Social Media/ted Practice @ the Interface

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Abstract

This research contributes to the evolving field of New Media Studies through an empirical examination of social media design in real-time practice at the computer interface. In recent years questions of technology and design have started to figure more prominently in research into Social Network Sites (SNSs) but critical analysis of *design in practice*, at the interface remains under-researched. The interface is becoming an increasingly important analytical concept in the digital age as it is the space where machine readable code is translated into the cultural codes which are accessible to the everyday users of digital media technology. Furthermore, there have been recent calls for an expansion of the traditional media practice paradigm encouraging practice approaches to media which take seriously the mediating role of technologies in emergent forms of digital media practice. This thesis carries out empirical research into *social media/ted practice;* it critically examines sites and real-time interactions at the interface, to understand the interrelationships between the specific design of platforms and evolving forms of social media/ted practice. The thesis draws on Media Studies, New Media Studies, Sociology and Social Studies of Technology to explicate an original interdisciplinary analytical framework for studying people's interactions with social media technologies at the interface. This framework is referred to as *the triple articulation of social media/ted practice*. The triple articulation of social media/ted practice acknowledges the interplay between the materiality of social media technologies, the cultural coding of social media technologies and active practice with social media technologies. The term social media/ted practice has been coined specifically to emphasise the mediating role of technology in social media use. Using SNSs as a case study the thesis combines critical site analysis with interviews at the interface which illuminate the interpretive and constructive elements of the micro-interactions between people and SNSs that underpin related forms of social media/ted practice. Whilst this thesis is focused on SNSs, the analytical framework has wider applicability in New Media Studies and media-orientated Sociology. The central argument of this thesis is that design matters for social media/ted practice. Site-specific 'micro' architectures, affordances and algorithmic processes continue to shape social media/ted practice at the interface. The user-interface works to render aspects of the technology visible, accessible, meaningful and useful. This thesis calls attention to the user-interface as a key site for: (1), mediating social practice (2), understanding emerging social trends (3), site governance and (4), developing critical digital media literacies.

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Chapter 1: An Introduction to the Thesis
Why Study SNSs @ the Interface?

1.1 Introduction

This thesis examines Social Network Sites (SNSs) at the computer-interface in order to critically analyse the implications of social media design for *social media/ted practice*. Social media/ted practice is a term intentionally coined by the researcher to capture the technological aspect of social media practice; practice that is shaped by these sites in the process of mediation. SNSs are social media technologies delivered as a service, they provide the specific 'techno-cultural' conditions (see Langlois 2009) for the production of a digitally mediated social context which has the capacity to remediate and represent aspects of social and cultural life. SNSs provide the conditions for account holders to create a personal profile, link that profile with other accounts, traverse in-site connections (to varying degrees), (boyd and Ellison 2007) and interact with user-generated content and feeds. Whilst these sites are commonly classified as a type of 'social' media, it is important to recognise that SNSs are couched in wider forms of networked connectivity, which is why van Dijck (2013) intentionally opts for the term 'connective', rather than 'social' media.

This thesis examines the implications of design for everyday social media/ted practice. In theorising the relationship between technologies and social life, the thesis locates 'practice' as a key lens. In the social sciences practice commonly refers to routine types of activity, concerned with regularity of action, social conduct and social order (see Chapters 3 & 4 for further discussion on practice). This thesis specifically examines practices that involve social media technologies as they typically occur in the context of everyday life. In line with this, this thesis opts for the term 'design' in place of 'technology' to emphasise the distributed forms of human agency that are codified into technological artefacts and systems in production practices. This thesis defines design in relation to social media, broadly and conceptually, as all the tactical decisions that are made in the production process, both technical and symbolic, that come together to configure the users' experience (Grint and Woolgar 1997). Social media design is examined in this thesis using an original interdisciplinary analytical framework (See Chapters 3 & 4) and from the particular vantage point of the user-interface. This enables the researcher to critically examine the implications

of design for user-interaction at the interface and in terms of the implications of design for wider forms of everyday social media/ted practice (further discussion on the specific use of the term 'design' can be found in Chapter 4).

The research addresses a current gap in the social media research agenda, how social media sites are specifically designed for interaction at the interface and how people actively encounter and engage with this design, in real-time practice - with the aim of analysing the implications of design for social media/ted practice. The thesis responds to the limited body of research critically examining how people understand these technologies as *technically and culturally codified spaces* and how they *routinely navigate these technologies at the computer-interface.* In a fast-paced, dynamic and constantly evolving media environment, it is vital to understand the relationship between social media design and practice in order to be able to fully comprehend digitally mediated forms of social life and cultural expression. Subsequently, it is important to remember that mediated forms of social practice are configured out of, the micro-interactions that take place at the interface.

Today's culture can be described as an interface culture; a culture in which social interaction and cultural expression is increasingly mediated through digitally networked technologies. Within this context, the user-interface becomes a key boundary point for understanding mediated forms of social practice. Not only is the interface the access point to the digital network but it is the point where machine-readable digital code is transformed into the 'cultural codes' that are accessible to everyday users (Manovich 2001). To understand current forms of social media/ted practice and their related cultural forms requires critical examination of the constantly evolving relationship between technologies and social life; between design and practice. This thesis develops a unique interdisciplinary analytical framework based on the idea of the triple articulation of social media/ted practice. The triple articulation of social media/ted practice examines the interrelations between (1), the technical materiality of sites (2), the symbolic coding of sites and (3), the everyday use of sites (see Chapters 3, 4 and 5) by analysing how technological materiality is culturally expressed at the level of the user-interface and how people make sense of and interact with interfaces in everyday active practice. This thesis uses the term design to refer to platform design and user-interface design; the key affordances of specific platforms and the strategic decisions that are made to culturally express functionality and features to potential users. Critical analysis of user-interface design and critical analysis of people's real-time interactions with technologies

at the interface has the potential to illuminate important constructive processes that underpin digitally mediated forms of practice. This approach has the potential to offer fresh insights into current issues and debates about digital structures, interactivity, participation, and literacy, as well as information and data-sharing practices, privacy, surveillance and commerce. As Crawford (2013) reminds us, as interest gathers in the possibilities of 'big data', it is important to remember that small data sets continue to provide important granularity and depth to understanding digitally media/ted practice. Through a case study of Facebook and Twitter, this thesis explicates the implications of design for practice at the interface, in order to enhance current understandings of how technical, cultural and social factors shape evolving forms of social media/ted practice. The thesis sets out to examine the nature of the relationship between the specific design of sites and related social media use. The thesis answers the question: what can research into users' interactions at the interface tell us about the interrelationships between social media design and social media practice?

1.2 Digitally Networked Social Life

Social and cultural life is bound up with the interplays between technological design, development, diffusion and appropriation. To cite the title of Latour's (1991) article; 'Technology is society made durable'. The on-going diffusion and fast-paced advances in digitally networked and increasingly mobile computing continues to impact on economic, social, political and cultural life. The growing importance of digital networks and the increasing value of information to advanced capitalist societies was expressed in the 1990s theories such as the 'information society' (Webster 1995) and the 'network society' (Castells 1996). This called attention to the development of a new phase of capitalism, an era of post-industrial[1], informational, or digital capitalism re-organised around digitally networked communication infrastructures and the increasing economic value of information (Castells 1996). Theories of the 'network society' (van Dijck 1991, Castells 1996) prominently stand out for explicating the increasingly salient and organising role that digital networks have come to play in advanced capitalist societies, documenting how they have become embedded in complex forms of economic and social organisation as well as how they are woven into day-to-day forms of social and cultural interaction and expression. The proliferation of network-oriented social theories, including 'networked individualism' (Wellman 2003), 'network cultures' (Varnelis 2008) 'network publics' (Ito 2008, boyd 2011) and 'networked

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[1] See for example Daniel Bell's (1974) work on Post-industrial Capitalism

selves' (Papacharissi 2011) reflect the continued importance of analysing the salient role of digitally mediated networks to social life.

In the last decade, the development of Web 2.0 coupled with the rise in mobile and 'locative media' (Farman 2012) has been a catalyst to the development of a culture of ubiquitous media; the pervasive integration of digitally networked media into everyday communication practices. Web 2.0 is a stage of Web development identifiable by a number of key developments and principles in Web design such as built-in interactivity and the logic of wisdom of the crowd (O'Reilly 2005). Characterised by convergence, Web 2.0 is usefully thought of as a set of socio-technical arrangements; clusters of technologies, devices, applications and people which generate the proliferation of networked social spaces and information flows on the Internet (Castells 2009: 65). Web 2.0 is characterised by a range of social media technologies, the success of which is premised on their ability to enable digitally mediated social interaction and harness user-generated content (UGC). SNSs have been at the centre of Web 2.0 development and provide an important illustration of the salience of digitally networked technologies for both economic and social life (see Chapters 2 and 4). The scale of SNSs is evidenced in the fact that some sites now have user-bases comparable to the population size of entire countries. For example, Facebook has a user-base greater than the US and UK population combined (Hitwise 2012). As these sites continue to recruit aggressively, the companies are expanding. YouTube, Facebook and Twitter continue to turn over competitive annual profits (see van Dijck 2013) earning their place alongside more established Internet giants like Google and Amazon. Illustrating that SNSs are more than scalable social ecologies they are also salient commercial ecologies.

There were a number of reasons for choosing SNSs as a case study for this research. In the UK, SNSs are cited as one of the top online destinations for Internet users, locating them centrally in digitally mediated life[2]. In 2008 Ofcom reported that over one fifth of the population aged 16 or over were regularly using one or more SNSs. In 2011, New Media Trend Watch reported higher figures, noting that 3 in 4 people in the UK (74%) had an active Facebook account. This popularity extends globally. Over 200 SNSs have been reported to exist in the world today (Neilson 2011). Facebook has over one billion registered users drawn from countries all over the world, aided by a range of language settings and hyperlinked

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[2] Facebook and Twitter are currently the most popular, followed by LinkedIn and MySpace (see Chapter 2).

translations. This captures the potential of these sites to provide global platforms for communication. It indicates that at least in principle, SNSs have the potential to be universally accessible to a global public[3]. This is a one reason why SNSs attract so much media and scholarly attention. It is also a key reason why analysing technological design is so important. Sites are developed in particular contexts but have an international reach. Sites engender particular modes of Internet sociality which often reflect the particular cultural ideas and values of the context in which they originate. The culturally encoded values that are embedded in the technology are often interwoven in cultural contexts, practices and traditions further afield (see Miller 2011). The rationale for studying SNS was, in part, due to the popularity of the technology on a global level.

Beyond their popularity, SNSs are a rich area for research because they provide prime examples of Web 2.0 technologies that capitalise on the affordances of digitally networked technologies. These affordances emerge out of the technological architecture built on the properties of code and networks (boyd 2011:24). SNSs are configured out of data that runs across networks that is (to varying degrees) persistent, scalable, searchable and replicable (boyd 2011:46-48). Evidence of this can be seen in their unique configuration to digitally remediate social context and the distinct ways they reconfigure communicative and content-sharing practices. Sites vary in their appearance and functionality[4], but SNSs have a set of identifiable architectural characteristics that afford certain forms of connectivity, expression and interaction. As such, SNSs are thought to represent a 'genre' of social media[5] (boyd and Ellison 2007) which engender particular forms of social practice[6] (a detailed discussion of particular types of social practice is provided in Chapter 2). 'Genres' of social media should however be treated with caution because these technologies are constantly evolving and the boundaries between seemingly different 'genres' are always in a state of flux. However, this

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[3] The World Map of Social Networks (2011) gives a strong sense of the on-going importance of regional variations in terms of site preference (discussed in more detail in Chapter 2).

[4] The specific design of sites; the nature of networked connections, communicative, expressive and participatory practices supported by sites vary.

[5] SNSs have been defined as a genre on the grounds that they: (1), require user subscription (2), allow the creation of personal profiles (3), enable profiles to be linked and (4), allow users to traverse network connections within the site (boyd and Ellison 2007).

[6] Research has demonstrated SNSs support distinctive types of connectivity, interaction and forms of self-expression, such as the generation of networked connections that are (to varying degrees) visible or public and particular frames/modes of self-expression and identity performance (boyd 2006; boyd and Jeffery 2006).

said, there is a growing body of research which provides evidence to suggest that SNSs are working to stabilise specific 'social media' norms, values and forms of mediated practice (McLaughlin and Vivak 2011, Papacharissi and Easton, forthcoming). Furthermore, SNSs have been proven to be reflective of wider trends in Internet use. SNSs exemplify popular trends in emergent forms of networked connectivity, interaction and self-expression. As such, they epitomise developments in a Web 2.0 era defined by technological, commercial and cultural convergence (Jenkins 2006). In particular, they can be identified as exemplifying current trends in nonymous (known, as opposed to unknown) digitally mediated environments, the growth in mobile Internet access and use (Ling and Donnar 2009), the expanding applications market and locative Internet technologies (Farman 2012).

Their growing scale and social significance, and their important role in shaping emergent forms of social practice, provides a strong justification for on-going research into these sites in their own right. As argued, SNSs have been instrumental in the continuing transition towards 'networked life' and the configuration of 'networked selves', facilitating the rise of 'networked publics'[7] (Ito 2008, boyd 2008). SNSs are a key feature of networked publics because of their distinct capacity to re-mediate, re-organise and re-present spatial boundaries, which in turn shape how we experience 'space' and 'place'. As boyd (2011) argues, SNSs aggregate contexts and connections in the physical world into singular digitally networked spaces, effectively 'collapsing context' (boyd 2008; 2011). Subsequently, SNSs illustrate the increasing (indissoluble) interplay between digital and physical environments and experiences. They illustrate the ways in which digital and physical practices increasingly interface, reflexively remediating and reconfiguring each another in the process. The growing use of mobile technologies to access SNSs further illustrates the role they play in re-configuring people's understandings of space and place. Furthermore, the recent incorporation of geo-tagging capabilities in SNSs represents recent design drives to integrate information about location and place into the interactive and social experiences of users. This has resulted in SNSs being described as a salient form of 'locative media'; media aimed at intermeshing location into communication and interactive forms in everyday life (Farman 2012). SNSs are fast becoming part of a wider pervasive social computing culture; a digitally networked

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[7] This was a concept coined by Ito (2008) and later developed by boyd (2011) to describe the digital re-mediation of publics by the distinctive capacity of digitally networked technologies to connect and mediate civic life.

culture which is increasingly linked to ubiquitous mobile use and the expanding mobile applications ('app') market.

SNSs are often said to increase public/audience participation, facilitating new forms of community and participatory cultures which are characterised by user-generated content and new forms of collaboration. However, it has been argued the role of the 'active user', in terms of their interactive and participatory role, has been overstated (Fuchs 2009; 2012, Lovink 2011). Not only are SNSs important social contexts, they are media technologies with a materiality that shape everyday life when embedded in social practice. As already suggested the technological dimensions of SNSs play a key role in shaping mediated forms of practice, something which is gaining recognition on the research agenda[8]. However, in addition, many are commercial services. It is important to remember that many SNSs businesses are profitable services, owned by big corporations. Successful social media companies, for example Facebook, are often founded on business models that are heavily, if not entirely, dependent on the monetisation of user generated content (UGC) to be profitable and sustainable (Coyte and Plybus 2007, Jarret 2008, Langlois 2009 Andrejevic 2011). These sites support wider commercial ecologies by monetising user-data and providing digitally mediated social contexts for commercial organisations to penetrate and operate in. Political economy approaches to SNSs argue we need to locate these practices in broader socio-political and economic structures (Fuchs 2011; 2012). As a result 'participatory' social media practices are re/located in the context of neo-liberal capitalism and in relation to new forms of 'informational' capital.

The growing Web dominance and commercial profitability of these sites serves as a reminder of the need for on-going critical investigation into the relationship between design and use. The engineering of these sites reflects a complex set of social and economic interests. As Langdon Winner (1986) reminds us, all technologies must be considered 'political'. This is an important point - if social media technologies are appropriated and integrated into everyday life they can materialise (and stabilise) distinctive sets of practices, norms and values (Papacharissi and Easton, forthcoming). Recently, the commercial aspects of SNSs have received increased attention. Arguably, these issues are now at the forefront of the social

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[8] The Association of Internet Researchers (AoIR) Conference in 2012, held in Salford, Greater Manchester, UK, was themed 'technologies'.

media research agenda, calling attention to the politics of the technology and the implications this has for current forms of social media/ted practice. The importance of these questions cannot be overestimated in the context of widespread neo-liberalism, and in light of the practical challenges that face Internet regulation. Because of this, social media researchers cannot simply examine how sites are appropriated by people in everyday life. They must aim to develop understandings of use which acknowledge the wider economic and political context in which these sites develop. It is important to examine the complex and intermeshed reality of the social and commercial ecologies that are mediated by these technologies. Social media researchers must address the complex, intricate on-going negotiations and oscillations between both aspects; the participatory and the commercial dimensions of social media. Looking at design in active practice is one lens through which to examine these complex negotiations and oscillations.

Ellison *et al.* (2009) suggested that the very character of our social and cultural lives was being transformed by these technologies, a clear indication of the widespread recognition of the importance of social media for social, cultural and commercial forms in the 21st century. SNSs remain a relatively new communication medium in the longer 'duree' of Internet communication. However, this should not detract from their current social significance; these sites, and related forms of social practice, provide an important lens through which to illuminate the on-going development of Web 2.0; through which to examine social, cultural and economic life as it takes form in a digitally networked age. Although the longer term transformative character of SNSs remains a matter of enquiry, what is clear is that these sites have *already* had an impact at the level of the everyday social life (see Chapter 2). They have re-mediated and, in the process, re-configured how many people routinely connect and interact and engage with one another, through the specific ways that information and content is produced, accessed, stored, managed, shared and retrieved. This type of technology is fast becoming a stable and enduring aspect of the media landscape and everyday life for many people. In a blog discussion by boyd (2010) it was even suggested that these services could be conceived of as 'public utilities'. In light of this, and their increasing economic significance, SNSs remain a significant site of on-going academic enquiry.

A comprehensive and developing body of research into SNSs now exists (see for example: Albrechslund 2008, Andrejevic 2005, Bodle 2010; 2011, boyd and Heer 2006, boyd 2004; 2008; 2011, Donath and boyd 2004, Ellison *et al.* 2007, Ellison *et al.* 2012, Fuchs 2008;

2012, Hargittai & Hsieh 2010; Hargittai & Litt 2012. Jarret 2008, Marwick 2005, Papacharissi and Fernback 2007, Papacharissi, 2009; 2011, Parks 2011, Stutzman 2006, Zhang 2010; 2011 Zimmerman 2008). However, this thesis makes the argument that further examination is needed into the complex interrelationships between social media design and practice, by looking at the role of design in contextual practice at the interface. This would provide a new angle from which to examine the interplays between company interests, technologies and social interests. Despite a growing recognition of the shaping role of technology and the implications of site design for practice, to date, research has tended to examine 'technology' and 'design' primarily from the view of the researcher. This involves a consideration of the nature, and shaping role of design, but not necessarily how these technologies are encountered and interacted with by people in contextual practice. This thesis addresses this gap in the literature, described here as 'design in practice' through a critical examination of how people use SNSs in social practice *in the context of how they understand and navigate the technologies at the interface as technically and culturally engineered and codified spaces*. This thesis examines user-interface design as an important techno-cultural frame; as a particular representation of the technology that has implications for user interaction and social practice. It locates the interface as a key boundary site; a point at which to examine and understand how technological affordances and processes are represented/expressed and interacted with by users. In effect, it examines the interface as a digital framework for social media/ted practice.

Drawing on insights from Sociology, Media Studies and Social Studies of Technology, the thesis utilises an original theoretical framework and empirical lens to study user-interface design as a digital framework that mediates affordances which, in turn, engenders particular types of social practices. The thesis analyses digital design structures in terms of: (1), the opportunities for interaction provided and (2), the cultural coding of these opportunities. In addition, it analyses how people make sense of, interact with and appropriate social media technologies at the interface in the context of wider social practice. This research also provides an important platform for participant reflections and views on design and their understandings of the commercial aspects of social media technologies designed to address the absence of users' voices in related discussions.

The thesis is structured around two primary questions:

1. What is the relationship between social media design and social media practice?
2. What can studying interactions at the interface tell us about the interrelationships between social media design and social media practice?

This was broken down into four further questions (see below), which underpin key areas for (interrelated) analysis:

- How does the design of a SNS technically and symbolically frame practice?
- How do users understand and use SNSs as technically and culturally meaningful technologies?
- How do users routinely interact with design at the user-interface?
- What role do SNSs play in wider social practice *and* how does researching design-in practice help us to understand trends in SNS use?

1.3 Thesis Overview

- **Chapter 2: Digitally Mediated Social Life**

  This chapter argues that design, at the level of the user-interface (as it would be encountered by the user) is under-researched. The chapter begins with a critical review of literature relating to digitally mediated social life. The chapter continues to provide an historical account of conceptual approaches to Internet sociality and key Web developments in order to locate SNSs. This is followed by an in-depth review of key literature on SNSs, organised thematically. The chapter makes the argument that research into social media/ted practice has over focused on the active choices of the user at the expense of critical questions about design, the politics of design, and the interactions between people and SNS. Recent developments in social media research have raised the profile of these issues but the chapter points to a number of gaps in the research that persist. It concludes by stating how this thesis will address this gap.

- **Chapter 3: Theorising Social Media/ted Practice: Towards an Analytical Framework**

  This chapter explicates an analytical approach to studying social media/ted practice, which recognises media technologies as material and symbolic structures that shape practice in the process of mediation. The chapter argues that mainstream Media Studies and Sociology have traditionally marginalised research on the materiality of media technologies; in terms of understanding the role of they play in structuring everyday life. In particular, the chapter argues that these disciplines have marginalised *the interactions between people and technologies*. This chapter reviews theories from Social Studies of Technology (SST) to consider how these issues have been addressed elsewhere. Whilst SST has not always been directly concerned with studying media technology, this thesis argues that SST offers a range of useful theoretical insights that could benefit the development of a sociological approach to media/ted practice. In particular, in terms of recognition of (1), the materiality of technology (2), the social shaping of technology and (3), the politics of technology. The chapter integrates insights from SST, alongside insights from Sociology and Media Studies to provide an interdisciplinary analytical framework to study the triple articulation of social media/ted practice.

- **Chapter 4: Design and Social Media/ted Practice**

  This chapter builds on the previous discussion to critically analyse existing literature on social media design and practice. The chapter builds on the framework explicated in Chapter 3, focusing on how it can be applied to social media. This chapter provides an introduction to the terms 'design' and 'practice' and explicates how this thesis operationalises these terms in this research, before critically reviewing recent literature that furthers our understandings of the interrelationships between social media design and practice. The chapter examines the implications of technological design for digital practice through a discussion of digital architectures and affordances, code, software, algorithms and interface design. In particular, the chapter advances the argument that the user-interface is an important representational arena; a symbolic mediator between design intentions and active use. The chapter argues that further research is needed that looks at social media design in active practice at the user-interface.

- **Chapter 5: Researching Social Media @ the Interface**

  This chapter provides a detailed discussion of the research methodology and specific approach taken. It gives a justification for the (critical) social constructivism adopted, and the specific methods and techniques developed for studying social media sites and social media/ted practices at the interface. The chapter explicates the research process, it documents key decisions made regarding sampling, data collection and data analysis. The chapter concludes with a discussion on the specific ethical considerations relevant to the research.

- **Chapter 6**: **Social Media Design at the Interface**

  This chapter answers the research question, how does the design of a SNS work to technically and symbolically frame practice? The chapter draws on an analytical account of the architecture and affordances of Facebook and Twitter as discerned by the researcher at the user-interface (see Appendix 4). This analysis documents the main areas within site-specific architectures and analyses the key opportunities for technical and social interaction available to the user. The chapter then reports on the textual configuration of platforms, the organisation and presentation of technical and social opportunities for interaction and the cultural coding of technical features. It concludes by discussing the importance of specific 'design languages' embedded in sites and their role in culturally configuring the technology in particular ways in order to render it meaningful to potential users.

- **Chapter 7: Making Use and Making Sense of SNSs**

  This chapter answers the research question, how do users understand and use sites as technically and culturally meaningful technologies for interaction? The chapter reports on how participants make use and make sense of Facebook and Twitter. The chapter critically analyses how participants understand the sites in relation to their routine use. In particular, the chapter reports on the overtly social framing of these technologies. The implications of this are discussed in detail in Chapter 9, where the social framing of SNSs is shown to obscure commercial aspects of these environments.

- **Chapter 8: Interactions @ the Interface**

  This chapter answers the research question, how do users encounter and interact with design at the user-interface? It reports on how participants interact with Facebook and Twitter at the computer-interface, focusing on how participants encounter, and engage with, technical and social opportunities for interaction. The chapter critically considers how design structures interplay with interpretive processes at the user-interfaces. It considers the relationship between design structures and routine interactions to illuminate how wider routines and social media/ted practice is configured out of the micro interactions that take place at the interface. It addresses the question, how we can understand the role of design in shaping practice? And what can studying interactions at the interface tell us about social media practice?

- **Chapter 9: Beyond the Social Affordances at the Interface**

  This chapter argues that the social framing of sites obscures wider forms of commercial connectivity and activity. It reports on participants' 'social' perceptions of the networked environments. The chapter asserts that the cultural framing of features and visual ordering of technical features at the interface obscures the commercially-orientated activity. This chapter illustrates these points through a discussion of the social framing of privacy, participants' understandings of connective features such as social plug-ins and participants' understandings of the terms that govern their use of these services. The chapter considers these issues in relation to the politics of design and digital media literacies.

- **Chapter 10**: **Conclusions and Contributions**

  The final chapter critically considers the role of design in practice by reflecting back on the research, explicating key findings and critically discussing the implications of user-interface design for social media/ted practice. The conclusion addresses the need for transparency in terms of choice and control in social media design and suggests further investment in digital literacy initiatives to educate users about key issues in these digitally networked environments. This chapter explicates the key contributions to knowledge offered by this thesis.

Chapter 2: Digitally Mediated Social Life

2.1 Chapter Overview

This chapter traces the emergence of SNSs, located in a wider historical review of social life and the Internet. The chapter begins with a brief review of theoretical approaches to understanding early forms of Internet sociality, calling attention to the importance of networks in mediating contemporary forms of social and cultural life. The second half of this chapter documents the rise of Web 2.0 and considers SNSs as a key Web 2.0 technology. This is followed by a review of central issues and debates that have shaped the SNS research agenda. Four key themes are discussed (1), visibly re/mediated networks (2), representations and re-mediations of identity (3), user-generated content, privacy and surveillance and (4), digital architectures and affordances. All key themes have been reviewed because they are relevant for this research. However, the last theme is particularly important because it reflects a recent, growing interest in design on the wider digital media research agenda. Whilst this chapter reviews key contributions in this area, the discussion on digital architectures and affordances is developed in greater detail in Chapter 4. The chapter concludes by arguing that much can be gained from researching user-interface design, and interactions with design in real-time practice.

A short disclaimer is needed at this point. This thesis focuses on the role of SNSs in *everyday life*; the routine ways in which people are using these sites in everyday social, communicative and expressive practices. As Winner reminds us technologies are 'woven into the texture of everyday existence' [...] deeply insinuated into people's everyday thoughts, perceptions and behaviours' (Winner 1986: 12). Gardiner (2002: 2) defines everyday life as the largely taken for granted world that remains clandestine. Approaches to studying everyday life can and do vary, this thesis is committed to studying everyday life as it is understood and practiced by people in ordinary contexts, with recognition of the socio-political context in which it is located and generated (Lefebvre 1991). It is worth stating that this thesis is not primarily concerned with formal and regulated contexts of use, such as, education, work, politics and journalism, it is primarily interested in the everyday *informal* contexts of use, the appropriation of SNSs in the more fluid, contexts of ordinary everyday life. Whilst there is significant work being done with regard to SNS use in these other fields, they will only be

referred to when it is directly relevant to understanding SNSs in everyday contexts and practices.

2.2 Digitally Networked Technologies and Everyday Social Life

Taken as a whole, the field of Internet and digital media research is a burgeoning interdisciplinary field with contributions from Computer Sciences, the Humanities, and Social Sciences. Research in this area reflects a rich and diverse tapestry of ideas, interests and debates evolving in line with the development of technology: commercialisation, regulation, privacy, security and data protection, citizenship, democracy, freedom, censorship and digital inequalities, to name but a few. Whilst earlier research constructed the Internet as a virtual frontier, engendering new forms of 'virtual' communities and providing new virtual/anonymous spaces for identity play, 'cyber' or 'virtual' conceptualisations of the digitally mediated environment have largely given way to the realisation that digitally networked media is very much part of the everyday. Internet technologies and digital media are increasingly ubiquitous features of life for many UK residents[9], embedded into the fabric of life at work, at home and on the move. Today, devices such as mobile phones, laptop computers, MP3 players, and digital cameras are used by people of all ages and backgrounds to connect to a growing number of Internet services and applications, where they can interact with friends, family and colleagues, upload, consume and share content, shop and manage their day-to-day living and finances. Because of this, the evolving focus in Internet research reflects an increasing concern with both practical and normative questions about how we design, build, provide access to, use and appropriate these technologies as a society. For example, policy-makers continue to grapple with questions of digital access, literacy and Internet regulation. These questions reflect a deepening social concern with the evolving interrelationships between social life and digitally networked technologies. This being said, approaches to understanding the role of the Internet in social life have undergone important shifts over the last two decades, theoretically and empirically, for example, the internet has gone from being framed as a separate virtual province, to being recognised as an interfacial, digitally networked space. SNSs are only a fairly recent development in the longer trajectory of Internet technologies and scholarship about the Internet and social life. Therefore, before

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[9] There are still important factors that shape Internet access and use, ranging from device and access to bandwidth, digital literacy and skill and complex social, cultural and economic factors.

critically reviewing research in this area, it is necessary to consider how wider theoretical developments have informed current approaches to digitally mediated network sociality.

This research is interested in the relationship between social media technologies and people, at the interface, foregrounding the capacity of the technology to remediate social life in ways that shape it in the process of mediation. However, initial research into computer-mediated communication (CMC) emerged in the context of developing conceptual framings about the 'cyber' and the 'virtual'. The Internet was considered to provide new cyber or virtual spaces for social interaction and cultural experiences, seemingly separate from the physical world. In the 1990s, terms such as cyberspace, cyber-culture, cyber-identity, virtual reality, virtual communities and virtual selves reflected a prevailing theoretical lens. Furthermore, associated research was typically characterised by 'virtual'[10] methodologies, whereby researchers examined issues as they occurred online, rather than in physical spaces (Hine 2005:51). Sherry Turkle's (1996) 'Life on Screen: Identity in the Age of the Internet' and Howard Rheingold's (2000) 'The Virtual Community: Homesteading on the Electronic Frontier', are notable cases in point. In 'Life on Screen: Identity in the Age of the Internet', Sherry Turkle explored social interaction in Multi-User Domains (MUDs) and constructed a view of the Internet as an anonymous and disembodied environment which, in turn, provided the possibility for identity and 'role play'. Turkle described the de-centred and multiple nature of identity, echoing many aspects of postmodernist claims, around the same time, about the changing nature of identity in a new 'post-modern' era (e.g. Butler 1999 [1990]). However more recent trends in Internet enabled sociality have been towards personally identifiable self-presentations (Marwick 2005) in nonymous (personally identifiable) digitally mediated environments (Ellison *et al.* 2007*)*. The early conceptualisation of a 'virtual' reality failed to attend to the complex ways in which digitally mediated communication was intermeshed with people's' lived realities and experiences. As Miller and Slater (2000:4) explain 'by focusing on virtuality as the defining feature of many Internet media [...] we start from an assumption that it is opposed to and disembedded from the real'. As Sundén (2003) reminds us, people working and playing online sit at the computer interface; they remain embodied and physically located within the world (ibid). People's' mediated self-presentations and social

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[10] Researchers endeavored to capitalise on the medium for research purposes; to research seemingly 'new' mediated spaces for interaction, researchers often approached the subject matter 'by and through the Internet' (Bakardjieva and Smith 2001:69).

interactions are always influenced by their embodied experience (boyd, 2008). People have to 'type' (Sudén 2003) or 'write' (boyd 2008) themselves into being.

Howard Rheingold's (2000) The Virtual Community: Homesteading on the Electronic Frontier' provides another example. Rheingold's empirical study of the Whole Earth Electronic Link (WELL), drew attention to the Internet's capacity to support 'virtual communities' - seemingly 'new' community formations that congregated in 'virtual' spaces. Rheingold was interested in how Internet technologies were being appropriated by individuals to connect with people outside their pre-existing social groups, helping to liberate them to form communities based around shared interests, as opposed to shared geography (Gross 2006). For Rheingold, Internet technologies had the potential to revitalise community and open up new spaces for the public sphere and democratic life. Although Rheingold drew attention to new forms of digitally mediated interaction, his research proved to be tied to a particular time and early expression of Internet use (Castells 2001)[11] and, like Turkle's research, suffered from the application of a 'virtual' theoretical framing. Contemporary applications of 'community' to Internet sociality emphasise the re-mediated, the networked, and the technological dimensions of this mediated social form (Wellman and Gulia 1997, Wellman 2001). Despite the shortcomings of the virtual community framing, Rheingold's emphasis on the emergence of geographically dispersed, interest-driven, digitally media/ted social formations exhibited foresight in terms of later developments in networked social media/ted practice. For example, social media sites have been shown to support geographically dispersed networks, driven by interest-orientated connections (Zhang 2010).

In the main, 'Virtual' approaches to Internet sociality proved unsustainable as the Internet became increasingly integrated into everyday life, aided by the success of the personal computer, widening Internet access and participation and later, developments regarding mobile access and use (Castells 2007). As a communication medium, the Internet was becoming instrumental in people's' everyday 'situated' lives (Castells 2001, Wellman *et al.* 2003). At the turn of the century, research by Anderson and Tracy (2001), and Howard, Rainie and Jones (2002) identified email as the most popular use of the Internet, assisting people in their routine communication practices in work-based contexts and helping people to

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[11] Castells (2001: 116-137) argued this point in his aptly titled discussion, 'Virtual Communities or Network Societies', arguing that the virtual community literature had privileged a particular type of early Internet user and Internet use, and was inadequate for accounting for the developing relationship between the Internet and society at large.

keep in touch in everyday social contexts. The Internet was being shown to be part of a wider communication matrix (Wellman *et al*. 2003). A decade later and SNSs are some of the most popular Internet sites, illustrating the salience of digitally re/mediated modes of social interaction. Subsequently, the physicality of everyday use and the specific configurations of digitally networked social spaces received growing attention (see Miller and Slater 2001, Wellman and Haythornthwaite 2002). Castells laid important groundwork for this reconceptualisation of Internet spaces as digitally networked re/mediations. In the first part of his trilogy 'The Information Age', Castells strongly claims that network structures are at the centre of an expanding capitalist economy based on decentralisation and globalisation. For Castells, digital networks were becoming the dominant mode of organisation in society; a new material basis for the performance of activities throughout the social structure. Wellman and colleagues (2003) argued a similar point on a social level arguing that 'networks' were becoming the dominant mode of social organisation, replacing community as central means of organising interaction.

This increasing centrality of digital networks to social life has been developed in a range of network-orientated theories, including networked individualism (Wellman *et al*. 2003), network sociality (Wittel 2001), network communities (Varnelis 2008), and more recently, networked publics (Ito 2008, boyd 2011). The Internet was shown to be part of a broader matrix of communication practices (Castells 1996; Wellman & Haythornthwaite 2002, Wellman *et al*. 2003). This said, the distinctive networked nature of communication practices led Wellman and colleagues (2001, 2003) to suggest that the Internet facilitated a broader social trend towards 'networked individualism'. For Wellman (2001, 2003) communities and societies were moving towards networked societies where boundaries would become more permeable, linkages would switch between multiple networks, and hierarchies would be flatter and more recursive. In response to this the term 'networked individualism' was coined to capture the *personalised communities* developing under these conditions. Earlier, Andreas Wittel (2001)[12] used the term 'network sociality' to signal similar changes, emphasising, like Castells (1996), and Wellman *et al.* (2003), a more transient, flexible and informational form of social relations and social practices. As Wittel (2001:1) explains:

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[12] Wittel's (2001) article, despite being written before the turn of the 21st century, showed immense foresight in terms of the phenomenon of SNSs that was taking root at the time.

'In network sociality, social relations are not 'narrational' but informational; they are not based on mutual experience or common history, but primarily on an exchange of data and on 'catching up'(…) Network sociality consists of fleeting and transient, yet iterative social relations; of ephemeral but intense encounters'

The collective contributions of Castells (2001), Miller and Slater (2001), Wittel (2001), Wellman *et al*. (2003) and Wellman and Hogan (2004), provided the basis for an important theoretical shift in approaches to Internet sociality, accentuating the *networked nature* of social relationships, interactions and social spaces enabled by digitally mediated technologies. Here sociality is considered to be digitally *remediated* and *reflexively*[13] constituted through socio-technical networked spaces, couched in wider economic social and cultural contexts. Recently, the notion of 'networked publics' (Ito 2008, boyd 2011) has provided another variant on theorising digitally networked social formations.

By highlighting the increasing salience of networks to social life and by locating Internet sociality in wider economic, social and cultural contexts, network approaches to Internet sociality set the research parameters for the SNS research agenda. Network conceptualisations of sociality are highly apt when thinking about SNSs. This is because SNS support a range of network structures, most typically, the ego-centric network; a network organised around the individual as the central node. Although community is still used to discuss social forms mediated by SNSs (see Parks 2011, Grudz *et al*. 2011), it is usually contextualised within a discussion of network structures. For example, boyd (2006) described MySpace as an 'imagined[14] ego-centric community, acknowledging the envisioned community element but emphasising the ego-centric networked nature of the social formation. More recently, the concept of the imagined community has been deployed to describe forms of network sociality on Twitter (Grudz *et al*. 2011). The versatility of the network metaphor makes it highly suitable to explain the diverse social forms of connectivity enabled by SNSs. As Marwick (2005) explains, a network is made up of many communities linked together, or disparate elements that are linked by a single weak tie. Communities, on the other hand, imply

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[13] The reflexivity between physical and (digitally) mediated spaces has only intensified over the years in light of developments in mobile Internet access and use (Castells 2007) and locative media (see Farman 2012).

[14] The imagined dimension is similar to that described by Anderson (1991) in his discussion on imagined forms of national community.

a group of people linked by some shared interest or commonality. Although communities can be social networks, not all social networks are communities (see Wellman *et al*. 2003).

2.3 Web 2.0: The User Takes Centre Stage

Whilst forms of pre-Web research existed into Internet enabled sociality, such as, bulletin boards, the history of the Internet is sometimes said to be categorised into two stages; Web 1.0 and Web 2.0. Web 1.0 refers to the early World Wide Web[15]. During this first stage of the Web the vast majority of Websites were configured out of content that was typically produced by site administrators and Web content was largely consumed at the interface. However the second stage, labelled by O'Reilly as 'Web 2.0', captured a progressive transition in Web development that grew out of Web 1.0. Castells (2009: 65) defines Web 2.0 as a complex set of socio-technical arrangements; clusters of technologies, devices, applications and people which generate a proliferation of *networked social spaces* and *information flows* on the Internet. O'Reilly's discussion of Web 2.0 identified key characteristics of the technology, and called attention to particular technologically afforded practices such as participation and interactivity and guiding principles of the technology, including 'the wisdom of the crowd' (a principle built on the premise of harnessing collective intelligence). The 'wisdom of the crowd' became a common metaphor and a key mechanism for organising the Web. For Flew (2008), the move from Web 1.0 to Web 2.0 represented a transition from (1), personal Websites to blogs and blog site aggregation (2), publishing to participation (3), Web content as the outcome of large up-front investment to an on-going and interactive process and (4), content management systems to links based on 'tagging'. The significance of this transition from Web 1.0 to Web 2.0 resided in the new forms of technical and social interactivity that could be observed, stimulating an explosion in user-generated content which was being collectively harnessed and used reflexively to develop the Web.

Subsequently, Web 2.0 technologies have been described as built on an architecture of participation; dependent on the creation of massive databases of user information with each participant adding to the database and thus adding value to the site (O'Reilly 2005). Due to the reliance on user-generated content, the user was seen as taking centre stage in the

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[15] Three fundamental technologies remain the foundation of today's Web (1), Hypertext Markup Language (HTML), the publishing format for the Web (2), Uniform Resource Identifier (URL), and address for each Web resource, and (3) Hypertext Transfer Protocol (HTTP), which allows the retrieval of linked resources.

production, organisation and development of the Web. In this context, the user was constructed as a producer of new media content as well as a consumer. The term 'prosumer' captured the blurring of boundaries between the traditional roles of professionals/producers and consumers (Toffler 1980[16]). Similarly, the term 'produser' (Bruns 2008) was used to capture creators who were also users and distributors[17]. This underpinned arguments about changing media structures, and the move towards a 'more inclusive media model', which had the potential to destabilise traditional hierarchal media organisation and business structures. As Gibson (2005) explained in 'Wired', 'today's audience isn't listening […] it's participating'. Research into user-participation, user-generated content, emergent forms of collaboration and collective organisation proliferated (see Jenkins 2006), typically framed in the discourse of the democratising potential of technology. As Zimmer (2008) explains 'the rhetoric surrounding Web 2.0 infrastructure […] suggests that everyone can and should use new Internet technologies to organize and share information, to interact within communities, and to express oneself'. Web 2.0 promised to empower creativity, to democratise media production, and to celebrate the individual while also relishing the power of collaboration and social networks.

This said, utopian conceptualisations of Web 2.0 developments have been met with increasing scepticism, for example, claims about increased interactivity have come under scrutiny (Manovich 2001, Jarret 2008, Lovink 2012). Moreover, whilst Web 2.0 has clearly provided people with ways to engage in public life and media production, the increasing commercialisation of the Web suggests that some of the early democratising claims may have been somewhat oversimplified and overstated. Critical Internet research calls attention to on-going commercial colonisation of Web 2.0 and the political economy of 'New' Media (Andrejevic 2011, Fuchs 2011). This comes with recognition of the big businesses that dominate the Web, geared towards generating profit from their capacity to monetise user-generated content that has been harnessed, in the context of an expanding information economy. As Terranova (2004) argues, Web 2.0 applications have been designed to capitalize

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[16] For a more contemporary application of the term, see Ritzer (2010)

[17] Axel Bruns (2008: 13-14) claims in the internet age, where access to the means of producing and distributing information is 'widely available', consumers can become cultural producers and distributors, bypassing 'traditional' organisations via peer-to-peer and 'many to many' (rather than 'one to many') communication systems, leading to a new form or model known as 'produsage', a mixture of production and use.

on time spent participating in communicative activity and information sharing. Users upload photos, post links, and provide information about social and cultural tastes which is then used to generate traffic, drive advertising revenue and re-target users with commodities. Whatever stance is adopted, it is clear that the user is playing a central role in today's digitally networked social *and* commercial ecologies. This wider debate about the nature of participation provides the parameters for SNS research to examine both the communicative and democratising potentials of the technology and a set of critical issues that stem from companies' reliance on, and vested interests in, user-generated content.

2.4 Social Media and Social Network Sites

Social media technologies are a key aspect of Web 2.0. The term 'social media' loosely refers to social software services that run on Web 2.0 technologies. Social media technologies promote networked connectivity and create a set of techno-cultural conditions for UGC. Van Dijck (2013) uses the term 'connective media' in a conscious effort to side-step the value laden and arguably misleading term 'social'. Although social media services rely on user participation, it is important to recognise that they are automated socio-technical systems. As van Dijck argues, what is social is actually the result of human input shaped by computed output and vice versa. 'Social' media technologies equate to technical and mediated forms of sociality. 'Social' interactions result in system feedback generating 'data'. Therefore UGC and data[18] can, and should, be considered two sides of the same coin.

SNSs have been at the centre of social media developments. SNSs are social software technologies delivered as a service. These sites have been described as a 'genre' of social media on the grounds that they have a set of recognisable features; they enable account holders to create a personal profile, link that profile with other accounts within the site and traverse in-site connections to varying degrees (boyd and Ellison 2007)[19]. In addition they provide a variety of ways for users to interact with user-generated content and feeds. As digitally networked technologies, they provide the 'techno-cultural' conditions for social media/ted practice (see Langlois 2009). They provide a digitally mediated space for

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[18] Although UGC refers to user-generated content, this thesis includes all forms of content generated by users' interactions with sites, (including interactions with pre-programmed functions) that generate information which can be reproduced in UGC feeds.

[19] Social media services are always evolving and as such the boundaries between social media 'genres' cannot be seen as stable, they are subject to change.

interpersonal communication, for example between individuals and groups, but they also engender wider forms of networked connections between people, businesses, advertisers, organisations and institutions (van Dijck 2013). This last point about the complexity of networked connectivity is extremely important, SNSs often appear as discrete networked services but it is important to recognise that their network reach extends beyond this; they operate as part of wider networked ecologies (ibid), which encompass a range of actors, including commercial actors.

SNSs have been around for over a decade; 2014 marks the ten year anniversary of Facebook. Although these sites have a history of evolution of their own, it is important to recognise that SNSs are an amalgamation and extension of prior social media technologies, including early forms of dating sites such as Match.com, and other popular forms of Internet-enabled communication such as email and bulletin boards. However, looking at the history of SNSs, we can identify several key developments which have shaped the evolution of the genre, including the *personal profile*, *social graphing* (the mapping of indirect social ties and connections) and the *integration of UGC features*[20] (which allow for the production, distribution and consumption of content). SixDegrees is often cited as an early example of a service with recognisable SNS features, the site allowed people to create a profile and list friends. Similarly Classmates is commonly cited as another early example, although Classmates began life as a class directory, it later introduced the signature profile feature. Both SixDegrees and Classmates were built around the *personal profile* and *social graphing*, introducing a new technologically mediated way for people to visually articulate personal connections. The introduction of Friendster marks the development of the basic '*social graph'*, Friendster importantly allowed people to connect with *friends of friends*. In addition to being able to visually articulate friend lists, all SNSs are characterised by features supporting user-generated content and by the characteristic way that they organise this content into user-generated feeds; SNSs provide a set of features for the production, distribution and consumption of user-generated content, whilst also providing users with opportunities for them to directly interact with this content. However such features vary by site and this has important implications for the specific culture of connectivity and social practices engendered (for example some feeds collate user-generated content directly involving account holders

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[20] SNS UGC features can include opportunities for (1), technical and social interactivity (2), the production, distribution, consumption of content and (3), the visual display of 'UGC feeds'.

whilst others are related more broadly to the extended ego-centric network[21]) For a full discussion of the developmental trajectory of SNSs see boyd and Ellison (2007).

Figure 1: A Timeline of SNSs launch dates, sourced from boyd and Ellison (2007)

Launch Dates of Major Social Network Sites

'97 — Six Degrees.com

'98

AsianAvenue — '99 — LiveJournal / BlackPlanet

LunarStorm (SNS relaunch) —

'00 — MiGente

(SixDegrees closes)

Ryze — '01 — Cyworld

Fotolog — '02 — Friendster

Skyblog —

LinkedIn — '03 — Couchsurfing / MySpace
Tribe.net, Open BC/Xing — Last.FM
Orkut, Dogster — Hi5
Multiply, aSmallWorld — Flickr, Piczo, Mixi, Facebook (Harvard-only)
'04 — Dodgeball, Care2 (SNS relaunch)
Catster — Hyves

Yahoo! 360 — YouTube, Xanga (SNS relaunch)
Cyworld (China) — '05 — Bebo (SNS relaunch)
Facebook (high school networks)
Ning — AsianAvenue, BlackPlanet (relaunch)
QQ (relaunch) — Facebook (corporate networks)
Windows Live Spaces — '06 — Cyworld (U.S.)
Twitter — MyChurch, Facebook (everyone)

Whilst SNSs are often classified as a genre of social media, they are a diverse mix of services, offering different modes of networked connectivity; one- and two-way, synchronous and asynchronous, one-to-one, one-to-many and many-to-many (group based). They share basic key features but beyond this they provide a diverse range of interactive features, such as opportunities to engage in mediated forms of conversation, opportunities to create, share and comment on content and opportunities to personalise accounts[22]. SNSs have various

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[21] A current example of the first type is the minified and the latter the newsfeed in Facebook

[22] For example MySpace is known for allowing higher degrees of customisation than Facebook.

registration and access requirements (for example LinkedIn initially has a gated access approach and when Facebook launched, people required an institutional registration to become a member) and SNSs provide an equally diverse range of controls for account and privacy settings. Furthermore, many SNSs are designed in ways which appeal to particular groups and interests. MySpace.com is popular with musicians and music fans, LinkedIn among professionals and Facebook initially among students (although it now has a much broader demographic). Over the years SNSs have evolved and expanded to the extent that some SNSs are now better described as *Web platforms* - Facebook arguably boasts the most extensive Web platform, following the successful introduction of the Facebook 'app' market in 2007. Today, many popular SNSs are large-scale social and commercial ecologies and they have become a standard feature of the digitally mediated landscape[23].

2.5 SNS Research: A Thematic Review

Academic research into SNSs has proliferated over the last decade, growing particularly during the periods between 2005 and 2009. This research analysed SNS through multiple disciplinary lenses and empirically studied SNSs using a range of methods, to examine key trends, issues and debates. At the forefront of this research have been debates about identity, performance, self-expression (boyd 2006, Larson 2007, Marwick, 2005), expressions of online community (Aquisti & Gross 2006, boyd, 2006, Skog 2005), friendship performance and visual displays of connection (Donath and boyd 2004, boyd 2006, Donath 2007, Jeffery and boyd 2006) and social capital (Ellison *et al*. 2005; 2007). Equally important has been research into critical issues relating to privacy and surveillance (Aquisiti, 2005, Aquisiti & Gross 2006, Albrechtslund 2008, Andrejevic, 2005, Barnes 2006, Hodge 2006, Felt and Evans 2008, Fuchs 2009, Papacharissi and Fernback 2007), and more recently, research into data mining and the commercialisation of online social spaces (Bodle, 2011, Coyte and Plybus 2007, Cohen 2008, Fuchs 2012). What follows, is a critical review of key themes in the literature which are deemed the most relevant for this research (1), visually articulated networks (2), representations and re-mediations of identity (3), user-generated content, privacy and surveillance and (4), digital architectures and affordances. The chapter concludes by identifying a gap in the literature; the marginalisation of research into design, in the

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[23] In 2011 it was calculated that over 200 SNSs existed worldwide (Nielson 2011), not including additional social media services and applications with integrated SNSs functions.

context of how people interact with social media technologies in real-time practice. The chapter concludes by explicating how this research aims to address this.

2.6 Visually Articulated Networks

Social life has always been characterised by an interest in the social relationships and the connections between people. Relationships are the basic foundation of human experience and networks map the connections that individuals have to one another. For Sociologists such as Georg Simmel (1955:163), whose Sociology was arguably a precursor to today's social network analysis, 'society arises from the individual and the individual arises out of association'. SNSs have introduced new affordances for forging and expressing social relationships in digitally mediated environments. These can be two-way connections or one-way connections, which are sometimes referred to as followers or fans. Research into SNSs has shown that personal networks on SNSs often overlap with (and in the process, remediate) existing social networks, although this does vary according to site. For example, research by Ellison, Steinfield, and Lampe (2007) examined US students' use of Facebook and demonstrated that the site was appropriated by students to maintain existing offline relationships and solidify newly forged connections. Furthermore, research has shown that SNS interactions and activities are often founded on the norms and values of everyday face-to-face interaction.

Connectivity on SNSs is configured out of the socio-technical affordances of SNSs; the capacity these sites provide for supporting and visualising digitally re/mediated social connections and relationships. Donath and boyd (2004) have argued that the visual character of networks is one of most salient characteristics of this genre of social media. The authors astutely described these sites as '*public displays of connection*' (2004: 72), demonstrating the importance of the specific ways these social media technologies made *visible* the nature of social networks. People derive pleasure from being able to visualise and map out the social connections between people. For Donath and boyd, visible connections are what provide '*social context*'; they enabled people to access information and, subsequently, learn about other people in digitally mediated contexts. The more network connections, the richer the mediated social context becomes. Early on, the authors discussed how public displays of connection helped users navigate the digitally remediated social context, providing key identity signals that enable users to navigate the networked environment. For example, the

visibility of mediated networks and in-site informational cues helped users verify other users' identity and establish the character of another person on a site, for example, on the grounds of reliability or trustworthiness. The public displays of connection provide a social context in which to understand the individual. Similarly, Walther *et al.* (2008) stress the importance of visible 'posts' as important 'tie' signs between users but, in this instance, the authors place more emphasis on the content of posts as opposed to the tie sign itself. Walther *et al.* (2008) consider how awareness of public visibility (versus private communications) affects the nature of the content and the construction of the message. In particular, the authors are interested in the distinctive way in which these environments (re-)mediate friendship (also see Beer 2008). The authors describe SNSs as a hybrid form of communication and question how sustained engagement with sites might impact on people's norms and values and public understanding of public and private forms of communication.

Papacharissi and Easton's (forthcoming) work on social media and the 'habitus of the new' addresses these issues directly. Using Pierre Bourdieu's concept of 'habitus', in the context of his 'theory of practice', Papacharissi considers how norms and practices might be evolving out of the interplay between social media technology and social practice. The article is exploratory, rather than empirical, but serves as an important lens which to consider how technology enabled practices are becoming interwoven into the everyday fabric of social life. Donath and boyd's work provides an early framework to consider how social context is produced in socially networked environments. However, as Papacharissi (2012) notes, it is important to examine how social values, practices and relationships are being iteratively, re-defined through regular use of these sites. This was noted by Beer (2008) in an early evaluation of the evolving SNS research agenda. Beer called on researchers to examine how SNSs were *redefining* the very nature of connections and interactions. Beer called for researchers to examine emerging practices on SNSs in light of the design of specific platforms. He also called for researchers to examine how these evolving practices were being understood by users in practice and ultimately how they were being played out. He argued that this was vital to providing a more critical account of evolving forms of connectivity and interactivity.

In addition to networks as visual social cues, connectivity on SNSs has been explored in terms of social capital. Andreas Wittel's (2001) discussion of network sociality showed immense foresight in this respect, anticipating the potential social capital benefits from

digitally enabled forms of networked sociality[24]. Social capital refers to the value people can acquire from the people they know and the circles that they move in; to those relationships between people that enable productive outcomes (Szreter 2000). It refers to those stocks of social trust, norms, and networks that people can draw upon to solve common problems. The term social capital derives from the work of French Sociologist Pierre Bourdieu[25]. Bourdieu (1985) defined social capital as the benefits that can be obtained from connections between people and social networks, or more specifically, to 'the aggregate of the actual or potential resources which are linked to possession of a durable network of more or less institutionalised relationships of mutual acquaintance or recognition' (Bourdieu 1985, cited in Ellison *et al*. 2011), (also see Putnam 1995).

SNSs have been identified as technologies with the capacity to generate social capital. For Ellison *et al.* (2007) SNSs have re-defined the social practices that are bound up with the generation and appropriation of social capital and the authors examine how use of a SNSs can facilitate social capital gains (Ellison, Steinfield and Lampe 2007, Ellison, Steinfield and Lampe 2011, Ellison *et al*. 2012). Using Facebook as an example, Ellison *et al.* (2007) showed student use of the site was correlated with higher levels of social capital. Social capital is thought to be generated by Facebook through the re-shaping of individuals' social networks attributable to the reduced cost and more accessible mode of communication. SNSs allow people to maintain larger sets of 'weak ties', allowing individuals to make ephemeral connections more permanent by lowering the cost of either maintaining, or re-engaging, weak ties (Ellison *et al*. 2011: 137-138). Research in this area has shown that SNSs can be useful social resources to help people build positive social capital outcomes.

Research into SNSs and social capital primarily focuses on how the technology supports individuals in building, solidifying, and maintaining social networks, to produce capital gains. However, other forms of capital, such as cultural capital, also play an important role in shaping people's interests in, and uses of, SNSs. The interplays between social capital and cultural capital arguably warrant further examination. For example, digital literacy is arguably a form of 'cultural capital', a capital that has the potential to increase people's life chances within particular 'fields' (Bourdieu 1984). How a person understands a technology

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[24] SNSs like LinkedIn are designed intentionally to capitalise on the professional value of social networking.

[25] Social capital was central to Bourdieu's class analysis, interplaying with cultural and economic capital to generate class distinctions and cultural reproductions.

and how a person visualises the possible uses for that technology, along with their skills and capabilities using a technology will shape how they interact within the digitally networked space and build online social networks (for research into SNSs and digital skill see Hargittai 2010). This thesis argues that further research is needed that examines people's *understandings* of social media sites. In particular, how people encounter and understand these sites as digitally mediated spaces for interaction - their understandings of the technology, the perceptions of the uses these sites can be put to and how this relates to their *interactions with sites at the interface.* Research into the interrelations between people's perceptions of the technology, how the technology is interacted with at the interface and how it is put to use in everyday practice has the potential to illuminate why (and to what effect) social media technologies are appropriated in particular ways by particular groups.

