Cyberspace has been compared to Teilhard de Chardin's noosphere by Bauwens, Pesce, Cobb, and Campbell.¹¹² Pierre Teilhard de Chardin (1891-1955) was a Jesuit theologian and paleontologist, who believed that the story of human life on Earth was an 'ascent of consciousness' that is continuing towards 'some sort of supreme consciousness'.¹¹³ He traced the evolution of man from the beginning of time to what he called 'the Omega Point', a point at which all consciousness converges, and

¹¹⁰ William Gibson, *Mona Lisa Overdrive* (London: HarperCollins, 1995), p. 138.

¹¹¹ David Ulansey, 'Cultural Transition and Spiritual Transformation: From Alexander the Great to Cyberspace', *The Vision Thing: Myth, Politics, and Psyche in the World*, (2000) <<http://www.mysterium.com/cultural.html>>. [Accessed 19/09/2015]

¹¹² Michel Bauwens, 'Spirituality and Technology: Exploring the Relationship', *First Monday*, 1 (1996) <<http://firstmonday.org/ojs/index.php/fm/article/view/496/417>> [accessed 4th November 1996]. [Accessed 19/09/2015]; Mark Pesce, "Proximal and Distal Unity," <http://hyperreal.org/~mpesce/>. [Accessed 25/08/2015]; Jennifer J. Cobb, *Cybergrace: The Search for God in the Digital World* (Victoria, BC: Crown Publications, 1998), p. 98; Heidi Campbell, *Exploring Religious Community Online*, p. 58.

¹¹³ Pierre Teilhard de Chardin, *The Phenomenon of Man* (London: Collins, 1959), p. 256.

which he associates with *the* Supreme Being, or pure spirit.¹¹⁴ Teilhard de Chardin wrote of the noosphere, a new zonal layer outside and above the biosphere. The noosphere is the converged consciousness of all the world. He called it 'the thinking layer, and wrote, 'We have the beginning of a new age. The earth "gets a new skin". Better still, it finds its soul.'¹¹⁵

The concept of a global brain, a collective consciousness, as envisioned by Teilhard de Chardin, is regularly used in connection with the Internet, for example, as quoted above by O'Reilly, the man credited with inventing the term 'Web 2.0'.¹¹⁶ Another example is Mark Pesce, a computer professional, lecturer, and author, who was instrumental in the creation of Virtual Reality Modelling Language (VRML) which is used to create virtual worlds.¹¹⁷ Pesce believes that cyberspace is the manifestation of the noosphere. He wrote, 'The Noosphere, predicted by Teilhard de Chardin three generations ago, and long sought as the philosopher's stone of the information age, can now be said to exist.'¹¹⁸ Elsewhere Pesce goes one step further and, supporting Teilhard de Chardin's evolutionary theme, suggests that the Internet is 'part of our evolution', thus equating it with the Omega Point and Teilhard de Chardin's Supreme Being.¹¹⁹ He wrote,

We can't know for sure if the Web is the same thing as the noosphere, or if the Web represents part of what Teilhard envisioned. But it feels that way ... If Teilhard was right, the Web is part of our evolution, as much an essential element of humanity as our acute eyes, our crafty hands, and our wonderful brains.¹²⁰

¹¹⁴ Pierre Teilhard de Chardin, *The Phenomenon of Man*, p. 260.

¹¹⁵ Pierre Teilhard de Chardin, *The Phenomenon of Man*, pp. 182-83.

¹¹⁶ Tim O'Reilly, *What Is Web 2.0?*, p. 41.

¹¹⁷ Mark Pesce, "Curriculum Vitae," <http://hyperreal.org/~mpesce/vitae.pdf>. (Accessed 26/01/2014)

¹¹⁸ Mark Pesce, "Proximal and Distal Unity, <http://hyperreal.org/~mpesce/>. [Accessed 25/08/2015]

¹¹⁹ Mark Pesce, *The Playful World: How Technology Is Transforming Our Imagination* (Kindle Edition: Release under Creative Commons 2.5 Attribution-ShareAlike-NonCommercial License, 2011 [2000]) loc. 2105

¹²⁰ Mark Pesce, *The Playful World: How Technology Is Transforming Our Imagination*. loc. 2105

The influence of Teilhard de Chardin's association of a global mind with God, on the concept of the Internet as a spiritual place is discussed in the literature, for example, by Cobb.¹²¹ Quoting Cobb's statement, Campbell writes that interpretations such as this illustrate how individuals are seeking out not just new technological realities, but spiritual realities as well.¹²²

Ladd's comment that anthropological and cosmological dualism are closely associated is reflected in the cyberspace literature.¹²³ Benedikt, blending anthropological and cosmological dualism, describes cyberspace as a venue for consciousness itself.¹²⁴ Wertheim, who believes that dualism is one of the attractions of cyberspace for the modern world, sees cyberspace as a place for the soul. She states that the failure of modern science to incorporate an immaterial soul into its world picture is one of the reasons people are turning away from science and looking elsewhere, in the hope of locating this missing ingredient. She argues that this omission is an important factor in the appeal of cyberspace, for it is the immaterial soul that in some sense cyberspace caters to as it is not located within what she calls 'the physicalist world picture'; it has no terrestrial coordinates.¹²⁵

Two versions of an association between cyberspace and God can be found in the literature. In the first of these cyberspace has become God and in the second, it enables human beings to collectively become god or have a sense of godlike powers. A perception of technology as having god-like characteristics did not originate with cyberspace. Referring to a tendency by people to trust implicitly in computers, Weizenbaum claimed, in 1976, that man has given his autonomy to computers despite the fact that most people have no understanding of the internal workings of a computer. He believes that this occurs because man has projected his

¹²¹ Jennifer J. Cobb, *Cybergrace: The Search for God in the Digital World*, p. 97.

¹²² Heidi Campbell, *Exploring Religious Community Online*, p. 59.

¹²³ George Eldon Ladd, *A Theology of the New Testament*, pp. 435-36.

¹²⁴ Michael Benedikt, *Cyberspace: Some Proposals*, p. 124.

¹²⁵ Margaret Wertheim, *Pearly Gates*, pp. 38-39.

own capacity to think onto the computer.¹²⁶ In 2013 Detweiler stated that faith in technology was widespread, passionate, boundless, and complete.¹²⁷ Echoing Weizenbaum, he wrote 'We marvel at the results without analyzing how the trick was accomplished. We may be tempted to bow down to the magic box, ascribing secret powers to the technology'.¹²⁸ This idea of technology as godlike in its omniscience has been inherited in conceptions of cyberspace. The idea of cyberspace as an actual god in itself has been posited by several theorists, albeit for different reasons. The ability to find and distribute vast amounts of information in cyberspace led Ward, in 1997, to call it 'The ultimate secularisation of the divine'.¹²⁹ He continues 'for here is a God who sees and knows all things, existing in pure activity and realized presence, in perpetuity'.¹³⁰ Zaleski, also in 1997, believed that cyberspace could one day become God. Considering the future of the Internet, he asked the question, 'Will the WWW evolve into God?'.¹³¹

The godlike powers of which it is claimed, in the literature, that cyberspace has given humanity a sense, are immortality, omniscience, and omnipotence. Bauwens terms this 'The God Project'.¹³² Like Weizenbaum he believes it began long before the creation of cyberspace. He writes, 'Metaphorically, technology perhaps started mythically when Adam ate the fruit of the Tree of Knowledge. At that moment, mankind said "we can do it on our own and we want to understand the meaning of it all"'.¹³³ Bauwens' argument is similar to Ward's above in that both see ownership of all the world's knowledge as equivalent to godlike status. However while Ward sees the Internet as the source of all knowledge and thus godlike, Bauwens

¹²⁶ Joseph Weizenbaum, *Computer Power and Human Reason: From Judgment to Calculation* (Penguin books, 1993) pp. 9-10.

¹²⁷ Craig Detweiler, *Igods: How Technology Shapes Our Spiritual and Social Lives* (Amazon Kindle Edition) (Grand Rapids, MI: BrazosPress, 2013) Loc 123

¹²⁸ Craig Detweiler, *Igods*, p. .Loc 127

¹²⁹ Graham Ward, *The Postmodern God* (Oxford: Blackwell Publishers, 1997),p. xvi.

¹³⁰ Graham Ward, *The Postmodern God*, p. xvi.

¹³¹ Jeff Zaleski, *The Soul of Cyberspace: How New Technology Is Changing Our Spiritual Lives* (New York: Harper Collins, 1997),p. 20.

¹³² Michel Bauwens, 'Spirituality and Technology: Exploring the Relationship', <<http://firstmonday.org/ojs/index.php/fm/article/view/496/417>>.[Accessed 25/08/2015]

¹³³ Michel Bauwens, 'Spirituality and Technology: Exploring the Relationship', <<http://firstmonday.org/ojs/index.php/fm/article/view/496/417>>.[Accessed 25/08/2015]

envision humans taking that knowledge for themselves, and with it, becoming divine. In Bauwens' words, 'Some see this condition leading to the invention of a Machine-God, a Deus Ex Machina, in direct competition with a concept of a Supreme Being'.¹³⁴

The aspiration to become a god is put into words by Artificial Intelligence (AI) guru Earl Cox and sociologist Gregory Paul, who also believe that like God, humans can become immortal with the aid of cyberspace.¹³⁵ AI has been defined as 'The branch of computer science that is concerned with the automation of intelligent behaviour'.¹³⁶ It seeks to create software that can think independently of humans. Cox and Paul claim that because of technological achievements humans have evolved beyond their original design and outdistanced their creator. Referring to the possibility of uploading human brains to a computer where they can be stored as software on an Internet server, where they could live forever, Cox and Paul write that the uploaded minds stored in cyberspace will collectively become more powerful than current concepts of the divine. This could be seen as Cox's and Paul's version of Teilhard de Chardin's Omega Point; unlike Teilhard de Chardin who believed the Omega Point would equate to the one God, they believed humanity could become more powerful than all gods. In a quote remarkably similar to that of Bauwens above, they write, 'Such a combined system of minds, representing the ultimate triumph of science and technology, will transcend the timid concepts of deity and divinity, held by today's theologians'.¹³⁷ Although this was written in 1996, the idea of uploading a human brain, and with it the personality, was still around in society in 2014 when it formed the basis of the plot of the \$100,000,000 film *Transcendence*, which starred academy award winner Morgan Freeman and

¹³⁴ Michel Bauwens, 'Spirituality and Technology: Exploring the Relationship', <<http://firstmonday.org/ojs/index.php/fm/article/view/496/417>>.[Accessed 25/08/2015]

¹³⁵ Earl Cox and Gregory S. Paul, *Beyond Humanity: Cyberevolution and Future Mind* (Cambridge: Charles River Media, 1996) pp. 1-7.

¹³⁶ G.F. Luger, *Artificial Intelligence: Structures and Strategies for Complex Problem Solving* (Addison-Wesley, 2005), p. 1.1.

¹³⁷ Earl Cox and Gregory S. Paul, *Beyond Humanity: Cyberevolution and Future Mind*, pp. 1-7.

academy award nominee Johnny Depp. The film promotional image contained the line, 'Yesterday Dr. Will Caster was only human'.¹³⁸

Hans Moravec, a faculty member of the Robotics Institute at Carnegie Mellon University, describes how the individual moves into cyberspace: The brain is connected by cables to a computer. As the brain withers with age, the computer assumes its functions. In time the brain dies and the person goes on living in the computer. As long as enough back-up copies are made, death is unlikely.¹³⁹ Moravec defines body-identity and pattern-identity. Pattern-identity he writes, defines the essence of a person as the pattern and process going on in their head and body, not the machinery supporting that process. Strongly echoing Descartes' *Cogito* and Ryle's 'ghost in the machine', he states 'If that process is preserved, I am preserved. The rest is mere jelly'.¹⁴⁰ Moravec is echoing the dualism described in Chapter Two, where the soul is seen as superior to the body. He merely differs in calling the superior element the 'pattern and processes'. It is also similar to Bell's description of the physical machinery of the Internet supporting the separate space called cyberspace.¹⁴¹

McFadden challenges the belief that a human can be stored in a computer program, and asks 'Can human experience be reduced to the information model?'¹⁴² Diane Currier, discussing Moravec, points out that inherent in Moravec's ideas is the concept of information processing as the principle function and defining mode of existence for a subject, to the detriment of embodied existence.¹⁴³ Here

¹³⁸ Wally Pfister, 'Transcendence', (Warner Brothers Pictures and Summit Entertainment, 2014), p. 119 minutes.

¹³⁹ Hans Moravec, *Mind Children: The Future of Robot and Human Intelligence* (Cambridge, Mass. and London: Harvard University Press, 1988) pp. 121-24.

¹⁴⁰ Rene Descartes, *Discourse on the Method*, p. 82; Gilbert Ryle and Daniel C. Dennett, *The Concept of Mind* (Chicago: University of Chicago Press, 2012 [1949]) pp. 11-12; Hans Moravec, *Mind Children: The Future of Robot and Human Intelligence*, p. 116.

¹⁴¹ David Bell, *Cyberculture Reader*, pp. 1-2.

¹⁴² Tim McFadden, *Notes on the Structure of Cyberspace*, p. 338.

¹⁴³ Dianne Currier, 'Assembling Bodies in Cyberspace: Technologies, Bodies, and Sexual Difference', in *The New Media and Cybercultures Anthology*, ed. by Pramod K. Nayar (Chichester: Wiley-Blackwell, 2010), pp. 254-67, p. 256.

again can be heard echoes of Descartes' identification with the mind at the expense of the body and the association between the mind and cyberspace.

In the examples of cosmological dualism reviewed in Chapter Two, travelling between the two worlds was something that happened after death with, both Plato and Descartes, according to Pakaluk, associating dualism with immortality.¹⁴⁴ Durkheim had written, in 1915, that the break in continuity between the worlds of the sacred and the profane is so great that passing from one to the other implies a veritable metamorphosis and often requires initiation rites that symbolise a death and rebirth.¹⁴⁵ However, with cyberspace, people can now pass between the two while still alive. In 1993, Heim wrote that because of cyberspace, passing between the two worlds was now possible and he believed this gave human beings godlike powers. He wrote that because of cyberspace's dualistic nature, for the first time it was possible for people to enter the heavenly world, once accessible only when dead, while still alive and return at will. He wrote 'What better way to emulate God's knowledge, than to generate a virtual world constituted by bits of information? Over such a cyber world human beings could enjoy a 'god-like instant access'.¹⁴⁶ Heim's argument is not that cyberspace is God, but that by giving people the power to enter this digital heaven and return at will, it empowers humans to become like God. Almost twenty years later, in 2006, Partridge observed the same theme being expressed in the literature,

Transcending the bodily, the geographical, and the temporal, the digital world is the sphere of the spirit, where time and space no longer limit what is possible. The twenty-first century spiritual seeker can experience the eternal now - virtually.¹⁴⁷

¹⁴⁴ Michael Pakaluk, 'Degrees of Separation in the "Phaedo"', *Phronesis*, Vol. 48, Iss. 2 (2003), pp. 89-115, p. 95

¹⁴⁵ Emile Durkheim, *The Elementary Forms of the Religious Life* (London: Allen & Unwin, 1915) pp. 38-39.

¹⁴⁶ Michael Heim, *The Erotic Ontology of Cyberspace*, p. 69.

¹⁴⁷ Christopher Partridge, *Re-Enchantment of the West - Vol 2*, p. 135.

The idea of godlike powers could still be found in 2013. Both Chester and Detweiler wrote of omniscience in connection with social networks. Referring to his Facebook friends as his 'chosen people', Chester wrote 'But social media allows us to play God and create our own chosen people. And we are at the centre of this chosen circle'.¹⁴⁸ He continued 'Facebook, however, promises to connect us with everyone everywhere at any time. It promises omniscience (knowing everything) and omnipresence (being everywhere)'.¹⁴⁹ Detweiler also expressed the view that the technology of Facebook is 'godlike' in that people now have all the information in the world at their fingertips. However he does not see this in a positive light, as he believes people no longer know how to use this information. He believes we have become overwhelmed by all this data, and 'our hard drives (our brains) are full and threatening to crash'.¹⁵⁰

Just as the heavens of Plato, the Gnostics, and Christianity represented salvation, a place where people could live forever, so too, according to Heim, does cyberspace. He argues that the world is facing the end of nature as we know it, and points out that we created cyberspace in a world where there were holes in the ozone layer, toxic waste in the water, and we are running out of fossil fuels.¹⁵¹ The achievement of immortality involves winning the battle with death of the physical body and a planet in difficulties. While Heim believes that cyberspace offers an escape from a toxic Earth, Deborah Lupton believes that the desire for an evolutionary transformation of the human has shifted. Once, she claims humans viewed outer space as the place to which they could escape from a dying planet, but now she believes the journey will be to the inner space of the computer.¹⁵² In these statements, as suggested by Lupton, can be heard echoes of Plato who claimed that the philosopher was happier when dead as it freed the soul from the body, and of

¹⁴⁸ Tim Chester, *Will You Be My Facebook Friend?: Social Media and the Gospel* (Amazon Kindle Edition) (Leyland: 10 Publishing, 2013) loc 153

¹⁴⁹ Tim Chester, *Friend*. loc 216

¹⁵⁰ Craig Detweiler, *Igods*. loc 314

¹⁵¹ Michael Heim, *Virtual Realism* (New York: Oxford University Press, 1998) pp. 149-55.