Early research documenting the importance of visual displays of connection as a defining feature of SNSs was hugely important in understanding the nature of digitally generated/mediated social context. This early research called attention to the specific ways SNSs re-mediate people's social connections and networks and has proved foundational to understanding a diverse range of research areas and interests. Research which examines the benefits that can be extracted from the visual articulation of people's connections is only one of many examples; research on identity and privacy has been equally concerned with understanding visual displays of connection (see section 2.7 and 2.8)

2.7 Identity, Representations and Remediations of the Networked Self

Identity is a key lens through which to understand social and cultural life. As a concept identity is concerned with social roles, identifications and expressions, it is about social structures, actions and agencies and power relations. Identity is a socially organising concept. As Jenkins (1996:4) explains:

> Identity refers to the ways in which individuals and collectives are distinguished in their social
> relations with other individuals and collectives. […] Identity is concerned with relationships of
> *similarity* and *difference*. Taken together, similarity and difference are the dynamic principles of
> identity, the heart of social life (Jenkins 1996:4)

Identity has a rich theoretical legacy in Sociology; it is thought to have become one of the unifying frameworks of intellectual debates (Jenkins 1996:7)

At every turn, we encounter discourses about identity [...] about change, the emergence of new identities; the resurgence of the old ones and the transformation of existing ones' (Ibid).

Digitally mediated technologies provide new ways of thinking about identity. SNSs are no exception. These sites bring into existence a set of novel, technologically mediated, networked spaces to construct (or co-construct as the case may be) representations of the self, as well as providing mediated contexts for people to manage their identity and social roles. SNSs require that people register themselves with a site; this requires people to fill in personal information to display to others. Users are then provided with various features to connect and interact with other users on the site. It is argued that people perform[26] identity, consciously and unconsciously communicating information about themselves through social cues, which in turn influences how they are perceived by others (Goffman 1959). These social cues can take the form of clothes, gestures, manner, and speech, and can extend to interests, activities or 'tastes' (Bourdieu 1984). On SNSs people generate social cues in a variety of ways. They communicate information through disclosing personal information, such as personal details and self-identifying personal characteristics, for example, likes and dislikes, and through uploading and sharing content. They may also reveal social cues through the very nature of communication itself, such as language and prose. Simply put, through uploading personal details and interacting with others on SNSs, people type themselves into being (Suden 2003) through technically enabled social actions and interactions. As such, SNSs have provided a rich topic for exploring identity.

Various frameworks for thinking about identity on SNSs have been advanced including self-presentation, impression management, performativity, narcissism and micro-celebrity (boyd, 2008, boyd & Heer 2006, Larson 2007, Lui, 2006, 2007, Marwick and boyd 2011, Mendelson and Papacharissi 2011). The profile page has often been the key site for researchers examining 'identity' in terms of both self-presentation and impression management. boyd (2008) was early in identifying the personal homepage (or the profile page as it is commonly known) as a key digital space for users to 'write themselves into being', and in some instances engage in forms of self-promotion. As boyd notes (2006) 'one cannot simply 'be' online; one must make one's presence visible through explicit and structured actions' (ibid). Goffman's (1959) 'Presentation of Self in Everyday life' has been applied to

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[26] Performance relates to 'all the activity of a given participant on a given occasion that serves to influence in any way, the other participants' (Goffman 1959:15)

consider social interaction on SNSs as 'performance'. Bourdieu's (1984) ideas about taste have also informed approaches to SNSs to explain the social signals that are given off when a user displays information about their likes and dislikes and more recently, the concept of micro-celebrity has been used to capture modes of performativity and promotional activity in regards to SNSs (Marwick and boyd 2011).

Many popular SNSs engender 'nonymous', as opposed to anonymous environments[27]. It has been suggested that 'nonymous' contexts encourage modes of self-presentation that are seen to be 'reliable' (Donath and boyd 2004). Facebook is a strong illustration of this point; their 'real name' policy[28] is coded into the design and appropriated in practice. This said, instances of 'identity play' occur. For example, identity being performed in an unreliable and/or inaccurate way has been documented by Marwick (2005), boyd[29] (2006) and Larson (2007). In particular, boyd (2006) argued that Fakesters added 'social texture' to SNSs. This is still the case for SNSs today, for example, anonymous accounts in Twitter play an important part in the networked culture. This said, identity in nonymous SNSs is commonly presented as 'reliable' because the visible social connections and digitally re/mediated social context are built on degrees of 'trust'[30]. This corresponds with Donath and boyd's work on the importance of connections for mediating social context online. However, it is important for research to move beyond binary-like discussions of 'real or fake' when it comes to thinking about identity in digitally mediated environments (or any socially mediated environment for that matter). No profile is 'real'; all users' must *construct* profiles to be present on line (boyd 2008). The point here is that profiles are always digitally mediated *representations,* despite being imagined or seemingly authentic or inauthentic. Even fake accounts are form of self-expression. Moreover, all forms of self-expression are mediated through the engineered technological framework that provides the very conditions for any form of self-expression.

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[27] Nonymous environments are digitally mediated social contexts where people who are connected via the technology are already known to one another.

[28] Facebook rules stipulate that people need to give their real names. The site encourages verifiable 'identities', through the configuration of nonymous social contexts (although there is no formal way for Facebook to verify this).

[29] See boyd's (2006) research into Friendster and 'non-biographical profiles', otherwise known as, 'Fakesters'. Fakesters ranged from overtly fake profiles as well as profiles that tried to preserve anonymity by refraining from offering information and were considered to add an additional layer of social texture to a site.

[30] Larson's (2007) research into Arto, a Danish SNS, documented how people tried to 'out' inauthentic profiles, considering identity play to be a highly 'deceptive' practice. In instances were sites supported cultures of 'nonymity', they were accompanied with social expectations about 'authentic' modes of self-presentation.

Identity is thus co-constructed, emerging in nexus of relations between the technology, the person and the wider social context.

Typing yourself into being is an on-going process but identity cannot be understood simply as an individual's self-performance. Identity goes beyond this; it is also about how other people interpret these modes of self-presentation and respond in an interactive context. Identity is an emergent entity, constituted in the networked space between the individual and society. Identity on SNSs is about the networked *connections* and *interactions* between people. Profile pages are an interesting lens through which to analyse identity because they serve as the 'locus for interaction' (boyd, 2010: 43). The profile page typically archives interactions, resulting in a collective representation of the individual and the social self. Identity as mediated by SNSs needs to be considered as an outcome of social performance; it should not be mistakenly interpreted as an individual expression but understood as an inherently social expression, like that in any other social context, whether mediated by a physical or technological architecture. Mendelson and Papacharissi's (2011) research into Facebook photos illustrate the importance of the social dimensions to presentation and production of the self on SNSs. The authors examined student photo galleries in light of visual performances of the self to reveal how tagging photos and 'commenting' on photos is used to reinforce group identity. They reveal that photos frequently contain overt displays of affection and behaviours that 'play up' to the camera, and reinforce collective exhibitions of friendship. They describe SNSs as 'theatres of personal and collective identity' (ibid). Identity is socially performed on SNSs; validated through the 'conversation of the collective' (Donath and boyd 2004). This is illustrated by the fact that users are not always able to control what other people post about them on a site, they only have degrees of control over their self-presentation. Profiles can be considered '*conversations'* (boyd and Heer 2006), networked connections which inextricably contribute to the shaping of personal representations online. In light of this Larson (2007) prefers to use the phrase 'co-construction of identity' in place of self-presentation in an effort to capture the 'relational' and reflexive' aspects of identity. For Larson, identity is an emergent outcome of performance and interaction with others within the digitally networked social context.

Identity on a SNS is a re/presentation and *a re/mediation*, constructed through routine practices and interactive performances within the technologically enabled 'space'. Identity on SNS must also consider the mediating and shaping role of the technology. This thesis considers SNSs use as social media/ted practice; social practice which is shaped by the

medium in the process of mediation. This was one of the most important points made in boyd's (2006) research – the point that the 'degree' of self-presentation as 'real' in nonymous sites was contingent on both the relevant technological and social factors shaping related practices (boyd 2006) – a point was also explored around the same time by Marwick (2005). Researchers must consider the mediated environment in which identity is configured, in light of the possibilities and constraints for modes of self-presentation. For example, the architectures of SNSs often afford the aggregation of potentially discrete social connections into transferable digital networked spaces, leading to the collapse of distinct social boundaries within these digitally networked spaces (boyd 2011). This 'collapse of context' adds an additional layer of complexity to any straightforward processes of 'presentation' or 'performance' because the boundaries we associate with the physical world, which delineate between particular social contexts (work, family, friends), are not necessarily reproduced in these digitally mediated environments. This has important implications for self-presentation. A user's self-presentation must take into account the potentially diverse connections in their networks (boyd 2006) and the various available settings to manage visibility to networked audiences.

Papacharissi (2011:307) examines this in 'A Networked Self', emphasising the fact that SNSs provide distinct architectural plateaus in which the network self is realised. SNSs are platforms which introduce new and distinct expressive and connective affordances, which have important implications for self-expression. Papacharissi urges researchers to account for the nature of digital 'structures'. Any discussion of self-presentation, or the 'co-construction of identity', must acknowledge the configuring role of the platform through which it is mediated. Although personal profiles grant account holders a degree of control in how they choose to present themselves to others, it is important to remember this amounts to only a 'degree of control'. Codified opportunities for interaction enable and disable, to varying degrees, modes of presentation. As Marwick (2005) reminds us, the specific design features of SNSs can lend themselves to different modes of self-presentation. Moreover, in terms of the 'collective conversation', these are generated by algorithmic processes that work semi-independently to generate (networked) social signals or 'stories' (Bucher 2012). SNSs mediate and frame how users can present themselves and connect and interact with others. This complicates any straightforward view of creative self-expression or performance. It reminds us to treat identity with critical consideration in light of how sites technically mediate expression and connectivity. This problem is amplified when identity transcends multiple

platforms and digitally networked contexts, for example, when different SNSs accounts are linked. Here, identity becomes even more complex as it is reconfigured in the context of platform convergence and networked aggregation. On-going debates about identity remain centrally located on the research agenda, however there is an increasingly recognition that identity must be considered as mediated through wider social, economic and cultural contexts and through the digitally networked infrastructures and codified software services. It must go beyond user practices of self-presentation and consider identity something that is co-constructed by social and technical factors.

2.8 User-generated Archives: Privacy and Surveillance

Throughout history people have recorded their lived experiences, individually, and collectively, as a society, but the unique technological capacity of the internet has revolutionised society's capacity to record social life and cultural expression. The Internet is a combination of different archival technologies (Gane and Beer 2008: 77) that has redefined how information is collected, circulated, stored and retrieved (ibid). Brouwer and Mulder (2003: 6) observe that today 'we do not live in a society that uses digital archives; we live in an information society that is a digital archive' (also see Featherstone 2000). The technical architecture of the Internet coupled with the interactive opportunities afforded by Web 2.0 has been the source of controversy and critical debate over the years. The archives generated by Web 2.0 are typically created through socially mediated forms of practice; for example, social interactions and content sharing practices. Subsequently, scholarly interest into how Web 2.0 enables social interaction and participation has been met with concerns about how (why, and to what effect) this information is generated, stored, accessed and put to use[31]. In Web 2.0, user-generated content is ubiquitous. Vast user-generated archives have emerged from digitally mediated interactions and through content sharing practices on various networked platforms. These archives form a Web of searchable data; user-generated content is embedded in a hyperlinked system which uses keywords and meta-tags to enable processes of 'search and retrieval'. SNSs stand out for generating comprehensive personal and social archived histories. The increasing amount of user-generated content and personal data online has prompted critical debate over who owns this data, how this data is managed, what uses this

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[31] User-generated online archives take different forms, including: knowledge archives such as Wikipedia; video archives' such as YouTube; Photo-archives such as Flicker and Social Archives such as Twitter and Facebook.

data can be put to, and to what effect. Subsequently, concerns about privacy, surveillance and the monetisation of user-generated content have become key issues for SNS researchers.

The architectural affordances of the Internet to store and retrieve data and the increasing value of information are couched in inter-connected debates about late capitalism. The term 'informational capitalism' was coined intentionally to capture the 'coalescence of capitalism with the information revolution' (Webster 2002:102) and theories of the network society provide a lens through which to understand the importance of network flows of information to advanced forms of capitalism (Castells (1996: 200). The implications of this new capacity to store, transmit, retrieve and search data also features in debates about the rise of surveillance societies (Giddens 1993; Lyon 1996). Surveillance has been identified as a growing practice central to the development and management of capitalist enterprise (Giddens 1987:175). For example, Michel Foucault's (1977) work on institutional surveillance identified surveillance as a central practice for modern forms of discipline and control. Foucault called attention to emerging forms of 'panoptic' social life in modern capitalist societies. In today's advanced capitalist societies it is argued that surveillance extends beyond the more formal, public realms, into the more private realms of leisure and culture (Lyon 1994). This is thought to reflect a key shift in capitalist enterprise towards a desire to manage, not only workers but increasingly, consumers (Ritzer 2010).

Web 2.0 has been identified as a catalyst in the expansion of surveillance into everyday social and cultural life. People's interactions and activities are increasingly re/mediated via digitally networked social environments which record, store and archive masses of data and which are increasingly trawled for useful information, often referred to as data-mining, a practice which is used to drive commercial revenue. Moreover, digital forms of surveillance typically happen away from view; background surveillance, data trading and digital profiling is often carried out in ways that are not visible to the everyday user and the implications of how they are used are not always transparent and widely understood. This has triggered a number of concerns about how user-generated content should be stored, managed, shared and used, as well as the need for user to be informed about these activities and educated in how to manage their own data and actives in digitally mediated environments, therefore surveillance is unavoidably bound up with debates about privacy in the digital age.

Privacy has long been an important topic in Internet Studies (Langford 2000, Solove 2008, 2011, Nissenbaum 2010). Privacy is inextricably linked to increasing computing

capabilities to process, store and archive data and to the nature of networked protocols and connections which govern information flows (Galloway 2004). Privacy is a somewhat complex and elusive concept that is frequently used, but equally, understood differently depending on both discipline and *context* (Nissenbaum 2010). Privacy has been defined as the right to restrict access, control or disclose one's personal information[32] and it is conceived of as both a value and a practice. There are many scholars and privacy advocates that maintain and defend the importance of privacy. For them, privacy is considered integral to the production and maintenance for a diverse set of social relations (Fried 1968 in Johnson 2001:120) and it is considered to be essential to the effective functioning of democracy (MacKinnon 2012). In this view, privacy is a social good and needs to recognised and protected as such. However, it has been said that privacy is declining in a digitally networked age and that we are witnessing a move towards an 'age of transparency' (Brin 1999). However, changing privacy practices does not translate into the devaluation of privacy as a value or a practice. Rather it suggests privacy is changing. Claims about the decline of privacy are over-simplistic and often overstated. There are a number of scholars that suggest what is needed is a re-think of privacy altogether, in order to establish what privacy means in a digital age. They maintain that it is unhelpful to talk about privacy as it has been conceived of in the past because it no longer makes sense in light of changing and increasingly digitally networked contexts.

SNSs have been a hot bed for debates about privacy in digitally networked environments. These sites have extensive data storing and sharing capacities and they support networked flows that cross cut physical contexts. Moreover, these sites are entirely reliant on vast amounts of user-generated content. As Papacharissi (2009) explains, without information flowing between individuals, the social network becomes a static or a-social environment. Stutzman (2006) refers to this as the inherent sociality of social network communities. Because of this, SNSs have reignited longer-standing debates about privacy, and they continue to be centrally located in current debates about data ownership, storage and use, surveillance and the increasing monetisation of personal information. Research has critically examined regulatory frameworks and practices regarding governmental and commercial use of personal data available on these sites. Scholars have measured the attitudes of users towards information disclosure, examining their views on the 'semi-public' character of

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[32] For a detailed discussion on different privacy approaches see Fuchs (2011).

personal information (e.g. Gross and Acquisti, 2005; Dwyer *et al*. 2007, Debatin *et al*. 2009, boyd and Hargittai 2010) and privacy management has been investigated in terms of changing privacy expectations and norms (Lewis *et al*, 2008, boyd and Hargittai 2010). Privacy breaches by companies have also received academic and media attention (e.g. the introduction of Beacon into Facebook). In addition, research has examined social forms of monitoring such as 'lateral' surveillance (Albrecthslund 2008), 'participatory' surveillance (Andrejevic 2005) and social surveillance (Marwick 2012), highlighting growing trends in the monitoring activities of users in the context of their own personal networks. Finally, trust in digital environments has been identified as an alternative lens to consider privacy related issues and practices.

Recently, privacy and surveillance on SNSs has been examined through the framework of exploitation in which users' participation in networked environments is considered in light of the wider socio-political context. As Terranova (2004: 75) observes, the Internet must not be viewed as simply a space for escape or entertainment, the Internet (in terms of the Websites, the business models and the user practices that shape it), must be viewed as being 'deeply connected to the development of late post-industrial societies as a whole'. Web 2.0 companies have been quick to recognise that digitally networked social environments are a productive means for targeting and interacting with consumers and social media platforms are quickly becoming embedded in existing commercial ecologies (see Turow 2011). The reliance on user-generated content in a Web 2.0 era, and the high degree of personal disclosure that characterises use of social media platforms, has raised concerns about how people are increasingly subject to governmental, social, economic/commercial forms of surveillance (Fuchs 2009; 2011). The profit-orientated nature of many large-scale SNSs has prompted critical consideration of their commercial nature (e.g. Bodle 2011, Fuchs 2012), and the close relationship between business models, technological design and user practices. Political economy approaches to the study of new media (Fuchs 2009) underscore key issues around corporate monitoring, storing and processing of data, emphasising the asymmetrical power relations that currently exist in these environments. For Fuchs, we are witness to a situation where 'the subjects of communication become objects of information' (Fuchs 2011: 304). Research has shown that users are not always aware of company data sharing practices. Moreover, whilst companies may be required to disclose data sharing practices, it is not always transparent to the user how data is being gathered, stored, shared, sold and put to use. Whilst SNSs offer individual privacy settings which equip the user with a degree of control

over information flows within their networks, many do not (at present), provide settings for how data is stored and used by site administrators and used by third-party organisations for commercial purposes.

Langlois (2009) has written specifically on the increasing monetisation of data in SNSs. She locates her discussion in the framework of 'cognitive capitalism'; a context where immaterial assets such as ideas, social relations and affects constitute the core of new for-profit ventures, as exemplified by popular commercial participatory platforms such as Amazon or Facebook. Coyte and Plybus (2007) and Cohen (2008) consider this an example of 'free' or immaterial labour. Free labour has been defined as the (excessive) activity not typically viewed as work, performed on the Internet that creates value for capital (Terranova 2004:73). Langlois (2009) underscores how for-profit participatory platforms such as SNSs are not simply about facilitating regimes of meaning production and circulation, but also about extracting value out of meaning. For Langlois (2009) participatory platforms invite people to interact and express themselves in these spaces but the management of the data produced by users is managed by the site and needs to be contextualised within the goal(s) of a platform. However, Langlois emphasises the need to be sensitive to the variation in business models and commercial motives of social media platforms. She invites us to consider differences in social media design, noting that Facebook's invitation to users to express themselves in part to produce a large amount of free labour or marketable data is radically different from wanting to produce a repository of the world's knowledge (e.g. Wikipedia).

Privacy and surveillance have also been addressed at a social level. In contrast to the more top down hierarchal view of surveillance and related privacy concerns, the surveillance research paradigm also includes accounts of surveillance practices at the level of users in terms of their activities and interactions, for example emerging trends in 'browsing' and social monitoring in networked environments. For example, Albrechshund's (2008) research discusses what he terms 'participatory surveillance'. Albrechshund's work on surveillance is not concerned with commercial surveillance but with surveillance practices as they take place 'horizontally' across social media networks. His work documents how practices on SNSs reflect a growing social interest in watching others. Albrechshund provides an alternative lens to consider surveillance on SNSs, challenging the view of surveillance as always reflecting asymmetrical power relations; the watchers holding power over the watched. Albrechshund points to the lateral surveillance practices that take place across networks, and highlights social and playful dimensions of peer-to-peer surveillance practices. Andrejevic's (2005)

research also discusses social surveillance, which he terms 'lateral surveillance'. However, lateral surveillance translates to a form of peer-to-peer monitoring. This type of surveillance emphasises how users make use of the archival affordances of SNSs to access information to monitor and keep track of one another. As such, participatory and lateral forms of 'social' surveillance conceive of power relations differently. Albrechshund describes participatory surveillance as something potentially empowering as sites provide spaces for new forms of identity construction and socialising. For Albrechslund, the interpersonal surveillance based activities afforded by sites allow people to engage in new forms of communicative action. The author repositions surveillance as a fundamentally social activity, whereby participatory surveillance takes hold in practice as a voluntary way to engage with others. Conversely, Andrejevic, considers this social practice to be an extension of 'monitoring technologies' being brought into everyday social life (ibid). For him, sites afford extended ways for people to keep tabs on one another in everyday life. This is also echoed in Cohen's (2008) discussion of the political economy of Facebook, which, in part, rests on the valorisation of surveillance; a key part of the business model and a key strategy for maintaining its user-base.

Social media environments are dynamic and constantly changing, and the complex issues around privacy and surveillance remain ultimately tied to the developing architecture of Internet technologies and ecologies and evolving social practices. As such, these issues remain centrally located on the social media research agenda. Despite the wealth of research into privacy and surveillance, there are some areas that remain underexplored, for example, users' understandings of company business models, data-sharing practices and commercially networked ecologies and information flows. The social and commercial sides of SNSs remain in tension with one another and dealing with the 'trade-offs' (Zimmer 2008) that users make in terms of the control they sacrifice over their information through participation remains a key issue to be resolved. Researching people's understandings of sites, their networked connectivity and activity, and account settings at the interface is one possible way to explore these issues.

2.9 Digitally Networked Architectures and Affordances

The architectural design of SNSs occupied a marginalised position on the research agenda until about 2009, subsumed under a wider interest in the active user and specific appropriations of the technology in everyday life. Miller's (2011) book 'Tales from

Facebook' is a recent example of this. Miller's anthropological analysis of Facebook use in Trinidad emphasises important processes of localisation and appropriation in shaping the technology. However, his account of Facebook use largely fails to explore the importance of commercial interests and technological design as a key factor in mediating/shaping use. As such, it falls short in dealing with politics of technology and the implications this has for evolving mediated forms of social practice in Trinidad. However, the specific design of sites and digital architectures more generally, have been recognised as increasingly important in understanding digital forms of social media/ted practice. Thurow and Mroczek (2012) propose that we need to accept a certain materiality to communication technologies, as they unquestionably afford certain communicative possibilities and not others. The digitally networked architectures that mediate networked publics *and* the specific site-specific architectures that mediate SNSs practices have important implications for social media research, for example, with regard to networked connectivity, questions of identity, degrees of participation, and privacy and surveillance practices.

In recent years critical questions about the specific design of SNSs, and the implications of design for emergent social media/ted practice have visibly increased in social media research. Historically, the role of design in computer mediated communication has received attention; for example, Schroeder *et al.* (2003) examined virtual environments and digitally mediated interactions in terms of how virtual spaces were engineered. However, until 2009, these questions had occupied a less prominent position in research on SNSs. Contributions from boyd (2011), Papacharissi (2009; 2011) Zhang (2010) and more recently Langlois (2009; 2012) reflect the increasing interest in the implications of technological design for practice. They add a critical dimension to SNS research that draws attention to how SNSs are (1), configured by wider technological architectures and (2), configured by software engineers and Web designers, reminding researchers that SNSs are part of a wider networked ecology and calling attention to the fact that social media design embodies 'politics' in so far that it reflects strategic decision making and particular interests (Winner 1986). Earlier research had acknowledged the importance of design constraints; however research often dealt with these as ancillary issues, implicitly or somewhat superficially. A turning point on the research agenda can be identified around 2009 (boyd 2011, Papacharissi 2009, 2011), Zhang 2010). Papacharissi (2009) explicitly examines 'the virtual geographies' of SNSs; addressing the implications of architectural design for privacy. Zhang (2010) examined the structural

differences in design in two prominent Chinese SNSs and more recently, boyd (2011) has theorised about the relationship between digitally networked technologies and publics.

Papacharissi's (2009) article 'The Virtual Geographies of Social Networks' provides a comparative analysis of three prominent SNSs, focusing on the underlying architecture and structures of these sites. The author examines how the architectural arrangements of sites 'set the tone for particular types of interaction' (2009:1). Papacharissi examined the symbolic representations of everyday communicative routines created by the sites. The research encouraged examination of design in terms of the balance between the private and public in sites and the different styles of presentation in private-public variations of space. The author describes Facebook as the archetypal 'glasshouse' with a publically open structure. LinkedIn and ASmallWorld are described as supporting 'tighter' spaces, clustered more closely around the taste ethos of the site. For Papacharissi (2009) the architecture of virtual spaces is much like the architecture of physical spaces; it simultaneously suggests and enables particular modes of interaction. Site architecture is understood as the 'composite result of structure, design and organization'. Papacharissi's work illuminates the importance of technological and communicative structures in site design. This research provides some insightful findings, however the research is undertaken solely through the 'lens of the researcher', and as such, is unable to account for how (and why), users encounter, understand and engage design at the user-interface in the ways they do.

Zhang's (2010) investigation into the structural design of SNSs took a similar approach to Papacharissi, analysing two different Chinese SNSs and considered the implications of specific design features for different types of networking behaviours. Zhang's primary focus was on behaviours relating to forms of collective action. Zhang suggests that collective action is related to the crossing of public and private boundaries. The author observes that the Chinese SNS Douban.com and the site Xianonei.com afforded users with different means for privacy control. Zhang argued that this had important implications for how users were able to manage the boundaries between public and private life, which in turn affected the nature of the networked connections forged and the cultures and behaviours it fostered. In particular, the author argued it effected whether (or not) these connections and cultures were conducive to collective action. Zhang puts forward two models for SNSs, relationship-orientated sites

and interest-orientated sites[33]. She suggests relationship-orientated sites foster strong social ties, which result in homogeneity or homophily within social networks (the enclaving of small groups). Whilst homogeneous networks are good at reinforcing the connections in private life, Zhang argues they demonstrate little strength in turning private activities into public ones. In contrast interest-orientated sites privilege the formation of new ties among strangers who share some common interests and are connected as weak ties which act as bridging connections. Whilst Zhang analysed the technical design of sites, she recognised that additional factors contributed to the perceived differences in practices, such as the types of social groups each sites attract. As Zhang (2010) explains, the findings reflect an interactive process between uses of SNSs and site structures. However, this interactive process cannot be simply accounted for by analysing features. Whilst structural features encourage certain patterns of use, people interpret and interact with these sites in different ways and appropriate features in ways that cater to their needs. Further work in this area is required that examines how the design of SNSs is encountered and engaged with at the user-interface in practice, as both a technical and representational frame for communicative action.

In a theoretical discussion of social media architectures, boyd (2011) examined the intermeshing of digital network infrastructures and current networked forms. Following Ito (2008), she discusses the rise of networked publics. For boyd, the emergence of networked publics is tied up with the architecture and affordances of digitally networked media. Papacharissi (2011) attributes the rise in networked publics to the principle and practice of technical convergence which enables multiple and overlapping connections between varieties of distinct social spheres: As Papacharissi (2011) explains:

> The dynamics of new media rest upon technologies of convergence, which collapse boundaries and combine the means through which individuals socialize (convergence of technologies), but also the physical and imagined architectures social individuals traverse (convergence of spaces) and the continuum of activities that shape and are shaped by a converged technological architecture (convergence of practices).

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[33] Zhang argued that Douban took the form of an interest-orientated SNS. This was compared to Xiaonei which took the form of a relationship-orientated SNS. Duban encouraged the formation of new ties among strangers, and enabled the crossing of public and private boundaries which helped to promote collective action. In contrast, Xiaonei, provided effective means for users to control the boundaries between the private and the public, which supported users in fostering strong ties. Subsequently Xiaonei encouraged staying within homogenous groups thus closing down opportunities to cross public and private divides.

Architecture has proved a popular metaphor for discussing digital structures or contexts (see Chapter 4), signalling the structural implications of the organisation of code and networks in the production of digitally mediated environments. Digital architectures, like physical architectures, are the outcome of engineering; they are socially constituted structures with which we engage, and are variably functional in design (boyd 2010:41). For boyd, digital architectures, much like physical architecture, shapes the possibilities, practices and interactions that take place in that environment. As Papacharissi (2011) observes, architecture serves as an important conceptual lens through which to understand structural differences in technology in relation to practice. boyd (2011:46) suggests that digitally networked architectures introduce new affordances for amplifying, recording and spreading information and social acts. This is because digitally networked data is (1), persistent (2), replicable (3), scalable and (4), searchable[34]. More recently, Papacharissi (2011) has suggested a fifth property, 'shareability'; the tendency of networked digital structures to encourage sharing over withholding information. The implications of architectures on an everyday level, is that people using SNSs have to learn to work with the constraints and possibilities of mediated architecture (boyd 2011:55). Boyd's work is crucial in highlighting the relationship between digital environments and social and cultural practices. However, boyd's discussion on architectures and affordances operates at an abstracted level, unlike Papacharissi (2009) and Zhang (2011) it lacks a more nuanced consideration of variation of affordances from site-to-site[35].

Norman's (1988) work on the design of things in everyday life considers how design mediates affordances (full discussion in Chapter 4). Norman illustrates the importance of the specifics of design for making affordances transparent and visible. Applied to SNSs, this would mean examining the micro-affordances of digitally mediated environments like SNSs. It would mean examining the way features of specific social software technologies are coded at the level of the user-interface. Site-specific affordances are mediated and shaped by the wider digitally networked infrastructure (the devices, network connections, software applications in the context of use) but technical affordances exist at different, albeit

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[34] boyd identifies a set of dynamics that result from these four properties including the collapse of physical contexts into traversable networked spaces and the blurring of public and private boundaries (ibid). This in turn has implications for the nature of publics and how people navigate and negotiate them.

[35] Although it should be noted this is addressed elsewhere in boyd's research and was not the primary focus of this discussion. Affordances of sites are mediated through digitally networked infrastructures and the properties that these architectures afford.

interoperable, levels. We can consider user-interface design as an important level at which they are codified in for perception and interaction (see Norman 1998). What is absent from existing accounts is empirical work into how social media affordances are culturally codified and presented at the user-interface and how these are perceived and realised in interaction with the technology. An analysis of the affordances of a SNS should encompass both analysis of site structures and design and analysis of social practice as it takes place in relation to the former. This argument underpins the research and is explored in detail in Chapter 4 and Chapter 5.

2.10 Conclusion: New Directions for Social Media Research

This increasing recognition of the implications of technological design for social media practice has demonstrated the value of investigating structural and semantic elements of SNSs design. In particular, how sites are technologically and symbolically configured for use (see boyd 2009 and Langlois 2009). This research has explicated how technological design shapes current trends in practice, providing an alternative lens through which to think about issues such as network connectivity, identity, and privacy. In recent years, the configuring role of software and questions of digital media design has taken a central place in leading inter-disciplinary research in the field, grounded in broader theoretical discussions about the architecture and affordances of digitally networked technologies, devices, network infrastructure and code (a full discussion is provided in Chapter 4). However there are still some notable gaps in this literature, for example, further research is needed to address how design is encountered and actualised by the user in contextual practice. Critical work on social media design as it is understood and encountered by users would highlight how social practice is configured out of micro-interactions at the interface. It would attend to (1), how people make use of technology as part of their interactional, expressive and sense-making practices and (2), how these everyday communicative practices are structured by technological and semantic elements of design. The nature of the interrelationships between social media design and social practice at the interface remains under-researched. Research needs to examine how design is encountered, understood and experienced at the user-interface in practice. *This thesis develops and employs a unique analytical framework based on idea of the triple articulation* of social media/ted practice which refers to the interrelations between (1), the technical materiality of sites (2), the symbolic coding of sites and (3), the everyday use of sites. This

framework is developed in the following chapters. Chapter 3 provides the foundations for an analytical framework for studying social media/ted practice. This is advanced in Chapter 4 through a consideration of these issues in relation to digitally networked technologies and how this analytical framework would apply to social media.

Chapter 3: Social Media/ted Practice: Towards an Analytical Framework

3.1 Chapter Overview

Web 2.0 has ushered in potential opportunities for technical and social interactivity and participation. The co-constitutive relationship between technological design and social practice is central to understanding the social shaping and re-shaping of today's social media forms. As Winograd (1996) has argued, we should not focus on simply the interaction between the user of technology and their world, or the interaction between the designer of the technology and their materials, rather we should focus on what is most important, the '*interactions between these interactions*'. Research into social media must examine the complex ways in which technologies are configured to enable interactivity, participation and ultimately social practice, in the context of on-going consideration of how they are actively appropriated and configured by users and wider socio-political contexts. With this in mind, further critical research is needed to examine the interrelationships between social media design and social media/ted practice. In particular, research into the interactions between people and social media technology which examines the interpretive and constructive processes involved in 'material interaction' (see Dant 2005). Theories of media/ted practice should be more prominent in Sociological approaches to the media and to Sociological theories of practice in a digital age. Social media/ted practice is a term used throughout this thesis to highlight the process of technical mediation in emerging forms of digitally networked practice on social media sites. This thesis recognises that mediation is part of all forms of media practice, but advances the argument that the nature of mediation in digitally networked environments is distinct in character. This is the result of the particular way that digitally networked media (computational or algorithmic media) shapes practices in the process of mediation – in ways not directly comparable to analogue forms of media such as traditional television or radio. Understanding social media/ted practice is equally important for Media Studies (Couldry 2012). Despite this, when it comes to thinking about studying social media/ted practice, analytical frameworks that give *comparable attention* to the materiality and politics of technological design and the interpretive processes and interactive practices of users, are in short supply. This said, Social Studies of Technology offer important

insights that can facilitate sociologically-informed understandings of social media/ted practice.

This chapter outlines a unique analytical framework based on idea of the triple articulation of social media/ted practice which refers to the interrelations between (1), the technical materiality of sites (2), the symbolic coding of sites and (3), the everyday use of sites. The thesis argues that the triple articulation of social media/ted practice can be examined at the interface. This chapter has two arguments (1), people's interactions with media technologies in everyday life have been largely overlooked in mainstream Sociology and Media Studies and (2), different disciplinary perspectives can be synthesised to provide an analytical framework for researching social media design and practice, at the computer interface. No singular theory can adequately address the research aims. Therefore this chapter provides a critical discussion to justify a theoretical framework for this empirical research. As Wajcman and Jones (2012) argue, some of the most interesting work examining digital media is emerging at the intersections between media/communications studies and cultural theory on the one hand, and Science and Technology Studies on the other. They call for further 'border communication', demonstrating the on-going value of cross-disciplinary communication, theoretically and empirically. This chapter begins with a brief review of key approaches in Sociology and Media Studies which attempt to understand the relationship between media technologies and everyday life. Theoretical shortcomings are identified and the chapter turns to Social Studies of Technology to help to address these shortcomings. The chapter concludes by explicating how these insights will be used to provide an analytical framework for studying *social media/ted practice at the computer-interface*. It is not possible, nor is it necessary, to comprehensively review all theoretical approaches that deal with the relationship between technology and society. In light of this, only key contributions deemed relevant for this thesis are reviewed[36].

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[36] The chapter will not review philosophical approaches to understanding technology because the primary aim is to devise a practical framework for analysing digitally mediated practice.

3.2 Elusive Media Technologies

Technology derives from the Greek 'tekhnologia' a fusion of tekhno- (art) and 'logia' (of reason)[37]. Today, technology is defined as the specific methods, materials, and devices used by people to solve practical problems (Science Dictionary 2009) and the 'totality of means employed by a people to provide the material objects of culture' (Oxford Dictionary 2009). These definitions emphasise technology as a distinctly human creation, the application of rational design to construct useful tools, processes and 'whole socio–technical infrastructures' that give shape to social life (Arthur 2009). Media technologies[38] are those technologies designed to aid the transmission and storage of data/information; they 'mediate' content, communication and information in some form or another. However, as Van Loon (2008:2) observes, we commonly talk about 'the media' with only a vague conception of what this means. Despite popular use of the term media, the technological elements of media systems are not always widely understood. Furthermore, research into media technologies has often been subsumed under the media's more visible social manifestations. Van Loon (2008:4) explains:

> Rather than analysing media as phenomena, media and communication studies have continued to borrow their main analytical frameworks from other disciplines and theoretical cadres. This usually comes in the form of understanding media in service of something else, e.g. power, capital accumulation, ideology, social interaction and popular culture. Furthermore, this servicing has generally been approached as either 'context' or 'consequence', with mediation in-between as 'process'. Media were too often simply treated as the black-box between corporations and consumers.

Couldry (2004) observes a similar propensity in popular discourse where, rather than recognising media as a highly specific and institutionalised means for representing social life and channelling social participation, we speak about them as if they merely channelled information, content and social engagement. For Bolter and Grusin (2000: 5), the invisibility

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[37] Barney (2004: 36) argues the meanings in the Latin term for technology have led to a polarisation in the debate about technology and social life. He notes '*techne'*, lends itself to the view of technology as a tool or instrument of human thought that (in effect) has a life of its own, and '*logos' stresses* technology as the product of human reason or logic; a practice that gathers together a set of people, activities and social relations to produce a material form which then materialises a particular way of life.

[38] A medium is the particular socio-technical means of data storage or transmission. The plural of the term, media, refers to socio-technical assemblages, process and people that afford the storage or transmission of data as they relate to a particular medium e.g. the book, the newspaper, the photograph, film, radio, television and more recently the computer and the Internet.

of media technologies is intensifying, noting that the technological impetus driving the production of media technologies is towards rendering them invisible in interaction. Bolter and Grusin observe, paradoxically, that as media technologies develop and become more culturally pervasive, there is a cultural desire to erase all traces of mediation (ibid). This is a problem, because we need to understand the design of media technologies, and the computational processes involved in mediation[39], to understand media/ted, and media-orientated forms of social practices (see Chapter 4). Mainstream Sociology and Humanities based Media Studies have largely failed to explore the intricate and complex relationships between traditional-analogue media and social practice; they have black-boxed media technologies and they have marginalised theorising about the interactions between people and media technologies. Black-boxing refers to a situation where 'inputs' and 'outputs' are known but the complex workings of a technology remain hidden. This 'black-boxing' has been especially apparent when it comes to theorising about media practices (see Couldry 2012). As Chapter 2 argued, understanding the nature of social mediated practice is central to developing the social media research agenda.

3.3 Theorising Technologically Media/ted Practice: Sociology and Media Studies

> 'The processes that shape our technologies go right to the heart of the way in which we live and organise our societies' (Bijker and Law 1992:4).

Sociologists and Media scholars proclaim that we live in a media-saturated society. These claims stem from the increasingly ubiquitous presence of media technologies in all aspects of social life: work, leisure, communication and entertainment. However, Couldry (2012) observes that until the 1990s, Sociology, Media Studies, and Social Theory more generally, largely neglected theorising the role of the media in everyday life. This marginalisation of the media has its roots in classical Sociology and its interest in the economy, for example, Marx, Weber and Durkheim all dedicated their time to analysing industrialisation and the development of modern capitalism[40]. Classical Sociology generated an early disciplinary bias

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[39] See for example Tartelon Gillespie's (2012) article on the politics of algorithms.

[40] Marx's (1844, 1846) historical materialism is an example of the weight attributed to industrial technologies in early Sociology. Theorising about the relationship between the social arrangements of the time, Marx focused on technological change in the workplace and economic transformation in terms of development of a capitalist 'mode of production'.

towards theorising technologies primarily in production and work-based contexts. This arguably changed in the early twentieth century in light of the Critical Theory[41] of the Frankfurt School (Adorno and Horkheimer 1944[42], Marcuse 1964). Operating in what has been termed, a Neo-Marxist framework, the Frankfurt School analysed the cultural implications of applying 'industrial processes' of production to media content and artifacts for consumption. Their research calls attention to the expansion of Capitalism into cultural terrain as a generative mechanism for the production of everyday life. As Marcuse explains (1964: 154) 'when technics becomes the universal form of material production, it circumscribes an entire culture; it projects a historical totality - a world'.Whilst explicating the political nature of media production, the Frankfurt School failed to empirically examine people's' use of media in everyday life. The turn to media in Sociology arrived in the mid-late twentieth century, informed by the cultural turn in the Social Sciences (see Schatzki *et al.* 2001). The cultural turn represented an important re-orientation of Sociological research towards the study of social and cultural practices in everyday life; the norms, values and routine practices and activities that generate social order. Despite different theoretical orientations, Raymond Williams (1964), Pierre Bourdieu (1977), Michel De Certeau (1984), Giddens (1979), Foucault (1979) and Henri Lefebvre (1991), were part of the 'practice turn' in contemporary theory; they each theorised practice as the basis of social action and order (see Shove *et al.* 2012, Schatzki *et al.* 2001). In particular, Raymond Williams (1964) represents an early attempt to theorise media technologies and cultural forms, which provides the foundations for later thinking into the 'social shaping'[43] of media technologies. Following on from the cultural turn, there has been a proliferation of media-orientated Sociological theories and research into the media in social and cultural life (see for example, Baudrillard 1972, 1983, Bell 1973, Robins and Webster 1988, Jameson 1991, Poster 1995, Lyon 1996, Castells 1996).

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[41] The Critical Theory of the Frankfurt School generated important theories into the political economy of the media and the relationship between society and technology at large. Their legacy extends to inform current critical research programme into the political nature of technologies and technological systems (see for example, Feenberg 1990).

[42] Adorno and Horkheimer (1944) considered the mass media to be exerting a form of technological and ideological domination of cultural life, resulting in the 'standardisation' of culture and the propagation of ideological forms that worked to sustain the expansion of the system.

[43] These ideas are re-expressed in subsequent specialist technology-orientated research programmes e.g. Domestication Studies, an interdisciplinary research programme that set out to analyse technologies in active everyday social practice (Berker *et al.* 2006).

Despite a turn to media in Sociology, Sociology continues to marginalise people's *interaction*s with media technologies as an area of enquiry. These has led to an under theorisation of social media/ted practice; theories that attend to the shaping role of digital mediation in current forms of mediated social practice. As Couldry (2012) argues, Sociological approaches to media have failed to examine the materiality of media technologies in social practice and if the discipline is to move forward, it must start to account for the materiality of 'new' media in current forms of media practice (see Chapter 4). Tim Dant's (2005) work on material interaction is a noteworthy exception; Dant takes a sociologically informed approach to the contextual interactions between people and technologies. His theory of 'material interaction' provides a valuable starting point for thinking about developing a theory of social media/ted practice. Dant (2005:111) uses the term 'material interaction' to refer to the interactions between people and material artifacts. As Dant (2005: 108) observes 'our interaction with the artifacts of modern life (…) depends on the way that they have been intentionally designed for use and it is the meeting of this object embedded intentionality with our own that produces interactions with things'. He acknowledges the materiality of technology but also stresses that forms of material interaction are dependent on socially acquired human skills and cultural contexts. Subsequently, Dant provides a theoretical framework for thinking about the relationship between technology and social life. This informs his empirical research in manual work-based practices which examines people's real-time *interactions* with material artifacts in *contextual practice.*

It would be reasonable to assume that Media Studies has counteracted some of the theoretical shortcomings in Sociology when it comes to the theorisation of media technologies and the relationship between technology and social practice. Ironically, whilst the discipline is committed to intellectual inquiry into the impact of the media in social life, the discipline has tended to under-theorise people's interactions *with* media technologies. Media Studies research is often categorised into three broad areas: media institutions and organisations, media texts and media audiences[44]. Couldry (2012) notes that traditional Media Studies tends to analytically start with media texts, audiences or the institutional structures that are involved in the production of media, rather than with media technologies. In analysing social media/ted practice these approaches independently fall short. Interpretive analysis of media texts and

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[44] Sometimes referred to as 'Production, Texts, and Audience' (McQuail 1994).

more systematic forms of content analysis (e.g. the field of representation studies[45]) are unable able to account for media reception and the media's role in social practice (see for example Dyer 1993; 1997, McRobbie 1978, Radway 1984). As a form of subjective analysis, interpretive approaches attribute too much emphasis to the researcher's interpretation and explanation of a text, as opposed to that of the audience. They tell us little about how texts and technologies are understood and used in everyday life in social practice. Political economy approaches to the media examine the interlocking of political and economic power as a way to analyse cultural production (see for example, Curran and Seaton 1991, McChesney 2008). Political economy approaches to the media attend to critical questions about the politics of media production, for example, the implications of media ownership for media content. However, they have had very little to say about the politics of media *technologies*[46] or about the relationships between institutions, organisations, *technologies and practices*. They fail to provide a close analysis of the nature of everyday technically media/ted forms of social practice; the interactional practices relating to media devices and content and the general uses to which media are put in social life. As Couldry (2012) remarks '[the political economy approach] cannot be the starting point for a media sociology or socially related media theory of practice' (ibid) because it is primarily concerned with institutions and organisations, market trends and business practices and regulatory issues. To some extent, a sociology of media practice shares the 'active audience programmes' commitment to the social actor. The active audience programmes in Media Studies have endeavoured to understand the media's role in culture through efforts to examine how media audiences actively make sense and use of the media as well as shape media content and related media-orientated practice (see for example Cruz and Lewis, 1994, Fiske 1987; 1989, Jenkins 1992, Philo 1990, Morley 1980; 1986). However, in the main, the focus of active audience studies is orientated towards analysing the interpretive practices that *surround media texts*, and they have a tendency to attribute too much weight to the audience in shaping the nature of media practice. Furthermore, they tend to bypass how people interact with *media technologies*.

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[45] Representational theories/studies offer a critique of the media's construction of reality

[46] For research into the politics of technologies refer to Critical Technology Studies, e.g. Feenberg (1990)

The interdisciplinary programme of Domestication[47] Studies, with its strong body of research into the domestication of media and communication technologies, stands apart in this respect. Domestication Studies endeavour to examine the links between technologies and social practices, analysing how technologies are used in everyday contexts. They consider the processes by which people shape a technology and meaningfully make use of a technology in the context of everyday social practice. Domestication Studies scholars are interested in how technologies become embedded in social practice, typically as it occurs in contexts such as the home[48] (see Silverstone and Hirsch 1992, Haddon 1992), in particular how media technologies become embedded in social relationships and everyday routines (Silverstone and Haddon 1996). Domestication of media technologies has played a key role in re-addressing the notable absence of research into media as a technologically focused contextual practice in Media Studies. Its success is based on the advancement of a theoretical framework and research approach that considers the complexity of everyday life in relation to the role that technology plays in its dynamics, rituals, rules, routines and patterns (Berker *et al.* 2006). It has been said that Domestication Studies of media technologies marks an important a move in Media research from 'text' to 'context' (Berker *et al.* 2006: 5).

Through the concept of double articulation[49], Domestication Studies has acknowledged the fact that media are both 'texts and technologies'. The concept of double articulation is an attempt to examine the interplay between media and cultural forms. For Morley and Silverstone (1990: 33), it is the 'acts of consumption (of both texts and technologies) that provide the articulating dimension'. However, this approach is focused primarily on locating media technologies in everyday life by analysing the media as technological objects located in particular spatiotemporal contexts and as texts with symbolic messages located in wider social and cultural discourses (Livingstone 2007). With regard to social media, the technology is a *text,* the graphical user interface presents codified

[47] Domestication as a concept with origins in anthropology and consumption studies, later appearing in media studies to consider the contexts in which information and communication technologies (ICTs) were experienced.(see Haddon 2007)

[48] The focus began with technologies (ICTs) in private spaces such as the home and in the moral economy of the household (see Silverstone *et al.* 1992, Haddon 1992). However, in light of the increasingly mobile and interconnected nature of today's digitally networked media ecology, the programme has expanded to account for a range of different media and communication technologies and contexts.

[49] The concept of 'double articulation' has a longer history in Media and Cultural Studies see for example Hall (1980). It was traditionally employed with regard to text then later applied to study the circuit of culture more generally (Du Guy *et al.*1997).

opportunities for use and appropriation in social context. Furthermore, it *shapes as it mediates forms of social practice* and it textually archives and *represents* social practice at the interface (see chapter 4). The classic application of the double articulation of media technologies falls short in theorising social media/ted practice. Overall, as a research programme, Domestication Studies remains weighted in favour of the reception and active appropriation of media technologies in everyday contextual social practice. The shaping factor of the media in these processes is not foregrounded (see Couldry 2005). Domestication Studies of media, in the main[50], has tended to disengage with critical questions about the materiality of media technology; the specific design of media and communication technologies and the implications this has for practice. Thus the programme is less helpful in providing a framework for media/ted practice; thinking about how the specifics of design predispose (and similarly prevent) particular types of understandings, uses and appropriations – these issues remained side-lined in favour of examining the active user and active processes of appropriation.

The argument remains that in Media Studies, questions of technology have been implicit rather than explicitly dealt with (Van Loon 2008). This is paradoxical since media by their very nature are socio-technical systems; socially engineered technical systems of communication which are embedded in (and generative of) social systems of organisation. Feenberg and Frieson (2012) are concerned that, contrary to growing interest in the technological implications of mediation, Media Studies continues to eschew accounts of technologies, remaining committed to a 'belief in powerful media *representations*, *content* and *institutions'* (2012: vii). The marginalisation of theorising *social interaction* with media technologies and devices reveals a relative lack of concern in Media Studies for media as tools and technological artifacts. As already argued, this 'black boxing' of media (Van Loon 2008, Couldry 2012) has resulted in a lack of theorisation about the implications of the design of media technologies in accounts of media/ted practice. In a Web 2.0 era, characterised by interactivity and user-generated content, the boundaries between production, text and audience are being disrupted, blurred and reconfigured. They are increasingly 'unsustainable' (Couldry 2012: xi). Conversely, the role of the technology is becoming increasingly important as we enter an age of ubiquitous computing. As Couldry notes, in light of this, it is vital that

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[50] There are some notable exceptions, see for example. Silverstone and Haddon's (1996) 'Design and the Domestication of ITCs'.

traditional Media Studies traditions, assumptions and research techniques are re-worked for the digital era. Fresh innovations in Media Studies are needed to account for digitally mediated practice, taking note of digital media's social and technological configurations, forms and impacts.

3.4 The Medium Matters for Social Practice

Marshal McLuhan prioritised questions of the materiality of technology and, more generally, the techno-historical dimensions of mediation. McLuhan famously argued that 'the medium is the message'; emphasising that the way information is delivered has a shaping effect on content, reception and social life more generally. Taking his lead from Harold Innis, he believed, 'the matter in transmission matters'. McLuhan was interested in examining how media is historically connected to social development and social organisation; the spoken word, writing, the pictogram, the alphabet and numbers, are all crucial communications media that have shaped human history in particular ways. McLuhan argued that particular media enhance or amplify aspects of a culture. He was concerned with what a medium makes obsolete or pushes out of use, what it retrieves from the past and how it remediates social and cultural life (Levinson 1998). He considered media technologies to be 'extensions of man' (sic); anything that a person could use to extend their senses and faculties. Some aspects to his work have proved controversial, for example, the binary categorisation of media as either 'hot' or 'cool' (Manovich 2001), this said, his work importantly calls attention to the *interrelationships* between (socially shaped-) technological forms and (technologically mediated-) social life. Although McLuhan has been critiqued for advancing a form of technological determinism, he can be more usefully read as advocating a dialectical view of social reality that explores how technologies are both socially shaped and shaping. For McLuhan, the technological environment which people have created with media, in turn generates the context in which people can make sense of this world and engender their present and future existence. In light of this reading, media are never purely technical apparatus but are always already socially embedded and imbued with particular (human) values[51] (a primary focus of critical theories of technology, see Feenberg 1990).

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[51] Subsequently, whilst is may not have been McLuhan's focus, his work is not at odds with approaches that examine the political nature of media forms.

McLuhan pioneered an approach to understanding media evolution based on human-technological 'interfaciality'; a way to think about how media and social life interface with one another. The concept of the interface remains key to the digital age (Drucker 2011) and is becoming a defining theoretical concept in debates about digitally networked cultures (Galloway 2012, Farman 2012). Subsequently, McLuhan's ideas have been revived in recent years in light of developments in digital networked media, specifically in Internet and Software Studies. There is a renewed interest in how digitally networked media shape information flows and (re) configure spatial environments by mediating people's activities and practices (see Manovich 2001, Galloway 2004). The 'medium is the message' remains an accurate descriptor of the power of the medium to shape information flows. However, the digital medium, characterised by complex networked configurations and technical convergence complicates any straightforward notion of a singular medium[52]. Not only have McLuhan's 'interactive temperatures' of media become hopelessly blurred (Athique 2013:26), it may be the case that in Web 2.0, form (medium) and content (text) cannot be conceptually separated and analysed as was the case with analogue media. There is no simple 'medium' rather there is a media ecology which is configured out of a range of *interfacing* media systems. As well as examining the broader architecture and affordances of digitally networked media (boyd 2011), we must also attend to the complex, interoperable layers of 'new media' and the micro architecture and affordances of sites, for example codified software services that introduce and act as a digital framework for specific affordances for practice (Chapter 4 discusses this in more detail).

In light of digitally networked technologies, Human Computer Interaction (HCI), Software Studies, Internet Studies and New Media Studies have developed with a central focus on media technology, breaking away from traditional Media Studies and calling into question the on-going value of Media Studies in the digital era (See Chapter 4). Lovink (2011) has critiqued traditional humanities-based Media Studies arguing that it has an on-going dependency on 'entrenched' Twentieth Century theoretical paradigms, which he argues, makes it ill-equipped to deal with today's fast paced complex convergent, digital media environment. Lovink urges 'New' Media Studies to divorce itself from traditional Media Studies to endeavour to reach its full potential, calling instead for an interdisciplinary New

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[52] Form (e.g. the structure of the medium, for example, binary code and networks), content (e.g. as software) and content (e.g. as interactively produced text) are embedded in complex interrelationships and circular dependencies.

Media research agenda through increased partnership with computer science and software studies to secure its role (theoretically and practically) as a leading discipline in today's digital world. Traditional Media Studies stands to benefit immensely from interdisciplinary research with New Media and Software Studies which may help its scholars grapple with complex interactions and interdependencies between people and digital media technologies. However, traditional Media Studies still has a lot to offer theoretically. Rather than be divorced from New Media Studies, this thesis argues it should work with New Media and other disciplinary approaches to studying technology in order to advance current understandings of digitally mediated life (See Chapter 4). As McKenzie (2006:2) explains new media are not radically different or disembedded from more traditional media, but are intimately interconnected with older media, older institutions, places, spaces and forms of sociality.

3.5 Social Studies of Technology: Implications for Theorising Social Media/ted Practice

Social Studies of Technology has always taken the *interactions* and *relationships* between people and technology to be its primary focus. Social Studies of Technology (SST) ensured technology re/emerged as a focus on the Social Science research agenda in the 1990s (Hutchby 2001). This 'Turn to Technology' in the Social Sciences (Woolgar 1991) was signalled by two publications; (1) the 'Social Shaping of Technology' (MacKenzie and Wajcman, 1985) and (2), The Social Construction of Technological Systems (Bijker, Hughes and Pinch, 1987). In the context of Science and Technology Studies[53](STS) and the Sociology of Scientific Knowledge (SSK)[54], these two publications carved out an intellectual approach to technology now known as the Social Construction of Technology (SCOT). They applied the principles of SSK to the study of technologies to illustrate the inherent social shaping of technologies. Whilst SST does not take media technologies as its primary focus, it offers a range of theoretical insights that help us to think about digitally media/ted forms of social practice (see Chapter 5). SST foreground the (1), people, processes and factors which shape

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[53] STS is also referred to as 'Science Technology Society'. STS is less relevant for this research. As Wajcman and Jones (2012:1) note, STS research has remained 'closely focused on engineering, industrial machinery and technological systems' (…) media technologies have not featured prominently on the research agenda (ibid), not have the use of technologies in everyday life.

[54] SST has its intellectual roots in the Sociology of Scientific Knowledge (SSK); the study of science as a social activity

media technologies, e.g. in design and in use (serving to highlight the politics of technology) and (2), the materiality of technology; how technology, when taken up in active use, gives form to social life.

3.6 The Social Construction of Technology; Shaping the Medium in Contextual Practice

Any account of media/ted practice needs to acknowledge that technologies are shaped by people in contextual practice. Media/ted practice is shaped by technological design, which itself is shaped in the context of particular social relations and conditions, for example, it is shaped in everyday practice, in the context of the active motivations and uses in everyday contexts, rituals and relationships. In technology studies, social constructivists[55] reject the idea that technologies follow a pre-determined course based on their properties, stressing that technologies have important implications for society, they matter (MacKenzie and Wacjman 1994) but they are always socially shaped. As Bijker and Law (1992:8) explain:

> Technologies do not have a momentum of their own at the outset that allows them to pass through a neutral social medium. Rather they are subject to contingency as they pass from figurative hand to hand, and so are shaped and reshaped. Sometimes they disappear altogether (...). At other times, they take on novel forms, or are subverted by users to be employed in ways quite different from those by which they were originally intended.