¹⁵² Deborah Lupton, 'The Embodied Computer/User', in *The Cybercultures Reader*, ed. by David Bell and Barbara M. Kennedy (London: Routledge, 2000), pp. 477-88, p. 479.

the Gnostics who, like Heim, saw the Earth as an undesirable residence and sought to escape up through the planetary spheres.¹⁵³

In addition to transmundane sacred places, some theorists have likened cyberspace to mythical places on earth. One example is Healy's description of cyberspace as a new version of the American Wild West.¹⁵⁴ This metaphor is also used by Barlow in title of the organisation he co-founded, 'The Electronic Frontier Foundation'.¹⁵⁵ Timothy Leary used the frontier metaphor in 1991, and in 1995 Stockton called the cyberpunk a latter-day version of the 'American cowboy'.¹⁵⁶ Noting that cyberspace theorists are predominantly American, Karaflogka points out that, not only is the Internet an American invention, but cyberspace as a place is an American concept, in that it was created by an American (Gibson), and the majority of the early (first wave) cyberspace theorists were American.¹⁵⁷ In 2006 Jonathan Sterne argued that the continued use by cyberpunk writers of the term 'pioneer' to describe themselves, shows that the frontier analogy is still with us.¹⁵⁸

Barlow also compares cyberspace to the American Wild West in terms of its lawlessness and freedom:

Cyberspace, in its present condition, has a lot in common with the 19th Century West. It is vast, unmapped, culturally and legally ambiguous, verbally terse, hard to get around in, and up for grabs. Large institutions already claim to own the place, but most of the actual natives are solitary and independent, sometimes to the point of sociopathy. It is, of

¹⁵³ Plato, *Phaedo*, Translated by G.M.A. Grube, Plato: Complete Works (Indiana: Hackett Publishing Company, 1997), 63b-c; *The Teachings of Silvanus*. [Accessed 19/09/2015]

¹⁵⁴ Dave Healy, *Cyberspace and Place*, p. 55.

¹⁵⁵ John Perry Barlow, "Electronic Frontier Foundation," <http://homes.eff.org/~barlow>. [Accessed 03/06/2015]

¹⁵⁶ Timothy Leary, 'The Cyberpunk: The Individual as Reality Pilot', in *The Cybercultures Reader*, ed. by David Bell and Barbara M. Kennedy (London: Routledge, 2000), pp. 529-39, p. 245; Sharon Stockton, 'Self Regained', p. 588.

¹⁵⁷ Anastasia Karaflogka, *E-Religion*, p. 19.

¹⁵⁸ Jonathan Sterne, 'The Historiography of Cyberculture', in *Critical Cyberculture Studies*, ed. by David Silver, Adrienne Massanari, and Steve Jones (New York and London: NYU Press, 2006), pp. 17-28, p. 18.

course, a perfect breeding ground for both outlaws and new ideas about liberty.¹⁵⁹

Following the protests at the US Government's 1995 Communications Decency Act, which attempted to limit the freedom of the Internet, Barlow issued 'A Declaration of the Independence of Cyberspace', addressed to 'Governments of the Industrial World', containing the lines:

We have no elected government, nor are we likely to have one, so I address you with no greater authority than that with which liberty itself always speaks. I declare the global social space we are building to be naturally independent of the tyrannies you seek to impose on us.¹⁶⁰

Barlow's concept of cyberspace as a space or place where, like in the human mind, the laws of the physical world did not apply, became known as 'Barlovian cyberspace'.¹⁶¹ Two years later, in 1997, the act was declared unconstitutional by the Supreme Court.¹⁶²

Stockton argued that the myth of the cowboy exploring new territory and finding great wealth contributed to the idea that cyberspace was a place to make money. She wrote,

Like the hacker cowboys and sundogs of cyberpunk, this PC user is in one way or another a pirate-adventurer; surely what he is doing in the other place has to do with wealth. Perhaps he is now hacking into Dow, or is putting a new marketing campaign together, or is just working miracles with the family finances. In any case, we have the sense that

¹⁵⁹ John Perry Barlow, "Crime and Puzzlement, http://w2.eff.org/Misc/Publications/John_Perry_Barlow/HTML/crime_and_puzzlement_1.html (accessed 21/6/2010)

¹⁶⁰ John Perry Barlow, "A Declaration of the Independence of Cyberspace," <http://homes.eff.org/~barlow/Declaration-Final.html>. (Accessed 21/6/2010)

¹⁶¹ M. Featherstone and R. Burrows, *Cyberspace/Cyberbodies/Cyberpunk: Cultures of Technological Embodiment* (London, Thousand Oaks and New Delhi: SAGE Publications, 1996), p. 5.

¹⁶² John Naughton, *A Brief History of the Future*, p. 42.

when he emerges from the computer, he will have brought back with him something of great wealth, something that has perhaps been taken from someone else – not in a gesture of thievery but in the spirit of the populist pirate ethic of cyberspace, where the man with the initiative deserves the spoils of the day.¹⁶³

The view of cyberspace as a place where people can become rich, began in the 1980s in Gibson's trilogy where Case, in *Neuromancer*, and Bobby Newmark, in *Count Zero*, both became wealthy from cyberspace activity, and continued into the twenty-first century.¹⁶⁴ Mosco argued that myth that cyberspace is a place where people can become rich is the most popular myth of the late twentieth and early twenty-first centuries. In cyberspace, he claims, where the rules of the offline world do not apply, people could make lots of money.¹⁶⁵ The belief that there were different laws for cyberspace to those of the offline world also continued. Julie Cohen, an American legal academic wrote in 2007 that the idea that the laws of the physical world are not relevant in cyberspace still existed even in some legal circles.¹⁶⁶ Cohen believes that the spatial metaphors used when discussing cyberspace contributed to the perception of cyberspace as a separate place, whose property and information could not be subject to the same laws as their offline counterparts.¹⁶⁷

The human fascination with technology, according to David Noble, dates back to the Middle Ages. Noble claims that the quest for salvation or godlike powers has always been at the root of this attraction.¹⁶⁸ The idea of cyberspace as a god or as a bringer of a sense of godlike powers to people, began with the first wave of

¹⁶³ Sharon Stockton, 'Self Regained', p. 592.

¹⁶⁴ William Gibson, *Neuromancer*; William Gibson, *Count Zero* New edn (HarperCollins, 1995)

¹⁶⁵ Vincent Mosco, *The Digital Sublime: Myth, Power, and Cyberspace* (Cambridge Mass.: MIT Press, 2005 (2004)), p. 3.

¹⁶⁶ Julie E. Cohen, 'Cyberspace as/and Space', *Columbia Law Review*, Vol. 107, Iss. 1 (2007), pp. 210-56, p. 210

¹⁶⁷ Julie E. Cohen, 'Cyberspace as/and Space', p. 212.

¹⁶⁸ David F. Noble, *The Religion of Technology : The Divinity of Man and the Spirit of Invention* 1st edn (New York: Alfred A. Knopf, 1997) pp. 3-6.

Internet research but can still be found in the third wave writers such as Chester and Deitweiler.

Community

From the earliest cyberspace literature of the 1980s, and most notably in Howard Rheingold's 1993 *The Virtual Community: Homesteading on the Electronic Frontier*, cyberspace has been depicted as a venue for and facilitator of online communities.¹⁶⁹ These claims, which have met with mixed responses, are discussed in this section. The section starts with a definition of community, followed by the literature on the Internet's potential in the area of community. A review of the debate on the nature of community and online communities then follows.

The absence of an agreed-upon definition of community is discussed in much of the literature on the topic.¹⁷⁰ Some authors, such as Bell and Newby, identify elements common to most definitions, for example, they all deal with people, while others attempt to identify the criteria necessary for a sense of community to develop.¹⁷¹ In 1986, after a study of several years aimed at developing a theory of community, McMillan and Chavis proposed four criteria for a definition. They concluded that a sense of community required:

- A sense of membership
- Influence or a sense of mattering to the group
- Integration with the group
- A shared emotional connection.¹⁷²

¹⁶⁹ Howard Rheingold, *The Virtual Community: Homesteading on the Electronic Frontier* (Cambridge, Mass.: MIT Press, 1993)

¹⁷⁰ For example Malcom R. Parks, 'Social Network Sites as Virtual Communities', in *A Networked Self: Identity, Community, and Culture on Social Network Sites*, ed. by Zizi Papacharissi (New York and Oxon: Routledge, 2011), pp. 105-23, p. 106.

¹⁷¹ Howard. Newby and Colin. Bell, *The Sociology of Community: A Selection of Readings* (London: Cass, 1974)

¹⁷² David W. McMillan and David M. Chavis, 'Sense of Community: A Definition and Theory', *Journal of Community Psychology*, Vol. 14, Iss. (1986), pp. 6-23, p. 4

They noted that there are two major uses of the term community: one based on territorial and geographic location and the other based on relationships between people without reference to physical location. These two uses are not mutually exclusive; their criteria for a definition of community, they stated, applied equally to both.¹⁷³ Philip E. Agre formulated a definition which can also be applied to both types of community: 'a set of people who occupy analogous locations in social or institutional structures'.¹⁷⁴ He also added the requirement for ongoing communication between the community members, whether they are in a shared physical space or whether their physical locations are distant from each other.¹⁷⁵

Internet technology makes it possible for people from different parts of the world to connect with each other online, discuss and share information, and thus potentially form the second type of community identified by McMillan and Chavis: community based on relationships between people without reference to physical location. The technology has given rise to groups of people with shared interests coming together over the Internet and, it is argued, for example by Rheingold, finding in the online communities the emotional support and fulfillment identified by McMillan and Chavis as one of the criteria for community.¹⁷⁶ These groups are sometimes referred to as virtual communities, a term coined in 1993 by Rheingold.¹⁷⁷ Rheingold, one of the pioneers in the field, defined virtual communities as 'social aggregations that emerge from the Net when enough people carry on those public discussions long enough, with sufficient human feeling, to form webs of personal relationships in cyberspace'.¹⁷⁸ He refers to his interaction with a virtual community as 'living contact with old and new friends, strangers and colleagues'.¹⁷⁹

¹⁷³ David W. McMillan and David M. Chavis, 'Sense of Community', p. 3.

¹⁷⁴ Philip E. Agre, 'Designing Genres for New Media: Social, Economic, and Political Contexts', in *Cybersociety 2.0: Revisiting Computer-Mediated Communication and Community*, ed. by Steven G. Jones (Thousand Oaks, Calif: Sage, 1998), pp. 69-99, p. 71.

¹⁷⁵ Philip E. Agre, *Designing Genres for New Media: Social, Economic, and Political Contexts*, p. 72.

¹⁷⁶ Howard Rheingold, *Homesteading*.

¹⁷⁷ Howard Rheingold, *The Virtual Community: Homesteading on the Electronic Frontier* (Cambridge, Mass.: MIT Press, 2000 (1993)), p. xxiv.

¹⁷⁸ Howard Rheingold, *Homesteading*, p. 5.

¹⁷⁹ Howard Rheingold, *Homesteading*, p. xvii.

Rheingold's definition emphasises emotional fulfilment, a point observed by Nancy K. Baym who wrote that writers on virtual communities often 'position themselves as participants as well as observers and often emphasize emotion in their use of "community"'.¹⁸⁰ Rheingold was an active participant in the virtual community about which he wrote, and later stated that his experiences of friendship, shared events and emotional support that he received from this community prompted him to challenge the then current view that 'only socially crippled adolescents would use the Internet to communicate with other people'.¹⁸¹ The 1993 version of the book has been termed utopian by some of the later authors such as Wellman and, to a certain extent, by Rheingold himself in an additional chapter at the end of the revised 2000 edition.¹⁸² In that final chapter he explains that he was identifying, not advocating, a utopian view of certain elements of online life.¹⁸³

Differing views on community and virtual communities appear in the literature. One view is that the idea of community has changed because technology has enabled community among people based on shared interests and/or emotional connections, regardless of their physical location. This contrasts with traditional communities which were based purely on a shared physical location and whose members were not members by choice. Challenging this is the view that while communities based on a shared location did and still exist, communities based on shared interests, with or without a shared location, also existed in the past and did not suddenly arrive with the birth of computer networks.

Arguing that the concept and nature of community has been radically changed by technology, Wilbur writes 'an increasing number of people are finding their lives

¹⁸⁰ Nancy K. Baym, 'The Emergence of on-Line Community', in *Cybersociety 2.0: Revisiting Computer-Mediated Communication and Community*, ed. by Steven G. Jones (Thousand Oaks, Calif: Sage, 1998), pp. 35-68, p. 36.

¹⁸¹ Howard Rheingold, *Homesteading*, p. 324.

¹⁸² Barry Wellman, 'The Road to Utopia and Dystopia on the Information Highway', *Contemporary Sociology*, Vol. 26, Iss. 4 (1997), pp. 445-49, pp. 445-46

¹⁸³ Howard Rheingold, *Homesteading*, p. 376.

touched by collectivities which have nothing to do with physical proximity'.¹⁸⁴ This view is shared by Campbell, who argues that the emergence of community groups online has challenged the traditional, and what she calls the 'nostalgic', notion that community is tied to the boundaries of geography and social institution.¹⁸⁵ She wrote:

As computer networking has become an increasingly important way for individuals to maintain social relations, it cannot be overlooked that these actions may be redefining contemporary conceptions of community.¹⁸⁶

However, Campbell also disputes what she calls the 'loss of community thesis'. In her opinion, the belief that new technologies brought about a rejection of the traditional, location-based sense of community assumes that life was better in the past than it is now. She writes that it 'invokes images of life where community was stronger and social relationships were healthier'. It disregards, she continues, the unpleasant characteristics of traditional societies, such as structural oppression and disparity of wealth.¹⁸⁷

Supporting the idea that technologically-enabled communities, where membership is by choice, can provide emotional support, Wellman states:

Although community was once synonymous with densely knit, bounded neighborhood groups, it is now seen as a less bounded social network of relationships that provide sociability, support, information, and a sense of belonging.¹⁸⁸

Similarly van Dijk writes:

¹⁸⁴ Shawn P. Wilbur, 'An Archeology of Cyberspaces: Virtuality, Community, Identity', in *Cybercultures Reader: A User's Guide*, ed. by David Bell and Barbara M. Kennedy (London: Routledge, 2000), pp. 45-55, p. 45.

¹⁸⁵ Heidi Campbell, *Exploring Religious Community Online*, p. 38.

¹⁸⁶ Heidi Campbell, *Exploring Religious Community Online*, p. 38.

¹⁸⁷ Heidi Campbell, *Exploring Religious Community Online*, p. 29.

¹⁸⁸ Barry Wellman, Janet Salaff, Dimitrina Dimitrova, Laura Garton, Milena Gulia, and Caroline Haythornthwaite, 'Computer Networks as Social Networks: Collaborative Work, Telework, and Virtual Community', *Annual Review of Sociology*, Vol. 22, Iss. (1996), pp. 213-38, p. 2013<http://www.jstor.org/stable/2083430>.

Virtual communities are communities which are not tied to a particular place or time, but which still serve common interests in social, cultural and mental reality ranging from general to special interests or activities.¹⁸⁹

Questioning whether traditional communities ever actually existed in the way they are being portrayed and arguing that communities based on common interests or skills existed before the prevalence of computer networks, McMillan and Chavis point out that Durkheim wrote that modern society develops community around interests and skills more than around locality.¹⁹⁰

In contrast to Rheingold's allegedly utopian views are those of other authors who argue that virtual communities do not merit the term community. One of the reasons given for this view is that Internet users can never be sure of the identity of their online contacts. Others challenge the fundamental concept of online community. For example, Foster questions 'the degree to which the traditional idea of community is in fact present in "virtual communities"'.¹⁹¹ He believes that communication has been equated with community; but communication alone, he argues, does not have the necessary sense of collective identity that he believes is a criterion for community.¹⁹² Lockard also challenges the existence of virtual communities and believes that the fact that online communication is considered community reflects an impoverished view of community in the United States at the end of the twentieth century.¹⁹³ Campbell, however, puts more emphasis, as did Agre, on the importance of communication.¹⁹⁴ She writes 'What makes a group a community is the ability to contact and interact with other members, either

¹⁸⁹ Jan A.G.M. van Dijk, 'The Reality of Virtual Communities', *Trends in Communication*, Vol. 1, Iss. 1 (1998), pp. 39-63, pp. 40-41

¹⁹⁰ Emile Durkheim, *The Division of Labor in Society* (London: Collier McMillan, 1964), p. 27; David W. McMillan and David M. Chavis, 'Sense of Community'.