Technological determinism offers largely naive accounts of processes of development diffusion and uptake, which fails to address important social shaping factors and processes. Consequently, they lend themselves to uncritical accounts of technologically-related social transformations, offering an oversimplified account of the process by which technologies become embedded in everyday life (MacKenzie and Wacjman 1999). SST argues that technologies do not follow a pre-determined course of development (McKay 1995), rather technological artifacts are socially determined; they are a form of materiality shaped by social processes and people in active practice. In this way, technological trajectories must be understood as configured in wider economic, political and socio-cultural conditions, shaped by the complex ways in which social groups understand and shape technologies in various contexts of practice. People do not simply adapt to technology; they design it, market it, interact with it and appropriate it; they configure technology at every stage of its

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[55] The phrase 'social construction' was first used by Berger and Luckman (1966).

development. As such, development, diffusion and take-up remain contingent on the interplay of economic, social and cultural factors (see Mackenzie and Wacjman 1999; Pinch and Bijker 1984). Unintended outcomes of technological development are an observable illustration of this point.

Trevor Pinch and Wiebe Bijker's (1987) article, 'The Social Construction of Facts and Artifacts', led the way in terms of a social constructivist framing of technology. Social Construction of Technology (SCOT) studied the complex relationships between technologies and the social world by focusing on the *interactional* circumstances in which technologies existed and through which they attain their meaning. Recognising that technologies could not be assumed to have predictable routes into society, or predictable impacts on society, they examined how people take up and use technologies in active, contextual practice. SCOT developed a view of users not as passive consumers of technology but as 'relevant social groups'[56] who are actively involved in the construction of a technology (Pinch and Bijker 1984). This was recognised as one of the first approaches in studies of technology to focus on the users of technology, promoting the maxim that 'users matter'[57] (Oudschroom and Pinch 2003:543). The constructivist turn in technology studies was part of a wider paradigm shift in the Social Sciences concerned with the active social subject in everyday cultural life. In Media Studies and Sociology, social actors were being positioned as highly active agents in the construction of cultural meanings and in their appropriations and use of texts, material commodities and technological artifacts. For example there was increased interest in the active social subject in everyday practices of consumption (Fiske 1989, Willis 1990). However, overwhelmingly, the focus was on how people actively encountered, made sense of, and appropriated media texts, rather than technologies.

In terms of its contribution to a sociological approach to media/ted practice, SCOT draws attention to two key elements in the course of technological development. Firstly, they introduce the notion of 'interpretative flexibility'. This captures the openness to the processes of technological design and it highlights that outcomes are dependent on the social circumstances of development, and urges us to examine how technologies emerge out of

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[56]Relevant groups refer to members of a certain social group who share the same set of meanings, attached to a specific artifact (Pinch and Bijker 1987, 30).

[57] Although not dealt with directly in this discussion, feminist research has been important in deconstructing the designer/user divide and the divide between the production and consumption of artifacts (Wajcman, 2004: 46).

contextual 'inter-group' negotiations. Secondly, SCOT alerts us to mechanisms and processes of closure and stabilisation. SCOT draws attention to the role of technological frames and closure mechanisms which work to frame interpretive flexibility over time[58], as predominant meanings and uses emerge. SCOT reminds us of the importance of examining how technologies are encountered and interacted within *contextual practice*. This said, by restricting analysis mainly to 'relevant' or professional social groups that had an interest in the technology, SCOT neglected to pay attention to those who have no voice in the process of shaping it but are affected by its design (see Winner 1993, Williams and Edge 1996), for example, 'everyday users'[59]. This research takes seriously the impacts design has, once stable uses emerge and the technology is integrated into everyday practice. SCOT, despite expounding how technologies arise, ignored the consequences of technologies thereafter, failing to address how technologies matter in wider contexts (Winner 1993), for example, as continuing to shape the fabric of everyday life. It was Domestication Studies that shifted focus onto everyday use of technologies in everyday social contexts, offering important insights into people's day-to-day practices with regard to media technologies. Lastly, SCOT was largely uncritical of processes of social shaping. As Williams and Edge (1996) explain:

> Simply establishing that technologies are 'socially shaped' leaves open many important questions about the character and influence of the shaping forces. It is necessary to go beyond simplistic forms of social determinism and start to examine the complex reality of processes and practices that mediate between the determining character of technologies and social appropriation.

The programme failed to engage in moral discussions about the politics and ethics of technology in the longer 'duree', once they had become embedded in social life (see Winner 1986). This thesis addresses this shortcoming, for example, by taking seriously the commercial business models that inform design and acknowledging that technologies have an important materiality. As Winner (1993) remarks, we cannot have technology without some measure of technological determinism and without ceding some human autonomy to the technology as the intended choice of human actions. Any theory of media/ted practice needs

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[58] Interpretive flexibility is characteristic of early stages in design and use and is thought to diminish as a consensus emerges around a technology and it begins to stabilise.

[59] SCOT tended to see relevant groups as equal and conceive of a situation in which all relevant social groups are present in the design process thus side-lining end/everyday users. In doing so it did not adequately attend to power asymmetry between groups.

to constantly address the competing interests of different groups and stakeholders (Fuchs 2009, 2012). In thinking about media/ted forms of social practice, it is important to attend to (1) the materiality of technology and (2), the politics of technological artifacts.

3.7 Social Media/ted Practice: Socio-technical Networks and Distributed Agency

Any consideration of social media/ted practice needs to account for the materiality of media technologies. In SST, Actor Network Theory (ANT) has endeavoured to attend to questions of materiality and distributed power, structure and agency in socio-technical systems. ANT explains social order through the *networks* of connections between human agents, technologies and objects (Couldry 2004). ANT offers a distinct perspective on 'technology'; it analyses the construction of *networks of actors*, both human and non-human. It attempts to transcend the distinction between the social and the technical by asserting their indissolubility, as Latour (1991: 110) explains, 'no one has ever seen a social relation by itself […], nor a technical relation'. In light of this perspective, ANT claims to avoid the twin pitfalls of technologism and sociologism. For ANT, what counts as a person is an effect generated by a network of heterogeneous, interacting, materials. Latour (1991: 110) explains, '[in society] we are never faced with objects or social relations; we are faced with chains which are associations of humans...and non-humans'. Social actors are never located in bodies alone, but are situated and acting in the world as part of heterogeneous networks, which are in part constituted by 'actants'; material artifacts and technologies that 'act' alongside human beings in the world. For example, a person opens the door, but the door may also have a mechanism built in to close itself, independent of the person using it. Algorithms provide a good example with regard to digital networks. Algorithms work semi-independently of people. They organise data according to certain codified logics (see Chapter 4). The suggestion that there is a degree of symmetry between humans and non-humans has proved to be controversial (see Pickering 1993, Kaptelinin and Nardi 2006[60]). However, this is precisely why ANT is valuable; it provides a unique perspective on the relationship between technology and society that locates agency in a network of relations, rather than attributing it solely to social actors. ANT offers a distinct view of actors which extends to include material artifacts and technologies because of their capacity to exert control beyond human use. For a theory of

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[60] For a discussion on the distinctiveness of human agency see Kaptelinin and Nardi (2006: 243-245)

social media/ted practice, we have to consider that media are a shaping force, automation is built into technologies and 'control' is distributed within the networked system.

In the digital era, the concept of networked relations is central to understanding social organisation (see Castells 1996; 1997; 1998). Networks can be defined as 'emergent structures of interconnected nodes' (Castells 1996), digital networks are configured out of binary codes, hardware and software and wired/wireless-networked infrastructures, which become socially meaningful when embedded in social practice. It is a logical step to consider 'new' media as a complex heterogeneous network made up of social and technical nodes. For example, social media technologies are technically and socially shaped; by technical infrastructures, material and built in affordances and people. These services are codified to enable/disable actions and interactions and direct information flows and complex algorithms operate to organise and (re)present user-generated content. Therefore, social media/ted practice is configured though the interactions and feedback loops between social groups and technological actants. Facebook and Twitter are, in effect, heterogeneous networks based on complex interfacing relations between people and technologies (Langlois 2009).

Despite the relevance of ANT for understanding media systems, there has been little work in traditional Media Studies that draws on ANT. Couldry (2004) addresses this gap in 'Cultures of Connectivity', where he argues that mainstream media scholars have tended to overlook analyses of socio-technical networks. For Couldry (2004), the contribution of ANT is the insistence on the necessary hybridity and lasting asymmetries of 'social relations'. He sees this as a valuable antidote to the self-effacing, naturalising potential of media discourse in Media Studies. For Couldry, the perspective of ANT offers a unique way to examine issues of media power, fixed on the materiality of flows to and from media institutions, and to audiences. For Couldry, this is a valuable addition to the existing work on media technologies and the spatial dimension to media power.

Not all Media scholars agree with Couldry's position. Roger Silverstone considers ANT as largely unhelpful for understanding socio-technical media systems (Couldry 2009). Silverstone upholds a disciplinary commitment to human agency, and prioritises the need to analyse, first and foremost, the actions and intentions of people as agents, rather than how they are configured and contextualised by 'networks'. Silverstone argues that whilst networks tell us how actors are positioned in networks, they do not tell us about the dynamics of action; agents' interpretations of those networks and their resulting possibilities for action. However,

whilst this may be the case, it is argued here research should attend to how human actors are technically positioned in networks and they need to examine how agency is distributed by humans to technologies, whilst maintaining a commitment to the agency of the social subject. It is argued here, that one way this can be achieved is by studying the interrelationships between design and practice at the interface. Silverstone does not give sufficient weight to the importance of material construction, or the semantic structures built into design. For example, social media technologies act as a digital framework that distributes agency between users and the networked environment. Technologies are not neutral. Side-lining critical and normative questions about design results in questions being unanswered about the configuration of media/ted practice. ANT provides an important reminder that media technologies are part of socio-technical systems in which power/agency are distributed and materialised in networks. As such, it demonstrates that empirical questions about use cannot solely be addressed by analysis of appropriation, use in the context of the 'active user'. However ANT often relies heavily on the Sociologist's account of networked agency, rather than users' perceptions and experiences of agency (Dant 2005:81). Pickering (1993) and Couldry (2012) suggest that any media agenda wants to take account of the flow of power in media networks needs to be concerned first and foremost with *practice* and people's lived experiences. Material agency as discussed in ANT is only logical in relation to human practice and activity, because material agency is only intelligible in relation to human practice. As Pickering (1983) explains, human and material agencies are enmeshed in practice. To understand social mediated practice we must understand the interactions that take place at the interface, between social media technologies and users. For this we need to consider how technologies are made intelligible for people to use.

3.8 Codifying Technologies: Implications for Social Media/ted Practice

ANT points to the technical coding of heterogeneous networks. This notion that technologies are coded for use was taken in a different direction by Grint and Woolgar (1997). Here, the authors attempt to understand technologies as codified and configured in interpretive social practice. For Grint and Woolgar technologies can be understood as texts, embedded in (and at the same time constitutive of) their interpretive contexts (Cooper and Woolgar 1994; Grint and Woolgar 1992; 1997). In 'The Machine at Work', Grint and Woolgar (1997) argue that technologies are the outcome of specific readings by their users, strongly challenging any

'essentialised' view of technology. They highlight the fact that the capacity for use of a technology is never transparently obvious and necessarily requires interpretation. Technologies should be treated as texts, they are written (i.e. configured) in certain ways by developers, producers and marketers who set the parameters for users' actions. In effect, these translate into efforts to 'configure the user' (Grint and Woolgar 1991:61), which are embedded in the artifact and then 'read' (i.e. interpreted) by active social subjects who interact with them, within the parameters of their interpretations. This version of social constructivism emphasises interpretive and constructive processes in the social shaping of technology. Moreover, the authors point to a particular form of distributed agency in technological artifacts, which results from processes of encoding and decoding. This approach has the potential to illuminate the processes underpinning how social media technologies become meaningful in practice. It would focus attention to how sites are codified for use with regard to user-interface design. For example, by drawing attention to how machine readable code is made culturally readable for users. It would also focus attention on how they are encountered, made sense of and engaged in active/interpretive practice. Grint and Woolgar maintain that technologies have effects in the social world, but effects are not reducible to the nature of the technology, rather they should be seen as the outcome of an on-going social process involving the interpretation of information and the persuasive attributes of technical capacities (ibid).

To overcome the technical/non-technical divide, Grint and Woolgar use the metaphor of the 'machine as text' on the grounds that the machine (at least in principle) is inherently flexible, from which it is possible to explore processes of construction (writing) and use (reading) of the machine. What is interesting is the way they explore how discursive practices set the parameters around design and use. For the authors, technologies need to be investigated in term of the discourses that surround, uphold and represent them. Foucault's work on 'regimes' of truth alongside his understanding of power and knowledge as indissoluble, inform this standpoint. For Grint and Woolgar the questions 'what does a technology do?', or 'what are the effects of a technology?' are not the most important questions. Rather, the primary question should be 'how do we analyse how technologies gain specific understandings and attributes in social and cultural life?'. They argue that how we come to interpret technologies has an important bearing on how we come to use them. The metaphor 'machine as text' encourages us to think about the textuality of technologies, to consider how it is that technological artifacts acquire cultural meaning and form in everyday

life. In doing this, it highlights how representational processes can mediate functionality whilst also maintaining that people shape technologies through practice. Grint and Woolgar make explicit that practice is discursively framed, reminding us that the social construction of technologies (in terms of techno-cultural encoding and decoding) must also be located in wider social practices, cultural knowledge and discourses. However, treating material artifacts as texts, even metaphorically, presents a number of problems. The authors themselves note that the metaphor is 'counter- intuitive'. Technologies are more than cultural or material artifacts, they can be read and interpreted but they are also used as devices to assist in acting in the social world. Interpretation and understanding of a technology is often a pre-requisite for use but technologies shape the social world in different ways to texts: they constitute it in ways that go beyond representation.

Whilst orientated towards technologies, Grint and Woolgar's work has parallels with Stuart Hall's (1980) work on the encoding and decoding of media texts. Hall's encoding/decoding model depicts (complex processes) of meaning-making with regard to content production and consumption in the mass media. For Hall, the text is the site of complex processes of the production and consumption of meanings. Texts are coded in particular ways to convey meaning, but importantly users have the ability to shape the meanings of the text through 'interpretive flexibility' in the particular way that they read it. People process information differently as mediated through particular social and cultural lenses, or subject positions. Van Loon (2008) has argued that the problem with this approach to media is that, once again, media are reduced to 'cultural tools'. Encoding and decoding is reduced to the work of humans, de-centring and neutralising the role and materiality of the medium. The medium thus becomes obscured, reduced to simply a facilitator of text. The technological dimensions of the mediation process become subordinated to subjective processes of meaning making. Hutchby (2001) has argued a similar point with regard to Grint and Woolgar's work, arguing they run the risk of focusing entirely on the question of representations of technologies, at the expense of questions of materiality. Nonetheless, Grint and Woolgar's framework remains useful for analysing social media design because it can be applied to examine how representational practices at the user-interface can frame functionality for the user.

3.9 Designed Affordances: Implications for Social Media/ted Practice

Hutchby (2001) puts forward the concept of affordance in order to give interpretive approaches to technology more weight on materiality. In 'Technologies Texts and Affordances' (2001) Hutchby credits Grint and Woolgar for opening up ways to understand the key role that humans play in moulding (what seems like) 'natural functions' of a technological artifact. However, he suggests a way for Sociologists to locate the meaningful social reality of technologies by paying attention to interpretive and constructive practices that configure them (Hutchby 2001: 445). For Hutchby, the concept of affordance offers a middle ground between social constructivists' emphasis on the shaping power of human agency and a realist/materialist emphasis on the constraining power of technical capabilities. Hutchby aims to avoid the suggestion that material artifacts are completely 'open forms'. Objects are not reducible to texts, for example, texts are likely to be open to re-interpretation in ways that technologies are not. Technologies have a materiality in what they afford. Hutchby urges us to consider that technologies possess affordances which constrain the ways in which they can possibly be 'written' or 'read'. Hutchby re-introduces an additional degree of materiality into Woolgar and Grint's version of social constructivism. He uses the *relational* concept of affordance as a way to resist infinite cultural variability to reminds researchers that technologies cannot be understood by reducing them to 'interpretative, textual properties but nor are they reducible to essential technical properties' (Hutchby 2001:444). Rather, understanding technologies in everyday life requires consideration of both. The interface is the boundary point between the designer, the technology and the user and offers a rich research site to consider these relational elements of technologies.

The most important characteristic of an affordance is that it is *relational*; it is a relational process that occurs in practice when people act in the context of their environments. As a relational concept, affordances frame, but they do not determine the possibilities for action in relation to a technology or object (Gibson 1979). The Ecological Psychologist Gibson (1979) coined the concept to capture the possibility for action offered by the environment to an animal. He argued material artifacts contain multiple affordances but these only come into existence in a relational context with a living creature. According to Gibson, the affordance of an object is a combination of its substance (objective characteristics) and the ways a living creature perceives it (subjective characteristics) but with equal weight being given to both so that neither of the two characteristics prevails. Perception is vital to the realisation of affordances. This is because the possibilities for action typically have to be

perceived for an affordance to present itself[61]. In instances where they are not, affordances remain latent.

The concept of affordance has, in the main, received little attention in Media Studies and Sociology in terms of thinking about technologically mediated forms of practice, but it has received attention in theorising digitally networked media (for recent discussion on digitally networked affordances, see boyd 2011). Theorising technologies/socio-technical systems and related practice in terms of affordances has significant analytical value. However, applications must be sensitive to a number of important differences between environmental affordances (as originally conceived of by Gibson), and affordances of a technological nature. Although *Technological* affordances are not naturally occurring, they do have a natural materiality, but beyond that, they are engineered in particular ways by people (Norman 1988). Furthermore, because they are engineered by people, they unavoidably reflect various social interests; affordances which are designed into technologies have a 'politics'. They emerge out of the interplays between both the material properties of a technology (its codified features), as they become perceived, acted up and incorporated into practice. To complicate matters further, the concept of perception is extremely complex in human cultures. Perception is embodied, mediated by social and cultural contexts. Understanding technological affordances, not only requires sensitivity to the design process, but also to how people's interactions with technologies are mediated through existing social and cultural frameworks that filter 'perception', simply put how people encounter, understand and interact with technological artifacts. This said, the concept of affordance has been applied in theorising about network publics; in discussions of digital architectures and related social forms (Papacharissi 2011, boyd 2011, Langlois 2009). The concept is used as an explanatory device to account for both the material properties of technologies and their design opportunities and constraints and related social practice. However, because digitally networked media are complex, converging and interoperable socio-technical systems it is difficult to discern and study discrete technologies and their affordances. This said, if applied to a particular cases in point, for example in relation to specific social media technologies, this concept could be used to examine how codified opportunities for interaction in design are perceived and acted upon in interaction in contextual use, for example, at the interface. It could be used to critically examine the implications of social media design for social media/ted practice.

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[61] Perception is usually required for an affordance to be realised. However, affordances can come into existence by accident, in the absence of perception.

Don Norman (1989) notably used affordance to think about Human Computer Interaction (HCI). Norman considered the social production of technical affordances, acknowledging how they are configured in development and design and in perception and practice. In his book 'The Design of Everyday Things'[62] Norman illustrates how socio-technical affordances work, using everyday objects to illustrate his argument. He argued that when designing an artifact or technology, designers have to build in *potentials* for actions and these are considered latent affordances until perceived by a social actor when they become acted upon and incorporated into practice. He shows how designers help people figure out what to do with these objects by making appropriate actions *visible* and *obvious* (he also highlights the complexity of designing affordances by illustrating how designers often fail in their attempts to make use transparent). From a critical Sociological perspective, too much emphasis is placed on the relationship between the technology and the individual and as a consequence, this approach falls short of being able to situate the interactional and relational processes between a technology and an individual in the broader realm of human practice and activity [63](Kaptelinin and Nardi 2006). However, Norman's insights into affordances and design provide important insights that can be appropriated in a critical sociological approach to thinking about social media/ted practice (see Chapter 5). This approach would examine the active social actors in everyday contexts and attend to critical questions of the materiality, politics and ethics of design (Fuchs 2009; 2011, Langlois 2012). Affordances will be used to think about the relationship between technologies and people, between the intentionally technically and symbolically-codified opportunities for interaction in social media technologies and how they are encountered, perceived, acted upon and incorporated into practice at the interface.

3.10 Intentional Design: The Politics of Social Media Technologies

Current forms of social media/ted practice are configured, in part, by technological design. Design as a process is about 'choice' and 'intention'; it refers to decisions made by a range of

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[62] Originally published in 1988 as 'The Design *Psychology* of Everyday things'.

[63] For example, see the use of affordance in Activity theory. Activity theory sees human activities as complex, socially-situated phenomena. Activity theory maintains the focus on the mediation of social activity by artifacts. It attempts to bridge the gap between the individual subject and the social reality by studying both through the mesa level of activity. The unit of analysis in activity theory is the concept of object-oriented, collective, and culturally mediated human activity, or activity system.

designers and stakeholders that are implemented strategically to achieve particular goals (see Chapter 4). Understanding the politics of technology is fundamental to understanding the longer term role (media) technologies play in social organisation. The politics of social media technology refers to the particular decisions that have been taken which reflect particular interests. The view that technologies have a politics advanced the view that technologies embody specific forms of power and authority (see Winner 1986: 1).

The intended choice of human actions is crucial in thinking about the political dimensions of social media design and the implications for social media/ted practice. In his widely cited article 'Do artifacts have politics?', Winner (1986) powerfully underscored the inherent political nature of technologies. He argued that, despite appearing to be autonomous or a determinate social force in their own right, technologies cannot be separated from social, cultural economic and political contexts (ibid). The politics of technology considers who gains from technological developments and who loses (Dant 2005:54) and in turn, how a balance can, and should, be struck (ibid). As critical theory has long argued, the political economy is enmeshed with socio-technical systems; it is also the case that technologies and processes of technological development embody politics. Winner argues that technological design takes place in the context of a set of interrelationships between different institutions, organisations and groups; the result is competing interests relating to the design, development and sustainability of technologies. The politics driving the technical coding of artifacts becomes codified into technologies. Subsequently, particular interests and values become reified in technologically enabled forms of practice. Winner is conscious of the tendency to neutralise technologies, which has the effect of removing them from the public sphere of discussion, of choice, and of politics. As Feenberg (1991: 14) explains:

> Technology is not a thing in the ordinary sense of the term, but an "ambivalent" process of development suspended between different possibilities. This "ambivalence" of technology is distinguished from neutrality by the role it attributes to social values in the design, and not merely the use, of technical systems. On this view, technology is not a destiny but a scene of struggle. It is a social battlefield, or perhaps a better metaphor would be a parliament of things on which civilizational alternatives are debated and decided.

Feenberg's critical theorisation of technology, builds on Critical theory to examine the politics of technologies and technical systems. He endeavours to examine how the interests and priorities of dominant groups reside under the allegedly 'neutral surface of technological

rationality' (Bakardjierva 2005) and, in turn, how technologies work to ensure the systematic domination of certain social groups over others. Furthermore, it has a clear normative agenda; aiming to develop an understanding of how modern technologies and technological systems can be redesigned to adapt to the needs of a freer and more democratic society, which necessitates critical debates about the ethics of specific technologies. Critical theories of technology emphasise the social construction[64] of technology by highlighting processes of social shaping by specific groups. They explicate issues of power by attempting to connect the social shaping of technological development to wider socio-political contexts. Critical Internet Studies applies this framework to digitally networked media, examining how current Internet technologies are interconnected with political economy (Andrejevic 2007, 2009, Fuchs 2009; 2012), this includes analysis of politics of specific platforms (See Gillespie 2010) and more recently, the politics of algorithmic processes (Gillespie 2012) (see Chapter 4). Understanding forms of social media/ted practice focuses on the implications of social media design for social media/ted practice. This approach is interested in critically analysing social media sites in terms of a set of strategic decisions made in design with regard to their observable implications in contextual practice. Whilst it does study the politics of technology from an institutional standpoint, this approach to research should endeavour to couch any discussion of interface design, interactions at the interface, and social media/ted practice in relation to the politics of technology.

3.11 Towards a Theory of Social Media/ted Practice

It has been argued thus far that media technologies are socially shaped, reflecting the needs and interests of various groups, but that media technologies also have a real materiality when embedded in social practice. They work to configure the social world. In thinking about social media/ted practice, this thesis endeavours to avoid extreme determinisms of both kinds; technological and social, but to acknowledge that social media/ted practice is configured by (socially shaped) technological materiality, (socially codified) design structures and active use - this is the *triple articulation of social media/ted practice*. This thesis is driven by an interest in how social media/ted practice is configured at the interface, the point at which technology meets the active social actor. There has been a recent call for further theorisation and research

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[64] Feenberg's (1995, 1999) Critical Theory of Technology has been aptly termed 'Critical Constructivism'.

into media/mediated practice in light of digitally networked media. Couldry (2012) has argued for the creation of a new paradigm in the Sociology of Media which is concerned with 'media practice' in a way which foregrounds questions of the materiality of mediation. Such an approach would draw on established 'practice' paradigms in Sociology, along with a range of insights from traditional Media Studies and New Media Studies. Drawing on Sociology, it would conceive of practice as the basis of social action and order in everyday life. Practice is about regularity of action and patterns, as opposed to chance occurrences (see Shove *et al.* 2012). Couldry (2012: 33) explains that a practice approach to 'new' media is concerned with the specific regularities in our actions orientated towards and mediated via, digitally networked media. A media-orientated Sociology of practice is one concerned with those actions directly orientated to media, the actions that involve media (without having media as their aim or objective) and the actions whose possibilities are constrained by the existence, presence or functioning of media (Couldry 2012: 35). A media practice research programme should include research into the interactions between people and digital technologies in practice. A framework for analysing social media/ted practice would include analysis of the software as simultaneously technology, text and context (see Chapter 4). For example, it would conceive of a social media platform as a technological 'interactive *con/text'*, a micro medium that has been engineered to provide the 'techno-cultural' conditions for active practice (see Langlois 2009).

Tim Dant's (2005) work on material interaction provides a good starting point for thinking about material interaction. It demonstrates the empirical value of analysing the micro-elements of material forms of interaction, explicating how technologies become embedded in practice. Dant's work is committed to recognition of the fact that designed artifacts embody prior intentions inscribed into them, in the context of embodied, contextual practice. His framework also urges researchers to consider the importance of culture in mediating the interaction between a social actor and a technological artifact. Building on Dant's approach to material interaction, as well as insights discussed elsewhere in this chapter (e.g. Grint and Woolgar 1997, Hutchby 2001), we can analytically consider the implications of design for social practice by thinking about studying real-time social media/ted practice, people's interactions with social media technologies, at the interface. This directly speaks to Couldry's (2012:35) call for a Sociology research programme which (1) examines actions directly orientated towards the media (2) actions that involve media and (3) actions whose possibilities are constrained by the existence, presence or functioning of media.

3. 12 Conclusions: Design Matter(s) in Social Media/ted Practice

It was argued in Chapter 2 that social media research has focused overwhelmingly on people's uses and appropriations of social media technology. The interactions between people and social media technologies have been marginalised in accounts of social media/ted practice. Looking at social media/ted forms of practice, locates the medium as a digital structure for active practice, but also involves looking closely at how people actively interact with these technologies. It attends to the relationship between technologies and social life in an 'interface culture' (Galloway 2012, Farman 2012). It is crucial to understand how social media design at the level of the user-interface provides micro-site specific architectures for users, by enabling certain forms of technical and social interaction. Analysing social media practice in relation to interactions at the interface provides an interdisciplinary, integrated approach to social media research, acknowledging that (1), social media technologies are technically and symbolically coded for interaction and practice and (2), they are actively understood and appropriated by users in everyday practice. It aims to examine the importance of the interrelations between the technical materiality of sites, symbolic coding of sites and everyday practice. This thesis refers to this as the triple articulation of social media/ted practice. Analysing interactions with social media technologies at the user-interface allows researchers to examine digital structures (technical and symbolic) as well as consider how agency is distributed between sites and users in these networked systems. Questions regarding how technologies frame and mediate opportunities for interaction will attend to critical questions about the politics of site design (Gillespie 2010). In the digital media age, intense corporate interest in online spaces will be crucial to shaping how the stuff of everyday life is reconfigured. Social media research must consider how identity and sociality are being performed within the possibilities and constraints of SNS platforms.

Through a review of approaches to understanding the media in everyday life with a focus on *media technologies*, this chapter has provided the bases for an analytical framework for mediated forms of social practice. This thesis argues that technology is shaped by relevant social groups in *contextual* practice and that processes of social shaping, unavoidably, reflect the social interests of different social groups. Moreover, technologies have a real, and a codified materiality; control is built into, and distributed in real-time networks among actors in a socio-technical system. Lastly, affordances are culturally codified and presented to users

to be acted upon in practice. This chapter has illustrated that insights from Social Studies of Technology can be called upon to provide a sociologically-informed analytical framework for studying what this thesis terms 'social media/ted practice'. As Wajman and Jones observe, the social shaping and the social construction of technology offer key insights for theorising the distinctive socio-technical character of new media technologies[65] (Wajcman and Jones 2012). The thesis argues studying social media design and practice at the interface can provide a unique lens for social media researches to examine how digitally mediated social forms with specific norms, values and practices emerge and evolve. In conclusion, insights from across Sociology, Media Studies and Social Studies of technology can be synthesised in new ways to formulate fresh analytical approaches to the study of social media/ted practice. This responds to current calls for further 'border communication' (Wajcman and Jones 2012). As Lievrouw reminds us (2012: vii) the Internet is a complex socio-technical configuration, 'a constellation of interlinked and emergent platforms, uses, devices, affordances, and social/cultural resources and relation'.

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[65] See for example, the New Media Handbook by Lievrouw and Livingstone (2006 [2002]) subtitled: Social Shaping and Social Consequences

Chapter 4: Design in Social Media/ted Practice

4.1 Chapter Overview

New media technologies are more than 'material or technological artifacts', they are at once 'cultural material and material culture' (Boczkowski and Lievrouw 2008: 955). Digitally networked media provide people with important resources for culture and everyday practice but they also acts as conduit for interaction and cultural expression; they provide digital architectures which play an important role in re-mediating social practice. It was argued in Chapter 2 that research examining social media design was largely subsumed under the wider rhetoric of participation and interactivity. However, there has been a growing interest in questions of technology and questions of design in social media research. This has taken place in the context of a wider interest into digital-technological infrastructure, or 'architectures' (boyd 2011, Papacharissi 2011), code (Galloway 2004), software design (McKenzie 2006) and, most recently, the importance of algorithms (Bucher 2012, Gillespie 2012). The growing research agenda in this area foregrounds questions relating to the politics of social media and it has begun to critically consider the evolving relationship between design and practice. However, it was argued in Chapter 2 that further research is still needed examining users' understandings, experiences, and interactions with design at the interface, in the context of trends in mediated practice and the politics of platforms (see Gillespie 2010). This chapter provides an introduction to the terms 'design' and 'practice' and explicates how this thesis operationalises these terms in this research, before critically reviewing recent literature that furthers our understandings of the interrelationships between social media design and practice. In particular, it will examine ideas emanating from 'New' Media Studies and Software Studies about architecture, code and algorithms to provide a basis for thinking about the complex relationships between technological design and practice in social media environments. The chapter purposefully focuses on 'design' as a concept, in place of technology, this is an intentional effort to overcome the dualism between the technical and the social by emphasising the *social process* that shapes materiality, in terms of the production of social media as well as its appropriation. As Silverstone and Haddon (1996) explain, technological innovation needs to be seen as a 'process which involves both producers and consumers in a complex interweaving of activities'. This said, this thesis is primarily interested in how design is encountered, experienced and engaged with by users in practice, not 'design practices'. As argued in Chapter 3, this thesis sets out to examine how social

media sites are technically and textually configured in ways that shape user experiences. It is primarily concerned with how design is encountered by users at the computer in active everyday practice. It therefore takes a critical, sociologically-informed approach to user-interface/ interaction design in order to advance understanding of digitally mediated practice.

4.2 Introduction: (Invisible) Design and (Routine) Practice

Bruno Latour (1993:34) has remarked that mediation is both essential to modernity and rendered 'invisible, unthinkable, unrepresentable' within it. This echoes Bolter and Grusin's (2000) assertion that as media environments become increasingly complex and technologically advanced, they are met with a cultural desire to erase all traces of mediation; rendering media technologies somewhat culturally 'invisible'. Paradoxically, 'our culture wants both to multiply its media and to erase all traces of mediation: ideally, it wants to erase its media in the very act of multiplying them' (Bolter and Grusin 2000: 5). As Joe Sparano, a graphic designer for Oxide, remarks, 'good design is obvious, great design is transparent' (Coyier, 2012). The cultural invisibility of digital mediation can be witnessed in everyday use of many digital and social media technologies. Everyday consumers of these technologies are not likely to have specialist knowledge of the complex nature of the design and underlying networked infrastructure; this extends to the business models and data sharing practices of the Internet services they use. Rather, their understandings of technologies emerge within a social and cultural milieu within which they directly encounter and experience and use the technology in social practice.

Digital devices and Internet technologies are common features of everyday practice in the UK. In this context, the everyday user of a technology encounters and evaluates the technological artifact at (inter)face value. For example, people who use social media understand and experience the services based in large part on their routine interactions at the user-interface. The deeper architecture of Internet technologies is somewhat invisible to the non-specialist user and often seemingly unchangeable. This is compounded by a cultural trend whereby technology is evaluated primarily in terms of its perceived use, usability and usefulness. Technologies are typically approached and treated by a consumer pragmatically. Critical questions about design are largely absent at the level of routine use, however, these questions are key to understanding digital media. Manovich (2001) strongly argues that New

Media Studies needs to deal with emergent cultures of software and questions of design: As Manovich (2001) explains:

> The key to the development of self-sufficient theory of software culture, or whatever we want to call it, is taking design seriously. Since in general design is ignored the academy leaves out something like 80% of contemporary culture. If the academy starts taking design seriously – graphic design, Web design, interactive design, experience design, software design and so on, this can also lead to looking in detail at concrete hardware, software and Web apps – analysing their details as opposed to seeing them through the glasses of high theory.

Attending to the role of technological design in shaping social media use is a necessary requirement for understanding media/ted forms of practice. It recognises that social media technologies have material constraints built in and that technologies only have degrees of flexibility when taken up in active social practice. This does not detract from important processes of social shaping but is an important reminder that design matters in practice. As boyd (2012) explains [social media] 'technology doesn't determine practice, but how a system is designed does matter'.

Practice in the social sciences commonly refers to routine types of activity, concerned with regularity of action, social conduct and social order. As such, practice is commonly discussed in relation to questions of agency (see Couldry 2012). There is no singular unified approach to practice theory (see Schatzki *et al.* 2001, Postill 2010), rather there is a body of diverse writings by thinkers who adopt an approach which is loosely defined as a practice approach, these thinkers include philosophers (for example Wittgenstein 1958), social and cultural theorists (Bourdieu 1977, De Certeu 1984, Giddens 1979, Foucault 1977) and theorists of science and technology (for example Latour 1993), (see Schatzki 2001). This thesis defines practice in the context of everyday life as the routine activities that people engage in, the regular action and the typical forms of social conduct that give everyday life a rhythm and a degree of structure - simply put, the regular activities that people engage in that configure social order. Practices are recognised as social, cultural and contextual and indeed political, as they relate to a person specific location in (understanding of and capacity to act in) the social world. Social media/ted practices are those routine activities that involve social media, they are the activities involving social media, the routine interactions orientated towards the sites and the social interactions that are media/ted via social media sites.

In everyday life, people routinely interact with material or technological artifacts; we use technologies in work, we rely on technologies to travel and to communicate. Practices are therefore shaped by the material and technological aspects of any given context. Practices take place in socio-material or socio-technical contexts. Like all material artefacts, technologies and technological systems have implications for everyday practice. A design of a particular technology (or technological assemblage) can enable or disable opportunities for interaction and can encourage or discourage particular appropriations. Technologies have a materiality that pushes back on the social world. It is worth re-iterating that technological design does not determine practice, in fact, design can (and often does) have unintended consequences as it is taken up and appropriated differently in active use. However, the very fact that technologies are *designed* underscores a process of social shaping that occurs in production contexts, whereby intention is encoded into an artifact or system.

Design can mean many things, depending on the context in which the term is deployed. The term 'design' is used to denote a whole range of production practices, from technological engineering to decisions about aesthetics and the use of communicative strategies to convey intended use. For example, in 'Bringing Design to Software', Winograd identifies ten different senses of the verb design. He notes that the primary meaning of design, to is to 'make or conceive of a plan' (1996:107). Here design is loosely understood as intention. As Peters explains, design is conceived of as 'the application of intent, the opposite of happenstance' (Coyier, 2012). This said, it can be done methodically or offhandedly and it can produce unintended outcomes. Winograd (1997:107) describes software design as being concerned with the form and function of a software system and with the structure of the processes that produce that system. By this definition, software design encompasses both software engineering; the formal process of defining specifications and deriving a system out of them and human centred design - design orientated towards the everyday routines and concerns of 'end-users' or consumers. For Winograd, these two aspects of design can brought together under the term software architecture. Subsequently, software design can be understood as concerned with the complex aggregation of various processes and decisions by which software engineers and web designers strategically implement actions to achieve a set of particular goals in the configuration of software architecture (whether these goals are realised or not is a different question). Social media is software delivered as a service and social media design is defined here as those tactical decisions that are made in the production process, both technical and symbolic that work to configure the user's experience.

As argued, the varied appropriations of the term design mean that it is often used to refer to both the planning and production of technologies as well as the communicative mechanisms built into technologies that are intended to 'speak' to the user. Subsequently, Robin Mathews (cited in Coyier 2012), defines design as 'the point where science and art break even'. For Mathews, design is the point at which engineering and technological production meets human imagination and creativity in visual form - to shape the product for consumption. The communicative aspect is of particular interest in this thesis; it is thought to be fundamental in mediating intended technical functionality and conveying cultural meanings about a technology. The communicative aspect of design is particularly important when thinking about social media as it draws attention to the important role that the graphical user-interface plays in communicating technical functionality and cultural meanings about the technology to social media users.

This thesis considers design to be a key point of articulation between technological production, representation and the world of everyday active use and practice. This thesis is concerned with examining social media design through a particular lens; it examines design at the point of product delivered as a service (albeit a product in permanent beta). This thesis does not intend to research design processes and practices. It examines social media design as a technological and representational form that is encountered at the user-interface. The underlying aim of which is to examine design primarily in terms of the specific implications it has for the user; in terms of their interactions with the technology at the interface and in terms of their wider everyday social media/ted practice. Design is used here broadly and conceptually to refer to the cultural coding of site-architecture (coding to communicate functionality) and to the site architectures themselves as a space for technical and social interaction. The primary aim is to analyse key strategic design decisions, and examine their implications for social media/ted practice.

This thesis advances the view that design can be critically studied through the lens of the informed researcher and from the vantage point of the user-interface. This research argues that social media can be analysed through examining the strategic decisions made in the production process that work to 'configure the user' experience (Grint and Woolgar 1997). The purpose of such analysis is not to analyse these decisions in the context in which they are made, but to treat the site itself as the outcome of a number of strategic design decisions that can be subject to analysis. It is also important to note that social media technologies exist as

part of a complex digital media ecology; a digitally networked (interoperable) system. Therefore any consideration of social media design must acknowledge the broader technical architecture on which it operates. Moreover, it should also be noted that whilst design has implications for practice, on-going practice also has implications for future design. Design is a complex, iterative process, continually in conversation with the social, cultural, economic and political world at large. As Silverstone and Haddon (1996) remind us, design and appropriation in practice are two sides of the coin of innovation; use is anticipated in design and design is completed in appropriation and use.

4.3 Digital-Material Structures, Digitally Networked Architectures

Lievrouw (2012: vii) reminds us that the Internet is a 'fundamentally different context and scaffolding for human communication than was ever possible via conventional mass media'. Subsequently, research must attend to the specific technological elements of digital media, at all levels, and the implications of this for digitally media/ted practice (Galloway 2004, McKenzie 2006). As argued in Chapter 2, 'architecture' has become a key concept to describe digitally networked infrastructures; the 'structures' of digitally interactive environments. In line with this, there have been a number of theoretical developments which aim to make the layers of architecture visible for critical examinations, for example, there have been efforts to demystify code, programming and software (Deleuze and Guattari 2005). For scholars such as Manovich (2001), Fuller (2003), Galloway (2006), and McKenzie (2006) code and software are becoming the fabric through which social life is mediated. They argue that code, networks and software play an increasingly powerful part in shaping and constituting the everyday. SNSs can be considered as software delivered as an interactive service across digitally networked structures. Furthermore, as argued in Chapter 2, these sites are becoming a key part of the fabric of contemporary life. As such, understanding code and software and the processes and practices that are associated with it, such as, engineering, programming and use-interface/interaction design, become vital for understanding how SNSs re-mediate identity, social experiences and cultural practices. It is important to remember that when people design software that interacts with people, the effects of design extend beyond the software itself to include the experiences that people will have encountering and using the software in everyday life (Winograd 1996: xviii). Like any other type of technology, code and software are subject to processes of social shaping and cultural coding. However, until

recently, research into digital culture has tended to prioritise the 'end user' and their capacity to shape the technology with regard to how they appropriate it to meet their needs. In response to this there has been a call for further recognition of code, the programming of code and the development of software itself, as inherently 'social' – a product developed in social practice and context (Fuller 2003, McKenzie 2006).

Code's growing importance to the digital era is reflected in a range of theoretical discussions. Code has been described as a cultural logic, a language of representation and a form of control (Galloway 2004) and a socio-technical legal framework (Lessig 1999) and as such it is fast becoming a defining concept in an age characterised by digital technologies. As Berry and Pawlik (2005) explain in 'What is code? A conversation with Deleuze, Guattari and code:

> [code] has become a narrative, a genre, a structural feature of contemporary society, architecture for our technologically controlled societies and a tool of technocracy and of capitalism and law. It is both metaphor and reality; it serves as a translation between different discourses and spheres (…) computer code, code as law, cultural code, aristocratic code, encrypted code.

It is important to state that computer code does not determine practice; however, it does act as a form of digital architecture, shaping digital environments, information flows and opportunities for digital based practice (boyd 2011: 93). Furthermore, code is a set of choices about the fundamental design of the medium, and these choices are necessarily political. Lawrence Lessig (2006) in 'Code 2.0' raises this question, urging researchers to consider how code works to order social practice in digital environments. For Lessig, code 'regulates' digital spaces, acting as a kind of law, in that it determines what people can and cannot do (Lessig 1999:59). As Lessig (2006:20) explains:

> In cyberspace we must understand how a different "code" regulates — how the software and
> hardware (i.e. the "code" of cyberspace) that make cyberspace what it is also regulates cyberspace as
> it is. As William Mitchell puts it, this code is cyberspace "law." "Lex Informatica, as Joel
> Reidenberg first put it, or better, "code is law''.

 Lessig explicates how social, cultural, ethical and legal values are encoded into the very architecture of the Internet, drawing attention to the moral and ethical dimensions of the Internet as a socio-technical system. Lessig (2006:21) argues [we] 'can build, architect, or code cyberspace to protect values that we believe are fundamental. Or we can build, architect, or code cyberspace to allow those values to disappear'. Wajcman (1991) makes a similar

point, she observes that, if we agree technologies are socially shaped (as, indeed, social situations are also technically shaped), they may also be re-shaped for appropriate purposes. This argument can be found in current policy debates and recommendations about commercial practice and Internet privacy, for example, the 2012 US Federal Trade Commission's Report, 'Privacy by Design'. This report highlights the responsibility of firms to be transparent in design about privacy and recommends they build in more effective privacy controls. Lessig's work calls for a critical analysis of code that draws attention to the architectural arrangement of the Internet as both a medium and as a social space. Whilst Lessig's primary concern is the role of code in relation to the Internet at large, however, the argument can be extended to examine the role of software development and user-interface design. Software development and user-interface design also regulates social order and practice in a range of digitally networked spaces.

4.4. Heterogeneous Actor Networks, Agency in Networked Environments

The view that the social world is constituted out of socio-technical networks has been advanced by research programmes such as Actor Network Theory (ANT). As discussed in the previous chapter, ANT proposes seeing the world in terms of heterogeneous networks of actors which involve human and technical nodes with the capacity to 'act in the world'. This position calls attention to power and agency as being *distributed* between engineered and codified technologies and people. Here, technologies have a 'degree' of agency, in that they have a capacity to act in the world, semi-independently of people. In 'Cutting Code' (2006), McKenzie applies this argument to code, viewing code as a form of mediated, distributed agency, as McKenzie explains (2006:19):

> At stake here is an account of software as a highly involuted, historically media-specific distribution of agency. This account diverges from a general sociology of technology in highlighting the historical, material specificity of code as a shifting nexus of relations, forms and practices. It regards software formally as a set of permutable distributions of agency between people, machines and contemporary symbolic environments carried as code. Code itself is structured as a distribution of agency.

McKenzie importantly locates code and software centrally on the Social Science research agenda, highlighting its role in understanding manifestations of structure and agency in the digital world by mediating information flows and enabling and disabling certain types of

connections, interactions and activities. McKenzie's work calls attention to how software both enables and constrains what people can do with it. The role of software as both a constraining and enabling factor in shaping digital practice is also a central feature of Galloway's (2004) 'Protocol: How Control Exists After Decentralisation'. Here, Galloway (2004: 1-80) articulates a similar position to Lessig. For Galloway (2004:244) code is the only language that is executable with regard to digital media, he positions code as the 'first discourse that is materially effective'. Galloway urges us to recognise that within networks, code and protocol are a key form of control. He reminds us that power in the Internet age resides within the technical protocols that make the network connections (and indeed disconnections) possible. Code is thus socially constitutive of (digitally-) material conditions of existence. For Galloway, control is operationalised through protocol which is defined as 'all the techno-scientific rules and standards that govern relationships within a network' (Galloway and Thacker, 2007: 28). Stumpel (2010: 29) has since referred to this as 'protocological control'. Stumpel explains that protocol should be understood as both (1) an apparatus that facilitates networks and (2) a logic that governs how things are done within that apparatus[66].

Galloway treats the computer as a textual medium based on a technological language of 'code'. Interestingly, Galloway suggests that code can be subject to the same kind of cultural and literary analysis as any other language. He argues that codes display their own syntax, grammar, communities and cultures. However, this type of analyses relies on expert knowledge about code, protocol, processes of engineering and the complex interoperable layers of the socio-technical system, and therefore cannot be carried out by someone without a high level of specialist knowledge and experience. However, Galloway's work on protocol does suggests a valuable alternative for researchers to examine code, treating code and software as a type of 'text', which can be subjected to critical forms of computer-network-orientated textual analysis. Galloway's work offers an alternative lens through which to understand digitally networked media. This approach raises important questions relating to how connections between systems and services are forged and opens up lines of enquiry into

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[66] By focusing on control and agency and the enabling /disabling dimensions to code and protocol, Stumpel argues Galloway's work draws attention to spaces for resistance in the form of counter-protocological control, where users can resist code or protocol, or apply it in an unintended way.

how media devices and services are coded to cater to a number of potentially competing demands and interests e.g. market, commercial, technological, legal, social and cultural.

Langlois *et al*. (2009) in 'Mapping Commercial Web 2.0 Worlds' discusses how the design of commercial platforms establishes the conditions within which user-generated content is re-channelled, through techno-commercial networks. Advocating a platform-based methodology, Langlois *et al*. (2009) aim to make visible the ways in which protocols are articulated to channel information in specific ways and thus enact specific economic, legal, and cultural dynamics. They argue that through critical examination of instances of protocological articulations, researchers can map the correlations between protocol and users' control at the interface. Neeverns (2009) and Stumpel (2010) have also looked at code and programmability in relation to issues of control and agency with regard to SNSs. They set out to examine the empowerment of the user within social media environments. Informed by Galloway's work on protocols, Stumpel (2010) observes that social media software interfaces are generally structured around principles which are set up by the programmers and allow the user to only change certain things, while SNSs quite often allow users to personalise or develop the site, the level of interaction is controlled by the site through the set preferences/settings/options/control panels. Moreover, he argues that the vast majority of changes in design can only be altered by those in positions of power; those controlling the software, such as those who reside in the technical department (Ibid). Stumpel shows how predefined options which have been programmed into the site work to control users' possible interactions within the confines of the software. Stumpel, importantly, draws attention to the socio-technical frame of software, and its potential role to shape practice. Van Dijck also makes the point that whilst social media sites are user-friendly, they are increasingly difficult to tinker with (2013:6).

The politics of SNSs are developed further by Langlois (2009) in her article 'The Double Articulation of Code and Politics on Facebook'. Here Langlois argues how publics on Facebook come into being through a specific set of double articulations of code and politics that link and reshape informational processes, communicational constraints and possibilities and political practices in different and sometimes contradictory ways. Langlois puts forward the argument that todays networked publics are being configured though specific techno-cultural conditions. Subsequently, the author argues that research must consider the articulations between the user, the software and the interface in order to enhance current

understandings of code and software in relation to power, capital and control (Ibid). In particular, Langlois points to the power relations between corporate interests and user interests and how these are reflected and negotiated in both design and user practices. As van Dijck (2012:3) notes, 'it is a common fallacy to think of social media platforms of merely facilitating networking activities; instead the construction of the platforms and social practices is mutually constituting'.

The inherent conflict of interest between corporate companies and every day users is a key theme in Critical Internet Research. For example, Fuchs (2009, 2012) and Bodle (2011) argue that SNSs are examples of networked information and social spaces that continue to be used for capitalist accumulation. Web 2.0 companies profit from social media/ted practice by monetising user-data. They create contexts for social interaction that automatically archives user-generated content which can then be mined and monetised. It had been argued that Web 2.0 practices are a digital form of 'immaterial labour'[67] (Coyte and Plybus 2007) because users generate profit for organisations in ways that are financially unrewarded. It involves a series of activities that are not traditionally recognized as 'work'. Immaterial labour is thought to be a widespread feature of post-industrial and Web 2.0 digital economies. The relationship between social practice, technology and the political economy is central to understanding social media (see Peterson 2008). As Peterson argues, 'it is when the technological infrastructure and design of sites is combined with capitalism that the architecture begins to oscillate between exploitation and participation' (Ibid). Taking a normative position on the issues Bodle (2010) identifies a number of ideal values and outcomes of what he imagines a public service social network would look like, these include, interoperability, privacy, transparency, autonomy, participatory design, cultural and linguistic diversity, support for oral cultures and non-technical populations and open-access. However, he observes that the current affordances and specific functions of SNSs include sociability, sharing, interaction, homophily (the enclaving of homogenous groups) social capital and power, and network effects. Whilst Bodle explicates how these systems are socially shaped by people in design and commercial contexts (as well as through interaction and practice), like Lessig (2004) and Wacjman (1991), he maintains they can, and should be, re-shaped according to key values and ethics.

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[67] Lazzarato (1996) defines immaterial labour as an activity that produces the 'cultural content' of the commodity.

The analysis of code and software can yield a number of important insights into digital cultures, for example, commercial drives, digital structures and technologically codified values and ethics, but remain on the periphery of Sociology, being dealt with mainly by Software Studies and New Media Scholars. One reason for this may be the lack of understanding among Sociologists of the technological nature of new media, of software and the complex interactions in software processes (Fuller 2003). Fuller (2003) observes that in order to develop a sophisticated account of the theory of code and software and its role in social and cultural life, a level of specialised knowledge of how software operates is necessary. A similar argument has been advanced by Geert Lovink (2011) to explain a number of oversights in traditional Media Studies in their treatment of digital technologies. Lovink (2011:76-94) argues traditional Humanities based Media scholars lack the specialist knowledge and skills required to engage in theory and practice relating to digital media. Whilst this may be the case, there is the opportunity to theorise about the *interactions between people and software*, from a critical Sociological or Media Studies perspective. Here, the user-interface might provide a good research vantage point. It is argued that a lack of specialist knowledge does not rule out Humanities based approaches to understanding the importance of the design of digital media, rather it should encourage inter-disciplinary research that capitalises on maximising different disciplinary approaches to media to develop a greater understanding of the topic area. Social media technologies have both technical and symbolic components that are inter-connected; there is plenty of reason and scope for inter-disciplinary work to examine the relationships between technical coding of social media software, such as SNSs, and the symbolic, textual and cultural coding of user-interfaces; the cultural/discursive framing of the technology at the interface and in wider public discourse, which works to render the technology meaningful.

In line with Fuchs (2009, 2012) and Bodle (2010), this thesis agrees that research must go beyond analysing SNSs a 'neutral' functional tool, or as simply a resource for the user with regard to how they use it for self-presentation or social capital. Research must start to examine the technology from a critical standpoint. Mainstream Media Studies and Sociological approaches to SNSs have typically been concerned with understanding motivations for use, trends in use and with celebrating the active user. There is a room for future research to expand this by empirically examining the implications of *design in practice*. This thesis adopts a critical, Sociologically-informed, approach to thinking about the structuring role of digital technologies in shaping social practice. It argues this can be

achieved by examining real-time interactions, in the context of data about social media/ted practice. This approach would recognise the importance of the configured aspect of social media/ted practice by technological devices, software design and networked infrastructures. Fuller (2003) has asserted that software studies needs to re-infuse the social, the dynamic, the networks and the political into current understandings of software production, in order to recognise them as socially constructed. The reverse could be true for Sociological approaches to practice; this thesis argues we need to re-infuse the software, the dynamic, the networks and the political into our understanding of social media/ted practice. As Couldry notes (2012:37), Software Studies greatly enhances our current understandings of digital media, but we still need to know how differences at the level of 'programmability' generate important differences at the level of *everyday practice*. For Couldry, Software Studies approaches to digital media bypass the role that cultural representations play in explicit practices of social ordering. What is needed is research that examines how the programmability of digital media relates to everyday practice. This continues to provide a relatively unexplored approach to analysis of digital media that could be advanced by Media Studies and Sociology. This thesis aims to provide one lens through which this can be examined.

4.5 Social Media Contexts: Architectures and Affordances

As argued in Chapter 2, discussions of SNS design has capitalised on two key conceptual terms 'architecture and affordance', more recently, the configuring role of algorithms has received some attention (Gillespie 2012, Bucher 2012). Architecture has been used as a metaphor for social interaction. For Papacharissi, the architecture of virtual spaces, much like the architecture of physical spaces, simultaneously suggests and enables particular modes of interaction. Papacharissi (2011) asserts that 'architecture' can serve as an important conceptual lens through which to understand structural differences in technology in relation to practice.

In Papacharissi's (2011) edited collection, 'A Networked Self', boyd provides a discussion of how the digital enables and constrains possibilities for action in relation to networked publics. The concept 'networked publics'[68] explains how publics today are intermeshed with, and remediated via, the architecture of digital environments. In line with

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68 Publics have always been networked, but following on from Ito, boyd argues they have become increasingly networked via digitally networked media.

arguments emanating from Software Studies, boyd utilises architecture to call attention to the configuration and organisation of code and networks that underpin and give form to digital environments. Digital architectures are structural forces in so far as they shape the possibilities for practices and interactions that take place within them. boyd examines what is afforded by digital infrastructures and interactive environments in terms of how they are both designed and appropriated in variable contexts and in everyday practice. As boyd agued, they are socially constituted structures which are *variably* functional, as they are put to use (2010: 41). Key to boyd's argument is that digitally networked technologies introduce new affordances, in particular, they afford the amplifying, recording and spreading information and social acts. Similar to Langlois (2009) discussion of the importance of the techno-cultural conditions of social media sites, boyd explicates how these affordances reshape networked publics. Networked publics are configured by digital networks, (boyd defines the digital as the configuration of hardware and network infrastructures and the properties of binary code). The properties of digital data afford 'persistence', 'replicability', 'scalability' and 'searchability'. Papacharissi (2011) identifies 'convergence' as a further defining characteristic of digital media, affording multiple and overlapping connections between different social spheres, and adds a fifth property, 'shareability (ibid). boyd (2011:46) remains committed to the active social actor, noting that digital affordances do not determine social practice. Rather she argues that certain affordances emerge *in practice*, in the context of how people learn to work with the constraints and possibilities of this type of mediated architecture. She identifies a set of socio-technical dynamics that emerge in networked publics and have a range of implications for how people experience everyday life, these include the emergence of invisible audiences, the collapse of contexts and the blurring of public and private boundaries (ibid: 49).

boyd's framework for understanding networked publics helps social media researchers theorise about the relationship between social media design and practice. Architecture and affordance (as argued in Chapter 3), do provide explanatory devices which prove useful for thinking about the co-constitutive relationship between the social and the technical in digitally networked environments. In particular, they help to analytically discern key interrelated areas for SNSs analysis; the structuring and mediating role of digitally networked architectures (the infrastructure of the Internet), the specific socio-technical affordances that sites introduce, and the role of the actor in appropriating them in everyday social practice. Subsequently, boyd's

insights mark an important move towards theorising the relationship between social media technologies and emergent social media practices.

There are obvious links between the arguments advanced by boyd and Papacharissi (2011) and those previously discussed regarding the nature of code and software. For boyd and Papacharissi, the architecture of a SNS is the composite result of structure, design and organization, which are all specified by programming code (Papacharissi 2011). boyd's discussion of architectures and affordances represents an attempt to provide a working framework for understanding social media[69]. However, boyd's discussion overlooks additional mediating factors, such as (1), the micro-architectures of sites and the implications of the specific ways they are culturally coded for interaction at the level of the user-interface and (2), the complex interactions between 'software and people' at the interface. It remains unclear how site-specific affordances, which are codified in particular ways for perception and interaction, are acted upon in practice (Norman 1988). A more detailed analysis of the specific architectures and affordances of sites as mediated at the user-interface could address this gap in the literature.

In 2003, Lister *et al*. (2003: 86) called for a research agenda in digital media that recognised that digitally networked social media spaces are produced through the dynamic exchange between a range of enabling/disabling forces and our own experiences of using them, which they observe, is mediated at the interface. Marwick's (2005) work on profiles and specific design structures for self-presentation, Papacharissi's (2009) research into the virtual geographies of SNSs, Papacharissi and Fernback's (2007) discussion on the framing of privacy and Zhang's (2010) structural analysis of SNSs have all gone some way to explicating the technical and symbolic coding of SNSs and its implications for practice. However there is scope for further empirical work in this area. Moreover, there is scope to develop a Sociologically-informed theoretical framework for consideration and examination of these issues. Despite interesting work on strategies for engagement in the context of site design, much of this research bypasses interactional and interpretive processes that take place in real-time, in the context of inter/active practice. Rather the design of sites has all too frequently been examined through the critical lens of the researcher in order discern the implications of design for practice. Whilst this is valuable in its own right, what is not fully understood is

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[69] boyd's theorisation builds on her ethnographic empirical data investigating teenagers use of SNS.

how (and why) design is understood, perceived and acted upon in real-time practice at the user-interface. What is needed is an integrated approach that looks at design in practice, which places emphasis not only on design, but on how the appropriation of social media technologies interpolates with specific understandings of the technology and existing social practice.

4.6 Interface Cultures: SNSs as Technologically Mediated Con/texts

Researching SNSs needs to see these technologies as interactive *con/texts*, technically and culturally codified for interaction at the interface to be appropriated in practice. Social media sites are dynamic and interactive techno-cultural representations of the world and, mediations of the world. In Media and Cultural Studies, representation is used to refer to the use of language, images and codes in everyday life to create meaning. It is a central practice in the 'circuit of culture' (Du Guy *et al.* 1997: 3), in which meanings regulate and organise the conduct of practice (Hall 2001). In digitally networked contexts representations are technically and culturally configured (and configuring) in very important ways, for example algorithmic process organise and present information for users, acting independently from programmers once implemented. It is important to see SNSs both as a technology and as a codified text; texts in the sense that they are technological representations of the social but also texts in the sense that they re-mediate and represent social connections and interactions. In either case, they have important implications for social media/ted practice and social and cultural life more generally.

Because Web 2.0 sites and services are (at their core) constituted out of binary code, in order to be intelligible to everyday users, code must be translated into something that is culturally meaningful (Petzold 2000). Meaning is attributed to software services at various points in its development. Programmers are involved in producing digital structures that are socially and culturally meaningful when they engage in practices from writing and programming code and software development to the later stages of Web design. As already argued, coding and the production of software are social and cultural processes (McKenzie 2006, Fuller 2004). These production processes draw from (and re-articulate) existing cultural conventions, norms and values, by encoding them into technologies they are involved in transforming them over time. Whilst the process of coding and programming remains largely

invisible to the everyday or 'end user', *it is made visible* in its 'final form' at the user-interface (the consumer facing part of a site/service). Here code is (re)presented; translated into signs and symbols ready for to be interpreted and interacted with. Crampton Smith and Tabor (1996) describe the role of the user-interface designer as an artist, whose responsibility is to craft an interface that will 'speak to the user'. SNSs are intentionally designed in ways to be socially and culturally meaningful, meaningful as an interactive text, and meaningful as a social context. SNSs are (re)presentations of the world executed in code and translated into cultural signs and symbols. Like in any medium, a representation refers to the *re*-presentation of aspects of 'reality' such as people, places, objects, events and other abstract concepts (Hall 1997). The social media user-interface *is a representation* of the technological affordances of the software as a medium and it also *generates a representation* of the social, of relationships, interactions and contexts. You add a 'friend' or a 'connection', you 'send a message', 'post a tribute', 'create a group', and 'become a fan'. These are re-presentations of the social world, of existing social roles, relations and practices and activities, which are given expression, form and meaning in the context of engineering and design. Furthermore, social media plays a key role in reconfiguring traditional understandings of context. The architectures of these services provide mediated contexts which mediate social actions and interactions in new ways, reconfiguring our understanding of physical contexts. SNSs are interactive networked con/texts. They are context because they provide a conduit for social interaction and they are text because they meaningfully mediate affordances for users. They are also text in the sense that they re-mediate user-generated content.

In Chapter 3, Grint and Woolgar's novel approach to treating technologies as texts was evaluated. The notion of reading artifacts as texts has a long history in the Social Sciences. The textual dimensions of material/technological artifacts have been dealt with in Anthropology, Sociology and Cultural Studies. For example, Daniel Miller has written extensively about the cultural meanings of 'things'. In Media Studies, members of the Centre for Contemporary Cultural Studies in Birmingham, such as Hebdige (1979) and Willis (1990) discussed at great length how material and technological artifacts are appropriated by youths 'as signs' in the creation of subcultural and cultural identity. However, there has been a tendency within classical Anthropology and Media and Cultural Studies to overemphasis the symbolic or representational role of artifacts and technologies at the expense of the functional role, and their generative material role in the production of social order. This has created a dualism in the way that material and technological artifacts have been studied in the social

sciences. One the one hand there has been research into design and functionality and on the other processes of meaning-making and appropriation in consumption.

Hesmondalgh's (2002) discussion in the 'Culture Industries' may provide an explanation for this. Hesmondalgh asserts that scholars classifying material things as text/artifact/technology must first discern the balance between the functional and communicative features of that artifact (recognising that there is usually an element of both in the mix). He argues, the more communicative the artifact the more likely it is to be considered a text and the more functional the artifact, the more likely it is to be considered an artifact or technology. Hesmondalgh's view of the 'culture industry' is founded on this particular distinction. He defines the culture industries in terms of their role in social life as 'symbolic creators' that are involved in the process of circulating meaning via the production and distribution of text. For Hesmondalgh, the culture industries are concerned with the production of culture as a signifying system, through which (....) 'a social order is communicated, reproduced, experienced and explored' (Williams 1981:13). Consequently, Hesmondalgh does not view software as part of the culture industries, although he does acknowledge some parallels. Paradoxically, Software Studies locate the production and social shaping of software as central to the production of social and symbolic order.

Hesmondalgh justifies his exclusion of software from his account of the culture industries by stating that software is not text. Hemondalgh (2002: 14) argues 'the actual presentation of the software does not take the form of a text... its functional aspects outweigh the very important aesthetics dimensions of design'. However, Crampton Smith and Tabor (1996:40) have strongly argued that we cannot think of the functionality of software as separable from and taking precedence over its appearance - challenging any conceptual separation of technical and textual elements in relation to software. Similarly Silverstone and Haddon (1996) argue that there is a symbiotic relationship between technical and aesthetic innovation. The authors remind us that both new and old technologies are symbolic and aesthetic as well as material and functional objects (ibid). On these grounds the distinction between technologies and texts may need to be reconsidered as social media are interactive con/texts. The balance between the functional and symbolic is increasingly difficult to discern in digitally networked/interactive environments. As Drucker (2011) explains:

The notion of text seems to belong to a bygone media era dominated by print, while what appears on our computer screens are multiple strands of texts, sound-bites and bits, all mashed-up and organized by a range of software modules...In recognition of this, the concept of the interface has come to replace 'text' in discussions of the online environment. However, the interface should not be simply understood as what appears on a computer screen, but rather as a mediator between software processes and cultural representations.

Drucker addresses the relationship between the technical and the cultural coding in relation to digital environments. The production of meaning with regard to social media is an interactive process that takes place at the interface. Here, software as a codified interactive artifact is interacted with and shaped in socio-cultural practice. Drucker argues it is through people's' understandings, interpretations and routine interactions with sites that people actualise, stabilise and materialise the affordances of the technology, giving it social and cultural purpose and meaning. In this context, the interface is a critical site for investigation of the inter-relationships between social media design and social media practice because it is the point where socially engineered design meets the user. As Silverstone and Haddon (1996) remark, studying the interface between design and use can illuminate the interrelationship of industrial and social logics in the innovation of information and communication technologies.

Gane and Beer (2008:53) have argued that the interface has taken on increasing analytical significance as we attempt to understand connections between people and computers and the 'digital' and the 'physical'. The interface is this both a key conceptual tool and a central research site to approach the complex interplays between technologies and social life, between technological design and use. Johnson describes the interface as a kind of translator, mediating between two parties, making one sensible to the other (Johnson 1997:14). The relationship between the technology and the user at the user-interface is one that is characterised by meaning and expression. The interface occupies and enables key points of contact and interaction within a network, the interface is thus simultaneously digital/material, and conceptual/representational, configured out of input and output devices, dialogue structures, use of colour, icons, commands, navigation, graphics, natural language, user support, and multimedia.

Manovich (2001), in 'The Language of New Media', historically locates the interface - he importantly reminds us that all media forms have interfaces and we shouldn't reserve the concept for the computer. Manovich uses the concept of 'cultural interfaces' to highlight the specific ways the digital interface of the computer presents and allows us to interact with

cultural data. He argues that interfaces have become a dominant filter for contemporary culture. Here the computer interface provides us with distinct 'models of the world' (Ibid). Manovich illustrates the nature of the interface as both textual and spatial, a view which is particularly helpful when thinking about social media. As already argued, these environments are known for remediating physical social contexts in new ways through their digitally networked spaces. Moreover, Manovich urges researchers to move away from the view of the interface (singular), in light of how media interface with one another, for example, within one interface there generally another interface internal to it (Ibid). This is certainly an important point when it comes to researching social media, where is there is no singular interface, but rather a number of interfaces such as the digital device, the Web, the site. This is further fragmented into separate interfaces for designers, businesses and users. Simply put, the way people encounter and experience SNSs is not only mediated by access to the site (i.e. the device) but also position in the network (programmer, user, third party developer). Gane and Beer (2008) suggest that, rather than thinking of an interface, we should think about interfaces and consider how they enable flows of information. There are a number of considerations and challenges when carrying out research at the interface (see Chapter 5) but nevertheless, the interface remains a key site for social research.

> For Drucker (2011) new tools are needed to think and examine today's interface culture:

> Because the interface environment is so distinctly graphic (and haptic) in its formal expression (...) I want to suggest that we also need to bring into play a number of other analytic tools – from graphical reading, frame analysis, and constructivist theories of perception -- to flesh out our descriptive understanding of the principles and properties of the GUI space that we refer to with casual familiarity as 'the interface', without really stopping to consider what that space is and how it provides the provocations and affordances through which we cognize our experience of it.

Langlois (2009) takes a similar position. Writing on the interrelationships between technical and symbolic elements in digital networks, Langlois (2009) asserts that in order to understand meaning in digital environments, we need to move beyond analyses of user-generated content and begin to think about and understand the cultural logic of digital environments. Likewise, Boczkowski and Lievrouw (2008: 955) remind us that, 'in no other class of technologies […] are material form and symbolic configurations so intimately tied and mutually constructed'. In Domestication Studies Silverstone (2000: 200) comments on this relationship:

> Media technologies are doubly articulated into the social. Both as technologies whose symbolic and functional characteristics claim a place in both institutional and individual practice, but also, as media, conveying through the whole range of their communication the values, rules and rhetorics of their centrality for the conduct of the quotidian.

Langlois (2011:1) argues that further recognition is needed of how the technical and symbolic work with regard to the social. For Langlois, research needs to get a balance between what users are saying in social media environments with analyses of the conditions within which user expression is possible in the first place. Langlois uses the term 'Semiotechnology' (a term borrowed from Kittler [1997]) to refer to a range of techno-cultural assemblages which work with and through signs to organize the mediations and translations between data, information and linguistic symbols. Langlois endeavours to shift attention away questions of the meaning of user-generated content towards 'the regimes of the production and circulation of meaning'. She also suggests that new analytical frameworks are required that decentre the human subjects from the production of meaning and acknowledge the *techno-cultural* dimensions of meaning. Drawing on Guattari's mixed semiotic framework, she considers the 'interplay between language, cultural practices, representational technologies and non-linguistic, informational processes that together make sense of and organize the plurality of online communications'. As Langlois (2011) explains:

> Semiotechnologies of signification involve software design that shapes a horizon of possibility for users, not so much with regard to what can be said, but rather with regard to how something can be expressed. By extension, they shape the purpose and cultural value of the overall communication process online.

Langlois' line of enquiry is interesting because it focuses on examining meaning in social media contexts in terms of the interplay between language, technology and fields of power. Langlois describes how semiotechnologies encompass techno-cultural processes and constructs that (1), organise the logics through which data becomes meaningful (and which organise meaningful information) and (2), how techno-cultural processes distribute agencies and organise relationships between different categories of communicational actors. Langlois urges social media research to move beyond the categorical division between technology and materiality on the one hand, and discourse, signification and linguistics on the other and look at how they intermesh. This research aims to do this by examining these relationships from the vantage point of the user-interface.

Technology, materiality and representation are formed together within practice. As Lazzarato (2004: 21) explains 'we need to look at relational processes between linguistic activity and the production of a shared world of power relations and a shared field of possibilities'. Langlois (2011) argues that the current challenge for researchers is to try and understand the interplays of linguistic and technological processes that allow for these specific modes, practices and conditions. The primary concern needs to move from the interpretation of content produced on participatory media platforms, to the power relations that characterise these platforms, through which specific modes, practices and conditions of meaning production and circulation can take place. Langlois (2011) calls for a de-centreing of the social subject in social media research and promotes a framework which emphasises the technical and symbolic processes in social media environments and their interrelationships. However, whilst agreeing with the need to de-centre the user in order to critically examine the technology, this does not necessarily extend to de-centreing the user in research. If these techno-cultural processes are in part representational, there is a place for interpretive approaches to understanding the role of design in practice. A Sociological approach to new media should explore interpretive approaches to attend to techno-symbolic structures in terms of how they are encountered understood and engaged in practice (see Couldry 2012). As Winograd (1996: xxii) remarks:

> We should not focus on simply the interaction between the user of technology and his world, or the interaction between the designer of the technology and his materials, rather he argues what is most important are the 'interactions between these interactions' (op-cit), the on-going dialogue between 'design' and 'use'

4. 7 Social Media Technologies: Design, Representation and Practice

It has been argued thus far that technologies are rendered meaningful across both production and consumption/use practices. They are encoded with technical and cultural meaning by various groups and at various points in socio-technical networks. Moreover, it has been argued that the design of social media works, not only as a technical frame but also, as a symbolic frame. Crampton Smith and Tabor (1996:43) remind us that every piece of design carries an aesthetic charge. Moreover, this aesthetic charge always carries intention. As Papacharissi (2009) reminds us, naming is also an exercise in power. The author cites Gunkel and Gunkel (1997:133), who observe that digitally networked media 'will be determined not

only through the invention of new hardware (and indeed software) but also through the names we employ to describe it' (cited in Papacharissi 2009). This logic also extends to the names we give to sites and spaces, to functions and features and the associated practices. Rheinfrank and Everson (1996:64) employ the concept of 'design languages' to describe particular technical and symbolic modes employed in software design (visual and functional) to communicate with the people who use it. They explain that design languages are used to give coherence to artifacts, to provide a narrative *to create and to interpret* things. Subsequently, they play an important role in the unfolding meaning of an object. Design languages are a mechanism by which designers build meaning into technologies, so that technologies express themselves and their meanings to people, people learn to understand and use technologies, technologies become assimilated into people's experiences and practices. However, the interpretation of software is not independent of context. As argued by Fuller (2003) software is inherently 'social'. Crampton Smith and Tabor (1996: 40) explain this point further, observing that design languages operate in the context of existing cultural codes, shared sensibilities, emotional responses and the habitual prejudices that both designer and users bring to it.

Rhienfrank *et al*. (1993) suggest that design languages can be used to develop the core elements of a successful corporate strategy. This underscores the important role design languages play in reflecting the interests and the agendas of influential individuals and relevant groups in the design, development and trajectory of a technology. As Foucault reminds us, power and knowledge are indissolubly linked. For example, Kirkpatrick (2011) describes Zuckerberg's visions for Facebook as a tool that promotes social transparency. This is clearly reflected in the core design, real name policies and the design language of the site, whereby signs, lexical and visual, reflect a commitment towards the language of sharing and connectivity. Design languages have a paradoxical purpose though, they communicate to the user but like any form of representation, they provide only a partial framing. Design languages can also obscure and detract from particular features and functions of a technology or leave them largely underrepresented. Design languages can work to frame a technology in an ideological way, in a way designed to promote the interests of vested parties. As well as being functional, they can operate discursively in the process of communicating to the user. However, it should be said that design languages are only one mechanism that can be employed to make technological artifacts meaningful for users in social practice. Software interfaces are structured around principles encoded by the programmers, they are pre-coded in

particular ways for the user to interact and engage with the technology. Presentational mechanisms such as the hierarchal arrangement of features, accessibility and visibility are equally important in communicating meaning and importance. This research will consider all of these different strategies for culturally coding a software technology at the user-interface.

In social media environments, users can only act in certain ways and change certain things via the user-interface. This has prompted some commentators to describe the user-interface as site of concealed power (Beer and Gane 2008:56). Galloway (2010) provides an illustration of this point noting how the underlying software is only made visible and accessible to particular people and social groups. Galloway discusses how the user-interface is very different to the interface that is available to administrators or those involved in programming and coding. Galloway uses the phrase 'internal-face' to make this point explicit. The internal face is regularly kept invisible to the user, but moves across the medium itself, influencing a user's experience. The user-interface is affected by the interactions with the 'internal face' but these complex back-end processes remain hidden to the everyday user (Ibid). Mark Poster (1996:1) has previously identified the interface as the key site where the work of 'elimination' is done, 'allowing seamless crossings between digital and physical worlds; facilitating the disappearance of the difference between them and thereby altering the type of linkage between the two'. Galloway sheds some light on how this work of elimination is done. He argues that programming code is governed by the logic and rules of continuity, where it is common practice for programmers of digital texts to capitalise on existing public knowledge of iconography to convey meaning. By using familiar cultural conventions, norms and values, software provides potentials for use which are designed into the product to be 'culturally available' for decoding by the users. As a production mechanism, continuity works to help make media technologies feel like extensions of the user. Grint and Woolgar (1991) also provide a conceptual framing for this, in terms of the process of encoding and decoding that takes place with regard to the user-interface which may also help us to understand how social media are textually configured. Galloway himself, considers code as a form of language; a language that can be subject to a form of textual analysis. In line with earlier arguments about the importance of the interface as both an analytical concept and a research sites, Grint and Woolgar and Galloway's work can be used to put forward a strong cases for treating social media technologies, software engineering and design, as creative production and (on one level) text (albeit a technologically interactive one). As Hayles (2004) reminds us 'print is flat, code is deep'. It is logical to conceive of software (in technological terms) as a

type of media text, something that is intentionally culturally codified for interpretation and use. Software expressed at the level of the user-interface can therefore be subject to forms of textual analysis such as feature analysis and textual analysis, to examine the accessibility and visibility of various features and the cultural coding of technical capabilities (see Chapter 5). This is because social media services are configured out of the dynamic interplays between digital-material computational properties, signifying strategies expressed at the level of the interface and people through their mediated social practice. The relationship between these elements can be considered symbiotic (see Hayes 2004:71).

4.8 Social Media/ted Practice: Interacting with Technologies

So far it has been argued that texts are codified in specific ways for interpretation and interaction by users, as they contextually appropriate the technology in their everyday practice. In the Social Sciences, practice refers to a routine type of behaviour which consists of several elements, interconnected to one another, forms of bodily activities, forms of mental activities, 'know-how'- background knowledge in the form of understanding, states of emotion and motivational knowledge (Reckwitz 2002). The practice tradition in the Social Sciences can be traced back to Wittgenstien and Heidigger (for a discussion see Shove *et al.* 2012) however the practice turn in contemporary theory arrives much later, greatly influenced by the Sociology of Pierre Bourdieu (1977, 1990). There are many takes on how practice should be conceptualised in the Social Sciences, but they all emphasize two things (1), that practice is social and (2), that practice is organising. Practice is concerned with the regularity of action, it is concerned with the types of actions and activities people routinely do on a regular basis. Practice is a social activity concerned with how people coordinate the very activities that constitute their everyday lives. Practices are not bundles of individual idiosyncrasies; they are social constructions that carry with them a whole world of capacities, constraints and power.

Couldry (2012) argues that the concept of practice is central to the future of digital media studies because it usefully translates hype about a digital revolution into more concrete questions. For example, what types of things do people do in relation to media? And what types of things do people *say* (think/believe) in relation to media? A Media Sociology of practice is interested in actions that are directly oriented towards media, actions that involve

media (without necessarily having media as their aim or object) and actions whose possibility is conditioned by the prior existence, presence or functioning of media. A practice approach to media does not begin with media as simply texts or media institutions but thinks about media-related practice in all its looseness and openness. A practice approach to 'new' media frames its questions by reference, not to media considered as static objects, texts, apparatuses of perception or production processes, but to practices in relation to, and as mediated by, new media; considering how media practices are configured by the materiality of media. Couldry argues that by moving media research's focus away from texts (and their production or direct reception) and towards the broader set of practices related to media, we get a better grip on the distinctive types of social process enacted through media-related practices. As it was argued in Chapter 2, research into media/ted practice should be concerned with (1) the materiality of media technologies and how they are designed to predispose or contain social practice (2), how people regularly interact with digital media in different contexts and at different levels and (3), how media technologies are shaped in social practices, by different social groups, in different social contexts. Couldry's call for a 'practice' paradigm for media research focuses on how social life is organised in relation to media technologies, not just in relation to media content. A media practice approach should be concerned with examining media/ted practice and with thinking normatively about media via the question of how we should live with media.

4.9 Conclusions: Social Media Design Matter[s] in Practice

Social media research can expand its research focus on design by examining how (and why) it matters *in social media/ted practice*, in a way that foregrounds critical questions of the politics of design and the politics of practice by taking a sociologically informed approach to studying social media at the interface. In 2009, Beer observed that SNS research agenda had focused too heavily on the user and called for further research on design and development and into the construction of technological meanings. This chapter has argued why understanding design matters for understanding social media practice. It has argued that studying design and practice at the user-interface offers a point of departure from past approaches to thinking about social media practice.

There is still relatively little work exploring how design is encountered, understood and engaged with in everyday routine ways at the interface. Whilst design does not determine

fixed or standardised practices, it 'configures the user' (Grint and Woolgar 1997). By re-orienting social media research towards examining design in practice, this research has the potential to derive important insights about how social media use evolves. It would also explicate the importance of the interrelations between the technical materiality of sites, the symbolic coding of sites and everyday use of sites; the articulations between technical structures, symbolic structures and practice, all of which are socially shaped - *the triple articulation* of social media/ted practice. The functionality of software should not be studied separable from, or taking precedence over, its appearance (Winograd 1996: 40). It is important to relate the ways in which platforms are technically *and* culturally configured for interaction, connection and communication, affording and mediating possibilities with users' specific understandings of technologies, readings of the user-interface and appropriation. Examining design in practice, at the interface, also speaks to critical questions on the agenda for Critical Internet Studies. It alerts us to the economic, legal, social and cultural factors that shape social media design (Fuchs 2008; 2012) but, it places a stronger emphasis on empirical work on understanding the interrelationships between design and users. Understanding the implications of social media design for practice must be an empirical question. As Kallinikos (2002) reminds us, if the distinctive socio-technical construction of particular technologies is not acknowledged, the concept of technology becomes indistinguishable from other aspects of reality such as social structure and institutions.

Chapter 5: Researching Social Media/ted Practice @ the Interface

5.1 Chapter Overview

This chapter provides a detailed discussion of the nature of the research. It begins with a brief introduction to the research which states the research questions and explains the key research objectives. This is followed by a discussion on why the interface is a rich research site for studying social media/ted practice. The chapter then proceeds to discuss the methodology, providing an account of the reasons for adopting a qualitative research approach and discussing the (*critical form of*) social constructivism that informs this research. Lastly, a detailed account of the research process is provided, including a discussion of the sampling strategy, specific research methods and techniques, data collection and analysis and the ethical considerations/issues pertinent to the research.

5.2 Introduction to the Research

The research is a qualitative examination of social media design and practice 'at the interface'. The primary objective was to critically investigate the relationship between social media design and social media practice through a unique analytical framework that considers how sites are technically and culturally codified for interaction and use (MacKay and Gillespie 1992), coupled with an investigation into how people understand and routinely engage with SNSs at the interface in the context of their routine media/ted practice. The research consisted of in-depth analyses of two of the most popular SNSs in the UK - Facebook and Twitter, including a detailed examination of the design of these sites, as encountered by the researcher at the user-interface. This was coupled with twenty in-depth qualitative interviews with users of Facebook and Twitter at the computer/site interface. The interviews combined a series of questions about SNS use with observations of use in order to examine participants' understandings of sites, routine interactions at the interface and their general use of sites.

The research questions were as follows:

(1) What is the relationship between social media design and social media practice?
(2) What can studying interactions at the interface tell us about the interrelationships between social media design and social media practice?

This was broken down into further sub questions which corresponded with four areas for (interrelated) analysis:

- How does the design of a site work to technically and symbolically frame practice?
- How do users understand and use sites as technically and culturally meaningful technologies?
- How do users routinely interact with design at the user-interface?
- What role do SNSs play in wider social practice *and* how does researching design-in practice help us to understand trends in SNS use?

The research was designed to consider in detail how site design shapes social media/ted practice, in the context of the users' active interpretation and use of the technology. In light of the popularity of Facebook and Twitter among the initial respondents, which may be related to their dominance in the UK, the research concentrated on these two sites. The research is considered to be 'user-oriented'; it was designed to place a strong focus on the users' understandings of these technologies and their interactions with platforms at the interface, as well understanding their wider social practice as mediated by the site. Therefore, particular attention was given to how participants (1), understood the sites as *technologies* (2), 'read' and interacted with the sites at the interface as well as (3), the role these sites played in wider social media/ted practice

5.3 Research Aims and Objectives

(1) Demystifying Social Media Design

Using the analytical framework developed in this thesis, the first aim of this research is to make visible the importance of design structures in mediating social practices. The related research objectives include describing the available opportunities for interaction at the user-interface, and analysing the cultural coding of these opportunities to establish how they are

presented in a way to be rendered meaningful by users. The term 'design' is chosen in place of the more general term technology, to emphasise the social processes and decision making involved in the production of a technology. Social media design refers to the tactical decisions made in the production process, both technical and symbolic that work to configure the users' experience. Design is the outcome of the complex aggregation of processes and decisions made by software engineers, designers and other stakeholders which have been implemented strategically. Design is used here broadly and conceptually, to refer to the site-architecture and how it is technically and symbolically codified for active use. Recent research into the architectures of sites has raised the profile of this issue but analysis of the specific design of SNSs and its relationship to practice, as it occurs in real-time, are still largely unexplored. The empirical research aims to (1), analyse the design of SNSs in terms of how it is encountered and understood by an informed researcher *and* (2), contextualise this analysis with first-hand research into how sites are encountered, understood and appropriated by participants at the user-interface. This research does not analyse the design processes directly (design practices in production contexts) but it does aim to contextualise findings within literature and debates about the political economy of new media and production contexts and practices.

(2) Elucidating Design in Social Media Practice

Using the analytical framework developed in this thesis, the second aim is to look at how design is engaged with in real-time practice. The related objectives include (1), to provide an account of key social media/ted practices (2), provide an analytical account of how users make sense of user-interfaces as codified spaces for interaction (3), provide an analytical account of how users interact with SNSs at the interface and (4), critically consider the former in relation to the findings from the site analysis. Whilst there has been a recent recognition of the importance of design on the wider social media research agenda (see Chapter 4), what remains under-researched is how design is encountered and understood by the very people who subscribe to these services. To date, design has been considered largely from a theoretical perspective or solely from the perspective of the informed researcher (see for example, boyd 2011, Papacharissi 2009; 2011 and Zhang 2010). Whilst this type of analysis has advanced our understanding the implications of design for practice, for example, by attending to critical questions of the affordances of digital technologies (boyd 2011), this research responds to a need for empirically informed accounts of how users encounter,

understand and interact with sites in real-time practice. This research attempts to address this by promoting a user-orientated approach to 'design' when considering its importance for understanding use; to account for design in users' real-time practice.

5.4 Why Research Social Media @ the Interface?

The work grouped under 'social media research' is highly interdisciplinary and subsequently the methodological approaches that are applied in this field are equally wide and diverse. Research has drawn on methods such as interviews, focus groups, questionnaires, ethnographic approaches and content analysis of user-generated content, to name a few. However, it is argued that social media research could benefit from further examination of the articulation between social media design and social media practice by examining how use is mediated by (1), the techno-cultural affordances of design (2), the interpretive processes and interactional practices at the interface, and (3), wider social norms, values and practices. With this mind, the interface is a critical research site as it is the point where design, literally, *interfaces* with users in everyday practice – it is the primary access point and the primary representation of the digitally networked interactive environment. In this way, the interface plays a key role in re-mediating and re-presenting key aspects of social life and cultural expression.

The user-interface is gaining increasing recognition as a central analytic concept in the digital age. Alexandra Galloway's (2012) recent book 'The Interface Effect' is an illustration of this point. The interface has always been a key concept in digital media but there is a growing recognition amongst scholars of the importance of examining interfaces to enhance our understandings of the interactions that take place between (1) people and digitally networked technologies (2) people and people via digitally networked technologies and (3) between different digitally networked technologies (Gane and Beer 2008). Research at the interface allows for investigation into two key aspects of social media, firstly, how social media platforms are technically and culturally encoded for technical and social interaction and secondly, how user-interfaces are encountered and perceived as interactive spaces and spaces for interaction. Analysing sites as they are encountered at the interface enables the researcher to consider a number of processes by which SNSs are designed to be technically and culturally useful and meaningful to the user and interviewing at the interface enables investigation into how social media platforms are encountered and routinely engaged

with in practice by users. Together, this enables the researcher to consider the nature of the interpretive and constructive processes that help configure practice.

It has been noted by Drucker (2011:1) that in today's interface culture we need to consider new ways of thinking about and analysing human computer interaction which recognises the distinctively graphic nature of the interface. Drucker (2011:2) has stressed the need for new modes of analyses to flesh out our understanding of the graphical user interface (GUI) space and people's interactions with (and within) this space. He suggests graphical readings of interfaces and constructivist theories of perception might help us to analyse the GUI space and how it provides the provocations and affordances through which we cognize our experience of it. Similarly, Langlois (2012) argues that social media researchers need to work with new analytical frameworks that decentre people from the production of meaning. She calls for frameworks that examine the 'techno-cultural dimension' of meaning as constituted by a range of heterogeneous representational and informational technologies, cultural practices and linguistic values. This research examined the user-interface primarily in terms of 'front-end' processes i.e. what was visible at the interface, however, efforts were made to contextualise findings within a theoretical discussion of 'back-end' processes, such as the role of algorithms in organising and re/presenting information, to provide critical insights into articulations between levels of design and levels of practice.

5.5 The Interface as a Research Site for Social Media/ted Practice

Studying social media design and practice at the interface has '*processes and relations*' as the focus of investigation. It doesn't privilege the role of design over the user, or vice-versa, the weight of the active user over design. In addition, it rejects the binaries of real/virtual and offline/online, focusing instead on digital *re/mediations and re/presentations*. It considers social practice with regard to digital technologies as social media/ted practice. Within this context, the user-interface is an important *interfacial* space, and a key point for studying these mediations. In terms of studying social media/ted practice, the user-interface is particularly important because it is where computer readable code is transformed into the cultural code that is accessible to everyday users. However, the user-interface does not typically feature as a key research site for approaches to social practice in Sociological or Humanities based Media Studies Research. As a research site, outside of Sociology the user-interface has been

identified as a key boundary point for researching human-computer relations and the interactions between information systems and users, for example, in fields such as Human Computer Interaction (HCI). HCI research has extensive empirically grounded understandings of how people engage with Graphical User Interfaces (GUIs). It also has a long history of examining semantic structures of computerised systems in light of user interaction (Ankrak 1990, Schneirderman 1992, Hutchins *et al*. 1986, Norman and Draper 1986), through its efforts to record important processes by which users interpret and engage with digital artifacts and devices. Interviewing at the interface as a means to study social media/ted practice has some parallels with HCI as the research is designed to examine people's interactions with technologies at the interface. However, HCI research has historically been driven by cognitive, psychological or ethnomethodological approaches to understanding the relationship between design and use, rather than critical Sociological or Media Studies approaches, which attend to questions of structure, agency, power, inequalities representations and practice. As such, these fields are ripe for the application of a user-interface focused approach, given that analysis of social media/ted practice needs to account for the layered digitally networked architectures and affordances of Internet technologies, as well as asking critical questions regarding the wider socio-political context in which social media technologies are developed, regulated and put to use. Research into social media/ted practice needs to keep in focus critical questions of design, always asking How? Why? and To what effect? Speaking from a Sociological perspective, HCI has fallen short in shedding light on the politics of interface design and the implications of people's interactions at the interface for wider practice. Moreover, it does not often situate interactional processes that take place at the interface in relation to information on contexts of use and wider practices. Lastly, whereas HCI research favours 'artificial settings', for example, computer laboratories, this research advocates understanding use as it takes place in everyday, naturally occurring research settings.

This research strives to critically examine interactions at the interface in terms of processes and relations, for example, how they relate to (1), the materiality of technology (2), the politics of design and (3), everyday social practice and contexts of use. It examines the articulation between social media design and social media practice. For example how use is (1), mediated by the techno-cultural affordances of design (2), the interpretive processes and interactional practices at the interface and (3), wider contextual social practice. SNSs are engineered socio-technological environments. As it was argued in Chapter 4, the design of a site is a micro-digital architecture that affords and mediates possibilities for interaction. In the

first instance, sites bring to bear their own affordances (as they mediate wider digital affordances) and in the second instance they are technically and symbolically coded to engender particular conditions for interaction and practice. As a research site, the 'user-interface' allows the researcher to examine, in part, how structure, power and agency are distributed and realised within digitally networked social environments. As Drucker (2011) observes, the constructivist subject of the digital platform emerges in a co-dependent relation with its affordances. The interface should be conceived of as a dynamic space of relations, rather than as a 'thing'; a space where the active social subject interfaces with the materiality of the technology, as it is culturally mediated and presented to the user for interaction. It allows the researcher to critically examine design and how different practices (e.g. commercial, social) are technically and symbolically encoded in, and how design is encountered, engaged and negotiated by users at the interface. This responds to Beer's (2009) call for a critical approach to social media that foregrounds questions of re-mediation. Moreover, it provides a distinctive strategy for studying the implications of design for evolving norms, values and practices (Papacharissi and Easton, forthcoming) and for understanding the wider social forms and trends that we see emerging and developing.

5.6 Methodology

Methods are not neutral tools; the methods researchers choose to employ are designed to collect particular types of data about the social world. Social science research is often conceptualised in terms of two main research 'paradigms' (Kuhn 1970); quantitative and qualitative, which are thought to be associated with particular research techniques for data collection and analysis. However, these distinctions should be treated with caution; whilst they offer broad conceptual frameworks, in practice, these distinctions can become blurred. It is also said that quantitative and qualitative approaches can reveal general orientations to the conduct of social research, such as, particular ontological and epistemological positions[70], but again, this is not always the case. This research adopts a qualitative approach to research. It uses a combination of data collection and analysis techniques that values interpretation and understanding in explaining social media/ted practice. Technologies have a materiality; this research recognises the materiality of the design of social media technologies. However, it

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[70] Ontologies are concerned with the research stance on the form and nature of the social world and epistemologies are concerned with how knowledge about the social world can be ascertained.

seeks to provide an interpretive analysis of the user-interface, recognising that it acts as a cultural wrapper (Manovich 2002); a symbolic layer of interactive social media technologies. As Du Guy (1997:3) has argued, the meanings things have for human beings are shaped by complex interpretive process, which are anchored in the cultural world. In this way it is clear that we need to understand the interpretive and interactional processes that take place at the interface in the context of wider social and cultural influences. To do this, the research analyses the actions of the social subject towards the technology and towards others via the technology, through interpretive data collection and analysis, which combines elements of interview and observation. As Blumer (1962: 2) reminds us, human beings act towards things on the basis of the meanings that the things have for them. The qualitative approach taken in this research is informed by a (*critical*) social constructivist position. The research adheres to the view that there is no external reality outside the social that can be objectively known. Rather, reality is continually being 'socially constituted' by the accomplishments of 'social actors'. Moreover, the research adheres to the view that our access to, and knowledge about, the world is always mediated through the social, therefore social research is always located in particular social times and contexts. The prefix 'critical' is added, because it indicates an adherence to the view that social research should examine 'social processes' through a critical lens, in light of wider issues of power, structure and agency. The research is also considered to be 'critical' because it aims to make normative claims about the implications of design for practice. To paraphrase Marx, studying the world is not sufficient - the point is also to change it.

5.7 Social Media/ted Practice: A Qualitative Approach

As Crawford (2013) reminds us, as interest gathers in the possibilities of 'big data', set against the backdrop of developments in computer processing, small data continue to provide much needed granularity and depth to understanding digitally mediated social life. This research provides an in-depth, granular account of the constructive and interpretive processes relating to social media design and practice from a qualitative approach, which suitably aligned itself to the research aims and to the social constructivist position that informs the research. The research examined the relationships between social media design and practice by interpretively studying some of the key social processes that constitute it. The researcher investigated how sites were designed to be culturally meaningful and how (and why) users

understood, encountered and interacted in real-time with sites at the interface in the manner that they did. A qualitative approach to the subject matter was adopted for several reasons. Qualitative research places emphasis on studying the social world in ways that stress human understanding and interpretation in social practices; it gives credence to data collection and analysis that deals with words and description and forms of social observation, rather than quantification. It has also been noted that qualitative research is particularly appropriate in research when new fields or topics are being investigated, because it can be exploratory (Miles and Huberman 1994). SNS research is a relatively nascent topic in the longer trajectory of Internet research. The analytical framework applied to study the topic is also original and so is, unavoidably - to some degree, exploratory. In addition, qualitative approaches can offer the researcher more flexibility during the research process and allow for degrees of reflexivity in design. The subject matter of this investigation was a constantly moving target; platforms and practices are constantly evolving and dynamic and therefore having flexibility built into the research allowed for reflexive modifications to be made. Moreover in terms of flexibility, qualitative researchers have the choice to adopt a simple mode of enquiry or, borrow different techniques associated with qualitative approaches, selecting and arranging them to form a coherent and concrete research plan (Creswell 1998). This research combined two data collection techniques to study social media practice (1), a form of interpretive critical site analysis and (2), interviews at the interface, a re-working of the traditional interview which enables the researcher to both ask and observe. It was through this particular combination of data collection techniques that the researcher was able to critically comment on the complex relationships between site design, routine use and related social practices.

The inductive nature of much qualitative research reflects the emphasis on generating theory from research[71] and grounded theory is a classic illustration of this. As such, qualitative approaches can be particularly useful to researchers wishing to generate new theoretical insights (Miles and Huberman 1994). This research did not set out to specifically test any existing theories. Rather, it was committed to developing a distinct analytical framework for studying social media/ted practice and to developing new theoretical insights into the interrelationships between social media design and practice. Importantly, a qualitative approach has key synergies with the social constructivism that informs the research,

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[71] Epistemologically, quantitative research is associated with deductive approaches to research with regard to the relationship between theory and social research and it commonly aligns itself with a more objective view of reality; the view that reality is something that can be externally known.

qualitative approaches are committed to an acknowledgment of their shaping role in the research process; demonstrated in the commitment to reflection and reflexivity in the research process. They recognise that they can only strive to be objective. As social actors themselves, they are always located in the world they study.

5.8 Social Constructivism and Social Media/ted Practice

There are important differences in the epistemological and ontological groundings of qualitative researchers and these differences shape the design of research. Interpretivism, Phenomenology, Ethnography, Ethnomethodology and Social Constructivism are all distinct traditions within the qualitative paradigm. These approaches share a commitment to the social subject but they are characterised by different research standpoints and methods for data collection and analysis. Social Constructivism has been described as a branch of Interpretivism, a broad philosophical approach that developed in reaction to positivism[72] which is founded on the premise of understanding meaningful social action. Interpretivism stresses the importance of the thinking, active subject and the importance of understanding subjects to provide knowledge and explanation in social life. Interpretivists[73] share the view that human life is essentially a life of meaning, of language and of reflective thought and communication (Benton and Craib 2001:75). As a method of enquiry, Interpretivism lends itself to research techniques designed to understand subjects in terms of their values, beliefs and motivations; the rationale that underpins their behaviour, actions and social practices. Like Interpretivism, Social Constructivism is committed to understanding the social subject; it shares the goal of trying to understand the complex world of lived experience from the point of view of social subjects. The similarities between the two approaches are summarised by Schwandt (1994:118):

> Proponents of these persuasions share the goal of understanding the complex world of lived
> experience from the point of view of those who live it. This goal is variously spoken of as
> an abiding concern for the life world, for the emic point of view, for understanding
> meaning, for grasping the actor's definition of a situation, for Verstehen (…) The world of

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[72] Positivism is a mode of social enquiry modeled on the natural sciences which is characterised by models of causality and its commitment to the belief that reality exists independently of subjects and it can be empirically and objectively studied.

[73] Max Weber, Alfred Shutz, Clifford Geetz and Ervin Goffman have been influential figures in the development of Interpretivism.

lived reality and situation-specific meanings that constitute the general object of investigation is thought to be constructed by social actors.

However, in a departure from Interpretivism, Social Constructivism advocates the view that social life is continually being accomplished by social actors through active practice and it endeavours to examine our relationship to reality by dealing with the constructive processes that constitute it (Flick and Steinkem 2004). Social reality is a process of human activity that operates (*with varying degrees of agency*) within a socially constructed environment; an environment that emerges out of the complex relationships and activities of social actors and their creations. Studying social media at the interface reflects a concern with examining how social media/ted practice is constituted by social actors; by the technological artifacts that social actors produce and shape and how social actors encounter, make sense of and actively interact with social media technologies in practice. Social Constructivists also recognise that the content produced by social science is itself socially constructed (Woolgar and Latour 1979). Science can only be known through (thus is always mediated by) 'the social' (Delanty and Strydom 2003:372). However, Social Constructivists have sometimes situated themselves within a broader 'realism'[74] (Delanty and Strydom 2003:373). They view reality as complex, emergent, and layered. Whilst sometimes discussed as different philosophical positions, Realism and Social Constructivism are not necessarily incompatible. Constructivists can adhere to a form of realism that considers things as real in their consequences, but not in their causes (Delanty and Strydom 2003:373). They are realists in terms of investigating social effects however they remain anti-realist about the nature of the causes of those effects (ibid) which are always seen as socially constructed. In Social Studies of Technology this amounts to the fact that technologies have effects; a materiality that shapes the social world, but this materiality is socially shaped by people; technologies are always socially mediated.

Social Constructivism is an established theoretical framework studying the relationship between technologies and social life, and this thesis argues that it is useful for studying social media/ted practice. As argued in Chapter 3, SST considers technologies to be socially constructed; they are engineered and shaped in production contexts, and continue to

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[74] A philosophical school of thought based on the assumption that an external reality exists, independent of human consciousness, but can never-the-less be known in some form. Realism adheres to the view that there is a real world, but that reality is not directly observable; it regards reality as complex, emergent, and layered and importantly, as having no direct observable causes. There are different forms of realism e.g. critical realism remains committed to explanation, but rejects simple cause and effect models in explanation. Critical realists see reality is made up of the realm of objects, their structures and their powers (physical or social) and of social actors which have (*varying degrees of*) agency (Sayer 2000:1)

be shaped by various social groups in various social contexts. Technologies have a materiality that pushes back on the world, they exert material possibilities and constraints but we must seek to understand how technologies are shaped by the social; in social practice in different social contexts and spheres of influence (Bijker and Law 1992; Silverstone and Haddon 1996; Lievrouw and Livingstone 2006). In studies of technology, social constructivist approaches theorise the indissoluble relationship between technologies and social life; they recognise that the material is always intermeshed with social life and that social life is always materially/technologically mediated[75]. Social Constructivism in studies of technology lends itself to studying dialectical relationships because it foregrounds analysing iterative constitutive 'processes' between the material and social world. This research describes itself as a *critical* form of Social Constructivism, similar to the Critical Constructivism - an approach advanced by Feenberg (1991). It recognises that because technologies are mediated by the social, unavoidably, they reflect a range of competing economic, social, cultural and political interests and intentions (Winner 1986). This research openly shares a commitment to a set of objectives advanced by Critical Internet Research scholars (See Fuchs 2008, 2012). It remains committed to analysing these issues in light of the politics of technological design and the economic and political structures in which SNSs are developed and regulated.

5.9 Research Strategy

The research was conducted in three (interrelated) parts: (1), it developed an analytical framework to study social media/ted practice (2), it applied this framework in the form of site analysis, analysing how technological functionality was represented and rendered culturally meaningful at the user-interface and (3), it applied this framework by carrying out interviews at the interface, in order to examine social media/ted practice as it occurs in real-time. The research was supplemented with over three years active participation as a user of the SNSs, which enabled the researcher to carry out supplementary observations on key changes in design, how key features were being used by people, and how key changes impacted on use.

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[75] This is a dialectical relationship between the material and the social that sees the social mediated through technological developments and equally technological developments are mediated by the social (McLuhan 1964).

User-interface design is a representation and as Du Gay and Hall (1997) remind us, representation is a central practice in the 'circuit of culture', where meanings regulate and organise the conduct of practice. Data was collected on site design by analysing the user-interface(s) of sites, as encountered by the researcher. Site analysis at the user-interface consisted of systematic examination of the technical interactivity of sites, including experimenting with various features and opportunity for interaction. In addition, it consisted of analysing the symbolic coding and arrangement of technical features and critically evaluating the presentational style of information, site policies and user-guidance. It is important to note however, that the distinction between technical and symbolic encoding made here is a conceptual distinction. In practice they are not discrete; functions are symbolically presented, and systems of signification mediate functionality. However, they can be treated separately by approaching the analysis of site design in particular ways, as affording opportunities for interaction, and coding opportunities for interaction. The site analysis consisted of mapping out the site architecture and examining opportunities for interaction. It then moved on to examine how this was mediated symbolically at the user-interface by analysing the use of cultural signs, symbols and language to communicate functionality and meaning to the user. This allowed the researcher to critically examine how possibilities for action and interaction that are technically afforded by a site are symbolically framed and mediated, to consider how this shaped people's interactions at the interface.

The site analysis began in 2010 and continued until shortly before the thesis submission. Registration of sites was the first action undertaken prior to this. Research accounts were set up with Facebook, LinkedIn, MySpace and Twitter. Following this, screenshots were taken of key aspects of the sites, as deemed relevant by the researcher e.g. the homepages, profile pages, helps sections, privacy settings, account settings and so on. Screenshots were taken in 2010 and then subsequently whenever key changes in site design occurred. The state of permanent beta that is characteristic of SNSs development, prevents the researcher from providing timeless 'snapshots' of the site; however, by analysing changes in design and practice, the researcher was able to consider the wider interrelationships between design structures and practices. Changes in design did not invalidate analysis, rather they provided the basis for a discussion of how platforms evolve, the politics of these changes and the implications of these changes for practice. As part of the site analysis, extensive research notes were made on the different functions and features available of different sites. The screenshots were organised into site-specific folders and then particular screenshots were

grouped together according to themes (e.g. homepages) and archived along with research notes on key areas and features. This provided a visual record of the 'architecture' and 'affordances' of each digital environment in terms of areas and technical opportunities for interaction that are (in theory) accessible to the user. The screenshots provided a particularly important form of visual data. Screenshots were analysed to determine how features were symbolically codified and presented to users. This involved analysing the arrangement and layout of features and their size, prominence and accessibility, as well as the symbolic and linguistic descriptors that were given to features (words and cultural symbols). The site analysis ensured the researcher had a strong degree of familiarity across a range of sites prior to the interviews.

The interviews at the interface took place in late 2011/early 2012. The interviews are described as semi-structured, focused interviews, designed to examine participants' use of Twitter and Facebook, in real-time interaction. The interviews were designed to pay particular attention to how participants made sense of sites and user-interfaces and interacted and engaged with sites in practice. The research acknowledges that there are many 'user-interfaces' for any one site as the user-interface is dependent on how sites are accessed, for example by device and/or mobile application. This said, the research was concerned with the interrelationships between design, as encountered at the user-interface, and social media/ted practice. Therefore, variations in the appearance of a SNS, as a result of device/access, was conceived of as a research advantage rather than a limitation, providing texture to the analysis by allowing the researcher to analyse the articulation between the specifics of design and practices. The interviews took place in locations selected by the participant and they were accessed using participants' devices. Participants had been informed prior to the interview about what it would entail and they were asked to select which SNSs they would like to base the interview on, the device they would like to use in the interview to access the site, and a location that was typical for their routine use of sites. Giving the participants choice in terms of the site, the device and the interview location helped to maintain a high degree of familiarity and naturalness in the data collection processes. It encouraged participants to play an active role in the configuration of the interview focus, setting and equipment and it was an essential part of the design strategy to normalise the interviews at the interface and ensure a degree of naturalness in the interview process.

5.10 Selecting Sites for Analysis

The research identified a particular set of social media sites as the object of analysis, based on a set of shared technological characteristics and related social practices, namely, registration as a requirement, the ability to build a profile, link that profile to others within the site and traverse in-site network connections[76] (see boyd and Ellison 2007). SNSs have been identified as a distinct 'genre' of social media based on similarities in form and associated practices (boyd 2009). The concept of 'genre' has been used historically as an interactive and evolutionary process of categorising texts into types according to form, style and content. Fairclough (1992: 125) argues that genres can be considered an overarching textual category, which corresponds closely to types of social practice[77]. In relation to Web 2.0, genre refers to both the medium and conventions of the related practices in social settings (see Luders 2010). In discussing software, Brown and Drugid (1994:8) argue that genre refers to the socially constructed interpretive conventions that bridge the two sides of communication between designers and consumers or users. Classifying SNSs as a genre of Web 2.0 draws attention to broad structural similarities the sites have in their technological design and function e.g. the way they allow users to build profiles and visibly display their connections (to varying degrees) and it calls attention to the similarities in conventions in use and practices that emerge in relation to the technology[78]. However, it should be noted that genres are not fixed; they are socially constituted and constantly evolving. Web 2.0 genres are no exception; they are technically and socially constituted and are subject to change.

The SNSs selected for initial analysis were the most popular sites in the UK, in terms of registered members. These were Facebook, MySpace, LinkedIn and Twitter. Although Twitter is sometimes described as a micro-blogging service (see Chapter 2) it was classified in this research as a SNS because it contains features of the SNS 'genre'. Despite being popular in the UK, YouTube was not included as a SNS, whilst it has SNS features these are only available to users with an account and registration is not a stipulation of use. YouTube is

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[76] This criteria was used to exclude other Web 2.0 social media sites from the study, such as virtual worlds, content distribution sites, blogs or wikis, though the boundaries between them are sometimes blurred.

[77] Yates and Orlikowski (1992) use the term to conceptualise the patterns of communication that emerge over time when the communicative actions of individuals interact with the social context of media.

[78] Bakardjieva (2006: 73) addresses what she calls *use genres* as recurrent use practices that arise from practical situations as experienced and defined by a user. However, not only the person but all elements of a situation determine its nature.

considered primarily a platform for content distribution (see van Dijck 2012:8). Analysis of all four sites was scheduled before the interviews began, however, after scheduling the interviews it became apparent that the 52 initial respondents were primarily using Twitter or Facebook (or both). Subsequently, whilst a preliminary stage of site analysis was carried out across all four sites, in-depth analysis was carried out only in relation to Facebook and Twitter corresponding with the scheduled subject matter of the interviews.

5.11 Selecting Research Participants

The research was interested in understanding social media/ted practice though examination of the relationship between social media design and use. As such, it did not set out to study a particular social demographic. The research was interested in how people understood, interacted with and used sites in everyday practice, so participants needed to be registered and actively using one or more sites. Subsequently, the criterion for inclusion in the study was routine use of, one or more, SNS. It used a form of selective (Schatzmann and Strauss (1973:38), or theoretical sampling (Glaser and Strauss 1967) to purposefully select individuals according to 'relevance to the research' and the possible insights that can be gained from their inclusion in the sample. Patton (in Fick Flick and Steinkem 2004) argues that to ensure a degree of reliability in how a particular topic is covered, qualitative research needs to account for variation within the sample. The sample was not designed to provide representativeness in the quantitative sense, but to ensure qualitative diversity in the sample. The research purposefully strove to get a mix of people and a mix of sites in the sample. It was not restricted to a particular cohort or social demographic, or to one SNS. Rather, it took an open approach in order to provide variation in the sample in an endeavour to examine the relationship between site design and related practice. The focus on a specific socio-cultural demographic, or equally the users of a specific site, would have been a limiting factor that would have narrowed the scope of the research, restricting the opportunity to explore the ways in which different people interpret and engage with sites at the interface, and appropriate them in practice. A heterogeneous sample allowed the researcher to explore 'interpretive flexibility' in relation to users' understandings of technologies and associated practices i.e. the extent to which technologies can be interpreted and appropriated in different ways.

To recruit participants the researcher drew on various known networks; personal networks and local networks, including schools, business, universities and youth

organisations. This strategy was intended to build on the researcher's existing ties or connections. This is a useful research technique that capitalised on existing connections to recruit participant given that people whom you are known to are more likely to dedicate time to the research. An introductory email was constructed and circulated which outlined the research and what was required in terms of contribution (see Appendix 1). A full research summary and consent form was distributed among these networks to those who responded positively to the introductory email. In several instances, emails were sent to gatekeepers who circulated the email on behalf of the researcher, for example, an email was sent to a deputy head of a local primary school and a deputy head of a secondary school to circulate to staff members. The researcher also circulated this information to her own contacts and networks using social media. For example, participation requests were sent to networks on Facebook, asking if they, or anybody else they knew, would be willing to take part. Only 'weak' ties or secondary degree connections were considered to ensure a degree of separation between the researcher and the participant. Initial respondents were asked to fill out a short questionnaire providing basic/personal information including, gender, age, occupation and, importantly, what SNSs they used and what devices they used to access them (see Appendix 3). The initial response pool was 52. The details of the initial respondents were recorded and the final sample was configured out of this cohort. Twenty participants were selected for the final interviews. As explained, participants were included based on their contribution to the diversity of the sample. The final sample had a mix of age ranges, was balanced in terms of gender and included a mix of ethnicities, nationality and socio-economic backgrounds (as indicated by occupation). Participant profiles (and short biographies) illustrating this can be found in the Appendix (See Appendix 5). All of the initial respondents used Facebook and approximately half the initial sample used Twitter. This distribution was reflected in the final twenty participants.

5.12 Site Analysis @ the Interface

Research accounts for Twitter, LinkedIn, MySpace and Facebook were set up in 2009 (the researcher already had a Facebook account active since 2005). The site analysis began with registration but was systematically implemented in 2010 and continued up until the thesis submission. Registration is common when researchers want to study technological design (see for example Zhang 2010) and Internet sites more generally. Registration and use of a SNS has

the advantage of combining the researcher's theoretical expertise with the practical experience of using the site. Moreover, it facilitates the researcher in being able to understand and identify with participants' accounts and experiences of particular sites. Registration was followed by a systematic examination of the sites. The researcher spent extensive amounts of time exploring sites, experimenting with features and taking screenshots. Screenshots were taken initially and whenever there were key changes in site design. Screenshots were taken of key aspects of the sites e.g. the homepages, profile pages, helps sections, privacy settings, account settings and so forth.