¹⁹¹ Derek Foster, 'Community and Identity in the Electronic Village', in *Internet Culture*, ed. by David Porter (New York London: Routledge, 1996), pp. 23-38, p. 24.

¹⁹² Derek Foster, *Community and Identity in the Electronic Village*, pp. 24-25.

¹⁹³ Joseph Lockard, 'Progressive Politics, Electronic Individualism and the Myth of the Virtual Community', in *Internet Culture*, ed. by David Porter (New York London: Routledge, 1996), pp. 233-52, p. 224.

¹⁹⁴ Heidi Campbell, *Exploring Religious Community Online*, p. 42; Philip E. Agre, *Designing Genres for New Media: Social, Economic, and Political Contexts*, p. 72.

through posting messages to the entire group or through personal interaction with other subscribers'.¹⁹⁵

Some authors appear to view online communities as some kind of substitute for traditional communities. For example, Wilbur writes that virtual communities have opened up on the Internet at a time when traditional communities are under attack.¹⁹⁶ Even Rheingold believed that the popularity of online communities is a 'response to the hunger for community that has followed the disintegration of traditional communities'.¹⁹⁷ Quoting Rheingold's statement, Parks claims that yearnings for the 'assumedly deeper connections and greater belonging of the past still emanate from contemporary discussions of virtual community'.¹⁹⁸ He believes this to be so because the term community evokes feelings of friendliness, trust and belonging that may be deemed lacking in the world.¹⁹⁹

In some comparisons between virtual and offline communities, offline communities are sometimes referred to as 'real' communities, with virtual communities often being seen as poor substitutes. For example, Baym claims 'the dominant concern underlying most criticism of on-line community is that in an increasingly fragmented off-line world, on-line groups substitute for "real" (i.e., geographically local) community, falling short in several interwoven regards'.²⁰⁰ Supporting this view, she states that the most serious of these charges are homogeneity and lack of moral commitment. She argues that unlike the real world, it is very easy for virtual community members to walk away with the click of a mouse, rather than deal with any issues or diversity that arise online.²⁰¹ Van Dijk's view on this topic is that the tendency to refer to traditional communities as 'real communities' implies that virtual communities are not real. Arguing against the idea that virtual communities are a substitute for offline communities, he describes the use of the word 'real' in

¹⁹⁵ Heidi Campbell, *Exploring Religious Community Online*, p. 42.

¹⁹⁶ Shawn P. Wilbur, *Archeology*, p. 45.

¹⁹⁷ Howard Rheingold, *Homesteading*, p. 62.

¹⁹⁸ Malcom R. Parks, *Social Network Sites as Virtual Communities*, p. 107.

¹⁹⁹ Malcom R. Parks, *Social Network Sites as Virtual Communities*, p. 107.

²⁰⁰ Nancy K. Baym, *The Emergence of on-Line Community*, p. 36.

²⁰¹ Nancy K. Baym, *The Emergence of on-Line Community*, p. 36.

connection with offline communities as 'a bias in favour of face-to-face communication', terms it a 'reality bias', and believes it prevents unprejudiced research of virtual communities.²⁰²

Some studies have found that online communities are often an extension of offline communities, with users befriending, online, people with whom they already have offline ties. For example, Baym argues that online communities' styles are shaped by a range of preexisting structures, including external contexts, temporal structure, system infrastructure, group purposes, and participant characteristics.²⁰³ She concludes that online communities can be used to enhance geographic local communities.²⁰⁴ Parks concludes that geographically proximal offline communities are frequently the foundation for "virtual" online communities. He writes 'Although it is widely assumed that computer-mediated communication frees individuals from the limits of physical proximity, it appears social connections in online settings may depend on offline contact'.²⁰⁵ He also points out the WELL, the online community in which Rheingold was a participant and elevated to what Parks termed 'iconic status', actually depended on regular face-to-face gatherings of its San Francisco-based members. He concluded 'It may be more accurate to say that virtual communities are often simply the online extension of geographically situated offline communities'.²⁰⁶

The debate about the differences between traditional and modern, technologically enabled communities is reminiscent of the space and place debate. For example, van Dijk calls virtual communities 'the separation of community from geography' and believes it to be part of 'the ongoing liberation of the restraints of space and time in human communication'.²⁰⁷ His statement parallels and supports Giddens'

²⁰² Jan A.G.M. van Dijk, 'Reality', pp. 44-45.

²⁰³ Nancy K. Baym, *The Emergence of on-Line Community*, p. 38.

²⁰⁴ Nancy K. Baym, *The Emergence of on-Line Community*, p. 38.

²⁰⁵ Malcom R. Parks, *Social Network Sites as Virtual Communities*, p. 120.

²⁰⁶ Malcom R. Parks, *Social Network Sites as Virtual Communities*, p. 120.

²⁰⁷ Jan A.G.M. van Dijk, 'Reality', p. 40.

statement that modernity tears space away from place.²⁰⁸ However the debates differ in that, in the space and place debate, place almost invariably tended to be viewed as more meaningful than space, as in the argument by Trubshaw; in the community debate, as in the above statement by Campbell and the allegedly utopian views of Rheingold, virtual communities are often, though not always, portrayed as more meaningful due to the fact that they are populated by people with common interests who are there by choice rather than an accident of geography.²⁰⁹

The advent of social networks has increased the potential for community in that it offers the possibility of easy connections to people all over the world. According to Facebook, the world is at its most connected. Research on user demographics has been carried out by Facebook's own research team, in collaboration with the Università degli Studi di Milano, on 721 million Facebook users who were active in May 2011.²¹⁰ These users had sixty-nine billion friendships among them. Using as a basis Stanley Milgram's 1960s 'small world experiment', which tested the idea that any two people in the world are separated by only a small number (5.74) of intermediate connections, or 'six degrees of separation', they found that among active Facebook users the degree of separation is less than four (3.74). They point out that when considering any person, anywhere in the world, 'a friend of your friend knows a friend of their friend, on average'. Backstrom also claims elsewhere that this number is shrinking as Facebook grows.²¹¹ Backstrom, et al., found that the average number of friends is 190, 84% of connections are between users in the same country, and there is a strong tendency for people of all age groups to have friends around their own age. Discussing the Facebook and the University of Milan study which, they point out, comprised more than ten per cent of the world's population, Ugander, et al., observed, 'As individuals bring their social relations

²⁰⁸ Anthony Giddens, *The Consequences of Modernity* 1st paperback edn (Cambridge: Polity, 1991), p. 18.

²⁰⁹ Robert Trubshaw, *Sacred Places* (Marlborough: Albion, 2005), p. 1.

²¹⁰ Paolo Boldi Lars Backstrom, Marco Rosa, Johan Ugander, and Sebastiano Vigna, "Four Degrees of Separation," Cornell University Library, <http://arxiv.org/abs/1111.4570>, p. 4.

²¹¹ Lars Backstrom, "Anatomy of Facebook," <https://www.facebook.com/notes/facebook-data-team/anatomy-of-facebook/10150388519243859>. [Accessed 19/09/2015]

online, the focal point of the internet is evolving from being a network of documents to being a network of people'.²¹²

Cortés and Lozano believe that the third wave of Internet research is the body of literature that has emerged on the use of social media.²¹³ Included in this growing corpus is extensive research on the use of Facebook, and on the issue of virtual community on Facebook. Just as with the earlier virtual communities, SNS communities are often an online representation of an existing offline community. Rheingold, in 1993 and again in 2000, assumed that users of online communication tools and environments would be connecting with others based on shared interests rather than geography, thus producing communities that were limited to online communication.²¹⁴ If they resulted in face-to-face meetings, the directionality was online communication that resulted in offline communication. He describes social gatherings of people who had first met online, and attending their marriages and funerals.²¹⁵ However the literature suggests that the reverse might be true for SNSs. Lampe, et al., found that profile fields that were hard to fake, like hometown, were most important in creating large networks of connections on the site.²¹⁶ They wrote 'This suggests that Facebook users may be more likely to use online information to find others with whom they share some kind of offline connection, as opposed to finding others based on common interests like music or movies'.²¹⁷ This is supported in another study by Ellison, et al., which found that people are most likely to connect with existing friends, distant acquaintances, or latent ties,

²¹² Brian Karrer Johan Ugander, Lars Backstrom, Cameron Marlow, "The Anatomy of the Facebook Social Graph," <http://arxiv.org/pdf/1111.4503v1.pdf>. [Accessed 20/12/2014]

²¹³ J.A.Cortés and J.O.Lozano, 'Social Networks as Learning Environments for Higher Education', *International Journal of Artificial Intelligence and Interactive Multimedia*, Vol. 2, Iss. 7 (2014), pp. 63-69, p. 63

²¹⁴ Howard Rheingold, *Homesteading*, p. xvi.