Chapters 3 and 4 argued that SNSs are socio-technical environments with strong textual layers[79]. The thesis approached social media as technologies through the idea of the triple articulation of social media/ted practice, which emphasised the technical, symbolic and spatial elements of sites and active practice. The site analysis set out to examine how opportunities of interaction in social media are encoded and symbolically mediated for the user. Symbolic coding refers to the organisation and representation of opportunities for interaction, designed to communicate functionality in a meaningful way to the user. The site analysis paid particular attention to how sites are both technically coded as a structure for interaction and symbolically codified using images, symbols, language and themes and analysing organisation and hierarchically arrangements in terms of features. Media Studies has historically been concerned with examining the role of the media in representing aspects of social life. This research considered how technical functionality is represented to the user and in doing so it also considered how the social (connections, interactions) were represented at the user-interface. The site analysis was informed by Grint and Woolgar's (1997) theoretical lens for analysing technologies as texts, Hutchby's (2001) view of affordances and Don Norman's (1998) insights into design as a way to encode and mediate affordances.

Traditional textual analysis takes many forms (McQuail 1993:275). There are extensive classifications of types of content often used for organisational or descriptive purposes and there are interpretive inquiries into specific examples of content, designed to uncover meanings. This research set out to document the key features and opportunities for interaction available to the user *and* analyse the symbolic coding of these opportunities for interaction. In this first instance, Facebook and Twitter were analysed in terms of key features

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[79] Langlois (2012) uses the term 'semiotechnologies'.

and technical opportunities for interaction that were available to the user. Similar to content analysis, opportunities for technical and social interaction were recorded, classified using descriptors and analysed. Key features and opportunities for technical and social interaction afforded by each site were manually recorded (as perceived by the researcher). Research notes were made on these key features and opportunities for interaction. This technique has been described as feature analysis and has similarities with the 'structural analysis' employed by Zhang (2010). Tables were produced that documented the features available on each site; indicating what Facebook and Twitter enabled in terms of functionality. This provided a representation of the structural architecture of each site, considering all the (perceived) possibilities for user engagement. Furthermore, it allowed for comparison between sites in terms of key similarities and differences[80]. However, this research extends Zhang's approach in two important ways. Firstly, it places more attention to how sites are symbolically coded, and considers how this can open or close down opportunities for action and interaction and secondly, the site analysis was contextualised with data on real-time engagement and users' accounts of, and reflections on design.

Following the analyses of the architecture of sites and key technical features, sites were examined as systems of representation; in terms of the organisation and presentation of features (layout) and the cultural coding of features in terms of language, symbols and discourse. Similar to semiotics (a classic interpretive or qualitative approach to the study of texts that examines how meanings are conveyed by signs and symbols) sites were examined in terms of how technological meaning is socially constructed through organisational structures, language, signs and symbols, in short, as a system of representation (see Hall 1980; 1997). As already noted, extensive and systematic screenshots were taken of Facebook and Twitter. Screenshots were taken of all areas accessible to the researcher, for example, key interactive areas such as profile pages and home pages, as well as other areas of the site architecture available to the user, such as account and privacy settings and help centres. This provided a visual record of the micro-architectures of sites over a three year period. An initial set of screenshots were taken early on (2010) and again towards the end of the research (2012), as well as when any key changes occurred.

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[80] This takes lead from Zhang's (2010) structural analysis of the various functions and opportunities for interaction provided by SNSs, aimed at identifying the possibilities for action and interaction within a Web environment.

Concepts from Don Norman's (1988) 'Design of Everyday Things' were appropriated into a Sociological framework to analyse about how design is constructed to communicate technological functionality and meaning to the user (see Table 1, an analytical framework used to examine design at the user-interface). Features were analysed in terms of how they were organised and presented to the user, this provided data on the organisational and hierarchal structures and presentational mechanisms at the user-interface. Screenshots were used as raw data to carry out analysis on the visibility and accessibility of features. They were also used to analyse the symbolic encoding of features, for example, pop-ups, prompts, warnings and forms of guidance as well as the overall 'design languages' encoded into sites such as narratives that give meaning to the technology. As Manovich (2001) explains, the symbolical coding of a technology provides a 'cultural wrapping' that frames the technology - symbolic frames (symbols, language, organisation and presentational structures) mediate technical possibilities for interaction to the user.

The screenshots were downloaded into Microsoft Word files and each screenshot was annotated with research notes. The documents were coded and archived. Each site had a file, which contained sub-files for various parts of the site e.g. homepage, profile page. Secondary screenshots were obtained from archived Web collections, e.g. 'the Wayback Machine', and blogs and stored within these files to analyse 'change' and 'continuities' in design. These secondary screenshots were important in providing visual records of the trajectories of sites in terms of design; they provided a visual means of documenting changes in design occurring outside the set research period.

Table 1: Analysing the user-interface. Explicating areas of interface analysis

Analysing the Interface	
Screen Layout	Screens are divided into chunks which allow designers to group elements of design together. Designers structure screens into a clear *visual hierarchy*. Elements in the site are organised into meaningful sections. This can signal about what designers perceive as important/less important and how they perceive features to relate to each.
Feature Layout	Visibility is a key principle in design related to use. Layout of features reflects hierarchal organisation, indicating their salience. Visible controls tend to signal importance – controls that are hidden or buried in drop-down menus are seen as less important. Analysing which features and controls are placed centrally on the screen can tell us about the weight attached to them. Analysing how they are arranged can tell us about what designers perceive as important/not important.

Size and Prominence of Features & Positioning and Alignment	Visibility is achieved through size and prominence of features. In addition, elements/features that are closely aligned will appear to be classified as related, features and opportunities for interaction indented beneath other objects appear to be related but in a subordinated position. The organisation of controls can also be used to analyse how designers perceive features as related. How features are located on the screen and also how they are presented in relation to one another can signal meaningful relationships between them.
Digital controls	There are different types of controls offered to users. Particular types of controls give users different degrees of agency, e.g. select box with pre-determined options (one or multiple) predefines UGC as opposed to an open text box where users define content. Controls can affect the user experience, in terms of what type of control a user has within the site for example, over content, information, navigation.
Mapping, Visual Flow, Prompts and Warnings	Cues are used to guide where users should look. Hyperlinks connect various elements and navigate the user around the site and the content. Prompts and warnings are encoded to call attention to opportunities for interaction and guide users in the activity.
Icons and Metaphors	Metaphors and icons are used to represent features or actions. They convey meaning about a feature and act as shortcuts and visual reminders of features for users. Designers use metaphors as devices to present new concepts via a representation of a familiar, real-world framework. Analysing icons and metaphors can tell us about the design intentions to render aspects of the technology culturally meaningful.
Language, Explanations, Guides, Warnings, and Prompts	The use of language helps designers define and design pathways through the site which work to frame the users' experience. Using language as a descriptor for features provides key information; language in commands, prompts and warnings also frames opportunities for interactions. Analysing the words designers use to explain things and direct users around the site is another way to analyse how technologies are codified to be culturally useful and meaningful.
Design Languages	Design languages are the coherent narratives that communicate the overall conceptual model of the technology. They play a key role in helping to discursively frame technologies acting as an important mechanism in helping to communicate intentionality and meaning to the user.

The site analysis established which opportunities for interaction are made available to users, in particular, how they were made *visible and accessible*, as well as how features and opportunities for interaction were symbolically encoded to render the technology meaningful to the user. This was used later as a point of comparison, in terms of how the participants understood sites, perceived opportunities for interaction, and engaged with these opportunities in practice at the user-interface. The intention was to establish the technical-symbolic structures that can be observed by the researcher at the user-interface and compare this with

how users perceive, understand and interact with social media design at the interface. The research does not claim to be able to account for the designers' intentions behind symbolic encoding. The site analysis is interpretive but the researchers' analysis is contextualised alongside users' interpretations and routine engagements with the site. It is not about ascertaining 'facts' about the coding of design, but about analysing social process – 'design in practice'.

5.13 Interviews @ the Interface

Interviewing at the interface enabled detailed data to be collected about users' understandings of, and interactions and routine engagement with, SNSs. The interview is one of the most widely recognised and established methods in qualitative research. The literal translation of an interview is an 'inter-view', the inter-change of views between two people conversing about a theme (Kvale 1996). Interviews are essentially conversations with a purpose (Burgess 1984), it is a method of data collection based on asking themed questions. The interview consisted of question-led enquiry to examine SNS use. The interviews were carried out at the interface to allow participants to interact with sites during the interview process. This allowed for observations to be made with regard to technical and social interactivity and into participants' routines navigations at the interface. This technique has clear benefits in making discernible intermediate processes between design and practice as they are articulated in routine interactions at the interface. Provisional research questions were generated to examine key themes (*see Table 2, a list of interview themes*). These were informed by key issues debates identified in the literature review, keeping in mind the specific aims and objectives of the research. Questions were organised into key themes to give the interview a degree of structure and flow, whilst not restricting unplanned topics of conversation. The themes were developed in a logical order but they could be moved around to accommodate a natural flow of conversation in the interview. The interviews were piloted with four participants before stabilising the interview schedule. Trialling the questions alerted to the researcher to any problems, for example, the clarity of expression[81].

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[81] Language is the primary medium for the interview so it is important that questions are clearly communicated.

The interviews were semi-structured and focused. As a data collection method, all interview types share the goal of trying to ascertain the views, opinions and experiences of the people being interviewed. However, interviews are commonly classified as being either structured, semi-structured or unstructured. These classifications are used as a way to convey information about the balance of control that exists between interviewer and interviewee in terms of the content covered. As a general rule, the more unstructured an interview the more control the respondent has over the interview in terms of the topics covered and the direction of the interview. Structured interviews involve a set of largely fixed questions. Semi-structured and unstructured interviews are typically more open and flexible, placing a greater emphasis on the participant's point of view.

Semi-structured interviews maintain a 'degree of structure', consisting of an interview guide with a list of questions and topics to be covered. This said, in contrast to structured interviews there is more flexibility in terms of content covered and for deviation from pre-planned topics. Unstructured interviews attribute the most control to the interviewee (Bryman 2003), the interview is only guided by a brief set of prompts and tends to take more of an informal, conversational form. The researcher ruled out structured and unstructured interview and opted for a semi-structured style. This research had specific aims and objectives in terms of the content that needed to be covered in the interview, but the researcher also wanted the interview to be open and flexible enough to capture data that had not been planned for, in terms of participants' routines and practices. Semi-structured interviews also facilitated the researcher in being able to draw comparisons between the interviews. Whereas unstructured interviews can be difficult to compare because of large differences in the data generated, semi-structured interviews provide points of reference in the discussion which facilitate comparative analysis. The semi-structured interviews were focused on a specific SNS, as such, the interviews could be described as a type of focused interview[82].

Focused interviews (see Merton 1956) are characterised by focusing on a subject, or topic of conversation determined in advance, such as a text, or in this case, a technology. They attempt to collect reactions and interpretations in a relatively open form. They also stimulate personal recollections of experiences or events. This focused interview was based around the introduction of a technology into the interview, rather than a text. Visual prompts

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[82] An interview technique developed in communication research in the 1940s. They are typically group based but they do not have to be.

are commonly used as a way to stimulate memory and discussion, and encourage focused reflection[83] during interviews and there are a number of benefits that can be derived from the introduction of material artifacts or technologies into the research process. Having the site available during the interview encouraged participants to recall thoughts regarding the site and give detailed reflective recollections about their associated experiences (Hodgson and Watland 2004, Jones 2004, Jones *et al.* 2003; 2004). This technique could be considered an 'introspective method', which is thought to be particularly suitable for examining 'processes', for example, learning and decision making.

Schroder *et al.* (2007) identify the usefulness of 'user' and 'context' orientated approaches to research the audience in the digital age. The interviews at the interface focused on real-time interactions and took place in settings which, in some way, reflected participants' everyday use; they were carried out in places familiar to the participant and typical of participants' routines. Interviews took place in workplaces, for example a school and in participants' homes. Although the participants had a choice, the home was the most common location selected for interviews by participants. Interviews often take place in localised interpersonal contexts and specific settings designed to reflect the nature of the research. Context is very important to the qualitative interview (Kvale 1996:44). This is because interviews are sensitive to the contextual production of meaning, rather than being quantifiable and commensurable across contexts and modalities (ibid). Interviewing at the interface was designed to provide access to important *contextual* information about SNS practice. Interviewing at the interface allowed the researcher, to not only ask questions about use, and to get an insight into devices used to access sites, but to observe first-hand how people encountered and interacted with sites in active use. It capitalised on the benefits of being able to observe users' interactions with sites. As a qualitative mode of enquiry, observations are thought to enable the researcher to witness what participants 'do' rather than relying solely on what they 'say'.

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[83] For example, stimulated recall (SR) is a technique which introduces artifacts such as objects, documents and images e.g. photographs, into the research process to stimulate and facilitate the data collection.

Table 2: Schedule of Interview Themes

Understandings of Sites	A series of questions to gather data on participants' understandings of Facebook and Twitter.
Routine Practices	A series of questions about their routine practices, on past and present sites, including access, time spent on sites, key activities and practices.
Motivations for Use	A series of questions about their motivations for using Facebook and Twitter and other SNSs, if applicable.
Networks/networked Connectivity	A series of questions designed to gather data on their network connections on Facebook and Twitter.
Interactive Tour	Participants were asked to give the researcher a guided tour of the site, 'walking and talking' the researcher through key areas and features .
Key Features	A series of questions designed to further focus on key features identified by the researcher and the participant.
Design	A series of questions about the overall design of the site, including what participants liked and disliked about the design.
Control and Settings	A series of questions about settings and control within the site, for example, settings and controls over personal information flows.
Understandings of the Technology	A series of questions to gather data on what participants' knew and understood about the technology, including the parent companies.
Learning to use the Technology	A series of questions designed to gather data on evolving practices, including initial experiences on sites and how they figured out how to use key features.
Understanding the Terms of Service	A series of questions designed to gather data on what they knew about the formal agreements that users enter into with SNS operators and third parties.
Open Chat Reflections on the Interview	An open section at the end, to invite participants to talk about any issues not covered in the interview and to enable them to reflect on the interview process itself.

The interviews began with a set of questions to open up discussion about the sites and participants routines. Following this, participants were asked to log into the SNS they had selected for the interview and give the researcher an interactive tour of the key areas and features. The tours encouraged participants to 'walk and talk' the researcher around Facebook or Twitter, discussing key areas and features. The researcher tried to maintain an unobtrusive presence during these tours, watching and observing interactions whilst participants toured and interacted with the sites. The tours were largely unstructured; they were designed to reveal how participants interpreted the site as an interactive digital platform, for example, how

participants traversed spaces, sections and links within the site, which features they registered and regularly interacted with and which ones they largely overlooked or bypassed. The tours enabled the researcher to gather data on navigational techniques and the sequence and flow of use. It helped signal the relative importance of features in users' routine practices and provided contextual information on levels of computer literacy and confidence with the technology. Importantly, interviewing at the interface enabled the researcher to observe, and enquire about, participants' reactions to developments happening in real-time on sites. This was followed by a set of focused questions informed by the literature review and analytical framework. This allowed the researcher to discuss particular areas/features of the site that were not necessarily covered in the tours but were deemed by the researcher to be important for understanding practice. In line with Schroder *et al.* (2007), the research was committed to involving participants in the researcher's analysis of the relationship between design and practice. The research provided participants with the opportunity to discuss, reflect and evaluate the design of sites, in the context of wider discussions about their routine use, and experiences of SNSs. Interviewing at the interface was committed to being a user-oriented approach to studying SNSs, albeit one which took seriously questions of design and the materiality of the technology.

All interviews were recorded using a digital voice recorder. Interviews typically lasted between 1 and 2 hours. Observations made by the researcher were recorded using hand written notes. These were done discreetly and kept brief, so not to distract from the interview process. All interviews were downloaded onto a laptop and transcribed by the researcher. Audio recordings were listened to in full and then transcribed into a word processed text. The finalised transcripts were checked again against the original audio to ensure they were an accurate account of the interview. Interviews were prepared for coding and analysis. Pseudonyms were given to all participants and each interview was supplemented by the observational notes taken during the interview. Each interview transcript ranged from 12- 20 pages of A4, (double spaced) which provided between 250 and 400 pages of data for analysis. The interview transcripts were manually coded for emergent themes, the data collected was inevitably informed by the topics covered in the interview, but significant weight was given to looking for emergent themes and patterns within the data. The decision was made not to use a computer assisted data analysis tool such as NVivo. This decision was made on the grounds of data set size and past experience coding manually and with NVivo. Themes were initially identified using the highlighter facility in word to colour code relevant sections and quotes

into themes. For example, 'yellow' signalled the theme relating to privacy. The highlighted sections in each interview were copied and pasted into new Word documents representing themes, and subject to further analysis. Once an initial thematic analysis was completed, the highlighted interviews were reset (coding removed). Inevitably, there is a sequential logic to coding, and the researcher's understanding of themes will develop as they code. As a way to cross check that the researcher's initial codes were reliable and consistent, the process was carried out for a second time. The themed documents which contained relevant quotes and analytical notes formed the basis for the write up of the interview findings.

In summary, in light of the research aims, interviewing at the interface was a highly appropriate method of data collection, which worked in synergy with the site analysis to examine the relationships between social media design and practice. It gathered data on participants' understandings of sites and routine practices. It enabled the researcher to observe interactions at the interface and it encouraged participants to discuss and reflect on the site during the interview. Interviewing at the interface was a highly useful technique for helping to focus discussion on the technological platform at hand. Moreover, it provided important data on users' interpretations of design, which this research considered key to understanding how people use SNSs in practice. Lastly, the research was intended to illicit participants' views and opinions on design, therefore having the platform at hand allowed the user to make explicit reference to the design features during the interview. However, like all methods, the technique of interviewing at the interface in order to observe real-time practice has certain limitations. For example, the presence of the interviewer did influence the participants' engagement with the site. Narrating and reflecting on use is not a normal feature of routine use and it is likely that this influenced how participants interacted with sites during the interview and what observations could be made by the researcher. Although the interview did strive to replicate a routine session, the presence of the interviewer and the nature of the interview will have inevitably had an impact. The planned nature of the interview meant that participants' routines were de-contexualised and re-contextualised as part of the research process. Nonetheless, interviewing at the interface was an immensely valuable technique for studying people's use of social media technologies. The disruption was designed to be minimal and aspects of the interview gave the participant large degrees of control, for example, the part of the interview focused on the interactive tours of sites, led by the participant.

5.14 Ethical Considerations

Ethics is concerned with moral values; the rights and wrongs in everyday conduct. In social science research, ethical discussions are unavoidable. Researchers must demonstrate awareness of how their research conduct is located in these wider ethical issues and concerns. Researchers have an ethical duty to ensure that, at all times, the best decisions and measures are taken in the design and conduct of social research. They must (1), be open and honest about research conduct (2), suitably and accurately inform participants of research agendas (3) avoid actions that may intrude on participants' privacy and protect the participants physical, psychological and social wellbeing and (4), give participants the right to withdraw from the research process at any time. It is the researcher's responsibility to uphold the integrity of the discipline and therefore they should work in accordance with established disciplinary codes of conduct and guidelines.

This research followed the code of ethics and guidelines provided by the British Sociological Associations (BSA), Media, Communication and Cultural Studies Association (MeCCSA), and the Association of Internet Researchers (AoIR). Measures were taken to obtain informed consent and to protect participants' rights to privacy, confidentiality and autonomy. The research was explained to the participant before the interview was scheduled and consent was obtained prior to the interviews (see Appendix 2). The consent forms provided the participant with clearly presented, accessible and accurate information about the nature of the research, including what was required from the participant during the research e.g. expectations of their contribution. The informed consent also explicated how the research would be disseminated. Participants were informed that they held the right to withdraw from the research at any time. The researcher requested access to participants' personal accounts which opened up the possibility of accessing potentially personal or private data, but no screenshots were taken, leaving no permanent record, and the participant could request details to be left out of the research if they so wished. Participants were informed at the start of the interview that they could signal during or after the interview if they did not want things to be included in the research write up. They were informed that all data would be confidential and stored securely on a password protected server. Participants were told that data would be kept for a time period of five years following the research, after which it would be destroyed. It was made clear that in the write-up of the thesis and the dissemination of the findings, participant identities would be concealed under a pseudonym to preserve anonymity. During the conduct of the research, the researcher was invited into personal/private spaces, such as a

participants' living room or bedroom. In these instances times and dates were agreed beforehand, permission was given again before entry and the researcher treated the participants private spaces with due respect.

The Internet is a key research site (Hine 2005). The Internet has been described as cultural artifact *in* research and a cultural context *for* research (ibid). In line with the AoIR ethics guidelines (2012), this research is classified as Internet research on the following grounds:

- It studies how people use and access the internet, i.e. through collecting data on interactions at the interface and observing activities and participating on SNSs.
- It studies software, code, and internet technologies.
- It examines the design and structures of systems, interfaces, pages, and elements.
- It employs visual and textual analysis, content analysis, and other methods of analysis to study the Web and internet-facilitated images, writings, and media forms.

Researching the Internet requires researchers consider ethics particular to the nature of the Internet research. The guidance documents provided by the AoIR 'Ethics Working Group' (2002; 2012) provides a respected framework to think through such ethical issues and offers guidance to assist researchers in making ethical decisions with regard to the *specific* challenges that might emerge in the research process. For example, a key issue in Internet research is how to determine what information should be considered public and private with regard to online data and user-generated content. The (2002) AoIR guidelines states that 'the greater the acknowledged publicity of the venue, the fewer obligations there may be to protect individual privacy, confidentiality, and the right to provide informed consent'. However, SNSs are frequently described as both public and private spaces (boyd 2009). In SNSs, the degree to which the information is public depends on a variety of factors including the design of sites, context (Nissenbaum 2010) and an individual's account and privacy settings. The updated (2012) version explicates this issue in their account of public/privacy definitions:

> Individual and cultural definitions and expectations of privacy are ambiguous, contested, and changing. People may operate in public spaces but maintain strong perceptions or expectations of privacy. Or, they may acknowledge that the substance of their communication is public, but that the specific context in which it appears implies restrictions on how that information is -- or ought to be -- used by other parties.

Researchers have to consider the suitability of the publically-private nature of sites, and user-generated content in their research. This research was concerned primarily with analysing platforms (and people's interactions with platforms) rather than user-generated content. Facebook and Twitter are available in the public domain and analysis of the platform did not encroach on people's privacy. This said, screenshots were taken which included user-generated content. Capturing user-generated content was unavoidable - once registered and actively using a site it is not possible to take screenshots without capturing user-generated content of some sort. All screenshots were taken from the researcher's personal account, so the data was classed as belonging to the researcher. Moreover, the researcher was primarily interested in the platform, not the user-generated content. Any user-generated content that was captured was not the focus of the analysis and, in the main, did not feature, in the write up. In instances where the researcher did want to use a screenshot, appropriate measures were made to obscure any personal information or obtain consent from people whose information was clearly displayed in the screenshot.

Research should not exploit participants for research gain - rather, it should try to consider how the research can benefit participants or participant communities. Bakardjieva, Feenberg and Goldie (2004) advocate the need for Internet research to take a more user-centred approach to questions concerning how research can benefit the user-community. In their article 'User-centred Research, The Ethical Challenge', the authors recommend a user-centred focus in Internet research that would work collaboratively with, and in the interests of, the user. Bakardjieva *et al*. (2004) show concern that Internet research has in the past had very little relation to practice. Internet practice is largely understood as the design, engineering and construction of technical systems and their application. They argue Internet 'practice' rarely relies on Internet research, which creates a 'disconnect, between practice and research'. In Internet research they ask, 'what does the research participant get out of it?' (2004:344). They recommend a social constructivist approach to Internet development which acknowledges users' contributions to the shaping of the technology as a new communication medium, therefore it advocates taking seriously users' experiences of design to help overcome this theory-practice gap. The authors explain (2004:334-335):

> Numerous social groups have a stake or an interest in how the Internet is built, employed and regulated. Identifying and articulating the diverse interests of all groups, especially those typically deprived of a voice and visibility, become a central task of research.

Whilst this research does not directly benefit the participants involved, the research does aim to benefit the broader user-community by giving users a voice in social research about social media design and by feeding the findings back into design communities and public policy debates, for example around issues of privacy and commercial transparency. This research values treating participants as collaborators, attributing significance to their actual engagements with technology in everyday life and their position as knowledge providers. The research encourages participants to discuss their interpretations and understandings of SNSs and the research provides a medium/platform for their views and opinions on design. It is thought that this research will contribute to current debates on policies regarding design and privacy[84].

5.15 Conclusions: Researching @ the Interface

This chapter has explicated the research aims and objectives and summarised the methodological standpoint and research approach taken. It has explained the qualitative approach taken, informed by a form of critical social constructivism which is aligned with the theoretical framework configured in Chapters 3 and 4. The chapter has provided details of the conduct of the research in terms of the research site(s), research participants, data collection techniques and modes of analysis. It has also discussed the role of ethics and outlined ethical issues relevant to the research and measures taken in response to this. The following chapters present the findings of the empirical work. The final chapter explicates the conclusions and makes some tentative recommendations for design practice and policy and identifies areas for future research.

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[84] Such as debates on privacy by design, see for example the FTC (2012) Report 'Protecting Consumer Privacy in an Era of Rapid Change'.

Chapter 6: Techno-cultural Design @ the Interface

6.1 Chapter Overview

The physical structuring or 'architecture' of a space has a very real impact upon how action and interaction are organised within it (Goffman 1961). This is also true for digital spaces (boyd 2011, Papacharissi 2009; 2011, Zhang 2010). This chapter demonstrates how design, as discerned at the user-interface, works as a digital structure for shaping social media/ted practice. The chapter discusses key findings of the site analysis, namely (1) the site-specific affordances of Facebook and Twitter and (2) the organisational strategies and cultural coding at the level of the user-interface. The chapter draws on a range of literature to discuss key issues regarding power as it operates in digitally networked environments. This chapter does not intend, nor would it be possible, to cover all aspects of design, rather it endeavours to provide an informed analysis of selected issues regarding design in order to support the discussion of social media/ted practice in chapters 7, 8, and 9.

The discussion of site-specific affordances is based on the findings from the analysis of the micro-architectures of Facebook and Twitter (selected details of this, including key forms of networked connectivity and key interactive features, are explicated in Appendix 4). The analytical discussion of the organisational strategies and cultural coding is based on systematic analysis of the user-interface of Facebook and Twitter, which uses screenshots to highlight pertinent areas of the sites. This discussion is focused on analysing the *re*presentation of afforded actions and interactions in terms of the cultural coding of features. It reports on how design works to facilitate the process by which technology is seen, and becomes useful and meaningful. The discussion on design includes analysis of the layout and symbolic coding of features and controls and analysis of the 'design languages' (see Rheinfrank and Everson 1993) embedded in the site, which collectively frame opportunities for connectivity, technical and social interaction, account management and privacy.

At this point it is important to provide a disclaimer regarding the use of screenshots of SNS interfaces as an analytical tool used to present the analysis. Screenshots are always contingent on the device used to access the site[85], the mode of access (e.g. Web or

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[85] Access via mobile applications and devices typically result in a mode of access with limited functionality due to a restricted set of features.

application), and on the date it was taken, all of which can affect the presentation and functionality of the site. Moreover, SNSs are 'in permanent beta'; a state of on-going development and modification which means they are subject to the possibility of change. Facebook and Twitter, like many Internet research contexts are dynamic and mutable contexts for analysis (Hine 2005). However, as the primary aim is to examine the relationships *between design and practice*, the emphasis is on examining design in the context of data about SNS practice. As such, important points of change and continuity in design are addressed in the research findings and the discussion is firmly located in the context of practice.

6.2 The Interface as a Techno-cultural Text

'Naming is always an exercise in power … The future of cyberspace, therefore, will be determined not only through the invention of new hardware (and indeed software) but also through the names we employ to describe it' (Gunkel and Gunkel 1997:133, cited in Papacharissi 2009).

The technical and cultural coding of software is intractably intermeshed. The user-interface is a cultural wrapper for technological affordances (Manovich 2001), a codified access point presenting the technical features and functions of the technology that are available for a user to interact with. The user-interface is strategically designed in ways that make machine readable code accessible and technically and culturally meaningful to the user. It is a *re*presentation of the technology that brings the technology into meaningful existence for use in a social context. Like in any medium, a representation refers to the *re*-presentation of aspects of 'reality' such as people, places, objects, events and other concepts (see Hall 1997) The user-interface is a representation of the technological affordances of the software medium and a space for the representation of social relationships, interactions and contexts. With regard to social media the user-interface is also the area whereby underlying computational processes organise the mediated social - it simultaneously processes and represents UGC in real-time. In user-interface design, Web designers tend to stress the importance of technical transparency; a principle which dictates that design should make it clear to the user how to interact with the various features available. However, this technical transparency should not be misinterpreted as a straightforward transmission of technical meaning. Rather, both the technical functionality and the framing of that functionality are socially configured by designers working in particular organisational contexts, themselves embedded in wider social, economic and cultural contexts. The specific design of the user-interface can therefore be

analysed in order to interrogate some of these strategic decisions and comment on their relationships to wider social, cultural and economic contextual factors.

6.3 Before There Are Sites, There Are Concepts

The question is not 'what is technology?' the question is 'how is technology? (Bijker 2010)

Technologies do not just come into existence, they have to be imagined, designed, developed, tried, tested and appropriated. As Bijker (2010) reminds us, we should not ask 'what is a technology?', we should ask 'how is technology?' Initial concepts play an important role in shaping technologies – they inform conceptual models. In a general sense a conceptual model is anything used to represent anything else, (often to represent more complex elements, processes and interrelationships). As SNSs are designed to facilitate interaction, they contain conceptual models of sociality. These conceptual models become intermeshed in the technology and they iteratively evolve with it. Designers often use existing cultural concepts in a strategic attempt to render the technology meaningful so that they can be understood, interpreted and integrated into practice. Conceptual models can help people make sense of new technologies and experiences[86], for example, they can provide meaningful frameworks for end users of a technology to help them understand what could seem like arbitrary functions and signs.

Both Facebook and Twitter are built on existing models of internet communication but they have particular conceptual models of sociality built into them. The conceptual model used to render Facebook meaningful was the location-based common/shared educational experience and Twitter the quick, short, public messaging service similar to texting. The original concept of Facebook drew inspiration from the yearbook and Twitter from existing short messaging services (SMS) and blogs. Facebook was originally designed as an interactive yearbook to connect students in educational institutions, giving users information about people, events and aspects of the educational experience (Kirkpatrick 2010). Yearbooks typically contain *photographs* of students and *details* of student classes and school *activities*.

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[86]. They allow people to react to new situations by applying what they already know . Explanations and interpretations are key to human practice, these conceptual modes helped users to make sense of things and to learn about the technology.

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From the offset the model of sociality thus emphasised a common *physical location* and experience among its users. Over the years, photos and news feeds about people's interactions and activities have become a defining characteristic of the site. In contrast, Twitter, (Twttr as it was originally termed) was designed as a system which would enable account holders to send a *text* to a location (i.e. Twitter) and have that text automatically *broadcast*. Whilst both services included a personal profile and networked communicative exchange between people, Facebook focused on personal profile building and Twitter on the capacity to send frequent SMS type messages. These sites have evolved significantly over the years (and continue to evolve in light of one another, see Chapter 7), however these basic conceptual models can still be identified. Their particular models of sociality can be identified in the forms of networked connectivity and the opportunities for networked interactivity (see Appendix 4) as well as in the cultural coding of features, and the broader design languages of sites. Where, as Van Dijck (2012: 46) observes, the use of various coding technologies at the interface inscribe how online social interaction should be conducted. These models are also observable in the networked cultures that are associated with each site (see Chapter 7). As this thesis will go on to argue, this is an example of the triple articulation of social media/ted practice - the interplay between social shaping of technologies, symbolic coding and social practice.

Figure 2: Screenshots of early Facebook and Twitter Welcome Pages

(*Twitter screenshot sourced http://www.mediabistro.com/allTwitter/first-Twitter-homepage-design_b13740*)
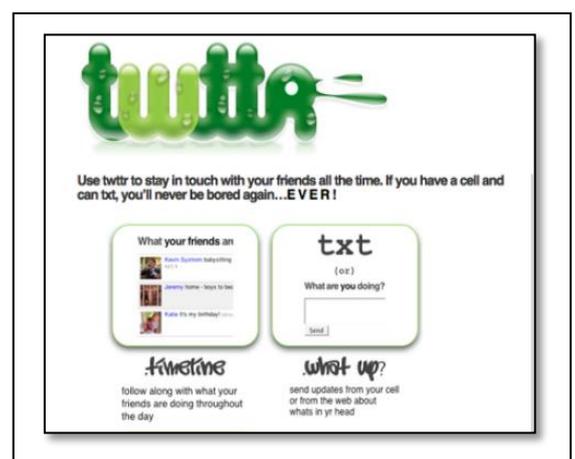
6.4 'First we shape our tools, thereafter they shape us' - McLuhan, 1964

Social media contain existing technological and representational formats as their building blocks, but also add many new, previously non-existent properties (Bolter and Grusin 1999, Manovich 2001; 2008). Each SNS is effectively a novel micro-medium that operates on the Internet, in a wider networked ecology, channelling social interaction and public engagement in a variety of ways. In the process, they transform social practices that happen in non-digitally mediated contexts. For example, SNSs take interactions that may have been ephemeral, transient and otherwise 'unmappable' and make them permanent, 'mappable', viewable and searchable. Moreover, SNSs commutate these interactions; user interactions are constantly being algorithmically processed in real-time and represented (*re*-presented) back to users.

A comparative analysis of the micro-architectures and affordances of Facebook and Twitter is provided in Appendix 4, but several important points should be highlighted. Both Facebook and Twitter afford the following: one-to-one private messaging, one-to-many public 'posting', uploading content (e.g. video, images and hyperlinks) and searching the site. Importantly however, at the time of writing, Twitter affords communicative exchange with users to whom they do not necessarily have a two-way connection and enables a user to publicly address multiple users who need not share any connection with the sender or each other, whilst Facebook typically requires any users involved in this type of public exchange to consent to the interaction[87]. In contrast, Twitter enables a distinctive mode of 'addressivity'[88]. Furthermore, Facebook is distinguished by its extensive features for organising, tagging and displaying photos. Whilst Twitter is equipped with photo and video features, at the time of this research there were notably less controls relating to tagging, organisation and display of visual content. Lastly, there are important differences in the way in which privacy is designed into the two sites. Twitter has a binary option (public or private Tweets) whereas Facebook offers more extensive and granular options. Moreover, Facebook has a real name policy whereas Twitter enables users to select a 'handle' to go by, which may, or may not be there real name (*see Tables 1-7 in Appendix 4*).

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[87] The introduction of the Facebook subscribe button, part way through this research, has introduced a new form of one-way connectivity on the site.

[88] Addressivity is the process by which a user indicates an intended addressee by typing the person's name at the beginning of an utterance, often followed by a colon (Werry, cited in Hunnycutt and Herring 2009).

McLuhan (1964) importantly reminds us that 'First we shape our tools, thereafter they shape us'. In order to remain critical about the implications of social media design for social media/ted practice, we must remember that social media technologies and the social contexts they engender are not neutral infrastructures, but contain within them a range of competing values, interests and ideas about sociality and when they are appropriated in use they have the potential to normalise of a set of distinctive practices. For example, Hogan (2012) argues that the real name web should not be conceived of as a technology but rather as a practice and a system of values. Using Facebook as an example, Hogan explains that Facebook's real name policy ensures the sites monetary success, for example, when users expresses interest in something on the site, the real name policy, will all its personally identifiable information e.g. age, gender, occupation, ensures for better micro-targeting.

6.5 Design Languages: Facebook and Twitter

Facebook and Twitter are highly complex technologies which afford many opportunities for interaction that need to be given coherence. Their multiple features need to be organised and presented in a logical manner to help people make sense of the technology, navigate it and interact with, and through it. Their conceptual models of sociality are embedded in their micro-architectures, which afford certain forms of networked connectivity and use, but they are also embedded in their evolving design languages. A design language (or 'design vocabulary' as it is sometimes called) is a coherent discourse that is inscribed into every aspect of the technology (using signs, symbols and cultural references) to communicate technological functionality (see Rheinfrank and Everson 1996). Design languages provide a narrative for people to both *create* and to *interpret* things, therefore design languages act as a bridge both design and consumption/use practices. Design languages are a mechanism by which designers build meaning into technologies, so that they 'express meanings' to be actively engaged with by people. The technologies, the design languages and active practice become intermeshed and evolve in circular interdependencies.

Facebook's design language is characterised by an emphasis on the known social context, the familiar, the 'friend', and the 'social circles' people move in. The design language is intermeshed with the coding of features and is deeply embedded in the overall user-interface design. Facebook's design language has evolved over the years, but as a stable technological narrative it has continuity. Facebook's design language at the time of this

research frames the technology as a social tool, a way to 'connect you with the people you care about' (Facebook 2011), promoting itself as a tool that helps people to connect and share with the people in their lives. The design language emphasises social involvement (social interaction and organisation) and *social sharing*, (information, likes, dislikes, tastes, content) with people in their *social circles* and encourages people to tell personal and *social stories.* For example, when the 'Timeline' was launched in 2012, it was branded as a way for people to tell the story of their life and as a way to express who they are. The traditional profile page was transformed into a searchable archive promoted to the user as a way to tell their life stories in one single page**.**

Figure 3: Screenshot illustraing the design language on the Facebook Welcome Page

Figure 4: Screenshots of the introduction to Timeline, illustrating the design language
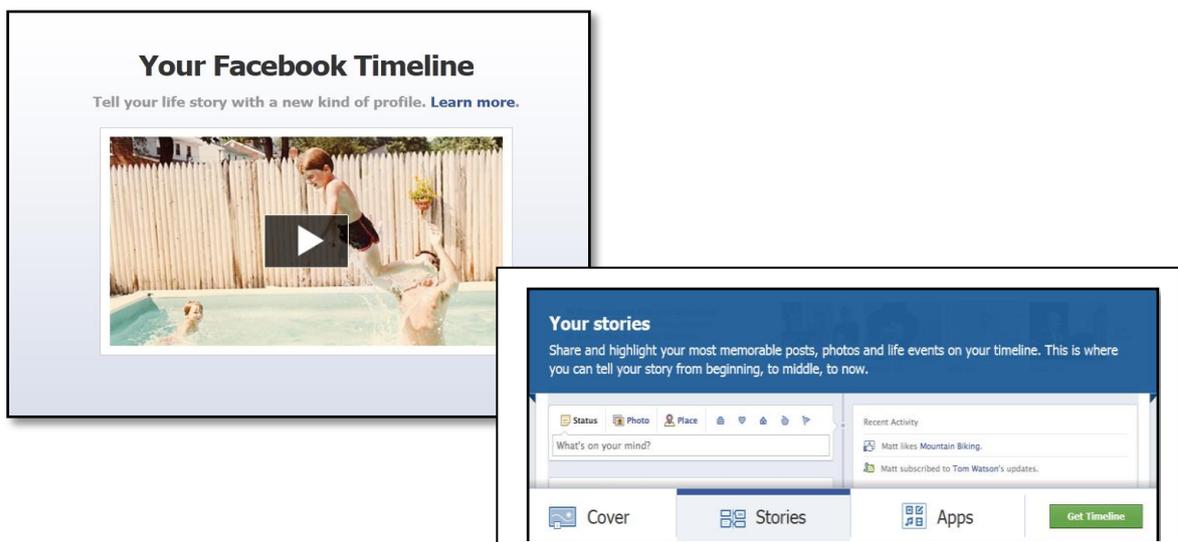
Twitter's design language emphasises the public connectivity, rather than personal social circles and information and conversation, rather than social stories. Whilst both sites are real-

time, the immediacy of communication enabled by Twitter is a key aspect of its technological narrative. The design language emphasises 'immediacy' and access to real-time information and commentary. Whilst it makes reference to sharing, it tends to emphasise the technology's intended use as a way to 'discover' and 'to follow your interests' - Twitter invites us to 'find out what's happening, right now'.

Figure 5: Screenshot of Twitter's Welcome Page in 2011, illustrating the design language

Figure 6: Screenshot of Twitter's Welcome Page in 2012, illustrating the design language
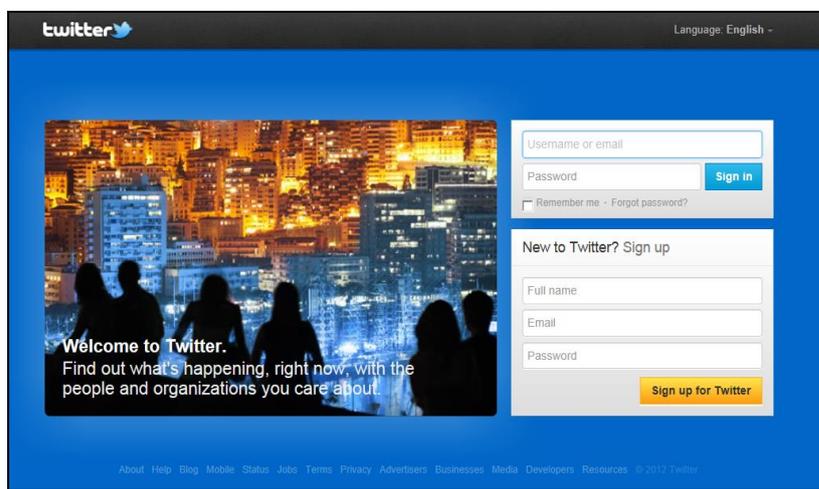
On one level, design language facilitates communication about the technology, however it is important to critically deconstruct the meanings developers encode into their platform's goals and functions. As Bodle (2012), Fuchs (2009; 2011), Langlois (2009) and Van Dijck remind us, whilst these platforms are indeed social technologies, insofar as they provide the techno-cultural conditions for interaction, they are more than social tools. These technologies are

embedded in wider networked and information-based ecologies, which are connected to economic as well as social interests. Rhienfrank and Everson (1993) acknowledge that design languages can be usefully appropriated to develop the core elements of a successful corporate strategy. Design languages can be understood to play a key role in reflecting the interests and the agendas of influential individuals and relevant groups in the design, development and trajectory of a technology. As van Dijck (2013) argues, some of these meanings encoded into the design reflect rhetorical attempts to absorb utopian web 2.0 connotations into corporate missions (2013:11). Facebook's business model is based on leveraging its 'social graph' to enable it to monetise the data the site collects about its users. Twitter's corporate strategy is still evolving but the introduction of promoted tweets signals a move in a commercial direction and there is huge potential and possibilities in leveraging Twitter's 'interest graph'. The design language is a narrative that serves a number of competing interests; it works to bridge social media technologies as meeting places *and* market places (van Dijck 2012: 62). This is also the case for the term 'social media', which denotes a particular 'social' lens for the wider forms of connectivity afforded by these technologies. As van Dijck has argued, social has become an umbrella term that reveals more than it conceals.

6.6 Coding for Sociality, Building Networks and Interacting is Easy

Facebook and Twitter are structured around the principle of sociality, the relations between self and others (Bucher 2013)**.** Stutzman (2006) refers to this as the inherent sociality of SNSs. As Papacharissi (2009) explains, without information flowing between individuals, the social network becomes a-static or a-social environment. Branded as 'social' tools, Facebook and Twitter provide distinct techno–cultural conditions for networked interaction. As a concept interaction is frequently used to describe both the interaction between sites and users and the interaction between users and other users that is mediated by the site. Opportunities for interaction cover all available features, buttons, and controls. Some of these opportunities are orientated more towards interaction with the site and interaction with user-generated content, for example site navigation and account management. Other opportunities for interaction are orientated more towards more direct forms of social interaction, for example the tweet, the hashtag and the directed message on Twitter and the status update, messages and chat facility on Facebook.

Social media technologies are complex multi-functional technologies which have numerous affordances (opportunities for interaction) built in. It is not possible, nor is it desirable from a designer's point of view to give equal weight to all opportunities for interaction. Features cannot be presented uniformly to the user, they need to be organised according to 'priority' within particular areas of the site and arranged into technically useful and culturally meaningful frameworks for user interaction As such decisions are made about which interactive opportunities get priority in key areas, and indeed which get visible priority on the screen (at the user-interface), and which are located in drop down menus.

Both Facebook and Twitter give priority to features aimed at connecting and encouraging social interaction, including conversational or commentary features, or content sharing facilities. Opportunities for social interaction include open-text boxes such as posts, tweets, messages, chat as well as more pre-programmed interactive options such as the 'favourite' button in Twitter and the 'Poke' and 'Like' buttons in Facebook. For example, Twitter gives priority to the Tweet box – the central mode of communication, which uses algorithmically generated UGC feeds – the Twitter feed, Interaction feed and Discover feed. These are all centrally located and take up a large proportion of the screen, in addition there is also visible access to trending topics and the search box also received priority to facilitate users in navigating UCG. As figure 3 shows, the search box is centrally and visibly located on every screen to facilitate users searching UGC and the tweet box is located at the top of every screen to present users with the opportunity to create UCG. In addition, both sites encourage connectivity, for example Twitter provides recommendations for whom to follow. Twitter initially recommends people during registration, whereby Twitter algorithmically suggests a set of accounts deemed to be of public interest. Once the account is set up, Twitter displays recommendations down the left hand side of the screen. It is important to highlight that these recommendations are also *algorithmically generated* based on existing connections, making some options for connectivity more visible to the account holder than others (Bucher 2012; 2013). Recommendations are often based on codified ideas about interest and 'compatibility' (Bucher 2013).

Figure 7: Screenshot of key interactive areas on Twitter's Homepage
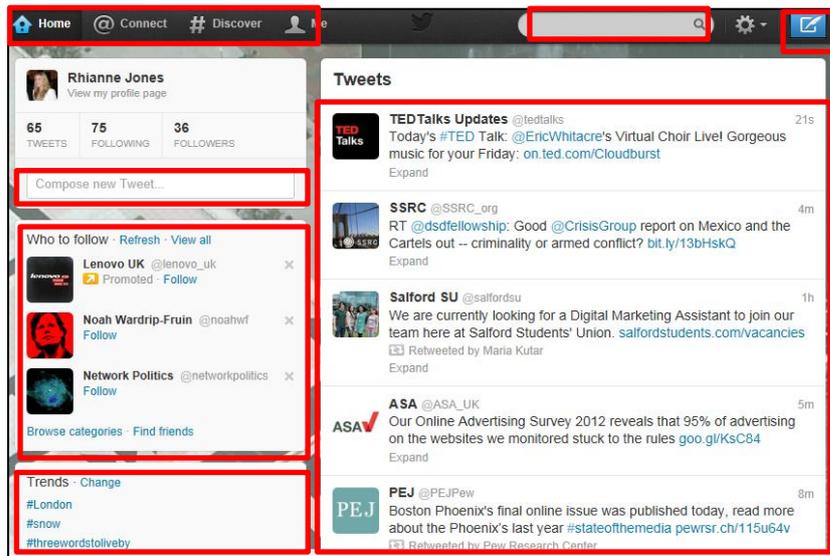
Figure 8: Screenshot of key interactive areas on Twitter's Discover page

Figure 9: Screenshot of Twitter's recommendations of people to follow during registration
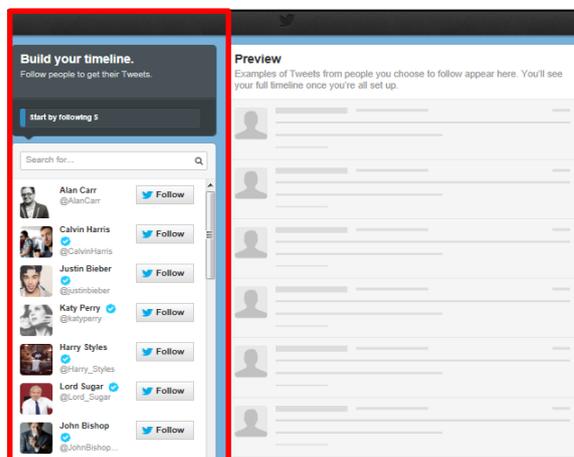
Similarly on Facebook, priority is given to UGC feeds (the news feed on the homepage and the mini-feed or Timeline on the profile page). The search facility is also located centrally on the screen to facilitate navigation of the site and UGC. The status update is also given priority as are a range of opportunities to upload content e.g. videos, photos. In addition, the 'chat facility' can be accessed from all key areas. As van Dijck (2013) observes, the coding qualities of Facebook, include connectedness and directing users to share information with other uses through purposefully designed interfaces. Recommendations for 'who to be friends with' and reminders of birthdays and social events are also displayed visibly on the homepage. Recommendations for friending are generated according to an algorithm's computation of existing networked connectivity. Facebook suggest 'people you may know' based on algorithmic processes that analyse the social graphs. In particular, Facebook calls attention to 'mutual friends' – friends two people have in common. In Bucher's (2013) recent examination of the programmed nature of sociality of Facebook, she argued that this is a strong example of the subtle ways in which algorithms can be considered actors in the sense that they prompt action, do things. These recommendations are presented to the user at the interface, making them visible within the networked social context. For example, Facebook may recommend an old school friend based on the fact that a current friend of yours who went to the same school shares a similar friend, who also went to the same school. Here the algorithm works to encourage users to "remember" people from the past and prompt users to take certain communicative and relational actions (Bucher 2013:2).

Figure 10: Screenshot of the Facebook Homepage, highlighting the key interactive areas/features

It is not only important to understand that relationships are activated online, but also *how* they are activated: by whom, for what purpose, and according to which mechanisms (van Dijck 2012:161). Bucher (2013) takes a similar positioning, asserting that technology is not neutral, but a 'mediating and productive force'*,* she shows how sociality is *programmed* (i.e. encoded, assembled, and organised) in order to consider how users are encouraged to relate to themselves and others on sites. This has important implications for social media/ted practice. Making friends on Facebook is an active social process - just because a friend is recommended by Facebook does not mean that the recommendation is activated by the user. This said, the subtle ways in which the interface reminds users of potential available connections and introduces users to each other assists in the production of social connectivity on Facebook.

As the screenshots above reveal, Facebook and Twitter programme sociality in specific ways, they provide channels for connectivity, recommendations, and make visible a range of opportunities for social connectivity and social interactivity. As Norman (1998:13) explains, 'visibility' is one of the key principles of user-centred Web design. The visibility of options is key to making use transparent and easy (1998:25). Visibility works as a central mechanism for making the designer's *intended use* apparent to the user. It helps to ensure an artifact or technology is perceived in particular ways for practice. Analysis of Facebook and Twitter user-interfaces show that sites prioritise generating and showcasing UGC (uploaded information and archived interactions between users).

However it is not just how the visibility of opportunities for interaction might encourage the generation of specific types of UGC - the specific way interactivity is coded into sites is also very important, for example, through the use of digital controls. The different digital controls available for variable types of interactions can be analysed to consider how opportunities for interaction and agency are coded into a site, notably, with regards to creativity and control. Particular types of controls are used to shape interactivity in particular ways, they give users different degrees of agency, e.g. of select box with pre-determined options predefines interactions as opposed to an open text box where users have more input into the content (Manovich 2001). The digital controls available have important implications for understanding the specific nature of interaction with regard to the balance between agency and automation. Facebook and Twitter both have key features and opportunities for interaction which are largely open, meaning that users can (within pre-defined limits)

creatively express themselves, (for example on Twitter through written text in the form of a tweet and on Facebook through the direct message, status update, posts and chat facility). These options afford a high level of control and creativity in content production. However, SNSs also contain a number of pre-programmed features, for example, in Facebook the 'Poke' and the 'Like' button are comparatively closed options. The Like button has become a key feature for Facebook; it creates click signals which generate stories which can be circulated around networks. However choice is restricted - the 'like' button, stands relatively alone as a pre-programmed response to content: users can only express themselves through 'liking' content. The Like button has a social function on Facebook, to signal approval or taste for example, and it has the benefit of convenience. From the perspective of the site, it is an easy way to generate content in the form of social stories and from the perspective of business it can be used to create a link between companies and users. This is an interesting example of a pre-programmed feature that uses low levels of interactivity to serve multiple interests.

Figure 11: Screenshot of Facebook Like button and Comment box.

6.7 Incentivising Self-presentation and Personal Promotion in Networked Activity: Rewarding the (inter)Active through Networked Visibility

As Bucher (2013) argues, it is important to consider how SNSs organise and construct identity, social visibility and networked attention in specific ways. As previously argued, Facebook and Twitter are technically and culturally codified as 'social' con/texts, they are technologies which provide the techno–cultural conditions for networked interaction. These environments enable people to create a profile, connect to others and visually articulate these connections (Donath and boyd 2004). Suden (2003) and boyd (2008) argue that in order to exist in digitally mediated environments, people must type, or write themselves into being. In addition to this, identities emerge through the wider conversation of the collective. However, sites are codified to encourage self-presentation in particular ways (Marwick 2005). As Marwick notes, many of these sites limit 'identity presentation to a singular, fixed profile', and representation strategies are highly pre-defined. The design of the site has important

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implications for the nature of self-presentation. For example, Facebook has a real name policy and an extensive personal profile, now called Timeline. Timeline aggregates and makes searchable vast amounts of data including who people know, where people go, what they like and so forth. In contrast, Twitter has a relatively limited predefined network facing profile and no real name policy. Twitter users are able to adopt pseudonyms as their 'handle' and are not required to provide extensive profile information.

Whilst the mode of self-presentation varies, at the level of design we can see how opportunities for self-presentation and self-promotion are codified into the sites, and in some cases highly encouraged. Like any form of self-presentation, identity is structured by context - in this case the specific digitally networked context of Facebook and Twitter. In Facebook, the site prompts users at every stage to publish personal information, filling in pre-defined categories, which it is claimed will improve an account holder's capacity to successfully connect and successfully share their story with other users. In instances where information is missing, the site provides 'reminders' to users to add this information. These reminders are codified cues which delegate or attribute memory to the artifact (Norman 1988:72). SNSs rely on users uploading data and if there are missed opportunities to upload data, the sites provide visible reminders to their users. Until actioned, these reminders remain permanently visible at the interface, promoting the user to add content. Not filling in this information makes a person's profile look (comparatively) unappealing compared to more complete profiles.

Figure 12: Screenshot of prompts to publish personal information in Facebook and the Timeline search

Figure 13: Screenshot of codified prompts in Facebook to publish likes, interests and activities
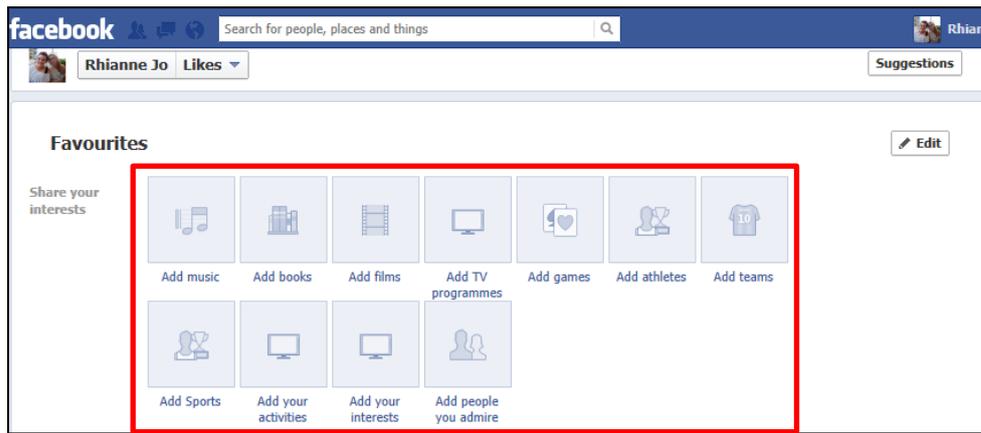
Facebook presents a model of sociality whereby people are encouraged to disclose information to improve their social experience on the site, based on the conceptual model of connecting with friends. However this is not necessarily a pre-requisite for interaction; this information will be known, to varying degrees, by friends already, moreover a user may want to share different types of information with different people – rather than having a relatively fixed and visible display anchored to their personal profile. Bucher (2013:3) explains the motivations for this standardised digital format for self-presentation:

> Users' identities need to be defined within a fixed set of standards in order to be compatible with the algorithmic logic on which these software systems run. If users could freely choose for themselves who and what they wish to say about themselves, there would be no real comparable or compatible data for the algorithms to process.

Facebook is designed to encourage the display of self-presentation through a range of visible cues and signals. It does this by archiving and displaying this information in highly visible ways. In this sense, self-presentation is encouraged and it is anchored through the permanent visible and searchable display of pre-specified categories of personal information. However, whilst the assumption is that this is necessary for social interaction, it is quite possible for people who are known to each other to socially interact in digitally networked environments without these pre-specified expressive channels. The recent move from the profile page to the Timeline has transformed the profile page into a more sophisticated searchable personal archive. The new Timeline is filled with events, 'stories of your life' and it includes networked connections, pictures, posts, likes music interests and places a user has have lived and visited. As an account holder interacts with Facebook, it processes, archives and presents

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this in the Timeline. For Van Dijck (2013), the vertical bar on the right hand side is the most important newly added feature. For Van Dijck this smartly disciplines a user into combining *self-expression* – in this case memory and emotion – with *self-promotion* in a uniform format.