²¹⁵ Howard Rheingold, *Homesteading*, p. xvi.

²¹⁶ Nicole Ellison, Charles Steinfield, and Cliff Lampe, 'The Benefits of Facebook 'Friends': Social Capital and College Students' Use of Online Social Network Sites', *Journal of Computer-Mediated Communication*, Vol. 12, Iss. 4 (2007), pp. 1143-68, <http://jcmc.indiana.edu/vol12/issue4/ellison.html>.

²¹⁷ Nicole B. Ellison, Cliff Lampe, Charles Steinfield, and Jessica Vitak, 'With a Little Help from My Friends: How Social Network Sites Affect Social Capital Processes', in *A Networked Self: Identity, Community, and Culture on Social Network Sites*, ed. by Zizi Papacharissi (New York and Oxon: Routledge, 2011), pp. 124-45, p. 133.

than they are to use the site to meet new people.²¹⁸ boyd and Ellison have also studied the role of SNSs in creating a sense of community among users.²¹⁹ They concluded that SNSs create a unique type of online community, as they enable users to articulate and visualise real-life social networks. The primary goal is not to make new connections (as in older online communities), but to nurture existing ones. They state that participants are not necessarily looking to meet new people but that 'they are primarily communicating with people who are already a part of their extended social network'.²²⁰ Communicating with people they already knew, Gosling found, was the most common motivation for using Facebook.²²¹ He speculates that the popularity of Facebook may be due to the ease with which it allows individuals to satisfy a desire to monitor other network members and maintain social bonds.

Just as Graham argued that there was not one cyberspace but multiple cyberspaces, Parks concludes that SNSs are not communities in any singular sense; rather, they function as social venues in which many different communities may form.²²² According to Parks, the community metaphor continues to influence the way the social Internet is thought about and studied. He writes, 'The community metaphor was so successful that it effectively banished alternative metaphors of the day (e.g., "information superhighway")'.²²³ He believes that nowhere is this more apparent than in SNSs.²²⁴

Identity

A much-discussed feature of the Internet is that it allows individuals to conceal their real-world identity and take on any identity or identities they wish. In an

²¹⁸ Nicole B. Ellison, Cliff Lampe, Charles Steinfield, and Jessica Vitak, *With a Little Help from My Friends: How Social Network Sites Affect Social Capital Processes*.

²¹⁹ danah m. boyd and Nicole B. Ellison, 'Social Network Sites: Definition, History and Scholarship'.

²²⁰ danah m. boyd and Nicole B. Ellison, 'Social Network Sites: Definition, History and Scholarship'.

²²¹ Sam Gosling, "The Ancient Psychological Roots of Facebook Behavior," HBR Blog Network /Now, New, Next <http://blogs.hbr.org/now-new-next/2009/03/the-ancient-psychological-root.html>.

²²² Malcom R. Parks, *Social Network Sites as Virtual Communities*, p. 118.

²²³ Malcom R. Parks, *Social Network Sites as Virtual Communities*, p. 105.

²²⁴ Malcom R. Parks, *Social Network Sites as Virtual Communities*, p. 105.

ethnographic and clinical study that lasted for more than ten years, Sherry Turkle observed how people negotiate the virtual and the real as they represent themselves over the Internet. She notes that people can have several different online personae and this gives them the opportunity to explore multiple aspects of the self in parallel.²²⁵ Wilbur also writes from the point of view of the person taking on multiple identities, and reports that many computer users experience entering cyberspace as an unshackling of real life constraints. In his view this suggests the possibility of stepping outside oneself and yet remaining oneself in a virtual identity play.²²⁶ However many of the examples in the literature of people using multiple identities report that other users express anger when they discover someone has used an identity that does not correspond with their offline identity. Boler, as mentioned above, describes the anger demonstrated by users who have been 'deceived' about another user's identity and states that it is the offline identity that people appear to consider the 'true' identity.²²⁷ Stone gives an example of a middle-aged man who successfully played the part of a woman in cyberspace for several years; again, there was not just an expression of anger from the people who had known him as a woman online, but also a sense of betrayal.²²⁸

SNSs brought about changes in the use of online identities, with most of their users tending to use their offline identities, and portraying themselves much as they do in the offline world.²²⁹ Identity presentation is the process by which individuals share part of the self with others. In Facebook it centres on the user profile, which users personalise by entering information about themselves. The earlier literature, such as that of Turkle and Stone, mentioned above, discussed the issues around the concealment of real world identities on cyberspace; SNSs, where people frequently connect to their offline friends, support the use of real world identities through the existence of the user profile. More than that, as boyd states, the profile is central to

²²⁵ Sherry Turkle, 'Cyberspace and Identity', *Contemporary Sociology*, Vol. 28, Iss. 6 (Nov. 1999), p. 643.

²²⁶ Shawn P. Wilbur, *Archeology*, p. 48.

²²⁷ Megan Boler, *Hypes, Hopes and Actualities*, pp. 185-86.

²²⁸ Allucquere Rosanne Stone, *Will the Real Body Please Stand Up?*, pp. 82-83.

²²⁹ S. Gaddis and S. Vazire Sam Gosling, 'Personality Impressions Based on Facebook Profiles', Paper presented at International Conference on Weblogs and Social Media (2007).

the functioning of the social network site.²³⁰ According to boyd, profiles represent the individual and serve as a locus of interaction. She describes profile generation as an explicit act of writing one's offline self into being in a digital environment. Profiles are a place where people gather to converse and share. Other users can comment on an individual's profile, so participants do not have complete control over their self-representation, although they can determine who can see what and how.²³¹

Studies on whether or not users' profiles conveyed accurate impressions of their owners found that they generally did. Waggoner, Smith, and Collins, in 2009 found that although some self-enhancement may occur, profile owners generally portray a fairly accurate representation of their offline identity.²³² Wilson, et al., speculated that the veracity of information given by profile owners occurs because online friends tend to be offline friends before becoming Facebook friends.²³³ Hargittai and Hsieh reached the same conclusion and pointed out that, unlike earlier online spaces where users used avatars, on SNSs users' identities are often anchored in physical proximities, institutions and shared personal relationships in daily life, thereby often mirroring offline aspects of peoples' lives.²³⁴ It was for this reason, Donath and boyd suggested, that displaying an extended network of friends may serve to validate identity information presented in the person's profile.²³⁵ In addition to validating their profile, the number and characteristics of an individual's friends appears to affect how they are perceived by other users. According to

²³⁰ danah boyd, *Networked Publics*, p. 43.

²³¹ danah boyd, *Networked Publics*, p. 43.

²³² A. S. Waggoner, E. R. Smith, and E. C. Collins, 'Person Perception by Active Versus Passive Perceivers', *Journal of Experimental Social Psychology*, Vol. 45, Iss. (2009), pp. 1029-31,

²³³ Samuel D. Gosling and Lindsay T. Graham Robert E. Wilson, 'A Review of Facebook Research in the Social Sciences', *Perspectives on Psychological Science*, Vol. 7, Iss. 3 (2012), pp. 203-20, p. 210.

²³⁴ Eszter Hargittai and Yu-Li Patrick Hsieh, 'Social Network Sites as Virtual Communities', in *A Networked Self: Identity, Community, and Culture on Social Network Sites*, ed. by Zizi Papacharissi (New York and Oxon: Routledge, 2011), pp. 146-68, p. 148.

²³⁵ danah boyd and Judith Donath, 'Public Displays of Connection', *BT Technology Journal*, Vol. 22, Iss. 4 (2004), pp. 71-82,

Walther, et al., this is particularly the case with friends who write on the wall of the user.²³⁶

According to boyd, the list of friends is both political and social.²³⁷ In choosing who to include as a friend participants frequently consider the implications of excluding or explicitly rejecting a person as opposed to the benefits of including them. For most participants it is more costly to exclude individuals who have power over them, such as parents or bosses, than to include them. If their online behaviour is being viewed by authority figures, individuals may feel a need to modify their behaviour to a mode which would be deemed acceptable.

The Second and Third Waves of the Internet

Simultaneous with the development of Web 2.0 and user participation, some writers such as Nathan Jurgenson, Robinson, Alex Soojung-Kim Pang and Mark Graham, began to report changes in how the Internet was viewed.²³⁸ Nathan Jurgenson, a social media theorist and author, wrote in 2011,

And some have a bias to see the digital and the physical as separate; what I am calling digital dualism. Digital dualists believe that the digital world is “virtual” and the physical world 'real'... I fundamentally think this digital dualism is a fallacy. Instead, I want to argue that the digital and physical are increasingly meshed, and want to call this opposite perspective that implodes atoms and bits rather than holding them conceptually separate, augmented reality.²³⁹

²³⁶ Joseph B. Walther and Jeong-Woo Jang, 'Communication Processes in Participatory Websites', p. 210.

²³⁷ danah boyd, *Networked Publics*, p. 44.

²³⁸ Nathan Jurgenson, "Cyborgology," <http://thesocietypages.org/cyborgology/2011/02/24/digital-dualism-versus-augmented-reality/#more-1347>; Wendy Robinson, 'Catching the Waves: Considering Cyberculture, Technoculture, and Electronic Consumption', in *Critical Cyber-Culture Studies*, ed. by David Silver and Adrienne Massanari (New York: New York University Press, 2006); Alex Soojung-Kim Pang, 'Mobility, Convergence, and the End of Cyberspace', in *Integration and Ubiquity: Towards a Philosophy of Telecommunications Convergence* ed. by János Kristóf Nyíri (Vienna: Passagen Verlag, 2008), pp. 55-62; Mark Graham, Matthew Zook, and Andrew Boulton, 'Augmented Reality in Urban Places: Contested Content and the Duplicity of Code', *Transactions - Institute of British Geographers* (1965), Vol. 38, Iss. 3, pp. 464-79, p. 96

²³⁹ Nathan Jurgenson, "Cyborgology," <http://thesocietypages.org/cyborgology/2011/02/24/digital-dualism-versus-augmented-reality/#more-1347>. [Accessed 11/08/2015]

Reasons given for these changes include the uses to which the Internet was being put, its integration into everyday life, and the use of mobile devices with Internet access. Authors have given different names to this development. Robinson differentiates between what she terms the first and second waves of the Internet and cyberspace; Alex Soojung-Kim Pang coined the term 'The end of cyberspace', while Espen Aarseth claimed that instead of cyberspace, the Internet had become 'business as usual'.²⁴⁰ Also possibly contributing to the change of view of cyberspace is the fact that these second wave authors differ from the first wave authors like Benedikt, Heim and Stenger, in that they wrote about a different technological environment than the first wave authors. By the time the second wave authors were writing, it was clear that the Internet had not, at least yet, become a fully immersive Gibsonian cyberspace, whereas first wave writers believed it was 'under construction', a 'full-blown, public, consensual virtual reality that will indeed be cyberspace', or 'a technology very nearly achieved'.²⁴¹

Robinson refers to the cyberculture of the 1990s as the first wave of cyberculture, with the second wave beginning in the second half of the 2000s.²⁴² She identifies the first wave with Gibson and the theorists who wrote about how cyberspace was viewed at that stage, and the second wave with what she calls 'Online life'. She believes that cyberspace, as an extension of offline lives, supports offline activities. Included in 'Online Life' are online shopping, mobile devices that allow people to be online anywhere and the convergence between the computer, the television, music players, and mobile phones. In a statement that is somewhat of a mirror image of boyd's 'writing one's offline self into being in a digital environment', Robinson

²⁴⁰ Wendy Robinson, *Catching the Waves: Considering Cyberculture, Technoculture, and Electronic Consumption*, pp. 55-56; Alex Soojung-Kim Pang, *End of Cyberspace*, p. 57; Espen Aarseth, 'How We Became Postdigital: From Cyberstudies to Game Studies', in *Critical Cyberculture Studies*, ed. by David Silver and Adrienne Massanari (New York and London: New York University Press, 2006), pp. 37-46, p. 37.

²⁴¹ Michael Benedikt, *Cyberspace: Some Proposals*, pp. 124, 31.

²⁴² Wendy Robinson, *Catching the Waves: Considering Cyberculture, Technoculture, and Electronic Consumption*, pp. 55-56.

writes 'our cyberselves have been materialized'.²⁴³ She claims that everyday use of the Internet has changed the way it is viewed. What she believes brought about this change were developments in technology, particularly browsers, the e-commerce explosion and the use of the Internet in the flow of news into peoples' homes at a time when the news was all bad.²⁴⁴ However by suggesting that the Internet offered an escape from the bad news of the real world, she is actually proposing the same theory as Heim in 1990, who believed we created the Internet to escape from a toxic world, a view that is clearly cosmologically dualistic.²⁴⁵

Second wave literature frequently challenges the first wave dualistic view. For example, Graham wrote that cyberspace had become an extension of and part of the material world. He argues that virtual worlds will not substitute for real worlds; rather they become part of a global-local world comprised of the material world and the virtual world.²⁴⁶ Aarseth also claimed that the widespread and everyday use of the Internet and what it is being used for has changed the way it is viewed. She wrote that there was less hype and discussion about cyberspace because it has become the norm, 'The feeling of excitement and wonder about all things cyber- that characterised the 1990s has been replaced by familiarity and business-as-usual'.²⁴⁷

Pang believes the end of the first wave of cyberculture, or as he terms it, 'the end of cyberspace', has been brought about by the development of mobile computing with devices such as tablet computers and smart phones.²⁴⁸ He believes that because they are small, mobile, personal and always on, they change the relationship between users, information and the world. The Internet and personal

²⁴³ danah boyd, *Networked Publics*, p. 43; Wendy Robinson, *Catching the Waves: Considering Cyberculture, Technoculture, and Electronic Consumption*, pp. 56-57.

²⁴⁴ Wendy Robinson, *Catching the Waves: Considering Cyberculture, Technoculture, and Electronic Consumption*, pp. 55-56.

²⁴⁵ Michael Heim, *Realism*, pp. 149-55.

²⁴⁶ Stephen Graham, 'The End of Geography or the Explosion of Place? Conceptualising Space, Place and Information Technology', in *The New Media and Cybercultures Anthology*, ed. by Pramod K. Nayar (Chichester: Wiley-Blackwell, 2010), pp. 90-108, p. 96.

²⁴⁷ Espen Aarseth, *How We Became Postdigital: From Cyberstudies to Game Studies*, p. 37.

²⁴⁸ Alex Soojung-Kim Pang, *End of Cyberspace*, p. 55.

documents can be accessed anywhere. Because they are hand-held, users develop more complex and personal relationships with them. They collapse a distinction between 'here and there, the world and cyberspace'. In his words, 'Always-on networks collapse the temporal space between users and the web, and undermine a sense of whatever is waiting online as living in a separate world'.²⁴⁹ Because they are hand-held, there is a sensual relationship with the device. In the cyberspace era, he argues, the process of getting online, which was much more complex and deliberate, reinforced the sense of cyberspace as elsewhere. The growth of mobile devices that are both perpetually connected to the internet and intimately connected to their users reduces the psychic distance between the real and online worlds. As that gap closes, the idea of cyberspace, he claims, will become an anachronism, then a curiosity, and finally a memory.²⁵⁰

The authors in the last two paragraphs have rejected the dualistic view of the Internet and cyberspace and are proposing a unified view, such as Graham's global-local world comprised of the material world and the virtual world.²⁵¹ This proposal mirrors the attempts by Lefebvre and Soja, who both argued for a unified theory of space. Lefebvre's perceived space, mental space and social space can be roughly mapped to the Internet, cyberspace and Graham's global-local world. Similarly Soja's Thirdspace, which he called a 'composite of all spaces', also sounds similar to Graham's global-local world.²⁵²

The argument that the end of the notion of cyberspace has been brought about by mobile devices and convergence is supported by Jim Benson and Karl Schroeder. Benson, the CEO of a management consultant agency, an author and a blogger, argues that the concept of cyberspace was facilitated by the technology of the personal computer (PC) and, when the PC began to be replaced by mobile devices,

²⁴⁹ Alex Soojung-Kim Pang, *End of Cyberspace*, p. 55.