Twitter is not codified in the same way as Facebook for self-presentation. It does not require a real name and the required amount of personal information for the profile is comparatively limited. A short 'bio' is displayed giving a brief description of the account/account holder and uploaded images and videos are also displayed in a media gallery. This said, a pre-requisite to follow someone, is networked visibility. Therefore self-presentation and self-promotion is still codified into the site. On Twitter, users have a profile page, and they become visible through their networked interactions, for example, by contributing to a 'topic', and increasing their networked exposure.

Figure 14: Screenshot of Twitter 'Me page', the outward facing profile information

Despite being limited, self-presentation is arguably more open, because it is less anchored in fixed, visible and personal identifying information. Instead self-presentation is engendered through the tweet and through the use of hyperlinks to signal 'interest', ranging from: likes, dislikes, things an account holder wants to promote, discuss, debate and distribute, which are visible to follower networks. Whilst information about an account holder is archived, Twitter does not showcase and anchor this information in the same way, which contributes to the creation of techno-cultural conditions for more fluid forms of self-presentation, as more weight is given to the performance of identity through networked interaction. Performativity has been identified as an important part of Twitter's culture (boyd and Marwick 2012), along with self-promotion. Self-promotion on Twitter is linked to the capacity to establish networks

of 'followers', which is sometimes described as a Twitter 'fan base'. The one-way form of connectivity allows people to follow people in the basis of interest, rather than connect on the basis of an already known connection, where there is a degree of social symmetry in the relationship. Van Dijck discusses followers on Twitter in relation to the principle of popularity, where people strive for followers as a way to validate social standing. Here, self-presentation on Twitter can be understood as intricately connected with the idea of reputation.

These different frameworks for self-presentation can also be understood as connected to the current business models of Facebook and Twitter. It has been repeatedly argued that Facebook's real name policy is tied to its monetary success (for a detailed discussion see Hogan 2012). However, Twitter's business model is arguably more focused on exploiting reputation, which may or may not be associated with a person's real-name. Twitter's revenue model is founded on the view that advertisers are interested in a person's interest, reputation and influence within a network (network reach). This said, despite variations in real name policies, profile pages and business models, both sites collate a range of data on social demographics, network connections and interests.

Not only do Facebook and Twitter promote networked connectivity and interaction, their design can actually be seen to reward it. Bucher (2012) calls attention to the modalities of visibility of SNSs. Because a user must write (Suden 2003) or type (boyd 2008) themselves into being, activity is directly related to visibility. This is important because it is a further example of the mutual dependencies between companies and user activity. It is possible for a user to interact with sites but if they are not directly contributing in any way, they may not be visible to their networks. For example Bucher (2012: 9) details the codified regimes of visibility on Facebook and the subsequent 'threat of invisibility':

> The problem as it appears is not the possibility of constantly being observed, but the possibility of constantly disappearing, of not being considered important enough. In order to appear, to become visible, one needs to follow a certain platform logic embedded in the architecture of Facebook.

6.8 Dis-incentivising Disconnection and Disengagement

If visibility works as central mechanism for making the designers *intended use* apparent to the user, then the inverse is also true. In comparison to the many opportunities for connection and interaction, both Facebook and Twitter do not make opportunities for disconnection and

disengagement as visible or accessible. Lopez (2012) makes this point in her analyses of what she calls the 'unsocial features of SNSs'.

Within sites there are overt opportunities for social interaction and there are covert opportunities for unsocial action. Facebook illustrates both the visibility of opportunities for social interaction and the less visible opportunities for unsocial action on SNSs. The visibility of the control mechanism for the 'chat facility' varies according to the desired actioned state of sociability. If you are offline, the user is presented with a notification that they are 'currently offline' and the site proceeds to invite the account holder to 'chat with your friends, go online'. The visibility of the control, coupled with the codified incentive illustrates the default 'social' setting that is characteristic of Facebook. However, if a user is online the option to close the chat is represented by a small 'gear' or wheel' - it is not accompanied by a message 'go offline, the discreet size and location as well as the potentially diverse things a wheel could represent, mean that it may not be perceived by the user as an opportunity to close the chat facility.

Figure 15: Screenshot of the controls to open and close chat
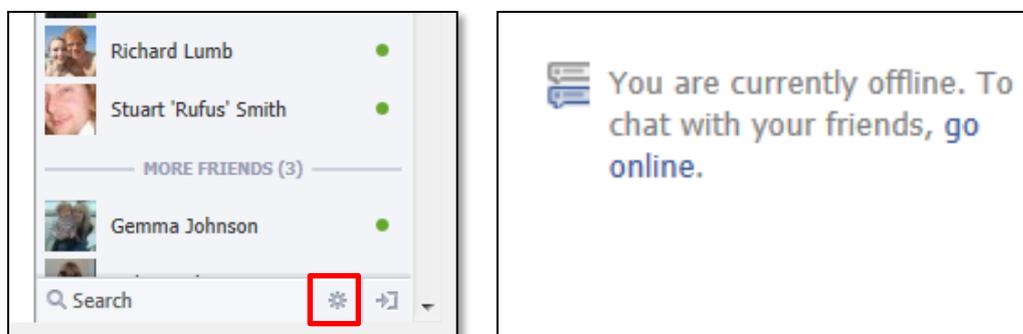
6.9 'Social' Content Sharing Versus 'Unsocial' Content Management

As argued, both sites constantly make visible and accessible opportunities for networked connectivity and interaction, as well creating multiple opportunities for content creation and distribution (in Facebook the term 'sharing' is often used in place of user-redistribution). It has been argued by Papacharissi (2011) that SNSs encourage sharing over withholding information. It is clear that the production and distribution of UCG is encouraged, however, comparatively speaking, the available controls for controlling networked information flows

are much less visible, and are accessible to varying degrees. In addition, there are examples of warnings that could potentially dis-incentivise actioning controls that are related to managing access to content. Lastly, providing users with access to key information about company practices and networked connectivity is made inaccessible on the user-interface, in both position and mode of address. As previously argued, by making some things visible, other aspects of the site are made less visible. As a consequence, these features and opportunities for interaction are not as visible or accessible on the main screen.

In the same way that Facebook and Twitter's design can encourage users to interact with the site in particular ways, the design can also work to close them down - for example , through the use of warnings. Whilst encouraging users to upload, publish and share content through the visibility of features and specified channels, they also dis-incentivise users from using some of the opportunities available to them. Below is an example of a Facebook warning which the user is presented with when they activate the control '*limit the audience for previous posts*'. Limiting previous posts is a way to manage your information flows, however the warning makes this action appear undesirable - it creates a feeling of irreversibility, a final action. The warning icon, suggests that actioning this control may have undesirable consequences. This is an example of a semantic (culturally arbitrary) constraint encoding things to be counterintuitive, which frame action by limiting possibilities (Norman 1986). Furthermore, the message is written is a way which may be difficult to understand. In contrast to the clarity of instructions when it comes to sharing, instructions for 'unsociability (Lopez 2012) are often less easy to decipher.

Figure16: Screenshot of the warning message that appears when user actions 'limit old posts'
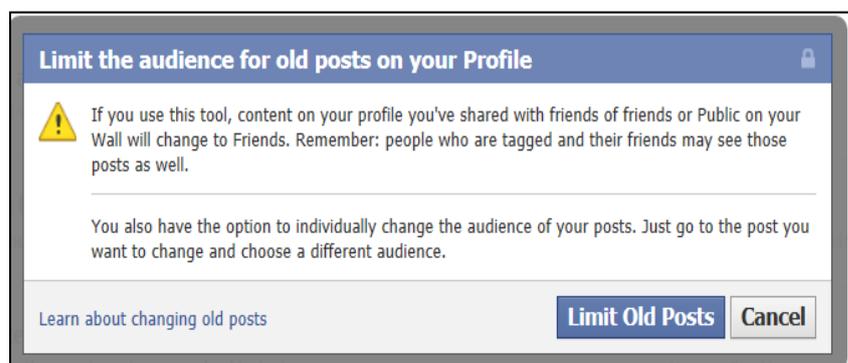
To give an example in Twitter, users can control the tweet options for accounts that they follow. However in order to access these options they must go into the account in question, locate a symbol that opens up a drop box which contain the relevant options. Again, if visibility is an important pre-requisite for use then this may impede the likelihood of these options being used regularly in practice.

Figure 17: Screenshot of the location of the control features for followed accounts

In addition, whilst generating and sharing UGC is often visible and accessible. Account management, for example the account and privacy control settings are comparatively less visible and accessible. In Facebook, privacy and account settings are represented by the 'gear' or the 'wheel' symbol, which opens up a list of hyperlinks to account and privacy settings[89]. To be able to perceive privacy and account options the design implies a prior motivation on behalf of the user, as they are not immediately perceivable or visible. Moreover, there are few inbuilt reminders. In Twitter, this is less important as settings are often clear cut and binary, however in Facebook there are multiple granular privacy controls which need to be processed and actioned. Whilst users are constantly reminded to upload and add content, there are notably less reminders about interacting with network management controls. Those controls are often discrete, 'buried', or opaque until hovered on.

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[89] The padlock was only recently re-introduced, and now and takes you to pre-programmed concerns and privacy shortcuts.

Figure 18: Screenshots showing discrete link to privacy/account settings *and* 'hidden' controls to filter content
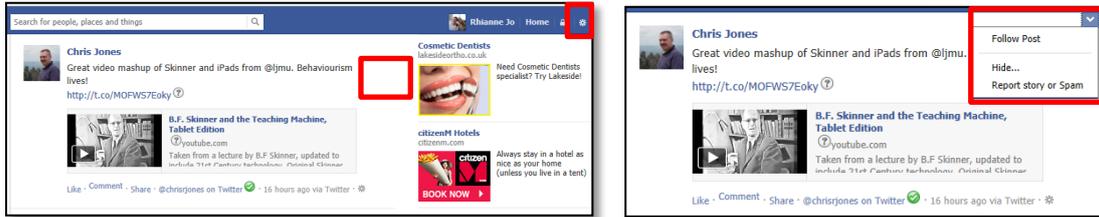
Figure 19: Screenshots of access links to the privacy and account settings on Facebook
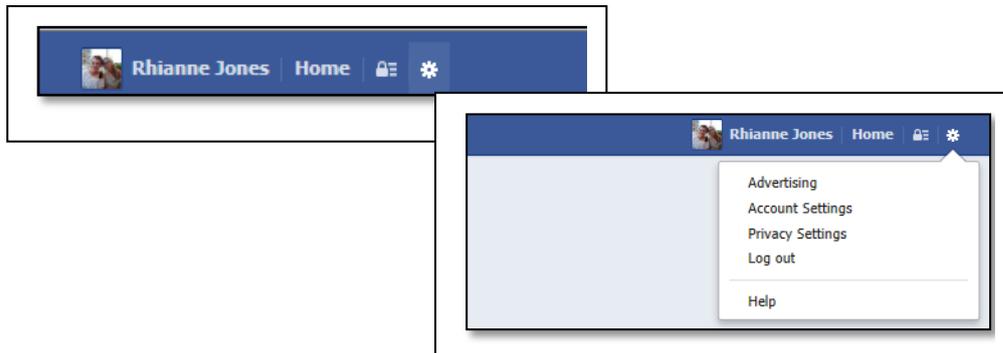
In 2012, Facebook introduced the padlock with privacy shortcuts in efforts to provide a visible route to privacy settings. However, rather than take you to the full available controls the padlock takes you to a set of 'pre-programmed options/actions' - those assumed or deemed important by Facebook.

Figure 20: Screenshot of Facebook's privacy shortcut with pre-specified questions and pathways to privacy controls
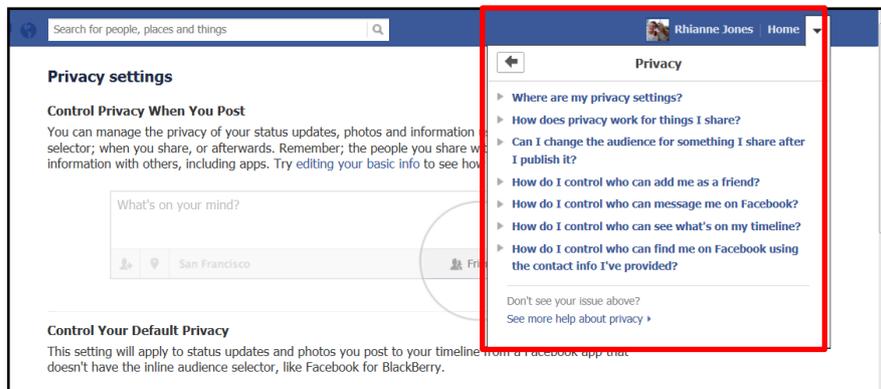
Whilst this makes privacy visible, it frames privacy in a particular way, highlighting pre-programmed concerns. Moreover, Stone *et al.* (2005) discuss the use of drop down boxes to 'house' controls and options that are 'considered less important to help 'users with their goals' (Stone *et al.* 2005). This over-simplistic approach overlooks the fact that the 'goals' themselves are those anticipated by designers and configured by a range of factors, including the way they are technical and culturally codified into the site; goals do not just exist, ready to be facilitated - the technology itself plays a key role in configuring user-goals. Designers are codifying their presumptions about users' wants, needs and goals into the design.

In addition to the less visible codified access routes to privacy and management. In Facebook users are provided with complex, granular privacy and account management controls. This can be contrasted to Twitter's simpler public versus protected Tweets system – whereby account holders can choose a private or public account.

Figure 21: Screenshots of 3 of the 12 available areas which include security/privacy settings

1.
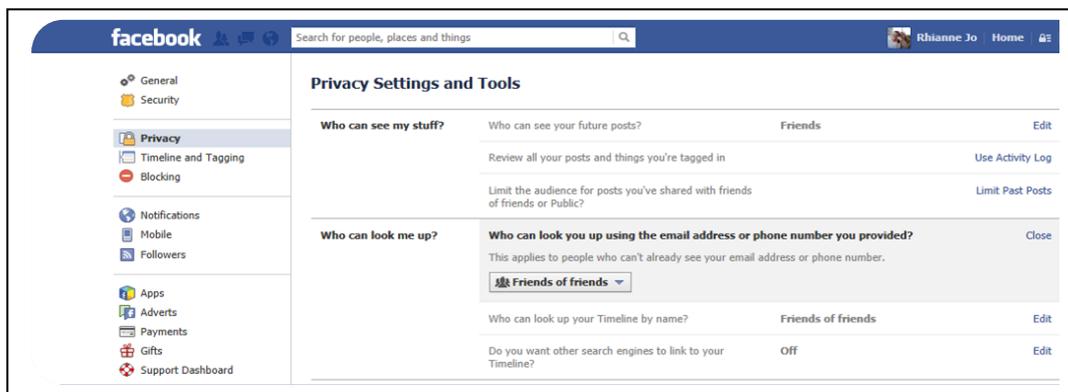
2.
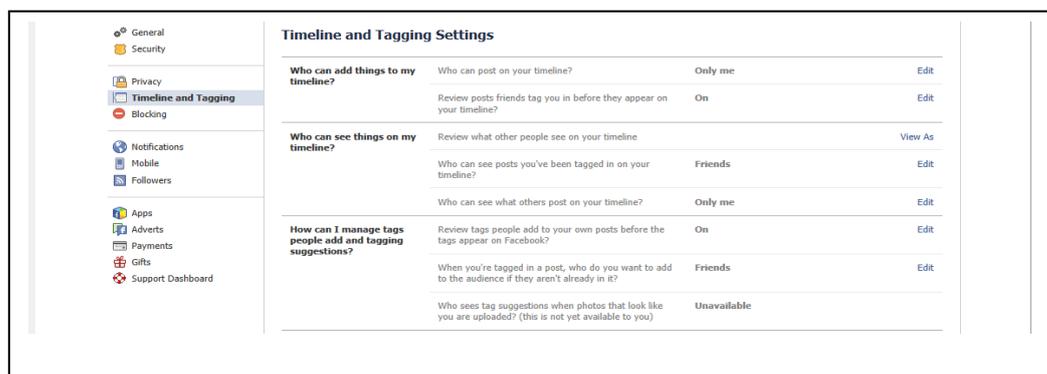
3.
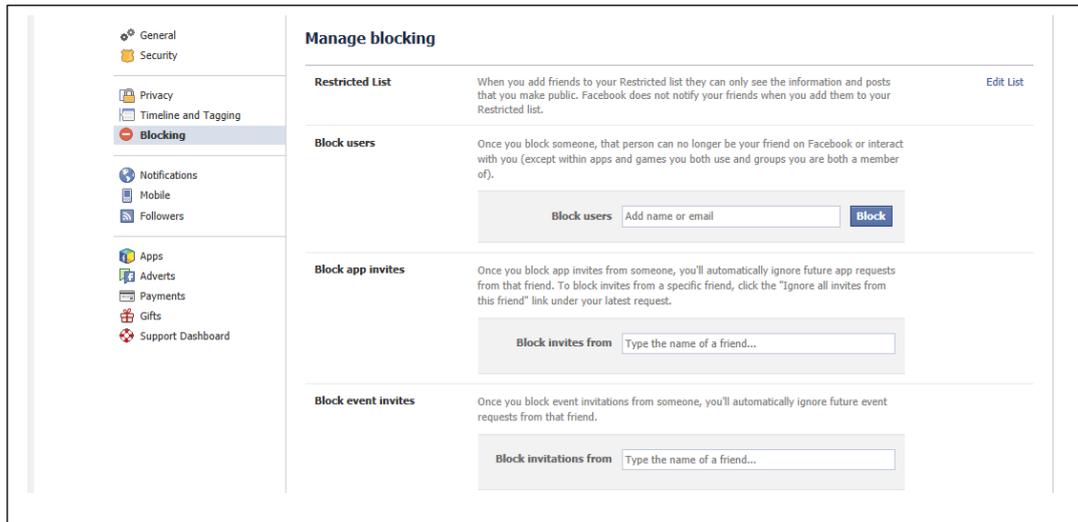
Figure 22: Screenshot of Twitter's binary private/public settings
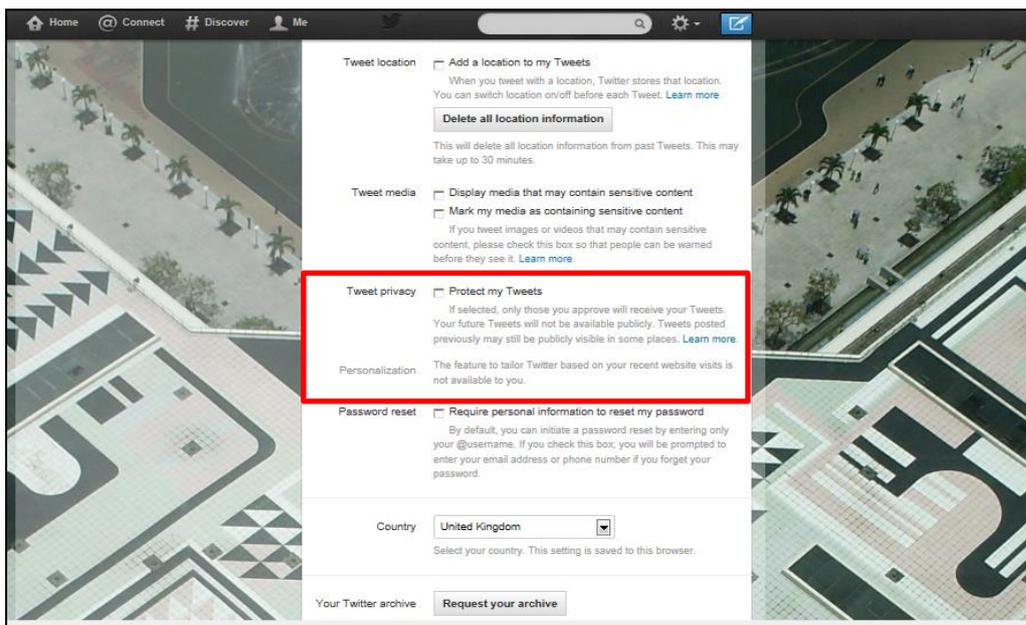
Over the years, the *number of privacy controls* in Facebook has steadily increased. Increasing the number of controls may enhance the nuances of control but complex controls can also detract from use. Whilst more controls can, in principle, mean better functionality – in reality the more controls, the more a user must learn about, and the harder it may become for a user to find the appropriate control for the appropriate time or action (Norman 1998: 209)[90]. As

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[90] Control and complexity are in tension with one another. Things can get complicated when there are multiple possibilities.

Van Dijck (2012:48) argues, a company's power over coding the technology gives it a distinct advantage over users' battle for information control.

6.10 Digital Controls and Automation, Locating Agency

As Van Dijck reminds us, making the web social also translates into making the social technical. SNSs are automated systems. Automation refers to a process by which control is taken away from the user, distributed between the technology and the user, this can range from the inclusion of pre-programme controls to fundamental changes implemented automatically on a site. User-agency and automation can be considered in contention with one another. Agency refers to the ability for an individual to act in their own interests and automation refers to the technology to some extent 'enforcing decisions' that are made in the process of design. SNSs are computer-mediated environments that rely on algorithms to process inputs into outputs; they have more recently been termed algorithmic media[91]. Automation is a key aspect of SNSs, however, it is important to remember that users have the capacity to act within the constraints of the technology, they have agency. As Stumpel (2010) argues, whilst people have a degree of agency within these sites (for example they can choose what features to use, what posts to upload and what content to share) it is important to remember that there are lots of aspects to these sites they cannot change. For example, they can often superficially personalise the networked space, but in the main, are unable to change the fundamental structure of the site. Researching social media use by analysing people's interactions at the interface is one lens through which to study the relationship between automation and agency (see Chapter 7, 8 and 9)

There are soft and harder forms of automation. For example, in the first instance, all UGC is algorithmically remediated and represented, which has important implications in terms of the curation of UGC and the visibility of people within these social contexts (Butcher 2012). Whilst many examples of automation seem small and insignificant, there are examples which take control away from the user in important ways. For instance, in December 2012, Facebook changed its message settings. When users next clicked to access their messages they were given the automated message '*New: The old "Who can send you Facebook*

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[91] Algorithmic media is a term used to describe media that rely heavily on algorithmic processes (see for example, Mahnke 2013).

messages is being retired". Now anyone can message you, but you choose how messages are filtered. Right now, you mostly see stuff from friends and people you may know in your Inbox. To review your filtering options click 'Other' > Edit Preferences'.

Figure 23: Screenshot of the explanation provided to the user about the new message system
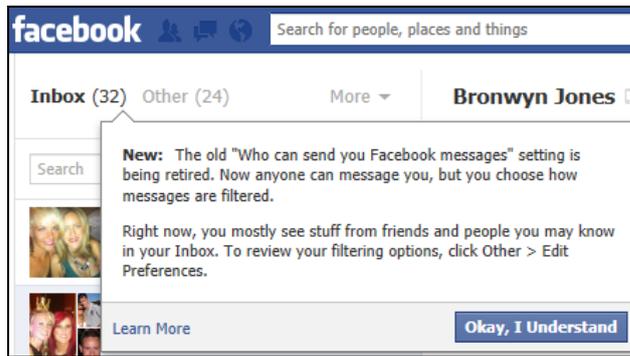
Users are required to click the blue visible, stand out box '*Okay, I Understand*' to remove the message. Alternatively, they can click on the more discrete link '*Learn More*'. The user must click '*I understand*', to return to the normal screen, which sends verification to the site that they are aware of the change and the filtering options. Here the possible actions are very constrained, whist this is presented as an option, the only real option is to accept the new message system in order to return the screen to its normal state. The option to '*learn more*' takes the user to a screen which tells them about the new filtering options available[92], which are presented in a way which suggests they allow for control. However, there is a very small disclaimer, located at the bottom which informs the user that someone they are *not connected to* on Facebook '*may pay to get their messages routed to you*' and there is no filter here for the user to turn this off. Therefore the new message system thus takes away the users choice to filter all messages. The coding of the information about the new system obscures this point, which could lead users to think that they have full control over their messages. As Norman reminds us, built-in constraints in design can be powerful, constraints mean that decisions are reduced to a few possible options (Norman 1988:62).

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[92] Basic filtering is the lowest form of filtering and allows other people to see most of their messages - this is presented in a neutral tone. Strict filtering is a slightly higher level of filtering and presented to the user in the form of a soft warning, that some messages from people you '*may want to hear from*' will go to your other folder and '*may not be seen*', implying that users might miss important social updates.

Figure 24 Screenshot of the 'learn more' section about the new message/privacy settings
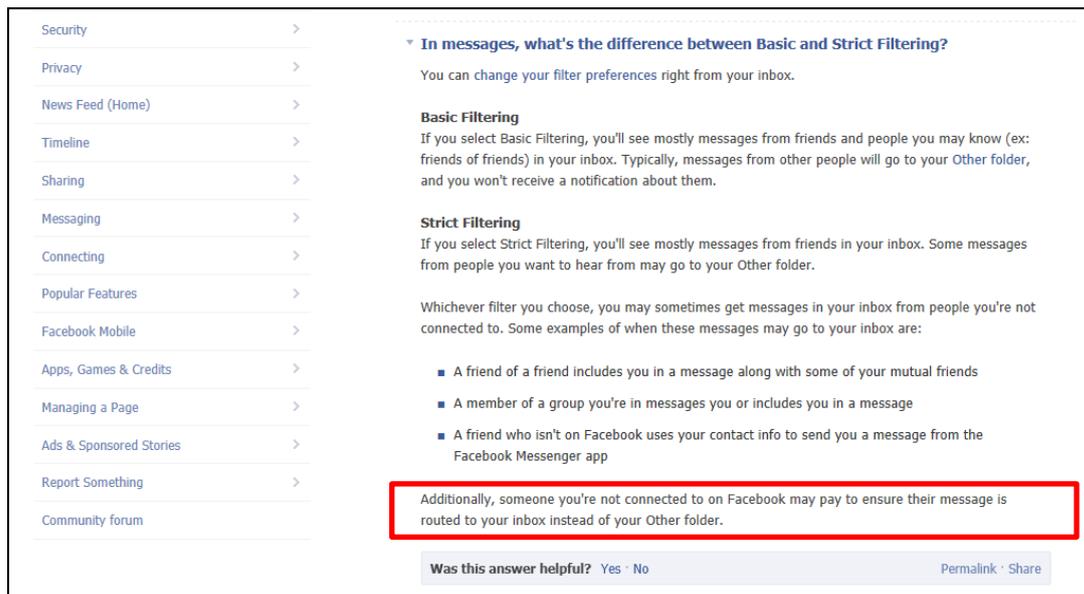
Forms of automation can have important social consequences because they distribute control in networks between people and technology. Continuing with the example of changes made to Facebook's messaging service, Facebook's new automated feedback system in the form of a direct message is a good example of this distributed control. This automated message provides a statement indicating whether or not the message had been 'seen by the recipient'. Lopez (2012) also observes that with this new feature, users get notified whenever a *Friend* reads a chat message they have sent. However, this new functionality takes away the option for people to simply ignore a message without being socially accountable for this action, as the sender would notice that his or her message was read but did not receive a response. The "*Seen*" functionality cannot be deactivated. Lopez argues that the problem with this is that the current design of this feature does not allow users to be "interactionally unresponsive" (Aoki & Woodruff, 2005), i.e., interact without action. That is, the system alerts people to their unresponsiveness, and more importantly, visibly communicates this to the message sender. Lopez argues that Facebook's design should allow users to be ambiguous, rather than codifying in soft pressures to respond. This provides an interesting illustrative example of how subtle forms of automation can have important implications at the level of social media/ted practice.

Figure 25: Screenshot of the Facebook automated 'seen by' reminder
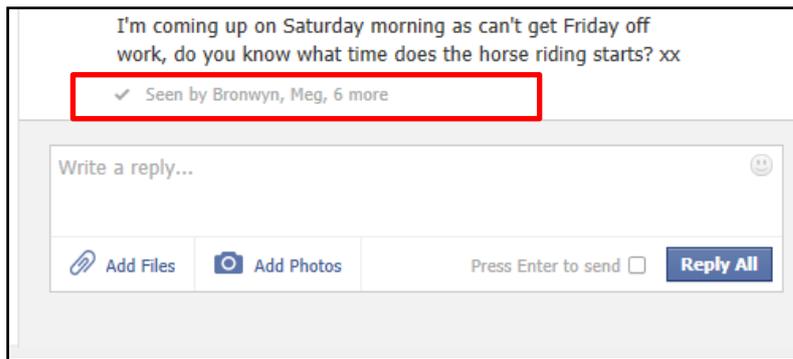
There are tensions between building in opportunities for action and agency, and automation. SNSs may not always do what the user would like, but they are forced to accept this when it happens because it is too difficult (or impossible) to change the operation (Norman 1998: 198). Analysing degrees of agency and automation can reveal how power operates within these environments. As Galloway (2004) argued, the interface is a constant site of power, as a range of interests are negotiated and played out here. In the worst cases, people simply become servants to the system because they are unable to control or influence what is happening. These tensions continue to be expressed in debates about changes to site design, in light of the on-going commercialisation of sites (Fuch 2009; 2011, Bodle 2012, van Dijck 2013).

6.11 Facebook: Registration, Natural Mapping and the Road to Sharing

The Facebook registration process is a clear example how design works to encourage users to share and to look at how the design of the user-interface prioritises and normalises particular values and practices regarding information. The registration process plays an important role in setting the scene for a set of core practices. Registration introduces the users to the service and the site and it is the point at which the user creates their profile and begins to establish their network connections and affiliations. Importantly, it is also the point at which the service agreement is established between the site and the user. During the registration process users complete their profile by verifying their identity, uploading information and adding network connections. Facebook is particularly notable for engendering nonymity in profiles and encouraging participants to upload a wide range of personal information – combined, this sets a distinctive tone for the service. On Facebook, new users are guided through a series of

'*steps*' which prompts the user to upload information and to authorise '*friend searches*' to facilitate profile and network building. These features are logically designed to assist people in the process of finding people with whom they may wish to connect, which helps to make the site socially relevant for them.

Figure 26: Screenshots of the Facebook registration process
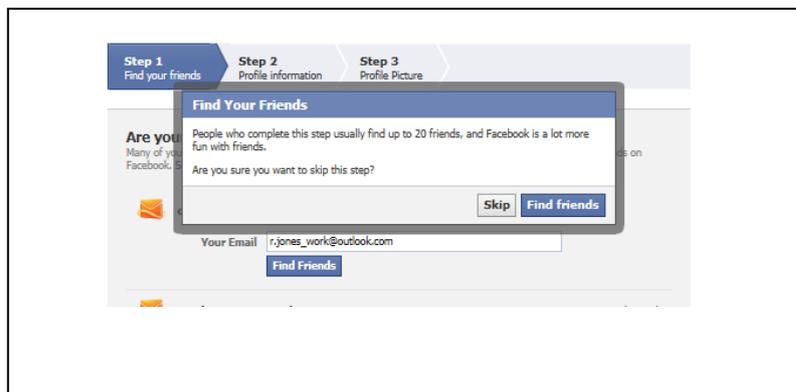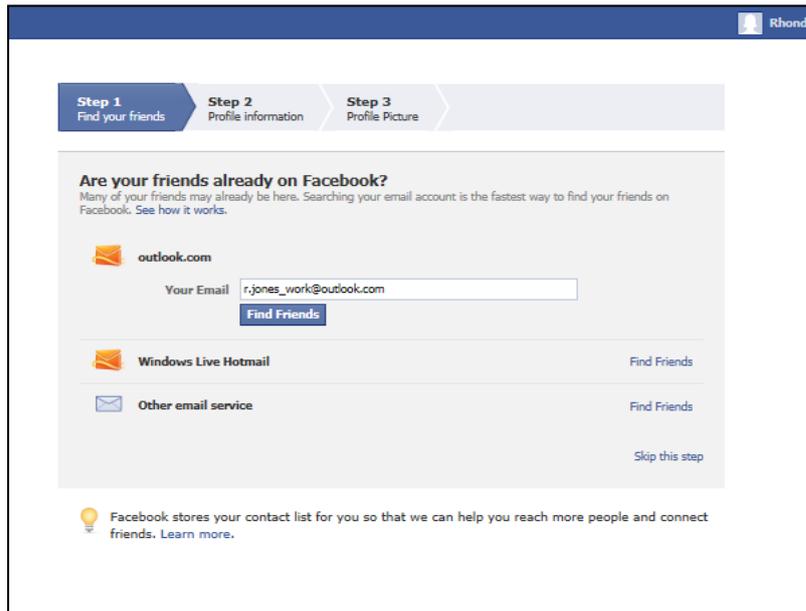
The site prompts the user early on to 'find friends' and this is followed by a series of prompts to fill in their profile with information such as the school and college they attended, their employment and to upload a photo. Facebook asks for the user's permission to search personal email accounts to identify existing users and in order to suggest them as 'friends' - it tells the user, 'Facebook is more fun with more friends'. The site asks for information to help users achieve a full and 'fun social experience' (Facebook 2012). The new user is asked to upload their educational and work history to facilitate their chances of 'finding friends' which

will maximise the site experience. Although these are steps designed for the user experience, the sites capitalise on this opportunity to ascertain information quickly, which they argue ensures the user is embedded quickly in the network, ensuring they come back. However, this also provides the techno-cultural conditions for a set of practices, such as disclosing information to Facebook and making this information available to the site and to newly made 'friends'.

Registration also includes a tour of the profile page (now Timeline). Users are prompted for further 'basic information', which includes information about where they currently live, where they have visited in the past and likes. When the user hovers over embedded hyperlinks it generates a description of the feature and provides an example of what to upload, accompanied by the interactive button 'add', which allows the user to publish. The user is strongly encouraged to 'tell their story' and 'share' in various ways, adding important dates in the past, to create a Facebook history and a narrative to 'begin your their experience'. The site is designed so that very early on, the participant is set on a naturally mapped path to sharing information with the site and with users in their networks

Figure 27: Screenshot of prompts to fill in information in the Facebook Timeline
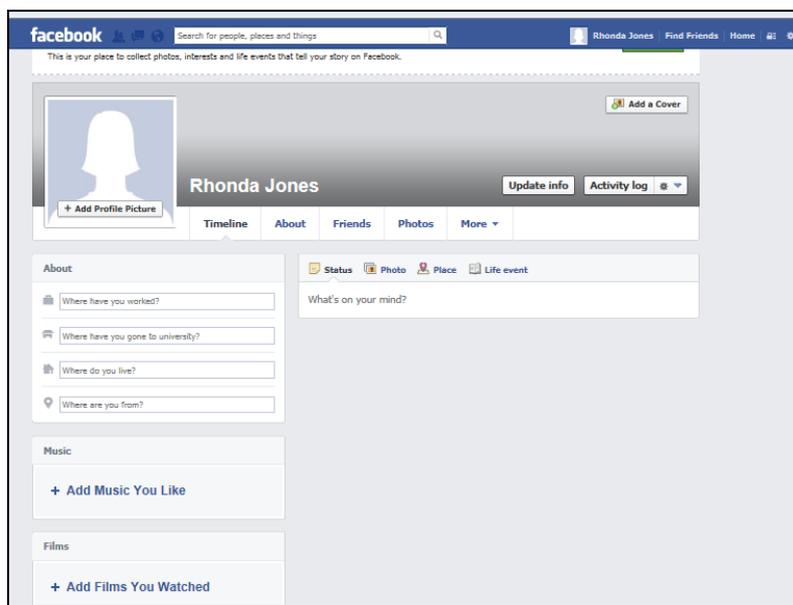
This can be contrasted to Twitter's registration process which allows for a degree of flexibility in terms of nonymity in the initial stages. Furthermore, the guidance provided by

Twitter during registration has a different tone; it is notably more informative and demonstrational[93]. This said, Twitter codified a particular form of interest-orientated sociality whereby the new user is asked to select from pre-specified recommendations of people to follow, and then by accounts of interest. Only after this, does it ask the user to look for people that they know. Therefore, it can be contrasted to Facebook in two important ways, by giving priority to connecting with unknown, rather than known people and by not asking for detailed personal information.

Figure 28: Screenshots of the registration process on Twitter illustrating the limited request for profile information
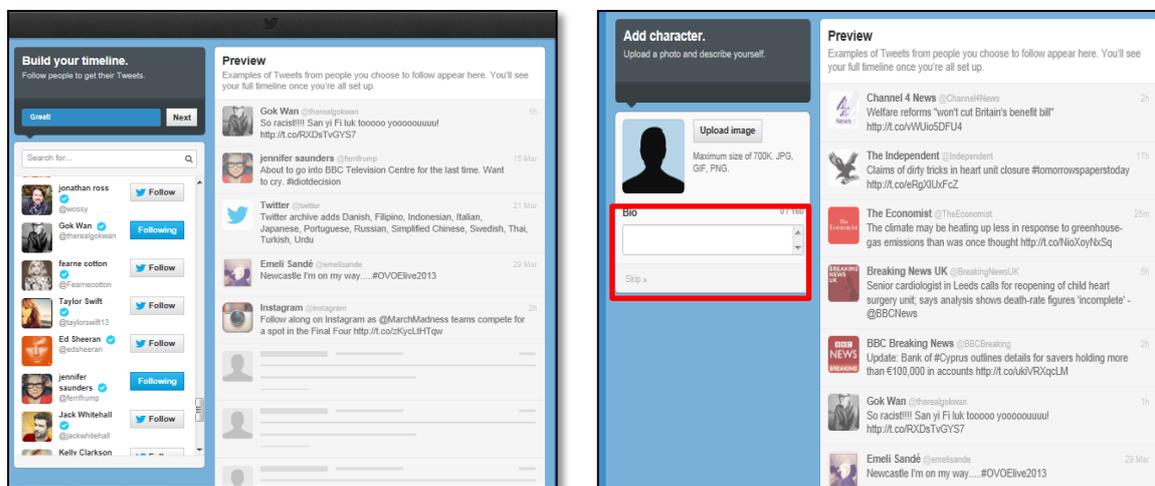
Facebook is distinctive in the way it encourages users to learn by sharing personally identifiable information and other forms of personal information, whereas site analysis suggests that Twitter focuses on demonstrating the connective and communicative affordances of the site. It could be argued that the specific design of the registration process on Facebook is intended to normalise the disclosure of personal information; it is concerned with informing users about social aspects of the site. Moreover, registration is codified in such a way that it appears that the more information users make accessible on Facebook, the more chance they will have of being successful in their social life experiences using the service. The user is provided with guidance on how to connect with the site and share but importantly

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[93] For example, Twitter prompts the user to pick something to follow that is currently popular, for example in August the site suggested the London Olympic Games. The site then provides a demonstration of how Twitter works by generating updates from the London Olympic Games in the user's Twitter Feed.

the user is not provided the same level of guidance in the initial registration process to get started on managing their account or privacy settings on the site. In focusing the introduction to the site entirely on connecting and 'sharing', the site de-prioritises informing users about the account management, and related privacy issues and controls. Whilst the site provides an interactive tour of the Timeline, there is no comparable tour of either the terms of service account or privacy settings. The registration process is designed to put users at ease with sharing information by embedding numerous prompts to encourage people to upload information, make connections and interact, the initial encounters users have with sites encourages users to upload information first and then think about issues of data sharing practices and privacy later (if at all).

The Terms of Service (ToS) is a key part in the establishment of an agreement between users and the site, however, the design of the registration process makes it very easy for users to bypass reading the document. When registering with Facebook or Twitter, users must confirm (although this cannot be verified) that they have read the terms and conditions that are laid out and they are aware, and accept the company's privacy policy with regards to how the site administrators can use their information. Agreeing to ToS indicates that potential users are happy with the ToS, that they consent to the rules and regulations of use and indicates a degree of informed consent regarding the use of personal data uploaded and shared via the site. Agreeing to the ToS indicate that participants have a clear understanding of site and user responsibilities, data sharing practices, privacy, and acceptable use. Currently, the way contractual agreements are codified into Facebook contains inherent biases that favour sites. The complex policies make it difficult for users to comprehend what they are agreeing to prior to use of a site. Despite policy recommendations to make these documents simpler (FTC 2012) the way they are codified into sites is to ensure protection for the service provider - the design of the registration process is not intended to educate the user on the issues and how to manage their settings accordingly.

6.12 Deletion, Unnatural Mapping and Dis-incentives to Disengage

As argued throughout this chapter, the design of SNSs uses design languages and cultural codes to make intended use 'transparent'. It is not just about how things are presented at the

user-interface, but also how the user is encouraged to navigate the sites. Mapping[94] in design is concerned with the use of logical relationships between the spatial and functional layouts and the components within it. Mapping helps create both meaningful structures within sites and pathways through sites; mapping organises what could be apparent chaos and arbitrariness. SNSs are interactive digitally networked con/texts which contain multiple pathways for users to navigate, which are created by designers. This said, in the design of everyday things, Norman argues that designers can use unnatural mappings to encode ambiguity and make actions difficult to do. The deletion process in Facebook provides a good example of this in action. It uses unnatural mapping to deter a user from deleting their account. If a user follows the link for deactivation, under the 'deactivate your account' header in bold, a statement about permanently deleting your account is displayed. This reads that if the user deletes their account they will '*not ever*' be able to get this data back. Underneath this, instructions are given about how to deactivate the account. Here the design uses *unnatural mapping*, clicking 'deactivate' takes the user to a statement about permanent deletion, which encourages them to make an association between de-activation and permanent deletion.

Figure 29: Screenshot of the pathway/instructions for deactivating your Facebook account
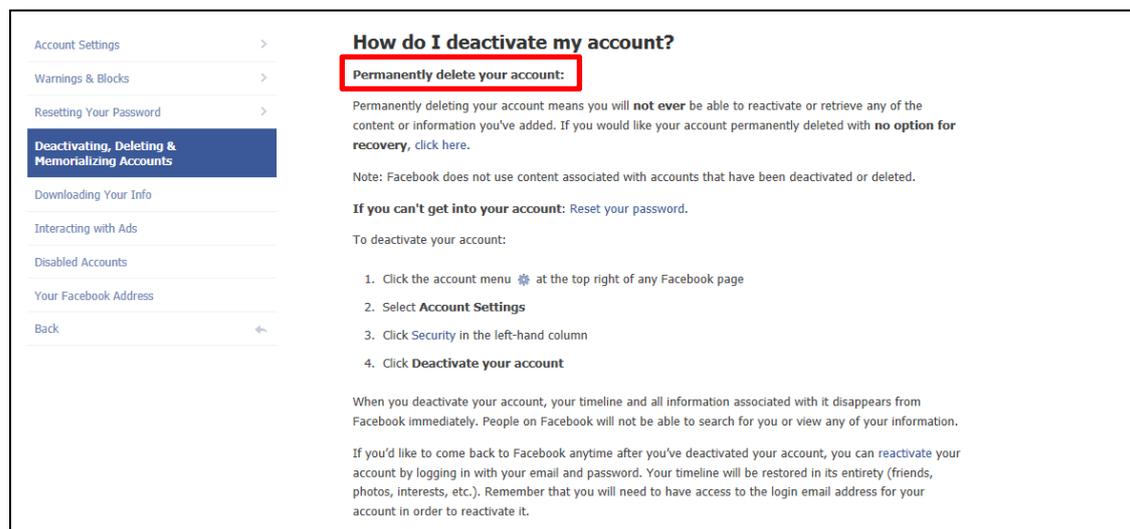
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If the user locates the deactivation link and proceeds to de-active the account, the user is presented with an automated message telling them that all their friends will miss them. Again, this is a codified disincentive, designed to remind users that all their 'friends' use the site, and that they will be excluded from this aspect of social life. This is another example of the software as actor in the network (Latour 1991), as it employs a tactic of persuasion to encourage users to remain registered.

Figure 30: Screenshot of a dis-incentive to deactivate account, message stating that they will be missed by friends
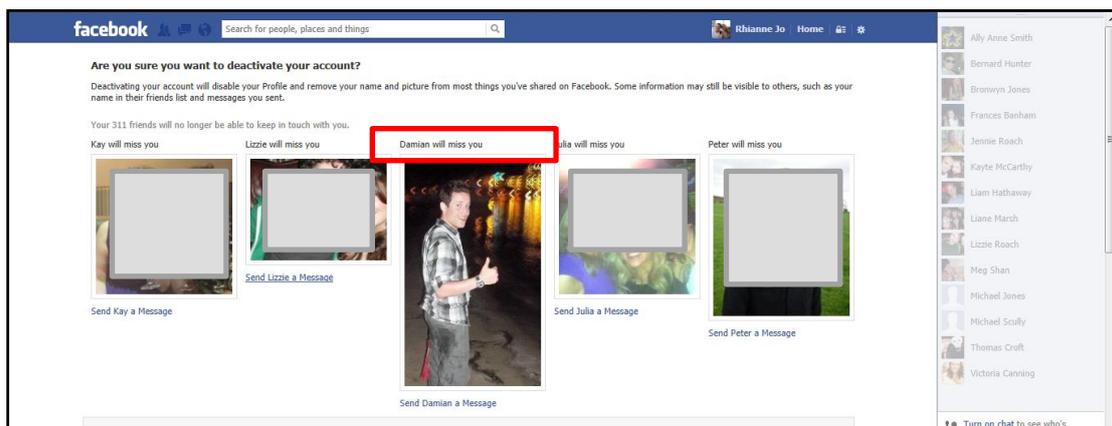
Once the account is deactivated, the user can re-install. Compared to the lengthy pathway to deactivation, to reinstall all the user has to do is log in as normal. This example illustrates how the specific micro-design features of sites work as a structure for social action, providing clear routes and obstacles that a user must navigate.

Figure 31: Screenshot of the deactivated message stating that to reinstate the account users only need to log back in
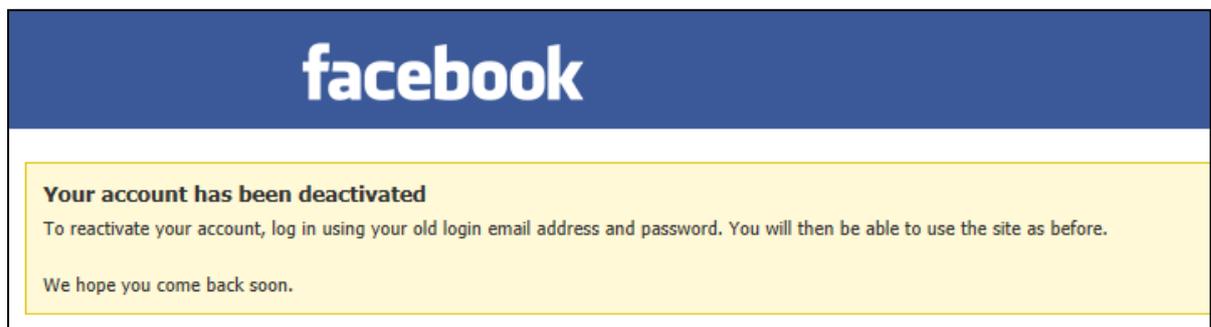
This can be contrasted to Twitter's relatively straightforward processes of deactivation. The deactivation is visibly displayed at the bottom of the account settings page - if this option is

activated then the user is presented a message informing them that Twitter will keep the account data for 30 days.

Figure 32: Screenshot of the deactivation pathway on Twitter
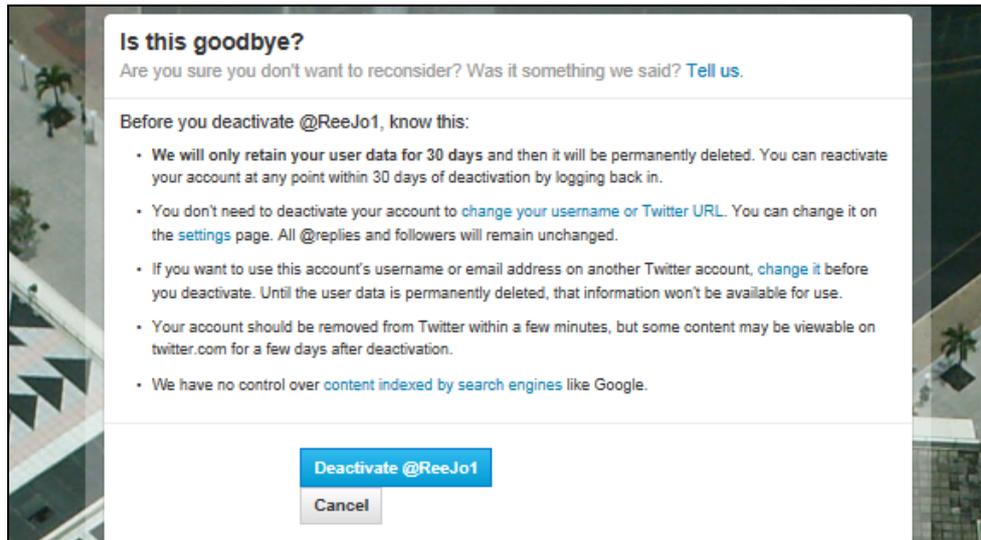
6.13 Visible Social Affordances and Obscure Commercial Ecologies

When Facebook and Twitter want to explain the social affordances' of the site, for example, of a key feature, they provide straightforward, accessible explanations. In addition, it is not unusual when key changes and new features are introduced for the site to provide a quick tour, or a video to explain the changes this makes to the site and explaining how they will benefit the user, for example, how it will enhance their 'social experiences' as mediated via the site. Figure 33a and 33b provide two examples of this in action, the first screenshot (Figure 33a) is a pop-up explaining the new tagging feature. This pop-up explains the feature in three easy steps emphasising the social benefits of tagging photos and locations. The second screenshot (Figure 33b) is an introduction to the subscribe button. Again, the screenshot emphasises the social benefits of providing public access to your updates. Figure 34, is a another example of a pop-up, this time explaining how to add addition details to posts, for example, location.

Figure 33: Screenshots explaining 'social features' to users

33a Tagging features
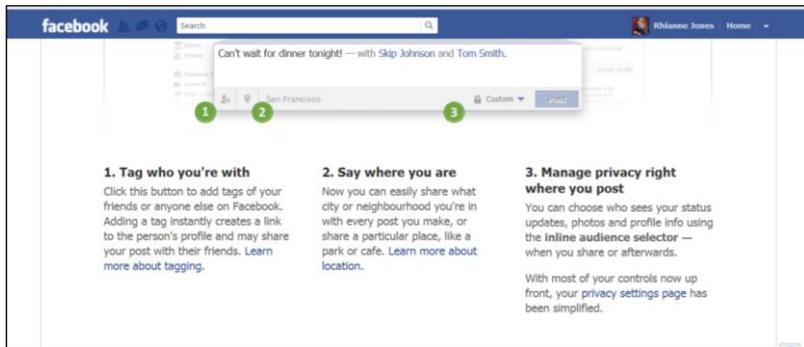
33b Introduction to the Subscribe Buttton
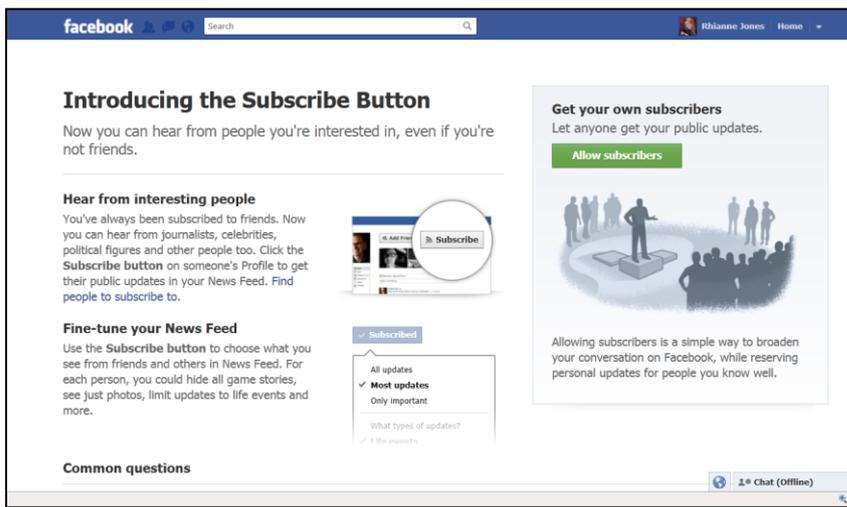
Figure 34: A screenshot of an explanation of how to add details in Facebook
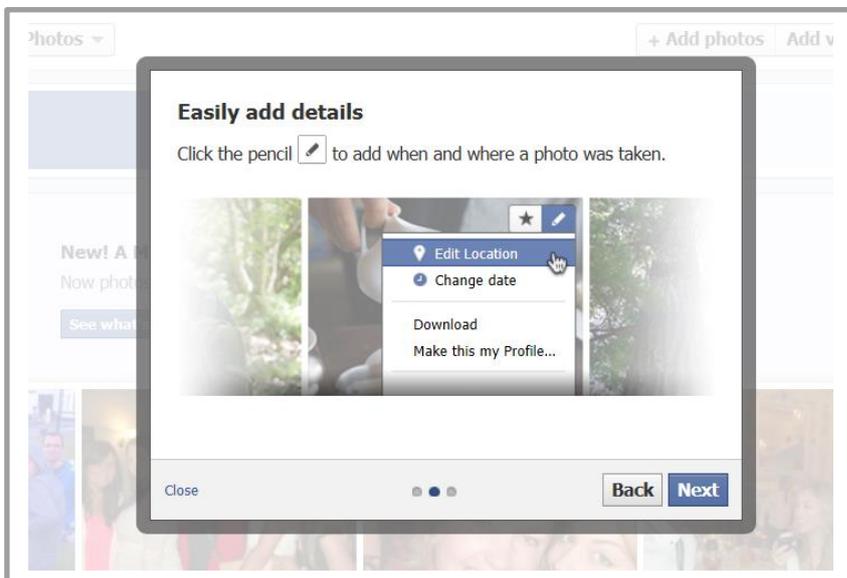
Facebook and Twitter explain the social forms of connectivity very simply, providing the user with lots of accessible explanations to facilitate them in learning about key changes and new features. However, in contrast, the information regarding company practices and commercial activity is much less accessible and it is presented in a much more complex manner. Van Dijck (2013) has argued that it is typical for SNS companies to emphasise the 'social' forms of connectivity afforded by the site and minimise other forms of technological and commercial connectivity. Don Norman identifies ways in which design can be used intentionally to 'make things difficult', for example when companies need to balance user-friendly design with the need for 'secrecy, privacy and protection' for the company (1998: 202-3). This is related to the need for companies to limit access to sensitive areas and necessitate strict control over (1), who uses them and (2), who understands them. For example, users need a log-in to access certain SNS areas. The point Norman makes is that some things are designed for a lack of understanding or usability - here the rules of design can be inverted, if visibility is needed to make functions transparent, invisibility can render affordances latent, or limit use. Norman explains that sites can (1), 'hide critical components' (2), use unnatural mappings to encode ambiguity (3), make actions difficult to do (4), not give any feedback.

Both sites clearly explain and constantly make visible and accessible opportunities to upload content for networked distribution 'sharing' and networked interaction, messaging, commenting, posting, and so forth. However, in contrast, key information about the company, company practices, information for developers and help sections are largely inconspicuous. They are available but they are discreetly located in a less prominent part of the screen. The logic from a designer's point of view is that the user will not want to access these areas every time they interact with the site. It is not deemed to be central to the 'social experience'. This said these links contain key information about the digitally mediated social context. If they are not perceived as opportunities for interaction, this is likely to render then a latent feature in practice. Furthermore, controls that are hidden or buried in drop-down menus, whilst accessible, are less visible. If visibility is an indicator of use, lack of visibility, by default may relate to how controls are perceived and interacted with in practice. Drop-down boxes provide an example of restricted visibility they are typically represented with a symbol that provides visual clues of some sort to access the control.

Figure 35: Screenshot of networked spaces not classified as key 'interactive areas', on Facebook such as privacy and business/commercial links

Figure 36: Screenshot of more options, located via a drop-down box

Figure 37: Screenshot of links to networked spaces not classifed as key 'interactive areas' on Twitter
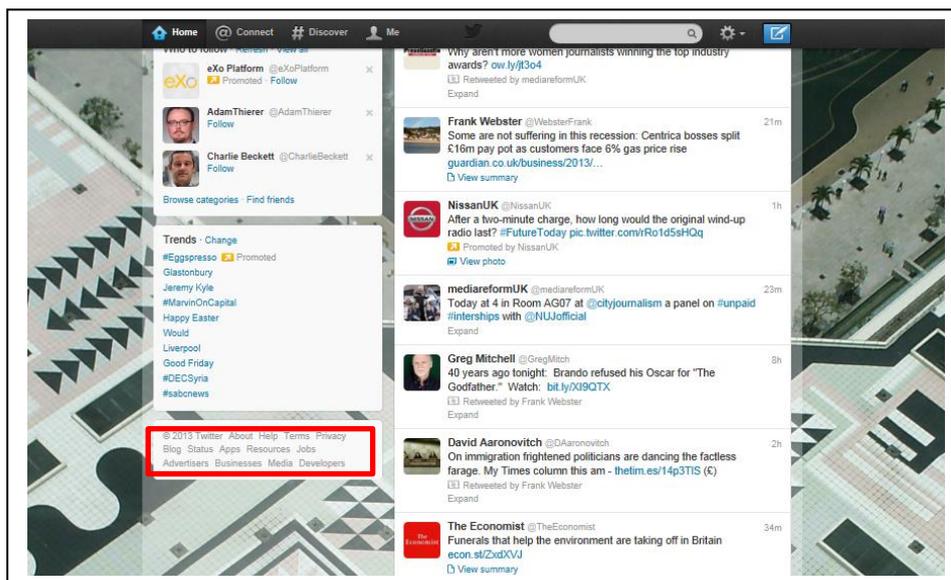
6.14 Conclusion

Interface coding works as a digital framework for social media/ted practice, designers implement various coding and interface strategies which inscribe into the technology how online social interaction should be conducted (van Dijck, 2013: 46). As van Dijck (2012:48) reminds us, a company's power over coding the technology gives them a distinct advantage over users' battle for information control. The site analysis has demonstrated how techno-cultural meanings are inscribed into platforms. This chapter has reported on analysis of the networked affordances of Facebook and Twitter (based on an extensive preliminary analysis of the micro-architectures of sites). It has also reported on analysis of the organisational strategies and strategic cultural coding of features to render the technology 'useful' and 'meaningful'. Features are hierarchically organised, made visible and accessible to varying degrees, and given cultural expression, whilst digital controls and navigational structures shape interaction in various ways. This is all brought together in the overall design language, which gives the technology a coherent over-arching narrative. The chapter has provided a critically informed reading of the ways in which the technology is technically and culturally configured for 'meaningful use'. The following chapters analyse people's real-time interactions at the interface, to study this design in practice. Any analyses of media/ted practice cannot just account for the technical and symbolic factors of a technology but must interrogate users' perceptions of them: technical factors are best understood when contextualised with personal and social factors (Lopez 2012).

Chapter 7: Social Media/ted Practice.
Making Use and Making Sense of SNSs

7.1 Chapter Overview

This chapter analytically considers how SNSs are interwoven into participants' everyday digitally mediated social routines. The chapter examines participants' SNS practices, which SNSs they are registered with, how frequently they log in, preferred mode of access and details of their routine use. The discussion provides key contextual data to support the analyses of participants' interactions with Facebook and Twitter, at the computer-interface. The focus of this chapter is on Facebook and Twitter, but the chapter extends to report on wider SNS use, past and present. The chapter begins by critically discussing participants' motivations for registering with SNSs and the impact that registration with new sites has on existing social media routines, before moving on to analyse how participants understand Facebook and Twitter, detailing the language participants use to discuss sites, such as the specific words and phrases they choose to describe the technology. The chapter reveals important convergences between the design languages embedded in Facebook and Twitter and the language used by participants to talk about sites. The chapter concludes by pointing to a discursive social framing of sites that works to reinforce a particular view of these technologies and their afforded practices, which has key implications for social media practice and for participants' understandings of privacy and commercial activity in these environments (see discussion in Chapter 9).

7.2 Social Media Preferences: Facebook and Twitter

In the UK, Facebook, Twitter, MySpace, LinkedIn and Google+ all have large user-bases[95]. The research was sensitive to the possibility that participants would have accounts with more than one of these services, as well as the possibility that they would be using other social media services or applications with networking features. However participants' use of SNSs was heavily based around Facebook and Twitter; with over half of the participants describing their current social media routines as dominated by use of these sites. All participants had a

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[95] Facebook, Twitter, LinkedIn and Google+ are identified in the top 10 of the most visited websites in the UK. As of 2011, MySpace fell out of the top ten but still rates relatively high in terms of UK visitors (Hitwise 2011).

Facebook account and over half of the participants had an account with Twitter. Interestingly, all Twitter users had a previously registered account with Facebook - this meant that over half the sample used both Facebook and Twitter. Over a third of the participants had one alternative (active or semi-active) account with another social media service with networking capabilities. In addition, about a third of participants had previously had an account with a social media service with networking capabilities prior to the interview, which they had deleted or described as inactive.

Table 3: Participants' use of SNS across the sample of 20 people

Facebook	20	
Twitter	11	
Facebook and Twitter	11	
No alternative accounts, past or present	3	
1 or more active other social media account at the time of research	9	MySpace (3) SoundCloud (3) Instagram (2) LinkedIn (2) Tumblr (1) LiveJournal (1) Flickr (1) Bebo (1) BBM (1)
1 or more previous social media accounts, inactive at the time of research	8	MySpace (5) Instant Messenger (3) FriendsReunited (2) High5 (2) Facepic (2)

Several participants reported having an active account on MySpace, LinkedIn or other social media applications with networking capabilities such as SoundCloud and Instagram. Additionally, several participants had previously used MySpace but had deleted their account or the account had become inactive. The data suggests that participants' use of SNSs is in line with current UK trends; Facebook and Twitter are reported to be the most popular SNS in the UK in terms of registered accounts, with LinkedIn and MySpace also rating relatively high in terms of unique UK visitors (Hitwise 2011). Although several participants kept their accounts with MySpace activated, it was clear that they preferred to use Twitter and Facebook, logging into to their MySpace accounts very irregularly. Participants considered Facebook and Twitter to be the 'main sites' and believed that most people in the UK would be registered and using one, if not both of these sites. Facebook and Twitter were clearly the most popular sites,

appearing to play a prominent role in participants' day-to-day Internet enabled social routines. Interestingly, none of the participants had an account with Google+ and none of the participants reported having an account with YouTube, despite its profile building and networking capacities.

The length of time participants had been active on sites varied across the sample. This was also the case with regard to participants' history using SNSs and levels of experience with this type of technology. Several participants reported using SNSs for a substantial period of time (in relation to the 'newness' of the technology), for example, between 5-8 years. These participants tended to have one or more additional active social media accounts outside of Facebook and Twitter. They also had a longer history of using SNSs, with several reporting to have been registered with one or more SNS prior to Facebook or Twitter. This suggested that these participants had a *higher degree of experience* using the technology in comparison to other participants. In contrast, at the other end of the spectrum, several participants had only registered with Facebook and/or Twitter in the last two years and their experience with this type of technology was limited to these two sites. However, most participants fell somewhere in the middle of this spectrum, having used one (or more) SNS for between 1 and 5 years. Participants using Facebook had typically been registered with the site between 1 and 5 years and those using Twitter had typically been using the site for between 1 and 3 years - apart from two participants who had only signed up to the service in the last six to twelve months.

7.3 Social Media Classifications

In order to ascertain what participants understood by 'social network site', they were asked to define the term and to list the SNSs with which they were familiar. Identification and classification of SNSs varied considerably but responses among participants did reveal a degree of comparability in the factors that were used to identify sites. All participants identified Facebook and Twitter as SNSs and most participants identified MySpace. Even if participants did not have an account with LinkedIn, approximately a third of participants identified LinkedIn as a SNS. Several participants also identified Bebo and FreindsReunited. Lastly, a few participants classified social media applications like SoundCloud and Instagram as SNSs. One older male (and self-proclaimed 'social media geek') also included Flickr; a

photo-sharing site with SNS features and two blogging services with networking capacities -
Tumblr and LiveJournal.

A site was classified by participants as a 'SNS' if it was considered to enhance social
connectivity, simply put, if it enabled people to connect and interact with 'friends' online.
Many participants cited the opportunities for profile building and social interaction as
recognisable factors, in line with boyd and Ellison's (2007) definition of SNSs. Although
SNSs are often identified as a type of social media by academics, distinguishable from other
types of Web 2.0 technologies, participants were not always clear what criteria should be used
to classify types of social media technologies. This suggests that the academic imposition of
categories should be treated with caution as they do not necessarily reflect public views.
Instead, participants talked more generally about a range of sites and services that enabled
digitally networked connectivity and supported forms of social interaction. For example,
several participants viewed mobile messenger services such as BlackBerry Messenger (BBM)
and Skype as SNSs, although they are not notably discussed as SNSs in the industry[96]. The
importance of visible forms of connectivity was a key factor participants used to identify
SNSs (see Donath and boyd 2004). This explains why YouTube was not typically discussed.
Despite being one of the most visited UK websites (Hitwise 2011) participants did not have
registered accounts with YouTube and they did not make use of the profile building and
networking capabilities provided. YouTube does offer SNS features for users with registered
accounts however participants' primary use of YouTube was to consume video and this led to
the site being discussed as an entertainment service rather than a social network site.

7.4 The Importance of Device and Context in Shaping Media/ted Practice

Participants accessed Facebook and Twitter using a range of different networked computing
devices. Discussions about access revealed the importance of both technological factors and
contextual influences in shaping participants' use. Two key factors emerged (1) the context of
use (such as the home versus 'on the go' or 'mobile') and (2) device (such as personal
computer versus mobile phone). These factors were also interrelated; computers and laptops
were typically used at home and mobile devices when on the move. Combined, these

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[96] Skype is a software application that allows users to make voice calls over the Internet. BlackBerry Messenger
(BBM) is a proprietary Internet-based instant messenger and video telephony application included on
BlackBerry devices.

influences impacted on the duration of time spent on sites and the appropriation of sites with regard to their functionality. In effect, use was shaped by context and mediated by device/applications. Facebook was accessed through a range of networked computing devices including desktop computers, personal laptops, tablets, and mobile phones, (mobile phone access was typically enabled via mobile applications). With regard to Facebook, laptops and mobile phones were the most common. Research into Internet use in the UK by Grant and Hutton (2011) identifies the home as the most common location of Internet access whilst also documenting the rise of mobile access and Internet use in the UK. Although Twitter was accessed via laptops and computers, it was overwhelmingly accessed via a mobile phone using a Twitter application.

It was common for participants to alternate between different devices to access sites, depending on context, where they were located and what devices were at hand. However participants usually had a preferred mode of access, which reflected the nature of their routines. Understanding different modes of access is important because the mode of access can lend itself to different types of uses and different routines. For example, participants' reported having notably different routines on Facebook according to device and context. Access via Internet-enabled laptops and computers tended to encourage fewer sessions throughout the day but sessions that were longer in duration. Alternatively, some participants reported being logged onto the site continuously while at the computer doing other things. When participants reported using laptops, they described spending more time on the site browsing links and content as opposed to when they accessed the site via their mobiles. Jai, a 28-year-old male NHS worker, preferred using a desktop or laptop to access Facebook over using a mobile phone citing the limited functionality of the phone. Jai explains:

> **Jai:** There's loads you can't do on the phone - I'm just not as good on the phone version as I am on the main site. I do less on the phone, the phone is not as good - you can't use the chat thing and it's harder to navigate links and content
>
> **Interviewer:** Do you use the site differently depending on the device.
>
> **Jai:** Yes, because of the functionality, I only go on the phone to check in and check my notifications really (Interview 17, 2012).

Sky, a female, 35-year-old student, also preferred using a laptop as opposed to using a smart phone application to access the site.

> **I**: Do you have a preferred mode of access?

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Sky: The laptop – because you can see more and again, you can play games, which you can't do as much on your phone, it has limitations (Interview 16, 2012)

Mobile use of Facebook was typically characterised by shorter sessions, which would be intermittent throughout the day. This is enabled by the transportable nature of mobile phones, which are accessible ('on person') for large parts of the day. Mobile access of Facebook lends itself to use in short bursts, 'on the move' and 'between activities'. Furthermore, in contrast to computer-based access and use, the restricted functionality of sites when accessed through mobile applications and mobile devices lends itself to a set of core activities, such as updating a status and browsing the news feed.

Twitter was overwhelmingly accessed via a mobile phone using a mobile 'application' (or an 'app' for short). As Laurie, a 25–year-old recruitment officer from Liverpool explains:

I hardly ever log onto Twitter when I'm at home, it's something I associate with my phone, when I'm waiting round or on the bus and I've got nothing to do, I go on Twitter. I think I've probably only logged in via the computer 4 or 5 times overall, the rest of the time it's on my phone. I use it to fill in times when I've literally got nothing to do, nothing to think about, if I was on the laptop I wouldn't go straight to Twitter, I'd do something else (Interview 11, 2012).

Similar to Facebook, mobile Twitter use typically took the form bursts, continuously throughout the day. Participants drew comparisons between Twitter and 'texting' because of the connection to the mobile phone and the limited, typically written, mode of communication such as the sending and receiving of short messages or 'tweets'. As argued in Chapter 6, Twitter was built on the short messaging service (SMS) model, so the comparisons were not unexpected. Participants would be inclined to use Twitter for short periods of time, repeatedly throughout the day, at opportune moments. Very few participants reported devices other than mobile phones as central to their Twitter routines. This emphasis on mobile access can be seen in Twitter's promotion of mobile use. If the site is accessed from a laptop, when signing out, people are encouraged to go mobile (*see Figure 38*).

Figure 38: Screenshot of the log out image for non-mobile users of Twitter

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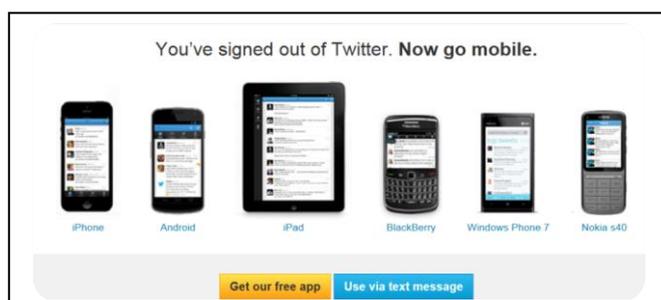
7.5 Social Media Ecologies: Network Competition and Co-activity

SNS use could be described as largely standardised within the sample. As already reported, all participants had an active account with Facebook, and over half had an active account with Twitter. Whilst several participants did report having accounts with MySpace and LinkedIn they were not referred to as central to their daily social media routines. Furthermore, whilst several participants reported having previous accounts with other SNSs, for example MySpace or Bebo, they informed the researcher that they had deleted the account or that it was inactive at the time of the interview.

SNS use is part of a wider matrix of social and mainstream media use. Participants' practices on SNSs are dynamic and are constantly evolving in relation to wider trends in mediated practice and developments in software design. In discussing past and present SNS use, the interviews enquired about changing SNS practices. This was most relevant for those participants who had previously established routines on other SNSs and who, at the time of the interview, primarily used Facebook and/or Twitter. Participants reported how their routines on other sites had been affected by their registration and use of Facebook. For example, a number of participants were clear about how using Facebook had directly impacted upon their use of MySpace or Bebo. Participants reported that increased investment in terms of time and resources into Facebook had reduced the time they dedicated to maintaining their networks on other sites.

As argued, SNSs are part of wider Internet and social media routines, which in turn need to be contextualised as part of a wider matrix of media routines. People have limits on the time they can allocate to media and this time is distributed between different media interests and activities. Participants reported that maintaining networks on different sites took up too much time. As Laurie, a young female recruitment officer from Liverpool explains:

> There was just a point where Facebook took over, all my friends on MySpace were now on Facebook so it was easier to just switch and focus on Facebook, rather than try and keep them both up (Interview 11, 2012)

Discussions about changes in SNS routines over time revealed how registration with new sites and the increased time spent using these services could directly impact on participants' established routines using other sites. This was particularly evident when SNSs were considered to be *similar* in some way to one another; when sites appeared to offer comparable features and/or supported similar network connections. In these instances, participants

described how one site tended to 'win out' over the other; one site would receive more investment in terms of time and effort and overall participation. The more investment a site would receive in terms of time and involvement, the more the site would increase in relative value.

In the case of MySpace and Facebook, participants reported a significant amount of networked competition. Although Facebook and MySpace had distinctive interactive features and network connections were not directly transferable, participants reported that as their Facebook network expanded, it reduced the relative importance of their MySpace network. It is often the case that as a network gathers momentum (i.e. the number of connections increases) the more it increases in relative value – this is sometimes referred to as a 'network effect'. Participants reported growing similarities between MySpace and Facebook in terms of features, networks and *importantly in terms of the overall social value it had.* This placed the sites in competition with one another. When this occurred, participants made an assessment about which site they perceived to be 'better', for example which site they enjoyed using more and which they believed would provide the most social benefits. Katie, a 26-year-old female social worker and part-time singer explains:

> There was loads of hype about MySpace, then all of a sudden MySpace started to die down, and the talk of people saying ''I'm not using MySpace anymore, I'm using Facebook''. MySpace was originally for musicians, that's why I used it… but then everyone started making their own profile and it became social-networking as opposed to music-networking. Then people who used MySpace for social/personal reasons then starting using Facebook. Facebook was all about socialising at first, I preferred MySpace initially and Facebook was not great for music promotion, but Facebook has changed over the years, and people have started to use it in that way, most of my music stuff and my fans are now on Facebook, I still have a MySpace, but my music related activity and communication is now on Facebook cos that's where the fans are now (Interview 2, 2012)

Historically, MySpace and Facebook have been characterised by important differences in design and differences in the networks and cultures they support. Whilst they share similarities as a type of social media technology, the micro-architectures of sites display a number of important differences which means they afford different network configurations and practices[97]. Whilst the sites had different designs and appeals, as Facebook opened up to

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[97] For example, MySpace was initially popular among musicians and music fans while Facebook was initially popular among students due to its registration requirement of a university affiliation. MySpace typically supported a variety of connections including friends and family, musicians, and 'randoms' (other users who account holders connected to on MySpace, where no prior connection existed outside the site). In contrast,

the public and, its user-base extended beyond students, the site added additional features that were similar to MySpace, such as music related features, and new forms of connections such as the Subscribe button. For participants, the expansion of the Facebook network, coupled with changes in design, put it in more direct competition with MySpace. This said, Katie, a singer songwriter living in London, and two local part-time DJs - Ben and Daniel, reported staying on MySpace longer than other participants who reported simply using the site for social interaction. This is because MySpace was valued for its capacity to support music distribution and fan bases. However, the musicians and music fans reported that on-going changes in the design of Facebook, such as the introduction of Facebook business pages and, more recently subscribers, coupled with the growing number and popularity of music applications such as SoundCloud has increased the appeal of Facebook as a tool to meet their particular needs. As Ben, a 31-year-old male DJ and Games tester remarks:

> I kept the two accounts for a while; MySpace was used for music really rather than keeping in touch will people, for showcasing my music. Facebook was keeping in contact with people but as Facebook developed and incorporated more music related stuff I began to use that... Facebook kept me interested really; it began to have multiple uses, MySpace less so (Interview 5, 2012)

Over half the participants used both Twitter and Facebook and it was clear that they viewed the sites quite *differently* in terms of the connections and the cultures of practice they support. Participants reported that they were more likely to maintain networks on two different sites if they considered the SNSs to be different; to support different networks connections and have different communicative and social benefits. Participants did not see Twitter and Facebook as in network competition with each other. Rather, they provided distinct reasons for maintaining accounts with both sites. For example, participants who used Facebook and Twitter reported that whilst Facebook provided a way to keep in contact with friends and family, Twitter provided a way to connect to people and topics of interest. Participants reported how Twitter created the opportunity to venture out into new networks and make connections on an interest-driven basis, whereas Facebook remained relationship-orientated (see Zhang 2010). Participants viewed Facebook and Twitter as different types of SNSs, each providing unique communicative benefits and each adding something to the participants' social media routines and everyday social routines. As such, at the time of the interview, the

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Facebook is better known for supporting educational and institutional networks and later networks consisting of friends and family.

sites appeared to co-exist alongside one another in participants' SNS routines, rather than competing with one another for users' time.

The discussions about how participants' SNS routines changed over time revealed interesting underlying factors in how social media/ted practice is configured. In particular, they indicate that in order to fully understand how (and why) people use one site, we need to consider their wider social media practices (Light, Forthcoming). Digitally mediated networking practices are configured within broader dynamic and changing social media ecologies. One way to understand changing practices may be to compare the differences and similarities between sites with regard to what they afford and what they can bring to a person's digitally mediated communicative and social routines. Interestingly, current changes in Facebook's design reveals a reflexive awareness (and an effort to capitalise on) Twitter's growing appeal. Facebook's addition of the Subscribe button mimics to some extent the one-way mode of connectivity, the Follow button on Twitter. The Subscribe button enables Facebook users to subscribe to updates from people who they might be *interested in'*, even if they are not connected as 'friends'. Interestingly, the 'subscribe' button is set to become the 'Follow' button (Facebook 2012) indicating a move to capitalise on Twitter's design language. This is further illustrated by Facebook's new feature which shows 'trending articles'. The on-going development of Facebook over the years reflects a longstanding effort to be in-tune with design developments on rival social media platforms and in popular trends in social media practice. As Bolter and Grusin (1999) argue, media constantly engage in a recursive dynamic of imitating each other, incorporating aspects of competing media into themselves while simultaneously flaunting the advantage that their own forms of mediation.

Figure 39: Screenshot of Facebook's introduction of the new subscribe feature
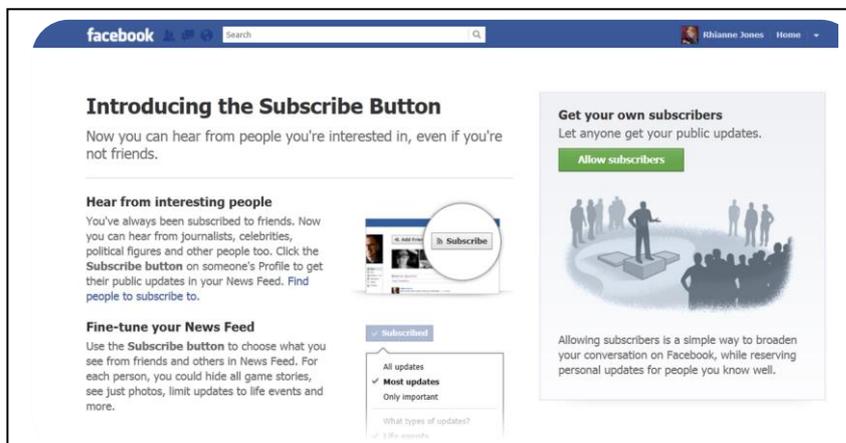
7.6 Motivations for Use: Social Pulls and Social Lock-ins

Participant motivations for joining a SNS varied. Although these discussions focused on Facebook and Twitter primarily, they reflected motivations for using new social media services more generally. Reasons participants gave for joining a SNS included: (1), being the first to experiment with a 'new' technology (2), getting 'caught up in the hype' (3), general curiosity and (4), a soft form of social pressure. Discussions about registration suggested that those who had been early to register were primarily driven by a combination of media interest, curiosity and personal desire to experiment. Comparatively speaking, those who had joined later reported a stronger sense of social pressure and obligation to join a site. This was most apparent with regard to Facebook.

For example, Harry - a 55-year-old retired firefighter, described himself as an 'early adopter' who kept an eye out for new sites that he could join. Although influenced by the reporting of sites in the media, Harry reported a strong sense of personal drive to experiment with new technologies and a degree of autonomy in his decision to register with these sites. He reported getting pleasure out of registering with as many social media services as possible to determine whether they added anything to his existing Internet routine. As Harry explains:

> I follow the technology stuff in the press and basically through the buzz in the media. I'll
> have a look at anything that's new. If it takes my fancy, some keep my interest and some I
> don't visit anymore...... like MySpace (Interview 10, 2012)

However, this was not the case across the sample. For example, participants already using a SNS reported joining Facebook because of wider network effects (seeing their networks on one site migrate over to another) and the increased attention being given to the site in the media. For participants who had never previously had an SNS account, interest in, and registration with, Facebook and Twitter were sparked by curiosity that stemmed from media hype as well as wider social uptake among their social circles. Participants felt they '*ought to sign up*' to '*see what the sites were about*'. These participants were not actively seeking out services for specific reasons or new experiences; rather they wanted to know if they were '*missing out*' on anything. Finally those participants who had only recently joined either Facebook or Twitter (i.e. in last 12-24 months) described a strong feeling of obligation to register. This was particularly evident with regard to Facebook. For example, Natalie, a young mother of three who has just turned 30 did not report a strong desire to sign up to Facebook, but commented on feeling that through non-participation she would be 'socially excluded'

from friends, and the activities, interactions and experiences that take place on these platforms. As Natalie explains:

> It was just that all my friends were on it and I just joined to see what it was all about, I didn't really understand it really, but all my friends were on it – so I joined (Interview 4, 2012)

Those participants who had only joined Facebook in the last year or so described feeling a soft form of social pressure to join that stemmed from a feeling of social marginalisation from their own networks. Bigge (2006) has commented on the strong social 'pull' factor of sites like Facebook. Bigge describes this social pull as 'enforced volunteerism'. The interview data suggested that several participants had joined up to Facebook because they felt that they ought to. Many were prompted to join by friends, for example, by the automatically generated email invitation Facebook would send out when it gained access to contact information via a new user. This is a common tactic SNSs use to recruit potential users. Facebook and many other SNSs leverage new users email contacts to contact non-users and invite them to join. This invitation-based introduction system uses friend recommendations to contact non-users presented to the user as personalised invitations to join.

Figure 40: Screenshot of Facebook prompt to join Timeline.
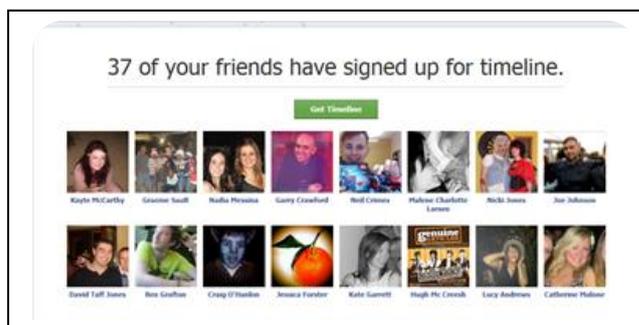
The social pull of the site is tied to the increasingly visible role the site plays in public life, for example in mediating social interactions. It is also connected to the capacity of the site to generate social capital and confer social standing, as noted by Chris Hughes, a co-founder of Facebook, 'If you don't have a Facebook profile, you don't have an online identity,' (cited in Bigge 2006). The notion of enforced volunteerism did not really describe early registration but it did seem to reflect motivations for later registration. Participants described joining the site because they felt they were missing out – deciding to use Facebook out of a social desire for inclusion and visibility among their friends. Recently, Bucher (2012) has discussed the

algorithmic 'threat of invisibility' with regard to Facebook, although Bucher is discussing the algorithmic power of sites to determine visibility according to levels of content contribution, there also seems to be a threat of social invisibility through non-participation in the sites.

The social pull with regard to SNSs also exerts influence beyond registration – it keeps people active on sites. For example, during the interview discussion about motivations for joining sites, a number of participants voluntarily took this opportunity to express motivations for *leaving sites.* For example several participants reported a desire to delete their current Facebook account, commenting that they felt that, in the main, '*it was a waste of time'.* In addition, some participant felt that Facebook encouraged '*vanity'* and '*socially accepted forms of stalking'.* There were a number of participants who had longstanding accounts with Facebook who expressed a dislike of aspects of the 'Facebook culture' but felt that opting out would only socially disadvantage them. Although they expressed a desire to leave the site, they commented on feeling constrained against doing so. In part this was to do with having access to the communicative features available on sites and the social benefits that came from having access to sites and in part because they felt they would be at a social disadvantage if they were to close their accounts. Subsequently they kept their Facebook accounts active. Participants were primarily concerned about losing visibility within their social circles and potentially losing contact with more peripheral social connections for whom they didn't have contact details outside of the site. In effect they felt 'locked-in' to the site. Naveen (2009) uses the term digital lock-in to describe how a technology encourages the user to build networks. Indeed, as argued in Chapter 6, this is an aspect of both Facebook and Twitter. However the concept of a social-technical lock-in highlights the interplay between the *social and the technical factors* that exert influence on continued use.

7.7 Understanding SNSs: The 'Social' framing of Social Media Technologies

The 'social' in social media has become an umbrella term (van Dijck 2013). Participants' discussions of Facebook and Twitter were couched in rhetoric of 'the social'. In the interviews, participants talked about the communicative capabilities of Facebook and Twitter and were particularly keen to emphasise the ease of communication on these site. This was expected as these sites are technologies that enable social interaction. However, the rhetoric of sites as 'social' revealed a particular understanding of the technology, and arguably, only a

partial understanding of the technology. As Kendon, a 27-year-old afro-caribbean male nurse, Shaz, a 29–year-old Muslim father of three, and Lola, a 26-year-old traveller, explain:

> **Kendon:** 'It's a social thing, it helps 'you connect to people you know'
> (Interview 1, 2012)
>
> **Shaz:** It's a social thing, you just log on and you can see what's going on in your world
> (Interview 3, 2012).
>
> **Lola**: These sites, well there just social, you know – they're ways to keep in contact with friends and family, post photos, share stuff. (Interview 19, 2012)

Additional comments included, it's just 'a great way to keep in touch, it's just 'a social thing', its 'convenient' and 'efficient'. On the surface Facebook and Twitter were discussed as unquestionably *social* and unquestionably *better* modes of communication than other types of communication, but it was not always clear *what particpants meant by 'social'* or indeed *why they were necessarily better* than other modes of communication. For example, as already argued, many participants had commented that they actually disliked aspects of the sites. In addition, as Chapter 9 will discuss, they had specific concerns over privacy. Furthermore, as Chapter 8 will go on to argue, some social media/ted practices could be classified as more interactive and social than others. Combined, these examples problemitise the overly positive view of sites that was being reproduced in the interviews. Looking across each interview as a whole, it was evident that people's social experiences and practices on Facebook and Twitter did not fit neatly into this particular discursive social lens.

The social framing of these technologies revealed superficially *overly* positive connotations. Zimmer (2008) has commented on the distinct rhetoric that surrounds social media which suggests that everyone can and should use new Internet technologies to organise and share information, to interact within communities, and to express themselves. The emphasis on the positive social aspect of social media creates a public understanding of sites as inherntly social. Schäfer (2010) discusses the overt social framing of social media in popular discourse, remarking that the 'social' tends to only receive positive connotations, he explains, 'nice people, interacting nicely to create nice things'. However, it is important to note that whilst participants describe Facebook and Twitter as social spaces - defined by

'social' practices and 'social sharing', there is a need to locate these practices in the context of commercial structures and processes (Coyte and Plybus 2007, Fuchs 2009; 2011, Langlois 2009, Bodle 2012, Van Dijck 2013). UGC is intrinsically linked to company business models. This point will be developed in Chapter 9.

7.8 Making Sense of Facebook and Twitter as Digitally Mediated Networked Spaces

When talking about Facebook and Twitter, participants frequently employed analogies and spatial metaphors to describe the sites and their associated experiences. It is not uncommon for spatial metaphors to be used to talk about the Internet (Albrechslund 2008), early discourses of cyber*space* and common Internet terms such as a Web*site* both call to mind the flows enabled by network connections as 'spaces' and 'sites' for social interaction. My*Space* incorporated a spatial metaphor directly into company name and branding, and specific areas within social networking sites also employ spatial metaphors, for example, the *home*page. Albrechslund (2008) suggests that using spatial metaphors is a useful way to classify and organise the Internet. Spatial metaphors allow users to make sense of social contexts enabled by Internet connectivity by drawing on the meaning of existing cultural concepts[98]. However, Shirky (2005) underscores the reality that digitally networked spaces are not metaphorically comparable to physical space. There are important distinctions between the social as it takes place in physical space and the social as it takes place in engineered environments configured out of digital compositions and arrangements.

This said, metaphors can tell us something about how the technology is being made sense of by users and it can also call attention to how meaning is intentionally being codified into technologies. Social media are highly complex digitally networked technologies, which support complex information flows. Designers use physical analogies, spatial metaphors and cultural standards to facilitate the process of constructing/communicating meaning about the technology (see Norman 1998:23). This is because they can help users make sense of technologies in ways that are culturally meaningful to them in everyday contexts and practices. Spatial metaphors provide a cultural framework or tool to understand the social contexts configured out of digital compositions and arrangements.

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[98] The use of particular concepts and terms privileges particular languages/cultures. The above examples privilege an English speaking world and cultural concepts like 'home' have variable meanings in different cultural contexts.

The metaphors used to describe Facebook and Twitter offer insights into how participants understand these technologies as digitally networked environments. Facebook was constantly described as a 'place', somewhere that participants '*went to*' to socialise and find out what was happening in their social circles. Twitter was described as a 'stream' or 'a flow of information' which people connected to. As this chapter will go on to discuss, there was evidence of a convergence between the design languages embedded in the technology and the language participants used to describe these sites. This is an example of the triple articulation of social media/ted practice in action, as the techno-cultural framing of sites becomes intermeshed in public understandings and practice. Ben, a young male DJ, and Laurie, a female recruitment officer give examples of these metaphors in use:

> **Ben:** Facebook, I'd say it's a *place* to keep in touch with friends (Interview 5, 2012)

> **Laurie**: Twitter? It's really fast paced, compared to other SNSs like Facebook, within seconds you can get like fifty new tweets. It's basically people just getting their thoughts out - it's just a constant *stream* of information (Interview 16, 2012)

With regard to Facebook, the metaphor of 'place' suggested that people see Facebook as a social context in its own right. A place is defined as a point in space and time; a place is a *recognisable* social context. Facebook was primarily used to connect and interact with known people, namely friends and family. Participants did not delineate between online and offline interactions and connections, rather they conceived of Facebook as an *interfacial* space that they could check into; a space which mediated interactions between known connections drawn from known physical contexts. Facebook was considered a personal, rather than public or private environment. It was considered personal because of the known networked connections supported by the site and the fact networked activity on the site was orientated around interactions between known connections. It was considered neither public nor private but *contextually* personal (for a discussion on context and privacy see Nissenbaum 2010). The view of Facebook as a personal place was intimately bound up with the nonymity of the site and the extensive amounts of personal information generated from participation, such as, personal profile information, visual maps of networked connections and interactions, photos of events and activities, interests and likes.

Facebook supports a variant of networked individualism (the individual is at the centre of network connections) that creates distinctive '*recognised*' and '*relevant*' networked social context for account holders; social contexts generated by UGC feeds containing information about existing connections and contexts re-mediated in a digitally networked form. As such, the site engenders a feeling of localised social ambience. For example, Shaz, a 29-year-old father of three, describe the site as fostering a feeling of being in mediated proximity to friends and family. As Shaz explains:

> It's a place where people just can say what they're doing in their lives, post photos about their lives... you just log on and you can see what's going on in your world (Interview 3, 2012).

The notion of ambient intimacy (see Reichelt 2007) refers to the ability to regularly keep in touch with people that you wouldn't usually have access to because of time and space constraints. It captures a spatially distributed social awareness afforded by networked digital technologies. Participants describe 'checking into Facebook' to 'see what's happening' with friends and family. The site engenders a *social ambience* created by the circulation of visual and textual representations of relationships, events and interactive exchanges between people. This is evidenced in the fact that participants were particularly vocal about the importance of photos in Facebook – having access to visual representations of parties and events. All participants valued Facebook for enabling them to 'see what people were up to'. As Sadie, a female media office manager in her forties and Seoseimhin, a female teacher in her mid-late twenties explains:

> **Sadie**: It's a way of keeping in touch with people really and being able to see what they're putting on and their photographs and different things they're interested in (Interview 12, 2012)

> **Seoseimhin:** I would say Facebook is very visual, the photos are a big thing, it's very visual in the way it allows people to communicate, it lets you see what people are up to (Interview 6, 2012)

Interestingly, the ability to 'see what people were up to' was also identified by some participants as a negative.

Despite the fact that these sites are heavily mediated and automated socio-technical environments, Facebook engenders a degree of illusion regarding non-mediation (Lombard and Ditton 1997). Facebook was perceived as an interfacial place that participants go to, to

engage in social interaction with friends and to keep up-to date with social life via mediated flows of socially relevant information. Facebook was considered a digital networked access point to known social contexts and to socially recognised and relevant contexts.

Importantly, Twitter did not appear to evoke the same notion of social context or place. Rather, participants described Twitter as a fast moving real-time 'stream' or 'flow' of information. Twitter is built around Tweets which are sent/broadcast/distributed around networked or 'imagined audiences/communities (Aquisti and Gross 2006, boyd 2006, Grudz *et al*. 2011). Twitter was understood as a way to both, get information 'out' into the public domain and to 'pull' information in. As Laurie explains:

> It's basically people just getting their thoughts out, rather than people updating their status once a day, people can update every couple of minutes... everything that they are doing, reading, everything that they are thinking they put up on Twitter. However personally, I don't really use it to tweet; I mainly use it to see how other people are tweeting. If you look at lots of people's Twitter streams you can see they tend to contribute a lot, I don't, I like to pull info in and not necessarily put the info out (Interview 11, 2012).

The metaphors used to describe Twitter, such as 'stream' and 'flow', reveal how participants consider Twitter as a networked environment. The metaphor 'stream' captures Twitter's continuous feed of 'real-time' information, configured through personally identified interests or clustered around evolving topics, unlike 'place' which evokes the idea of a location fixed in space. A stream is continuous, it 'flows', it cuts across physical contexts. Streams do not have a social interlace in the same way as a bounded place or fixed location in space. The interview data suggested that Twitter is less about context and more about *real-time* information flow.

As argued in Chapter 6, Twitter's design language emphasises immediacy and real time. Real-time has been defined as signifying a shift from the static archive to 'flow' and 'river' (Lovink 2011:11). Real-time is an on-going process where information disappears from the visible archive nearly as quickly as it appears (ibid). Taking Twitter's affordances into account, the short conversational style of content distribution and interaction, the focus on the Twitter feed and trending topics, restrictions on text length and the visual temporality of tweets lends combines to create 'streams' of ephemeral information. Whilst Facebook is also a real-time network, participants did not emphasise 'immediacy' or 'liveness' in the same way. Furthermore, Facebook was considered as a relatively stable, recognised social context whereas Twitter was considered by participants to be a largely open and fluid public network

of information. In this way it was clear that participants considered Twitter to be a more 'public' networked environment than Facebook. Unlike the description of Facebook as a place containing personal information flows, Twitter was described as an immediate way to publically distribute and consume information and commentary. Twitter was described as a tool to 'get yourself and your thoughts out there', and a way to find out what's happening in the wider world.

The spatial metaphors of 'place' and 'stream' can tell us a lot about how participants view the digital environments afforded by these technologies. However, analogies and metaphors don't accurately describe the nature of underlying technical architectures and networked connections afforded by the sites. On Twitter and Facebook, account holders are 'connected' within these networked environments in complex ways (see Appendix 4). They are connected to the sites themselves, organisations and third-parties and they are brought into mediated contact with advertisers. Users are embedded in a mix of *social and commercial ecologies.* However, participant's understandings of sites emphasised only the social and visible network connections and information flows. This is reflected in the view of Facebook as a 'social' context – Facebook is a developed commercial network but the commercial nature of the environment was largely absent from the interview (implications of this are discussed in Chapter 9). Participants' emphasis on visible network connections and network interactions is largely to do with the fact that they meet and make sense of the sites at the interface, and take it at *(inter)face value* (see Chapter 8). The social via Facebook is the social as (re)mediated and (re)presented by digital codified structures and algorithmic processes (Gillespie 2012, Bucher 2012). However, participants tended to buy into the illusion of these sites as channels -as relatively unmediated social contexts. As such, the digitally engineered and algorithmically generated and organised aspects of the environment go largely unnoticed.

7.9 Codified Framings: Design Languages in Practice

Participant's choice of words to describe Facebook and Twitter highlighted the importance of the techno-cultural framings of technologies encoded in the design languages. The language participants use to describe the key functions, features and activities, frequently reproduces the descriptions of features and 'design languages' embedded in sites. This is not to suggest that this is a one-way flow - the interplay between a design language and social

understandings and conventional usage develop in reflexive relationships with one another. For example, the use of the '@' sign to direct messages and the convention of re-tweeting in Twitter were not original design features[99], Twitter responded to the evolving conventions of users, by building the collectively established syntax into the system (see boyd *et al*. 2010). However this does not detract from the importance of thinking about how cultural codes in design can imply meaning and work to render a technology meaningful in practice. The finding regarding this 'convergence' highlights the complex interplay between design languages in sites and participants' understandings of technologies and their own mediated practices.

Both the language of social sharing in Facebook and the public conversation in Twitter resonated throughout the interviews. Facebook markets itself as a social tool; as a social utility, helping 'you to connect with the people in your life' (Facebook 2012). Words commonly used by participants to talk about Facebook included 'social', 'friends, stories, 'connections', 'share/sharing'. Participants spoke positively about the way that Facebook enables people to 'share' everything from photos and videos to updates and experiences. When asked about what they liked about Facebook, participants often responded with this one keyword 'sharing', Kathy, a 61-year-old retired teacher provides a typical response to the question, what do you like about Facebook?

'Sharing, I like to share, particularly photographs, they're my favourite thing' (Interview 8, 2012).

Sharing is a constant feature of the technological narrative of Facebook. Sharing is deeply embedded into the design language of the site in descriptions of features, pop-ups, prompts, and guidance, help sections and policy documents, and in addition the site has its own engineered share button. Shafer (2010) suggests that sharing (and the culture of sharing) has come to stand for more in the cultural immaginary. Sharing has entered the mainstream vocabulary as a rather loose descriptive term for a complex set of social media practices (see John 2012, van Dijck 2013), this said, it is not always clear what sharing means and it is important to consider how this term is understood by users of the technology. Understanding how users operationalise 'sharing' can help to make sense of how they understand their social media/ted practices. Traditionally the word 'share' had several linguistic uses depending on

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[99] The use of '@user', now results in a hyperlink to that user's Twitter page, and a page has been created so that users can see all the @messages. Twitter has also built into its design a re-tweeting function.

context and whether it's deployed as a noun, verb or adjective. One of its most common uses of share is as a verb to denote the activity of sharing something with another person or in the context of a group. Sharing can mean the dividing up of a thing, for example, a bottle of wine, or alternatively, giving someone access to something such as information, for example, to share a secret. In this sense the practice of sharing often implies a known recipient or recipients. Whilst sharing is commonly used in relation to an object, for example, you share 'something', it is sometimes used in relation to a non-object, for example when people share in things, for example when taking part in an activity.

The interviews provided evidence that sharing was used in a very broad and generic way by the participants and it was identified as a key social benefit derived from use of Facebook. In SNSs, sharing denotes a broad set of practices whereby information is generated through 'participation'; through technical and social actions and interactions which are stored and circulated and made accessible to varying degrees within networks. It refers to a complex set of practices incuding the disclosure of personal information, uploading content, distributing hyperlinks and identifications with in real-time locations. When participants were asked what sharing meant, typical responses took the form of, '*you know, you just share', sharing? It's just a way, well… a way to share things with people*'. (Lola, Interview 19, 2012). Participants seemed to be unclear on what sharing actually was, or why it was beneficial. Participants were not always clear on why 'sharing' is by default useful, or indeed by default desirable. Whilst participants reported liking to be able to 'see and be seen' (boyd 2008) and to be able to interact via Facebook, they commented on a number of negative aspects of the 'sharing culture', for example, making likes and dislikes visible and accessible to everyone. Moreover, whilst the majority of participants talked generically about the benefits of sharing, they themselves did not like to 'share' much on these sites, for example they did not disclose a large amount of personal information and they largely abstained from posting comments and content. This is important because whilst people reproduce this default positive view of sharing, it shows a more complex reality of norms and values and practices evolving around it.

In a recent discussion by John (2012) on the emergence of 'share' as a key word in Web 2.0 the author documents a fuzziness around both the association and use of the term. Despite this fuzziness, Papacharissi (2011) has suggested that 'shareability' is a key property of networked publics, capturing the tendency in networked digital structures to encourage

sharing over withholding information. Papacharissi suggests that this may indicate a transformation of sharing into a social norm. Sharing is a key property of social media models as sites rely on UGC to function – the constant flow of information. They rely on UGC for content and for finance. The financial profitability of sites is tied to the monetisation of UGC. Facebook is predicated on users' sustained interactions, engagement and content sharing practices to work as a social and a commercial tool. As such, both the social and commercial applications of Facebook leverage and coalesce around this concept of sharing - sharing is thus a double-edged sword (van Dijck 2013).

The use of the term 'friend' provides a further example of Facebook's design language in practice. Participants described network connections as 'friends' and they talked about sharing with friends. However their imagined networked and the real networks varied somewhat. Their networks often included a range of social relationships, acquaintances and connections, friends, family, work colleagues and 'randoms'. Facebook's use of the word 'friends' for the primary network connection is a strategic move intended to reinforce a feeling of 'closeness' among network connections (Kirkpatrick 2010). Friend evokes a sense of familiarity and a degree of intimacy. This is a key mechanism for making Facebook feel like a safe, known social context in which to interact and 'share'. Although the majority of network connections were already known to participants (and friends formed a central part of the network), many participants were connected to a range of people they would not classify as friends. The metaphor of friends to describe network connections works to reinforce the appropriateness of sharing in this digitally mediated context – it is considered normal to share with friends. Participants noted that they were more than happy to share with friends. As Leanne, a 27-year-old office worker from Liverpool explains:

> Yeah, I'm happy to put stuff up on Facebook, why wouldn't you want to share stuff with your friends, I like that they can see what I'm up to. (Interview 18, 2012)

By employing the language of friends and by accepting the logic of sharing with one's friends, users can visualise their networks as known/safe spaces to share information with friends and family. Participants typically talked about their audiences as close friends, but networks extended far beyond this. This comes to light in a discussion with Jai:

> **Jai:** When I started work, my supervisor added me, then the next day (she must have being going through all my photos) came up to me out of the blue and said you're a 'pot head', she must have seen a photograph of me where I thought I was smoking weed.

I: What was your reaction to that?

Jai: It was in front of people in work, I was embarrassed. I'm not a pot head, and it unnerved me. She must have gone through all my photos to find that, they were old photos where some of my mates from school used to smoke. It's a bit creepy.

I: Was that unexpected?

Jai: I don't expect many people would do that, maybe they do?

I: Who do you imagine looks at your profile?

Jai: Pictures and that, well mainly the people that are tagged in them… close friends (Interview 17, 2012)

This example illustrates the 'imagined interpersonal network' as different to the 'actual interpersonal network'. Jai uploaded these photos in the past, to share with his friends. He did not anticipate they would be available to work colleagues in the future, nor did he expect that these people would be able to locate them. As boyd (2008) has argued, these sites not only 'collapse context' (boyd 2008; 2011), but they have a number of socio-technical affordances, which makes data persistent and searchable in a network context. In addition, the techno-cultural framing of connections and networks in the design languages of sites can provide an important lens through which people visualise their networks and their visibility within these networks.

Twitter's design language is also reproduced in people's descriptions of the site, their networked connections and network practices. Twitter describes itself as an information network and invites people to find out what's happening, right now, with the people and organisations they care about (Twitter 2012), before which, the site invited people to 'follow their interests'.

Figure 41: Screenshot of Twitter's welcome message
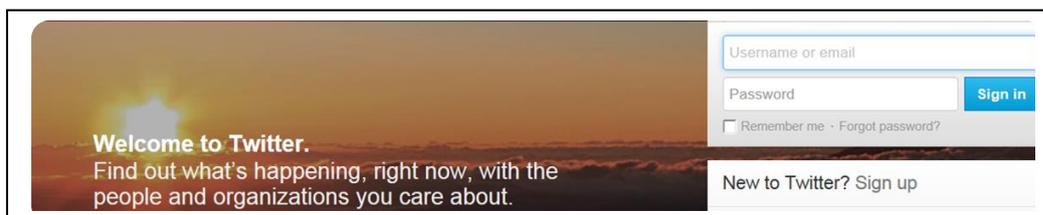
Twitter's welcome message emphasises the sites capability to connect the user with instant updates from diverse sources including friends, industry experts, and favourite celebrities;

users are invited to 'find what's happening around the world'. This is reinforced with an image of lots of people in a public space. Couldry (2004) has discussed the concept of 'liveness' with regard to the media, arguing that it is fundamental category of media that contributes to underlying conceptions of how media are involved in social organisation, for example, by providing seemingly immediate access to social 'realities'. Immediacy can be considered to refer to a feeling of temporal or spatial presence with a mediated event. Similarly, the language the participants used to describe Twitter clustered around public connectivity, following, keeping up with people and accessing information. Key words used by participants to describe Twitter included 'interests', 'publicness', 'immediacy', 'real-time' and 'information service'. Participants emphasised how the site enables them to connect with people, trends, topics and celebrities, quickly and easily in real-time. In contrast to Facebook, connections were not described as friends. Network connections were described as 'followers' or and sometimes as fans. Following logically falls in line with a metaphorical view of Twitter as a stream or flow of information. Following denotes a more mobile state of connectivity - to move or travel behind something or have people move or follow behind you. Following is also a term used to describe a way to keep track of news, for example you follow a story. The emphasis on sharing was not as prominent in Twitter, whilst participants do share, i.e. they upload and distribute content on Twitter, they did not refer to it as sharing, instead they talked about getting information out, pulling it in, following topics and trends and taking part in conversations and events.

Importantly, the descriptions of Facebook and of Twitter were quite similar across the sample, understandings did not reflect a high level of 'interpretive flexibility'[100] (Wajcman 1985, Pinch and Bijker 1992). This is important because participants' understandings of sites are inextricably linked to their appropriations. Whilst these are fairly recent technologies in the longer trajectory of Internet communication, this could reflect a standardisation in public understandings of the technology and could be indicative of a degree of stabilisation in the ways these technologies are routinely appropriated in practice. Whilst the interviews can only comment on the convergence between understandings of Facebook and Twitter and the cultural coding of the technology within a relatively small sample, this could demonstrate an instance of the interplay between the design languages encoded in global platforms and localised understandings and emergent practices. Miller (2011), in his research into Facebook

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[100] In Chapter 8, the routine and standardised aspect to practice is discussed further, reinforcing the view of standardised readings and appropriations of the technology.

use in Trinidad highlights processes of localisation in appropriation, however, it is equally important to consider how design as a techno-cultural structure shapes culture and practice as it comes into contact with local practice. The interplay between the language participants used to describe Facebook (e.g. share, liking, place, friends) and Twitter (public, interests, trends, immediate, real-time) highlights the importance of the meanings that are codified into technologies. Moreover, it draws attention to critical questions of transparency in the way that sites communicate with users. Facebook and Twitter are companies that are involved in extensive information processing, they are, and are embedded in wider commercial ecologies. The social framing of these sites is somewhat discursive, providing a particular, partial framing of these networked environments, this has important implications for how these sites are understood and how they are appropriated in social practice.

7.10 Designing Networks: To Friend or to Follow? That is the Networked Culture

Facebook and Twitter have different design affordances which engender different network connections, practices and cultures. As Laura, a 26-year-old young recruitment officer explains:

> I suppose one of the main differences [between Twitter and Facebook] is that on Twitter you don't personally know who you are following whereas on Facebook you know like 90% plus of people, they're friends you already know, whereas on Twitter, often, you don't really know them at all (Interview 11, 2012).

This is also illustrated in Kendon's discussion of why he doesn't link his Facebook and Twitter account:

> I don't connect my sites; I consider them to be different. If I'm on Twitter I'm on Twitter, and if I'm on Facebook I'm on Facebook. They're different you know, what you say on Twitter isn't always for Facebook and vice versa, and the people who follow me on Twitter are different, I don't know all my followers on Twitter, most of them follow me for footie updates they don't care who I made friends with or what I'm doing at home. (Interview 1, 2012)

It was clear that participants thought of Facebook and Twitter as very different networked environments, although both were branded as SNSs. A large part of this is to do with the type of network connectivity and opportunities for activity encoded into the design of Facebook and Twitter. Whilst both sites support networked information flows key differences in design shape social media/ted practice (or a detailed overview see Appendix 4)

Facebook is designed to be embedded in an interpersonal social context. Participants described their Facebook networks as personal networks, mainly friends and family. It has been well documented that Facebook networks are typically configured out of existing social connections (see Lampe *et al.* 2006, Ellison *et al.* 2011). Participants used Facebook as part of a communication matrix - alongside other communication technologies to interact with friends and family. Facebook was part of participants' existing social routines (Miller and Slater 1999, Castells 2001, Wellman *et al.* 2003, Wellman and Hogan 2004). Participants felt it was inappropriate to connect with 'strangers' because of the high amount of personal information processed by Facebook (coupled with the complex privacy controls). It was not clear why people unknown to them would want or need access to this type of information. Participants' accounts of their networks clearly suggested that Facebook supports relationship-orientated networks; a network orientated around existing social relationships (Zhang 2010). Facebook was clearly viewed as a tool for engaging in informal interpersonal communication, in an interfacial social context, thus echoing Facebook's welcome message Facebook 'connects you to the people you care about'. Conversely, whilst the site promotes itself as primarily a social tool for friends and family, participants felt that it was less important for engaging with the people closest to them (strong ties) as updates were considered to be less important the more time is spent time with someone. Moreover, some participants felt Facebook was too impersonal for particular interactions or conversations. For close relationships, participants described preferring to meet face-to-face or phoning/texting. Participants considered Facebook to be the most useful when it came to keeping in touch with weaker ties, for example, friends that lived further away. The main reason given for this was the strong visual representations of people's social interactions, activities and affairs which enable people to feel part of a social context they cannot directly experience. Kathy explains:

> There's a cousin I have who I don't see but I am close to. She lives on an island and the telephone connection is always temperamental, a bit sporadic and erratic. She can be cut off for days but the one thing that never seems to go down, is this [Facebook]. It's instant and I can see what she's up to. Like I say, I usually check in on Facebook after tea and I spend half an hour upwards just catching up on things […] I'd say it's increased my contact with, what you might call, my peripheral family, I have second cousins in Australia, now they have kids that I might never meet, but I can see them and comment on things and be involved. I particularly like the photographs, they're my favourite thing. One of them just had a new born baby in Australia and she puts the photo up and everyone can see the baby, that's what I like (Interview 8, 2012)

In Facebook, as argued, a high value was put on being able to literally '*see*' what was going on with people, especially those where it is not possible to always meet up with face-to-face. Facebook was used to interact with friends but was particularly valued for providing a means to maintain contact and a visual presence with 'weaker ties', for example, participants considered Facebook a platform for making 'distant ties' visible. The site provides a social solution to the tendency for 'out of sight to mean out of mind'. The photographs were frequently cited as an integral part of the Facebook experience. Facebook was important for engendering a feeling of *familiar social context through visual representation*. The photos play a key role in creating this context. They provide a mechanism for people to visualise the social context, working to bring into the digital space traces of interactions elsewhere in the world. This contributes to the illusion of a privileged access to a seemingly 'authentic' and unmediated reality. However, this reality is highly meditated; it is algorithmically shaped in the process of mediation. For example, Bucher's (2012) work on algorithmic power underscores the importance of recognising that social context is algorithmically generated through the automated curation of UGC by algorithms. Here, visible, traceable activities and interactions of users on the site are ranked and organised according to specific logics[101].

In contrast to participants' ego-centric, largely known and static networks on Facebook. Participants had quite diverse and fluid networks on Twitter. Participants' Twitter networks were semi-anonymous, made up of people they knew and people that they didn't know (outside of Twitter) as well as organisations and institutions. Network connectivity also extended to include the public 'conversations' they participated in. Connections on Twitter did include pre-established interpersonal connections, but networks were *much more diverse* than this. Participants' connections on Twitter ranged from personally known friends and family to politicians, musicians, footballers, journalists, industry leaders, organisations etc. Laurie, a young female recruitment officer, informs the researcher how many of her connections were made up of friends.

> Twitter is a lot more anonymous than Facebook. If you look at the followers I've got (353) there are about 15 that follow me who are friends, and vice versa. The rest are celebrities, and people I am interested in (Interview 16, 2012)

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[101] Bucher's (2012) research shows how visibility is connected to particular types of traceable activity.

In terms of networked connectivity, there was a high value placed on being able to establish ties with people who held socially and culturally influential positions in society such as celebrities, journalists, industry leaders and politicians. For further discussion of the relationship between celebrity culture and Twitter use, see research by Hargittai and Litt[102] (2011), and Marwick and boyd (2011). Jai, a young NHS worker, was particularly keen to talk about the interactions he had on Twitter with one of his football idols. He proudly recalls an instance where he tweeted Dietmar Hamann, an ex-Liverpool football player, and to his surprise, received a response. Twitter's design allows for 'addressivity'[103] (Hunnycutt and Herring 2009), which can be used to communicate in asymmetrical ways to individuals. This mode of addressivity and networked dynamic is relatively specific to Twitter. For example, this stands in contrast to Facebook's primary mode of connectivity – the mutual friend, which has traditionally required a degree of social symmetry and reciprocity between network connections. Twitter's asymmetrical mode of connectivity engenders a hybrid mix of addressivity and reciprocity in communicative practices.

In addition, participants placed a high degree of emphasis on interest being the basis for connectivity on the site. As such Twitter's mode of connectivity can be seen to create a distinctive interest-orientated network (Zhang 2010). The basic personal networks on Twitter are configured out of who a person 'follows' and who a person is 'followed by' - though it should be noted that networks and information flows are much more complex than these network categories imply. For example, temporary networks are forged between people around hyperlinked key words using the hashtag (#). Participant's networks can be described as interest-orientated because participants frequently cited interest as the primary reason for connecting with people on Twitter. As Leanne explains:

> I love it, I follow loads of famous people, you know - just out of interest, I like the fact I can
> follow them and get their updates… I follow a right mix of people (Interview 18, 2012)

Participants described choosing to follow people based on whether they were deemed 'interesting', in terms of whom they were, or what they have to 'Tweet about'. Followers

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[102] Hargittai and Litt (2011) suggest that Twitter adoption among young adults is linked to a pre-existing interest in celebrity culture and entertainment news.