²⁵⁰ Alex Soojung-Kim Pang, *End of Cyberspace*, pp. 55-60.

²⁵¹ Stephen Graham, *End of Geography*, p. 96.

²⁵² Edward W. Soja, *Thirdspace*, p. 11.

the idea of cyberspace began to be simultaneously replaced by a world that contained both cyberspace and the physical world. He wrote in his blog,

The PC is the domain of cyberspace. It exists through the screen, the look, the assumption that there is a single device that equates with connection to the net. That the "net" itself is a single location you arrive at through the browser... We had to go to cyberspace to cooperate - how inconvenient...This says to me that Web 2.0 combined with pervasive computing devices have integrated the combination of computing, data and communications directly into our daily lives.²⁵³

Schroeder, an author, is of the same view as Benson,

My personal theory is this: when the only way to use a computer was to sit still and look through a little window (the screen) *into* a virtual space, the cyberspace metaphor worked best for us. But with cell phones, PDAs and geographical applications such as store-finders and the proposed "taxi" key for cell phones (which simply summons the nearest cab when you press it), we're no longer staring through a window into cyberspace. The window's been broken, and the cyber world has spilled out into our own space.²⁵⁴

Schroeder concluded that 'cyberspace was no longer the right metaphor to use to think about our computing environment'.²⁵⁵ Like Jurgenson, above, he believes that that honour now belongs to the concept of augmented reality,

It's this overlay of the virtual over the real that makes the cyberspace metaphor obsolete. Cyberspace, after all, is conceived as something like the astral plane--a digital reality that exists "elsewhere." But it's precisely this "elsewhere" that's being eroded by applications like Davison and Reid's

²⁵³ Jim Benson, "Evolving Web,"

http://ourfounder.typepad.com/leblog/2005/10/web_20s_oedipal.html. [Accessed 11/08/2015]

²⁵⁴ Karl Schroeder, "Karl Schroeder's Science Fiction,"

http://www.kschroeder.com/archive/1107529092/index_html.html. [Accessed 11/08/2015]

²⁵⁵ Karl Schroeder, "Karl Schroeder's Science Fiction,"

http://www.kschroeder.com/archive/1107529092/index_html.html. [Accessed 11/08/2015]

augmented reality system. Increasingly, the digital world is being married to the real world, with surprising results... The virtual and the embodied blend. How cool is that?²⁵⁶

Graham's 'global-local world', Aarseth's 'business as usual', Pang's 'always-on network', and Robinson's materialised cyberselves, are views of the Internet. Like Soja's 'thirdspace' they are another way of thinking.²⁵⁷ However augmented reality is not just a way of thinking. It is an attempt to actually create a new type of space, as was Benedikt's 1990 cyberspace.

When writing in 2006, Robinson believed that the third wave would consist of blogs, podcasting and convergence.²⁵⁸ Since then, as stated above, the spread of social media has brought about Web 3.0, the semantic web with its ability to tag and connect pieces of online information. It is scholarship on the semantic web and the impacts of social media that later authors, such as Cortés and Lozano, believe will comprise the third wave of cyberculture.²⁵⁹

However perceptions of cyberspace as a separate world and as omnipotent never completely disappeared and with the advent of social media and social networks have begun to reappear in the literature. Chester claims that on Facebook users recreate their world.²⁶⁰ He writes that he finds Facebook addictive because '[...]on Facebook I can escape the limitations of my body'.²⁶¹ He continues 'Cyberspace offers an escape from the limitations of the body. And this version of 'salvation by Facebook' is the latest embodiment (pun intended) of the ancient heresy of Gnosticism'.²⁶² On the same topic Detweiler refers to the Internet as 'a gnostic ascent into virtual kingdoms'. While Pang believed that mobile devices brought

²⁵⁶ Karl Schroeder, "Karl Schroeder's Science Fiction," http://www.kschroeder.com/archive/1107529092/index_html.html. [Accessed 11/08/2015]

²⁵⁷ Edward W. Soja, *Thirdspace*, p. 11.

²⁵⁸ Wendy Robinson, *Catching the Waves: Considering Cyberculture, Technoculture, and Electronic Consumption*, pp. 56-57.

²⁵⁹ J.A.Cortés and J.O.Lozano, 'Social Networks', p. 63.

²⁶⁰ Tim Chester, *Friend*.loc 139.

²⁶¹ Tim Chester, *Friend*.loc 216.

²⁶² Tim Chester, *Friend*.loc 240.

about the end of the first wave and its associated dualism, Detweiler claims it had the opposite effect, and states 'With a smartphone in our pocket, we can transcend the bodily limits of space and time'.²⁶³

Writing in 2015, Jonveaux argues that the idea of cyberspace as a separate world can differ depending on what a person is doing online, and whether or not what they do has consequences in the offline world.²⁶⁴ She gives the example of a marriage on Second Life which is not binding in the offline world, and comparing it to online shopping which does have offline consequences. She also argues that the potential for anonymity in cyberspace contributes to it being viewed as apart from the offline world.²⁶⁵

Both Chester and Detweiler have also written of cyberspace in terms of omnipotence. Referring to his Facebook friends as his 'chosen people', Chester wrote 'But social media allows us to play God and create our own chosen people. And we are at the centre of this chosen circle'.²⁶⁶ He continued 'Facebook, however, promises to connect us with everyone everywhere at any time. It promises omniscience (knowing everything) and omnipresence (being everywhere)'.²⁶⁷ Detweiler also expressed the view that the technology of Facebook is 'godlike'. However he does not see this in a positive light. He wrote 'Becoming like God has fried our brains. To use the metaphor of our era, our hard drives are full and threatening to crash'.²⁶⁸

Similarly the idea of Barlovian cyberspace where the people have control can be found, for example, in Jay Rosen. Rosen claims that the change in the user

²⁶³ Craig Detweiler, *Igods*.loc 306, loc 131.

²⁶⁴ Isabelle Jonveaux and Gabrielle Varro, 'Virtuality as a Religious Category?: Continuity and Discontinuity between Online and Offline Catholic Monasteries', *Online: Heidelberg Journal of Religions on the Internet*, Vol. 8, Iss. Religion on the Web: Proceedings of the Conference of the French Association of the Social Sciences of Religion (2015), pp. 28-41, p. 31, <http://journals.ub.uni-heidelberg.de/index.php/religions/issue/view/2132/showToc>.

²⁶⁵ Isabelle Jonveaux and Gabrielle Varro, 'Virtuality as a Religious Category?', p. 31.

²⁶⁶ Tim Chester, *Friend*.loc 153.

²⁶⁷ Tim Chester, *Friend*.loc 216.

²⁶⁸ Craig Detweiler, *Igods*.loc 314.

experience from one of passively receiving content, to that of a creator of the content, has brought about a shift in power from the former broadcasters of information to the people.²⁶⁹ Now, he continues, blogs give the printing press to the people, podcasts (sound files that can be downloaded and played), give radio broadcasting to them, social media sites like YouTube give them television, and new technologies allow people to choose what they want to hear and ignore what they do not want to hear. While once people were on the receiving end of a media system running one way, now information and data flows horizontally from citizen to citizen and, he argues, the people have taken control and will not give it back.²⁷⁰ In view of the idea of an association between the divine and knowledge, such as is found in Plato and the Gnostics, there is a sense in Rosen's claims of people rejecting the old divine authorities and taking that power for themselves.

Chapter Conclusions

Both primary and secondary literature on cyberspace highlight issues of dualism as a possible key feature of cyberspace: a non-physical cyberspace versus a physical space. Much of the discussion centres around whether cyberspace exists as a separate entity from the real world. Comparisons have been made between the separate world of cyberspace and other mythical and mystical worlds. The concept of cyberspace as a separate world perseveres through all three waves of academic Internet literature.

A further important topic is whether or not online communities can fill the needs of users in the same way that offline communities can. The advent of social networks has brought with it more possibility for online community. Social networks have also made changes in the area of online identities, with most users now using their offline identities while online.

²⁶⁹ Jay Rosen, 'The People Formerly Known as the Audience', in *The Social Media Reader*, ed. by Michael Mandiberg (New York; London: New York University Press, 2012), pp. 13-16, p. 13.

²⁷⁰ Jay Rosen, *Audience*, pp. 13-14.

Chapter Four will review the literature on the use of the Internet for religious purposes.

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