[103] Addressivity is the process by which a user indicates an intended addressee by typing the person's name at the beginning of an utterance, often followed by a colon. Werry (cited in Hunnycutt and Herring 2009) noted that a high degree of addressivity is required in multi-participant public environments such as IRC, because the addressee's attention must be recaptured with every new utterance.

have been described as a type of micro-audience because of the micro-broadcasting dynamic. The connective affordances of Twitter, the cultural coding of the site and current practices, result in Twitter's ego-centric networks being very different to Facebook. For Murthy, the design of Twitter enables people to engage in public conversation, bringing unrelated people with potentially diverse views together around similar events or interests. This has prompted Murthy (2012:35) to discuss Twitter as a possible public sphere which has the potential to provide a constructive mode of social organisation that facilitates public discussion and debate. Among the participants of this study, Twitter was valued as an 'interest-driven information tool. Twitter enabled them to connect to people who they wouldn't usually be in contact with, as well link to interests and navigate information feeds. Hermida (2010) has described Twitter as an ambient media system; a light weight, and always on communication service that facilitates a consciousness between users and events when they are not in physical proximity. Harry's use of Twitter is an example of this:

> I use [Twitter] as a newsfeed... I find it handy. It points to articles that interest me. It's basically just a list of headlines that come through. I don't know many of the people I'm connected to on Twitter, I don't even tweet - it's just to gather information (Interview 9, 2012)

Harry very irregularly, if ever, posts but nonetheless he actively enjoys using Twitter as a tool to 'find out what's happening'. For Harry, Twitter was primarily a way to collate information and navigate the Web[104]. Harry's use of Twitter is afforded by the asymmetrical connections on Twitter which allow Harry to connect and get updates from people that he does not know in alternative contexts - it allows him to tune or listen in (Crawford 2009). However, Twitter use did vary among the participants, showing a stronger degree of interpretive flexibility in terms of appropriation than Facebook. For example, whilst Harry used it as a news feed, Katie, a young musician, used it as a way to network, and Kendon and Jai used it as a way to interact with football fans.

Twitter's mode of connectivity can be seen to create a distinctive network structure which appears to be more diverse, variable, fluid and interest-orientated (Zhang 2010). The distinctive mode of connectivity on Twitter engenders a new set of network norms, such as the acceptability of following someone without necessarily knowing them. Twitter supports

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[104] Here, Twitter takes the function of a Really Simple Syndication (RSS) feed.

connections that do not require social symmetry or reciprocity between nodal connections. In contrast to the predominantly symmetrical ties in Facebook, Twitter's flexible modes of connectivity appeared to support a more diverse range of networking practices. It was a used as a way to access news, get updates from friends, and celebrities, interact with fans, engage in in public 'conversations' and with other people with similar interests. As such Twitter was revealed to be a *hybrid networked space* of information, entertainment and social interaction, *a social-infotainment stream*. In contrast to Facebook's social ambience, Twitter was about maintaining an informational ambience – 'an always on connection' (Wacjman 2008:68) to people, topics, interests and events, which could be tuned into and/or contributed to at any time (Crawford 2009).

The interview data suggested that Facebook and Twitter, as networked technologies, afford different types of connectivity and interactivity. Participants' accounts of Twitter networks did not mirror the more bounded social milieus and the degrees of homophily found on Facebook. Participants' networks on Twitter suggested more heterogeneity than Facebook in terms of the diversity of contacts and more fluidity in the shape of the networks over time, (e.g. they would be more likely to unfollow and follow new Twitter feeds and trends). In addition, participants had different sentiments towards the practices engendered by the sites. Participants held a view of Facebook as inward-looking, pandering to boredom, and nosey-ness. Although participants derived social benefits from use, they also described the site as a passive, unproductive use of time, and rather isolating. On the one hand, participants valued the function of social connectivity but they described the day-to-day reality of Facebook use as lending itself to 'unhealthy forms of voyeurism and surveillance. In contrast, Twitter was considered by participants to expand their networked horizons – connecting them with people outside their family or friends such as celebrities, news flows and organisations. Overall, Twitter was seen as a more constructive use of time.

7.11 Conclusions: Design in Practice

The chapter began by providing contextual information regarding social media/ted practices. It demonstrated how device and context were important for shaping use, it analysed motivations for joining sites, and comparatively discussed participants' routines on the two sites. In addition, the chapter reported on the interplay between participant's understandings of the technology and the techno-cultural coding of sites and practices. The chapter called

attention to a prominent discursive framing of SNSs which presented itself in discussions about the technology. SNSs were constructed in the cultural imagination as technologies that enhanced social experiences; they were 'social technologies'. The social was a generic term covered a complex set of social media/ted practices. In line with Schafer's (2012) observation, the social in social media always seems to receive a positive connotation as a social or community experience. As Chapter 9 will go on to argue, the social framing of sites obscures important commercial aspects of the services from participants' understandings of these networked environments and their routine social media/ted practices. Furthermore, whilst these sites are heavily mediated environments, the interview revealed that the mediation was somewhat obscured. Sites were discussed as seemingly naturalised channels for communication, social information and interaction. Technological design remained largely unquestioned and the commercial character of sites became obscured in light of social framings of sites and practices. The technologies disappeared into the background, subsumed under the rhetoric of the social.

Chapter 8: Interactions @ the Interface

8.1 Chapter Overview

This chapter reports on people's initial encounters with Facebook and Twitter and participants' social media/ted practice at the interface. It has been argued in earlier chapters that people's understandings of technologies are the outcome of specific 'codings' of the technology. Technologies are not neutral but are, in part, the outcome of design and have multiple affordances, there are lots of opportunities for interaction and use is never transparently obvious. Signs and signals are encoded into design so that affordances can be perceived in the ways intended - they aim to make the technology 'speak' to the user. As Grint and Woolgar (1997:61) explain, design is a working attempt to 'configure the user'. Design is an intended communication strategy. This said, design is not a rigid or determinant techno-cultural framework which denies the user an active role in interpretation and appropriation. People make sense of design and use technologies in variable ways as they are open to interpretation and appropriation. However, whilst technologies have interpretive flexibility they are not infinitely readable and malleable. As such social media/ted practice is configured through the interplay between the material and semantic aspects of the technology and active social practice.

This chapter examines social media/ted practice as the outcome of techno-cultural coding strategies in the context of people's *active readings and practices* which take place in specific social and cultural contexts. Following on from Chapter 6 on design and Chapter 7 on SNS practice, this chapter critically discusses how participants encounter and engage with design at the interface in real-time practice. This chapter critically examines how (and why) participants perceive and understand the opportunities for interaction provided by Facebook and Twitter in order to examine how technologies become appropriated and embedded in routine social practice. The findings illustrate how practice on SNS is configured out of the micro interactions with (and via) the technology at the computer interface. The chapter concludes by arguing that social media design, as encountered at the interface, is an important factor to shaping social media/ted practice.

8.2 Learning to Use SNSs, From Registration to Routine

Registration is the first experience a user has of a site. During the interviews, participants were asked to reflect on the registration process and discuss, retrospectively, how they established routines on a site. People's initial appropriations of Facebook and Twitter were informed by interpretive strategies at the interface and experimentation – which facilitates a process of learning about the technology and how it should be used, which in turn informs a particular practical working knowledge of the site. In addition, participants' initial appropriations of Facebook and Twitter are informed by received knowledge about the technology, which helps to solidify social and cultural understandings of the functionality, use and related etiquette and practice.

As detailed in Chapter 7, all of the participants had Facebook accounts and they had been using the site for between 1 and 8 years – typically between 2 and 5 years. Use of Twitter was more recent, typically between 1 and 3 years. Subsequently, participants had established routines on the sites, this said, discussions about registration revealed that early encounters and experiences with Facebook and Twitter played an important role in solidifying their initial understandings of the technology, laid the foundations for use and worked to normalise a set of practices. As discussed in Chapter 6, registration is defined by a definite sequential logic. For example during the registration process new account holders are required to upload personally identifiable information to create their profile and then initiate the configuration of personal networks by adding connections. Participants' discussions about the registration process revealed the importance of interpretive processes – processes by which they 'read the technology', for example, in order to figure out what the technology was intended for and how to use the specific features available. They reported interpretively 'making sense' of hyperlinked descriptions, signs and symbols and by following encoded cues in Facebook, such as 'prompts'. Interpretive processes take place in reference to the design and the social actor and they play a key role in helping users to 'figure out' what they can and should, do with the technology. This was coupled with 'trial and error' approach of experimentation with features. For example, participants reported doing what was obvious, for example 'add friend', 'send message', they described the sites as self-explanatory'. Katie, a 29-year-old singer-songwriter living in London, provided a standard example of how people learnt to use SNSs:

Learning to use it [Facebook] was self-explanatory really you just click on something and it will give you a description of what it is. And anything else I would just ask a friend. Yeah, so I'd say mainly through experimentation and friends really... you just enter an email and some data and then you're up and running (Interview 2, 2012)

Katie's description of the technology as being self-explanatory reflects strategic efforts by designers to make technological functionality and interactivity culturally intuitive and so largely 'invisible' in practice. However, the way functionality was codified into sites shaped participants' interpretations and interactions with the technology. The same SNS features may be codified in different ways in different sites, depending on the designer's particular visions for the technology. For example the mode of connectivity 'friend' in Facebook is somewhat similar to a 'connection' in LinkedIn but the terms have different cultural connotations. These different descriptors help to symbolically frame the processes of adding a network connection – whilst the term friend encourages the user to add known connections, LinkedIn invites the user to establish connections with individuals or groups of people to whom the user might want to be connected. In the first instance, the term invites the user to establish connections with people they know in an informal interpersonal context and in the second instance, people they may know in a professional context.

In discussing how participants made sense of key features and opportunities for interaction it was clear that some features were more 'self-explanatory' than others. For example, adding a friend on Facebook was considered straightforward as an option/instruction. However, 'following' someone on Twitter and the 'hashtag' feature were not intuitive to the participants (Owens *et al*. 2009). These features do not necessarily draw on clear existing cultural frameworks. Whilst participants reported logically being able to understand why they would want to add a friend on a site, they were not clear as to why they would want to 'follow' someone that they did not already know. Most of the participants had not blogged before and this element of Twitter was new. Participants' initial impressions of the follow button suggested the feature had ambiguous connotations, which made it difficult to figure out: 'who or what to follow, and why?' Similarly, sending a message was perceived as 'logical' but again, the hashtag was ambiguous, in part because there was no obvious comparative example elsewhere. Participants described taking longer to 'get into' Twitter and establish routines. As Kendon explains:

> I think at the beginning it was confusing, well from my experience – I made an account, left it alone for a couple of months and then went back to it, because it was quite hard to grasp initially, especially using the hashtag and stuff. But once you do finally grasp it – it's easy (Interview 1, 2012)

Research by Owens *et al*. (2009) into first time users of Twitter also found that people had difficulty learning the design 'language' that is unique to Twitter. This said, participants who had previously been registered with (at least one) alternative SNS commented on having a degree of knowledge about key features of SNS and key interactive practices. As such they reported drawing on past experiences in order to help them in their initial encounters with Twitter. DiMaggio and Hargittai (2001) and Hargittai's (2002) work on Internet use underscores how prior experiences online are likely to shape current practices[105] (also see Howard, Rainie, and Jones, 2002). This amounted to a set of transferable skills, a type of specific 'new media literacy' (Papacharissi and Easton forthcoming). Katie provides an example of someone who is developing a specific form of social media literacy. Katie had been using SNSs for over five years and discussing her first encounters with Facebook and Twitter, she reported a level of confidence, finding it easy to get started because of her history using SNSs. She was familiar with the concept of 'online social networks' and had an understanding of the basic features. She also commented that she had an idea about general 'etiquette' on these sites:

> Having used other sites before helped me understand, just the process of commenting on pictures and writing on people's profiles, I just assumed that was going to be a feature – because it always had been. I'd comment on theirs, they'd comment on mine, and that's how you communicate on these sites, so I found it quite easy to get up and running, sometimes there are features that are different, but with experience, you'll pick it up easy enough (Interview 2, 2012).

Papacharissi and Easton (forthcoming) have written about the development of a habitus of the new. Using Pierre Bourdieu's concept of 'habitus', Papacharissi considers how specific norms and practices might be evolving out of the interplay between social media technology and social practice. Habitus refers to the process by which people internalise their environment, which (dialectically) informs how they interact with their environment in the present. Habitus is habitual; it is customary and importantly it is learnt. A person's habitus is constantly

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[105] Experience is identified by DiMaggio and Hargittai (2001) as one of the five dimensions along which Digital Inequality may exist.

expressed in (and is evolving in light of) their views, behaviours, activities and interactions, otherwise expressed as their social practice. Katie's example illustrates how practices on sites become normalised over time. Katie shows how existing social media/ted practices are built on prior SNS experiences and practices.

For participants with no prior experience of using a SNS, learning how to use Facebook and Twitter was reported to be more challenging. Participants noted that during their first-ever encounters with sites they found it particularly hard to figure out what to do; how to use the features and how to figure out what was appropriate for that particular digitally mediated context. Rather than features being 'self-explanatory' participants reported on relying on the explanations of the technology and the guidance provided by the site. This is important because it highlights the significance of the ways in which technologies are culturally coded to communicate meaning and functionality to potential users. In addition to interpretive and experimental processes (contingent on individual levels of Internet literacy and skill), knowledge and support provided by friends and wider social networks were also identified as important at this stage. Participants recalled instances where they had turned to family and friends for advice about how to use a particular feature or carry out a specific task. They commented on the importance of informal chats about the sites that that helped them establish norms in terms of appropriate interactions, behaviours and practices on Facebook and Twitter. As Kathy, a retired school teacher explains:

> It was a step-by-step process. In fact I ended up messaging a few of my friends to ask about stuff, for example when I first tried to upload an album. It was a new world wasn't it? It's the same for anyone when they first use it – it takes some time to learn (Interview 8, 2012).

Reliance on knowledge from friends aided the process of learning about the features and functions of sites. Social networks have been identified as a key factor in shaping people's Internet use (see DiMaggio and Hargittai 2001). In line with this, the research findings show that social networks play a key role in establishing social norms and expectations about use. This illustrates the importance of social and cultural contextual factors in shaping how design is interpreted and appropriated. Practices emerge and are regulated within existing localised social networks and cultural milieus. Learning through friends is a process which helps to reify the technological functions of a technology. It shaped how affordances are perceived and realised in practice. Moreover, it plays an important role in the closing down of the 'interpretive flexibility' of a technology (Wajcman 1985). This is because technologies are

made sense of socially, through shared understandings. Social frameworks reinforce and shape particular understandings of a technology and related practice. The media also played an important role in this respect. The media was often referenced as a key provider of information about the technologies, their uses and mis/uses, and regarding ascertaining information about issues such as privacy.

During their initial registration, participants reported being cautious about specific features and the apparent 'new' practices. They remembered taking time to get used to the technology and taking a while to establish routines. During the interviews, participants recalled instances with illustrated key examples of 'learning' to use Facebook and Twitter. For example, Peter recalls when he first becomes aware of Facebook as a 'networked public' (Ito 2008, boyd 2011). In this discussion Peter described having 'fallen out' with his sister after posting a comment on her wall which was public to her friends. He had made a comment in response to a post which was intended to console his sister but Peter did not anticipate the comment being quite so public.

> My sister was having a few problems with my nephew who had got himself into a bit of bother. He's in secondary school. He loves his video games, X box and stuff. He'd logged into X box live via his phone to play these games. My sister only lets him plays age appropriate games and he's twelve - but he's in secondary school and some of the kids are playing 18 plus 'shoot-em ups', zombie stuff. Anyway, the kids find out what he's playing, and then started taking the mickey out of him for what he's playing - classic peer pressure stuff. My sister then posts something up online about how her son think she's the worst mum in the world for not letting him play these games and I posted back saying '*it's not really the kids here that are the problem, it's the parents they shouldn't allow them to have these sort of games.*' Didn't think anything of it and then a storm erupted. Some of her friends saw the post and some of her friends allow their kids to play these games and started commenting back. I had to quickly write back, not to apologise – I meant what I said, but I felt bad putting my sister in that position [.....] It was only a toss away comment I made to my sister, but it became a big thing in public, because it was written down, you, know - you can't take it back. I learnt that quickly, now I never say anything on Facebook that I wouldn't be prepared to say publically. (Interview 9, 2012)

Peter had treated the communication between him and his sister as interpersonal, but the feedback alerted Peter to the (networked) visibility on Facebook. He recalls 'learning from the experience' which he explained, informed his future practices. Collectively, these examples highlight some of the factors that work to shape social media/ted practice; they serve to illustrate the contingent and complex nature of how sites are socially shaped by people in

contextual practice and how social practice is re-shaped through interaction with the technology.

8.3 Interactional Tours @ the Interface

Participants gave the researcher a guided interactive tour of Facebook and Twitter, walking and talking the researcher through the various sections of the site, key features and the multiple opportunities for interaction available to them. The tours were largely unstructured and uninterrupted. They were intended to showcase how participants navigated the technology and how they interpreted the site as an interactive digital platform. The aim was to ascertain how participants traversed spaces, sections and links within the site, and to document which features they registered and which ones they regularly interacted with (as well as which ones they largely overlooked or bypassed). The interview also included opportunities to discuss key areas/features of the site the researcher deemed important for understanding practice, which allowed the discussions to focus on discrete areas and features of the technological context. The findings from the interactive tours provide support for the argument presented in Chapter 6 – that techno-cultural framing of technologies at the user-interface shapes how people understand and interact with SNSs. For example, it shows how organisational hierarchies, visibility of features and the cultural coding of features inform participants' readings of the sites. It identifies the importance of knowing about/perceiving an opportunity for interaction and the capacity to fully make sense of an opportunity for interaction as conditions for people to act and have agency in these digitally mediated contexts. The main argument is that it is important to understand how social media/ted practice is configured out of the micro interactions that take place at the interface.

8.4 Explorations into the Known: The Routine Nature of SNS Practice

The interviews and observations revealed the intricate ways in which social media use is configured out of highly *routine* practice; a set of repetitive actions and interactions with the technology at the computer interface. Social media users have frequently been framed as highly 'creative' and 'active' in their appropriation and use of Web 2.0 technologies. Users are described as being active contributors to the digital context, maximising the affordances of the technology to actively participate in public dialogue and content creation. This study

painted a more mundane picture of social media use. It complicated the picture of highly contributory practices and called attention to the importance of looking at *degrees of* technical and social interactivity.

Participants spent time on the site, in large part, because it had become part of their daily routine. Both Facebook and Twitter had become deeply integrated into participants' everyday media routines and social interactions. They described the sites as a routine pastime, a 'habit' which provided a mixture of light entertainment and 'social' activity. As Kathy, a 61-year-old retired teacher, Natalie a young mum of three and Harry, an ex-firefighter explain:

> **Kathy:** I don't know why I log on half the time; it's just a way to fill time (Interview 8, 2012)

> **Harry**: Because it's just on my mobile, I just log in when I've a couple of minutes, it' just work for idol thumbs (Interview 9, 2012)

> **Natalie**: Sometimes you just go on it for going on its sake. I use it half the time out of boredom, I use it because it's free and it available (Interview 4, 2012)

Participants did occasionally have clear motivations for logging on and particular ideas about how they intended to appropriate Facebook and Twitter. For example, Katie, a young singer-songwriter living in London, made a conscious effort to tweet frequently throughout the week for her 'fans', once a week she also 'aggressively' used the hashtag to increase her networked visibility.

Because Facebook and Twitter had become a habitual part of participants' daily routines. This led to a strong degree of familiarisation with technology and the user-interface. This familiarisation enabled participants to navigate the sites in highly automated ways. There was evidence to suggest that practices had become internalised to the extent that participants could interact with the technology with very low levels of engagement and conscious reflection. Participants did not have to think about using the technology, rather 'they just did'. Amin and Thrift (2002) use the term the 'invisibility threshold' of a technology to signal the

point at it is used without thinking (cited in Marwick 2005)[106]. The nature of the interview process itself revealed this 'invisibility threshold'. At times, participants had trouble discussing particular features and articulating their typical routines. For example, when asked to discuss discrete technological features, this typically resulted in a comment about *personal* use. Participants commented that they found it difficult to discuss the technology outside of their *own practice*. Participants frequently brought the discussion back to their practice or using the visible traces of activities they could see on the screen to illustrate points. This suggests that participants' understandings of the technology become reified when they are rendered meaningful and useful, in practice. It also provides another example of the triple articulation of social media/ted practice – the interplay between the technical, symbolic and practiced.

Practices on Facebook and Twitter were fairly well established. As such, participants rarely experimented with sites to see what they could do, they had particular understandings of sites and particular ideas about what uses they could (and should) be put to. Whilst experimentation is a key aspect of registration and early use, once settled into a routine, participants did not tend to break from those networking routines and explore the sites in new or different ways. This was reflected in their particular routine interactions with sites at the interface. Whilst the sites themselves are dynamic and constantly updating, participants' practices remained constant and fairly repetitive. Participants had a core set of practices they carried out via both sites. For Facebook these included, scrolling and processing updates on the news feeds and clicking through photographs and links as well as posting comments and status updates. For Twitter this was mainly scrolling through the Twitter feed, reading tweets, posting tweet replies and clicking through embedded links and several participants' retweeted content.

Facebook is a multipurpose platform, but across the sample, routines on Facebook were very similar. Despite the multiple opportunities for interaction, and various possible ways the technology could be used, people talked about and appeared to use Facebook in very similar ways, interacting with a set of key features. Interestingly, although Twitter is

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[106] Marwick (2005) gives the example of changing the channels on a television using a remote, people do not think 'I am going to pick up and use the remote control which will change the channel using infrared transmission', rather, they are aware only of the function, changing channels guided by the desire, in this instance, to consumer content.

considered to be more restricted in terms of functionality, in comparison to Facebook use, there appeared to be more diversity in participants' appropriations of Twitter. The key features of Twitter (the Follow button, the Tweet and the Twitter feed) were being appropriated for a wider range of purposes and practices. As detailed in Chapter 7, participants had different motivations for using Twitter and they had a range of different networked connections and practices. Whilst some participants used it as an RSS feed to keep them up to date with hobbies and interests and to keep up-to-date with news, others used Twitter to interact with a mix of friends, people and organisations of interests, some used it for self-promotion, others to take part in community or fan-based activity. The comparatively higher degree of interpretive flexibility in terms of use and appropriation may be because Twitter is a slightly newer site - this could indicate that practices have not yet stabilised. However, it could also suggest that the techno-cultural design of Twitter lends itself to more flexible use, for example, the one way mode of connectivity, the opportunities for anonymity, the public/private binary privacy settings.

Social media/ted practice was underpinned by a very routine set of repetitive operations carried out at the interface. This is important because it complicates the framing of the highly active and participatory social media user. Participants' interactions at the interface revealed that social media/ted practice was configured out of a mixture of operations, actions and activities. Kaptelinin and Nardi (2006) underscore the need to acknowledge the important differences within the concept of action and interaction; people 'do things' that require different levels of consciousness, engagement, creativity and collaboration. For example, activities require are collectively organised actions and require high levels of engagement and collaboration. Actions alone amount to steps that are taken towards achieving a goal (they are a precursor towards organised collective, goal-orientated activities). Operations require the lowest level of engagement because they are actions which are regularly repeated and which, over time, become routinised. Operations are typically carried out in an unconscious manner in everyday practice.

Participants' interactions at the interface revealed that social media/ted practice was configured out of a mixture of operations, actions and activities. It is possible to see these different levels of engagement in different aspects of social media/ted practice. For example, organising an event on Facebook or Twitter could be described as an activity, sending a message on Facebook or composing a tweet could be described as a type of action, a conscious, motivated decision, often oriented towards an activity, and navigating sites and

clicking through hyperlinks could be seen as an operation. Both Facebook and Twitter afford the networked organisation of people that can be capitalised on for collaborative activities and practices. This is because the technology affords visually articulated networked connections and generates a remediated social context that enables people to be involved wider events, interactions and activities. This said, the interview showed large parts of social media/ted practice to consist of low level operations. Actions and activities were an aspect of social media practice but they were not always central. However, this is not always apparent at the level of the user-interface because only interactions that leave a digital trace are rendered visible at the level of the user-interface. This inherent bias means that active, contributory actions get more attention. Operations at the interface that do not leave a visible trace are therefore absent at the level of the user-interface. By interviewing at the interface, these elements of social/mediated practice are discernible.

The research found various levels and degrees of technical and contributory forms of interactivity and participation. This is not to suggest that low levels of interactivity meant that people were passive in their use, but to highlight the relatively low level of *direct contribution* during sessions. Participants in this study contributed to the 'social context' on Facebook and Twitter to varying degrees, updating their status/posting on Facebook and tweeting on Twitter. Instead, large parts of participants' sessions were characterised by a different form of involvement afforded by the technology. Participants would traverse information, e.g. by clicking though the hyperlinked features of sites, clicking through things that may be of interest. The cultural practice of traversing information indicates a click though, rather than contributory culture. The click through culture has important implications for how we think about interactivity on SNSs and the specific dynamics of some of the networked practices they support.

Chapter 7 detailed that participants considered these sites to be very interactive and highly 'social'. However this generic view of interactivity obscures the less contributory elements of social media/ted practice. Participants still interacted with sites, but their participation takes a very distinctive form. For example, several participants on Facebook, self-identified as '*observers*' or '*stalkers*' and several Twitter users noted that they '*didn't like to get involved*' but enjoyed watching[107] what other people were saying. Natalie, a homemaker and mum of three provides an example here:

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[107] See Crawford (2009) for an insightful discussion on the listening subject and Twitter.

> I can spend hours on Facebook, not really doing anything, just flicking through links and photos and stuff (Interview 4, 2012)

Similarly, Sadie discusses her routine contributions to Facebook:

> It's not very often compared to how often I go on and how much time I spend on it. Erm I would say maybe once a week, and occasionally if I've got photographs I'll put them up, not excessively though, I probably put photographs up twice a month maybe (Interview 12, 2012)

Those using Twitter did report overall higher levels of contributory activity. For example, Kendon - the most active Twitter use of the sample, would tweet regularly throughout the day, however Laurie would only tweet once or twice a week and Harry never tweeted at all.

> **Kendon:** I tweet about anything and everything. It doesn't matter what it is. It could be me crossing a road, eating, it all gets tweeted. I use it constantly, throughout the day. I'm always logged in (Interview 1, 2012)

> **Harry**: I don't tweet, it's just to gather information (Interview 9, 2012)

Less contributory participants still participate in the culture but their networking practices are characterised by lower levels of direct contribution to the digitally mediated social context. Subsequently, they do not leave a visible trace. The browser on Facebook (Andrejevic 2005, Albrechslund 2008), and the listener on Twitter (Crawford 2009), make up an important part of the network, and the network culture. As van Dijck reminds us, online sociality needs influences as well as followers, personalities as well as admirers, creators and well as consumers and professionals and amateurs (van Dijck 2013). However, the less contributory elements of social media/ted practice serve to highlight the variable levels and degrees of participation, content creation, self-expression and social capital building in everyday use. Whilst these are indeed elements of use, it may be the case that researchers overstate the reality of some people's participatory practices. The notable differences between users' networking practices, and the click through culture, could be an indicator for the network reliance on an active few and a less active many.

8.5 Interactivity in Social Media/ted Practice

The argument has been made so far that further consideration is needed to determine what we mean by participation and interactivity in social media/ted practice. These are two of the most

frequently employed terms in relation to social media (Bolter and Grusin 2009, Gane and Beer 2008, Manovich 2001, Graham 2004). Andrejevic (2004) locates this within the 'promise of the interactive digital revolution'. Understanding participation and interactivity is important because they are often located in relation to notions of increased audience/user agency. Here, participation and interactivity are understood as facilitating possible forms of social empowerment (Jenkins 2001). This said, there is arguably a relative lack of analytical discussion about the subtle differences between different types of participatory practices and associated levels of interactivity. Rather, participation and interactivity are either constructed as empowering and democratising or, alternatively, as exploitation and a form of immaterial labour (Coyte and Plybus 2007), (notable exceptions include Manovich 2001, Jarret, 2008 and Gane and Beer 2010). Although interactivity has become a key part of the current discourse about social media, it is not always clear what is meant by the term interactivity or what makes social media, by default, more highly social in contrast to other forms of information and communication media. The term interactivity is used to describe a complex range of different types of interactions in the form of operations, actions and activities. In an alternative approach to interactivity, Manovich (2001) reverses the argument with regard to analogue and digital media. He draws attention to the pre-programmed elements of new media, which he argues, are in one sense less interactive than some of their analogue predecessors. He underscores the fact that software programmes are typically highly pre-programmed and prompt us to select from pre-defined options, and suggests that as such they can restrict our choices in terms of our interaction with media form and content. The findings of this study suggest that to fully understand the complexity of social media/ted practice, it is necessary to discriminate between different types of interactive structures.

So far, it has been argued that, whilst use implicitly involves a degree of social interaction, the contributory nature of this varies. The researcher observed that participants' interactions on Facebook and Twitter oscillated between more or less active and passive forms of technical and contributory activity. The 'culture of liking'[108] on Facebook provides a good example of the less interactive aspects of social media/ted practice. The Like Button on Facebook is a feature/Social Plugin which enables the user to click an icon of a 'thumbs-up' to display approval of UGC or any one type of content on Facebook, or indeed on the Web more generally. Participants reported frequently using the 'Like button', as a quick and easy

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[108] See Lovink (2011) for a discussion on the religion of the positive.

way to show acknowledgment/approval of content. Liking is premised on a momentary act of clicking a button, it is based on relatively low levels of engagement in contrast to posts, tweets and messages. The Like button is a pre-programmed interactive option designed to generate networked links, social signals and social stories (*see figure 42*). Participants would browse through content on Facebook and regularly click the Like button to send a signal to their networks that they had seen and 'liked' content. However, rather than creating and posting an individual response to the content, the Like button is a 'convenient' shorthand. It provides a light form of interactive engagement with content on the site. The Like button was used by participants to interact with a range of content; it was used to like personal statements about what people were doing, or feeling, show approval of personal achievements, congratulate the birth of new babies, to show endorsement of a joke or to endorse pictures, pieces of news, commercial offers and so forth. Natalie, a young mum of three frequently used the Like button as it suited her Facebook routine which was heavily based on browsing. Natalie constantly used the Like button to interact with the site - she frequently 'liked' people's posts and used the Like button to enter competitions to win a free prize. When Natalie likes a brand or a product, she is promoting them; she sends out a social signal or 'social story'. This is a by-product of Natalie's wish to win something free. Observing Natalie's practices showed her use of the Like button to be premised on relatively low levels of engagement. Liking can give the impression of a higher level of contributory activity because it generated a 'social story': 'Jack likes Liverpool's new football kit', 'Jenny likes the new track by the Kings of Leon'. However, the Like button could be considered a weak form of contribution designed as a light form of interactivity; it limits creative responses to content and requires little creative engagement. A van Dijck (2012:13) argues, likability is not a virtue attributed consciously by a person to a thing or idea, but is the result of algorithmic computation derived from instant clicks (2013: 13). It is a pre-programmed 'interactive option' which standardises people's responses to content. The Like button re-packages complex responses and emotions into a thumbs-up. This click-through 'culture of liking' works to channel open self-expressions into narrow pre-programmed settings. Moreover, as Pariser (2011) argues, the Like button contains an interactive bias, it suits some interactions and some types of content over others. For example, it is easy to 'like' a photo of a new baby because it is culturally understood as something likable, but not so easy to like images of military action, natural disasters which means there is a bias in terms of user-generated content that is shared and through liking.

Liking is also key to promotional/commercial activity in sites. The Like button enables the site to ascertain key pieces of information about its users' preferences through an accessible, quick and easy click signal. This information is used to target the user with advertisements. The Like button is thought to lower physiological barriers to connecting with commercial entities, as Cashmore explains, on [a] site… users imply [that they] 'like' that brand's page resulting in higher engagement, another is that it increases clicks for publishers, generally (Cashmore 2010 cited in Frieson and Lowe 2011). The Like button is also used by business in sponsored stories and as a way to 'generate social stories' around commercial products and businesses - it plays an integral role in creating links between users and products, brands and organisations.

Figure 42: Screenshot of Facebook explanation of the 'Like' button in place of the Share button

> ### What happened to the old Share button?
>
> We deprecated the Share Button when we launched the Like button, because the Like button improves click through rates by allowing users to connect with one click, and by allowing them to see which of their friends have already connected. For reference, the Share button documentation is still available here.
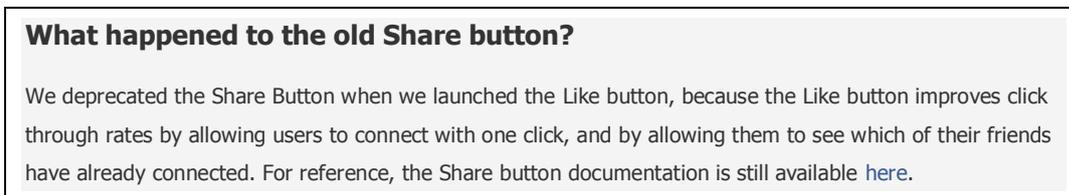
Figure 43: Screenshot of a sponsored like-based competition and a suggested page
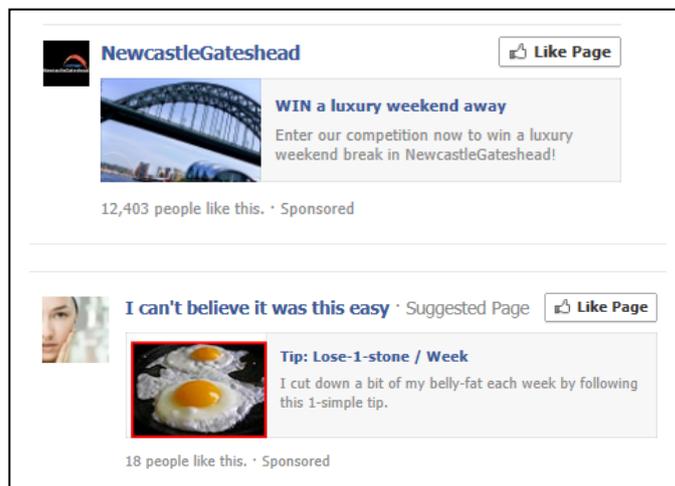
The click-through culture of liking was shown to be a weaker form of interactivity, than more open options of self-expression and engagement, like open 'chat', direct messaging and organising an event.

8.6 Architectures and Affordances: A User's View

During the interactive 'tours' of Facebook and Twitter, what Papacharissi (2009) has referred to as the 'virtual geography' of a site, the participants talked the researcher through the various features that the site offers to its users. The tours had a number of research advantages, for example, they signalled to the researcher which features of the platform participants routinely navigated and interacted with and they revealed which of the features participants identified and prioritised (and indeed bypassed). The interactional tours determined which specific areas of the site and features where the most relevant to the user in terms of their overall routines and experiences on the site and their wider social practice as mediated by the site.

Tours of Facebook and Twitter typically concentrated on 'key' areas for social interaction on the site, such as, the homepage and the profile page on Facebook and the homepage on Twitter, during which participants would discuss key interactive features relating to their routines practices and social experiences on the site. Natalie, a young stay-at-home mum of three, provides a standard example of a tour of Facebook:

> **I**: Could you walk and talk me through the site, showing me what you can do?
>
> **Natalie.** Sure, yeah. This is the homepage, with my friend's news on. If they have done anything it comes up here – it's listed on the homepage. I usually start here, and work my way down, looking at the updates. The little message inbox there is an inbox, that's for private messages people sent to me. If I have notifications I will check these up here. You can check friend's requests too. If you click on my picture 'here' it will take you to my profile page. This here (points to link) takes you to all of my photographs. If you click here on the right hand side these are birthdays and events, it tells me what's coming up and whose birthday it is. Here down the left hand side, there is music and games that I play, and a few advertisements down the side…. but they don't affect me; I don't really pay attention to those. (Interview 4, 2012)

The participant tours followed a largely standard format. Tours began at the homepage (where participants are directed to when they log in). Participants would typically discuss the news feed and the status update followed by additional features such as notifications, friend requests and messages, and often the birthday feature down the right-hand side. The news feed was reported as integral to the Facebook experience. This priority given to the news feed is partly to do with its visibility (Chapter 6). The news feed takes up a significant part of the page and it serves as key point from which to then navigate the site and recently posted

content. It is also because it is a key feature of the 'social' experience – the news feed plays a central role in creating the digitally remediated 'social context' and 'social ambience' on the site (Chapter 7). The news feed is the visible re-presentation of the on-site activities and interactions between people known to the user. After the news feed, participants proceeded to discuss visible key features accessible down the *left hand* side of the homepage screen, including messages, photos, music, games and apps. The profile page/Timeline was a key part of the tour. Discussions focused on cover photos, tagged photos and albums, as well as friends, the personal mini-feed and the status update. The Facebook tours confirmed key features to be news feed, status update, comment boxes, photos and likes. The photos on Facebook were revealed to be *particularly important*. Participants registered advertisements, however, identification was often qualified with a statement to indicate they were of low importance, for example, several participants including Kathy, Laurie, Natalie and Daniel qualified the acknowledgement of advertisements with the statement '*but I don't pay any attention to these'*. The *visual recognition* of the presence of advertisements was accompanied by a disassociation from the adverts.

The tours of Facebook suggested overly similar understandings of the technology across the sample, whereby participants were shown to have similar readings of the interface and largely similar social media/ted practices. The similarity of the Facebook tours (for example, the order in which participants discussed features), indicated the importance of a key set of features for their personal use. Furthermore it indicated that routine practice reinforces people's understandings and future uses of the technology because it revealed the two-way interplay between understandings of the technology and routine practice.

The Twitter tours also began with the homepage and a discussion of the aggregated feed of tweets - the Twitter feed. The tours of Twitter were notably quicker than those on Facebook due to the comparative limited functionality of the site. Twitter tours were geared towards the Twitter feed, the tweet box and discussing the distinct connective affordances. Interactional tours began on the 'homepage', participants would talk about the Twitter feed and explain the different ways of communicating and connecting to people and accessing content on the site. Participants spent the remainder of the time describing the hashtag (#) and at sign (@) in terms of how they enable users to connect to people and information on the site. The profile page featured *much less prominently* in participants' tours. It was not seen as central to their networking practices. The profile page design is less elaborate on Twitter, it provides a photo and short description and, although it contains a history of an account

holders tweets, it can be contrasted to the extensive searchable Timeline on Facebook. Furthermore there was much less emphasis on photos and videos, which indicated that, among these participants at least, photos were less important to the networked culture on Twitter, in comparison to the networked culture on Facebook. Instead participants gave priority to the Twitter stream, the trending topics, the 'tweet' feature and the hashtag in tours of Twitter.

The tours revealed which aspects of the sites stood out as important to users and which were central to their routine practice. This said, it also called attention to which areas/features were bypassed by the user. Despite being asked to provide a tour of the *entire* site, participants did not take the researcher on a tour of key areas outside of the home and profile page, *such as the account settings, privacy settings or help centres*. They only walked the researcher through the account settings, privacy settings or help centres when prompted. These are important areas of the site with extensive technically interactive opportunities for interaction, for example, for users to manage their sites and their information flows within networks. Despite this, these areas did not feature in the tours. This could be because they are not highly visible or accessible at the interface and thus not recognised by the user, that they do not figure in routine use and/or that they are de-prioritised and seen as peripheral to use/experience. The absence of these areas and features in tours is likely to be a combination of both design and practice. In discussions about privacy later in the interview, participants commented on the discrete nature of these links and despite acknowledging their importance reported that they were not part of their routines use.

Figure 44: Screenshot of the Facebook help centre, an area not included in the tours
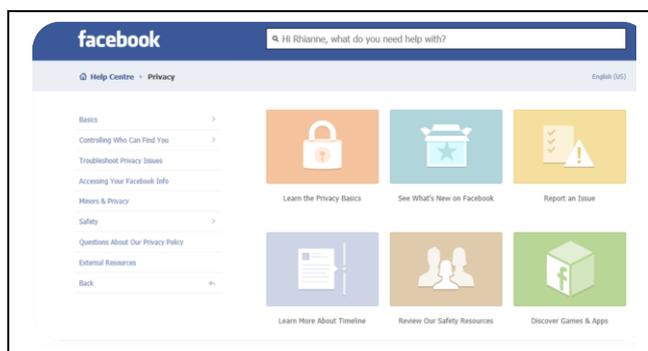
Overall participants' tours of Facebook and Twitter, showed a relatively high degree of standardisation in terms of reading and use. There were clear patterns with regard to what features were identified and in what order. The tours also suggested that the visibility of

features is key to users perceptions of opportunities to interact, and therefore must play a role in shaping interaction and practice.

8.7 Overt and Covert Opportunities for Inter/action

As argued in Chapter 6, one of the key principles of Web design is 'visibility'; making possible uses transparently obvious to the user. This can be achieved in a variety of ways, for example through positioning and size of features. As discussed in Chapter 6, Facebook and Twitter make some features much more prominent, visible and accessible than others. For example, the news feed in Facebook, the search facility and the status update and in Twitter, the Twitter feed and Tweet box are quite prominently displayed, visible and easily accessible to the user. In contrast, some controls such as account and privacy settings are accessed via drop down menus. During the interviews, it was clear that participants registered some, but not all opportunities for interaction. In line with the argument presented in Chapter 6, those registered were usually highly visible, those that did not register tended to be those that were not very perceptible and easily located and that did not feature as a regular part of the participants' routines.

As already argued, the tours focused on the key interactive features that were prominently displayed and that were shown to be central to current social media/ted practice. This said, there were a number of opportunities and controls that were not registered and that were not appropriated in practice. It has been argued that sites are designed in ways that have incentives and disincentives embedded in, to catch users' attention and direct users' activities. For example, in Facebook, every interaction that is uploaded is accompanied by an 'opportunity to interact', Facebook presents the user with a picture of them and encourages them to '*write a comment*', or '*add content*'. However, if for example a user wants to limit access to a post, the option to remove the content is 'invisible'. To make the digital control visible the user must hover over the space to generate a symbol (e.g. an arrow) which once clicked in, takes the user to a set of further options which allows them to follow/hide/remove a post. If 'hide post' is selected a further set of options is generated to allow them to manage related posts from this person in the future. The option to remove or delete content was typically not registered by the participants.

Figure 45: Screenshots documenting an example of the in/visibility of digital controls

This importance of the visibility of these options regularly came to light during the interviews. For example, in a discussion with Ben about aspects of Facebook that he did not like, he identified the chat facility, a feature which allows users to chat in real-time to friends. Ben did not like this feature because he felt that it made him available to everyone in his network at times when he would rather be unavailable. On Facebook, when a user is on chat they are presented with a wheel symbol that is available for users to click to navigate to the go offline option. However if a user is offline they are presented with a hyperlink to initiate the action which reads '*you are currently offline to go online and chat to your friends, 'go online'* which they can click to open up the chat. The site is codified in such a way as to encourage the chat to be 'open and encourage interaction'. Ben thought that chat was an unchangeable feature on the site and he was unaware that he could close chat by clicking on the wheel. This may sound like an insignificant example. But it illustrates that Ben's capacity to act in his interests on the site was, to some extent, obscured by the nature of the design. Ben was aware of other features, for example how to post comments and update his status - these were clearly visible and always made accessible. The researcher intervened and suggested to Ben to look for a way to turn it off. On close inspection Ben was able to identify the wheel icon which enabled him to find the 'close chat' option:

> **Ben**: I don't like the live status feed, I can see all this news here, it's just doing the same thing as the news feed. And the chat thing as well! Not everyone wants to see the chat thing. There should be an option to close it, I don't like being seen to others as available all the time, I might be busy or I might not want to 'chat'.
>
> **I:** I think there is an option to close it. Have you ever looked?
>
> **Ben**: is there?
>
> **I:** Where do you think you would you look if you wanted to close it?

> **Ben:** Errrrm, No, I don't know....somewhere round here? (Long pause while participant scans the chat box, on being prompted to click on the wheel he discovers you can turn the chat facility off) Here? Oh you can close it! [laughs...] Yeahhhhhhhhh! That's well good, it's amazing. That's been bothering me for ages (Interview 5, 2012)

This visibility of features also emerged in a discussion with Kendon about how to contact Twitter in the event that he had a problem or in the event he wanted to give feedback. Kendon did not perceive there to be any ways to contact the site:

> **I**: Do you know how to contact the site […] can you show me?

> **Kendon**: You wouldn't contact the site through Twitter, there's no option on the site, there are no links that I know of (Interview 1, 2012)

In a later discussion about the information available on Twitter about privacy Kendon, notices a link to contact the site:

> **I:** Okay, what type of information does the site offer you about privacy?

> **Kendon:** Well, again it doesn't give you any information, but I'm sure there are ways to find out. But there are no manuals that come with it on privacy.

> **I:** Does the site not have a privacy statement, or any sections about privacy available for the user?

> **Kendon:** No they don't, because there are not a lot of things you put up on Twitter that are private. Though….. Thinking of it, you can set your profile to make it more private….hmmm. [Respondent then pause to look/check for privacy settings]

> [Long pause- as respondent tries to find profile settings, in the process of looking respondent comes across the section for users to contact the site]

> **Kendon:** Oh yeah, you can contact the site! You can contact Twitter here – it's quite clearly there, next to the privacy settings. Ha ha, I mustn't have taken any notice of it.

> **I**: Why is that?

> **Kendon:** I don't know, I've just never seen it? Or maybe it's cos I've never tried to contact them. I probably would notice it more if it were displayed more prominently. Right, here we are, yes they have privacy info…. (Interview 1, 2012)

This example provides an illustration that not all opportunities for interaction are immediately or easily perceived by the user in practice. Both the opportunity to contact the site and the

privacy sections of the site had not been registered by Kendon, they were not perceived until prompted by the researcher. This could, as the participant notes, be because he had not needed to contact the site and reading about privacy is not part of his routine practices, however, in part it is related to the deprioritised position of these interactive opportunities.

Kathy also makes this point after being asked to pull up her privacy settings:

> I don't think Facebook makes it easy for people. Well for a start you can only find your privacy settings by going down that little drop down thing at the top – it's not immediately obvious (Interview 8, 2012)

Seosaimhin a young Irish teacher living in Liverpool, was also asked to pull up her privacy settings and what followed was another example of the invisibility of certain opportunities or interaction. When asked to access her privacy settings, Seosaimhin was unable to locate the link. The privacy settings on Facebook are accessed via the drop-down box in the right hand corner, which is positioned alongside account settings and the 'log out' link. Earlier in the interview Seosaimhin had talked at length about her privacy concerns on Facebook and discussed how she actively managed her account and privacy settings. She had also reported that she always logged out of every session. Although Seosaimhin routinely engaged the drop down box to log out, she did not appear to register the privacy link. Furthermore, on accessing her account, Seosaimhin became aware that the privacy settings did not correspond with the account she had given the researcher and she proceeded to change them during the interview to fit her original account. This is important because it highlights the limitations of self-reporting when it comes to discussing privacy management. There were several instances where participants were unable to locate the privacy settings or other privacy related features. For example, when Kathy tried to locate the privacy statement she was unable to find the appropriate links. When Kathy located the link on Facebook, she proceeded to comment on the visibility of the link in light of the regeneration of the page.

> Yes, I see it, here it is… wait? It's on a sort of loop? Every time you get to the bottom it seems to disappear? (Interview 8, 2012)

Light and McGrath (2010) have examined how privacy has been encoded into Facebook over the years noting a series of changes that has de-prioritised privacy at the level of the user-interface. Light and McGrath discuss the implications of this for people's interactions with the privacy settings. They argue for the need to focus on the technology as a moral actor in the network, highlighting the complex and diffuse nature of ethical responsibility in digitally

networked environments. Fuchs (2011) has also commented on the discrete nature of links regarding privacy as well as the-opt out settings for cookies which he argued reflects the attitude of many commercial Websites towards privacy protection mechanisms as 'bad for business'. Fuchs argues that the de-prioritising of privacy illustrates that Facebook values the potential to monetise user-generated data and create profit over that of users' rights to control information flows about themselves[109].

The three examples given collectively illustrate two points, firstly the importance of the visibility of options for use and secondly the habituated nature of social media interactions at the interface. The design of interfaces, the hierarchal ordering and visibility of interactive features and the prominent positioning and signalling of features, do play an important role in making opportunities for interaction visible to users. As well as the cultural coding of features and built-in design directives, disincentives exist for guiding use. This is not to suggest that visibility is the only factor in shaping use, but to argue that it is a part of a complex process by which features which are regularly seen and interacted with come to feature in regularly use. The data suggests that social media users read interfaces in ways that prioritise the visible and accessible. The interactive tours of Facebook and Twitter were able to illuminate how participants encountered and interacted with the site, calling the researchers attention to the interrelationships between design and practice by examining design in practice. The findings supported the view of user-interface design as an important techno-cultural frame for users' engagement. It shows how features are perceived and how users' understandings and routines transform codified affordances into practice, or indeed not, rendering them latent (unrealised).

8.8 Reading the Social @ Interface Value

Gehl (2011: 2) maintains that SNSs forcefully encourage users to focus solely on the interface noting that '[t]hey are expected to process digital objects by sharing content, making connections, ranking cultural artifacts, and producing digital content'. In Chapter 6 it was detailed that design is a technical and cultural frame for user engagement. It also called attention to the processes by which sites *generate* specific representations of the social through how they organise and present user-generated content, and to consider how this is

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[109] Since the interviews were conducted and, following recent pressure on Facebook to reprioritise privacy, the original privacy padlock has been re-introduced to the toolbar at the top, providing access to 'top privacy concerns/questions' (Facebook December 2012).

encountered by users. As Berg (2012:11) argues, 'these sites mediate and process the informational exchange between users, but also affect the structure of the social situation by altering the visibility and spatial framing of other users and their shared information. SNSs are designed to archive and display information in very particular ways, in effect they are designed to enable, process and mediate data exchanges between people. As argued in Chapter 7, discussions with participants about the information flows within these sites suggested that they conceptualise sites as an *access point* to social happenings, viewing the newsfeeds of UGC as real-time reports on what is going on elsewhere. For example, in discussions about Facebook, only one participant acknowledged the engineered and malleable nature of the news feed. Moreover, he was the only participant who actively used the control that enabled him to control what information he received. The majority of the sample did not actively control their feeds and were unaware that they could do so by clicking the 'sort feature' at the top.

The interviews picked up on a lack of understanding about the engineered nature of the newsfeed, for example, why the news feed contained so many updates from, for example, weak ties. For example, Natalie, a young mum from Liverpool commented that she couldn't understand why she got more updates from weak ties, than close friends and family. However Natalie reported that she enjoyed browsing the profiles of people she doesn't necessarily see very regularly, as a way to keep in contact with them. Therefore Natalie was sending click-signals to Facebook that she was more interested in these people than her close friends. Facebook had used this information to personalise Natalie's future feeds. Facebook's news feed algorithm works on the concept of 'personalisation', personalised searches based on calculated predictions about what information a user should see based on information known about the user, including past activities and interactions, and a range of click signals from users, such as the Like button (Pariser 2011: 1-21). However, Natalie is unaware of the feedback between her previous actions and current feeds, she views the news feed as a real-time flow that simply relays the most current updates in her network. This example illustrates how information is often taken at *interface value*, participants were not always aware of, or understand how newsfeeds are configured algorithmically, nor did they seem to acknowledge the digital controls available that allowed them to manage their feeds. Rather participants encountered Facebook as a 'window' into their world, although a digitally meditated one, but the implications of how it is digitally mediated did not appear to be widely understood.

Recent work on algorithms (Gillespie 2012), search engines (Halavais 2009) and personalisation (Pariser 2011) have highlighted the critical issues relating to the algorithmic generation and personalisation of information, typically based on trying to second guess what information should be returned in searches and personal information feeds. Algorithms are encoded procedures for transforming input data into output based on specific calculations (Gillespie 2012) and they work in the background to organise data flows. Algorithms may appear objective due to their mathematical character but being s*ystematic* does not translate into being 'objective'. They are intentionally codified instructions – codified by people to process information in particular ways. Algorithms take user generated data inputted into the site and turn it into output data, and need to be recognised as programmed curators of information. Gillespie (2012) reminds us that algorithms work to determine the relevancy of data in the digital age but their discrete systematic biases tend to go unnoticed and unquestioned. Facebook and Twitter use a range of algorithms to organise data flows within the site. Algorithms play and important background role in configuring these digitally mediated environments. Users will not see all interactions and events, only those that that are fed into their activity stream. Moreover, many users are not necessarily aware of how this works. Understanding how information is algorithmically curated and understanding how and why adverts are being targeted both within and beyond sites are key aspects of media literacy in a digital age. Media literacies have in the past educated audiences on how to evaluate media texts, but in light of digital media texts, they need to educate users on how media technologies organise the social and curate information as well as of company practices, such as digital profiling and advertising practices (this is discussed in more detail in Chapter 9).

8.9 Participants' Thoughts on Design

During the tours, participants had focused on the features they frequently used and those they particularly liked. To bring balance to these discussions participants were also invited to comment on the design more generally, for example anything that they found frustrating or disliked about the design of either Facebook or Twitter. This was intended to provide a counterweight to the discussions about what sites enabled - participants were invited to state if they ever felt constrained or restricted on sites in any way. When talking about specific design features, participants' sentiments towards sites were mixed. Whilst participants viewed these sites as positive social tools, a more complex picture was revealed when they reflected on

particular aspects of the design and site-specific affordances. The interviews highlighted which specific features, networking practices and aspects of the networked culture participants did not like, did not consider beneficial, and in some cases, which they considered to be a hindrance to them socially. These discussions pointed to instances of contention with regard to conflicting interests between users and sites, suggesting that the interface is a site of power where organisational, commercial and domestic interests are negotiated.

Several participants expressed frustrations with aspects of the current design. Whilst Twitter was mentioned at this point, the majority of participants dislikes were focused on Facebook's design. This suggested that participants were more frustrated with Facebook than Twitter, overall. For example, several participants noted they absence of a 'dislike' button in Facebook. They commented that they felt frustrated by the priority given to positive reactions to content and they expressed a desire to have a dislike button to balance this out. Participants can express dislike by commenting on a post, or indeed, by writing 'dislike' – as many do, but writing dislike or strongly disagreeing with a comment was not considered an acceptable social norm. This was attributed to the effort a person would go to 'dislike' something in comparison to liking it. However, from a design point of view, a dislike button is not necessarily desirable because it could lead to significant tension between people and between, for example, brands and Web publishers. Cashmore (2010) notes the potential problems that may arise if users could choose to dislike something quite as easily as liking it (cited in Frieson and Lowe 2012). In the absence of a comparable dislike to the Like button, many participants reported not expressing dislikes to things, for example, when something was offensive. Therefore, these aspects of self-expression are rendered absent from the archive. The culture of liking and linking de-prioritises the importance of non-links and dis-associations in networked environments (Lovink 2011: 43). Moreover, as already argued, the Like button generates a rich data for Facebook in form of click signals. The button clearly benefits the site, but it could be argued that it works to quash debate and discussion in favour of simple 'click signals'.

In addition to the discussion about the Like button, several participants chose to discuss aspects of Facebook's design that they felt took degrees of control away from the user, for example, tagging. Sky, mid-late twenties female bar tender and mature student, commented on the lack of control she felt she had over photographic content. In particular, she discussed her inability to control the images of her uploaded by other users. As Sky explains:

I think you should have more control over photos you are in. You should be able to remove rather than just tag. Like here, there's photo of me that I want off Facebook, I can untagg off my Timeline but it stays in this album […..] I do think that people should have the right to control their image (Interview 16, 2012)

The issues of control of personal image was brought up on several occasions by several participants who felt that the de-tagging option provided by Facebook was insufficient in dealing with these issues. Because of the centrality of photos to Facebook, people felt quite strongly about having control over photos. At the time of the interview users were only given the opportunity to disassociate their name from an image, they had no control over removing the image. Furthermore, several participants commented on their dislike of the newly added geo-tagging features of Facebook, which allowed other users to tag them in locations. Several participants reported being uncomfortable with how the technology afforded the opportunity for other people to visibly locate them, publishing information about their activities on their behalf. Facebook does provide a tag review settings whereby they could request notifications of tags to be approved before being uploaded on their mini-feed. However, the majority of participants were not aware of this feature and had not adjusted the setting to 'review tag'. However, the tagging control options are not always very visible and this can have implications for how they are taken up[110].

Figure 46: Screenshot, explanation of Facebook tags and option to disable

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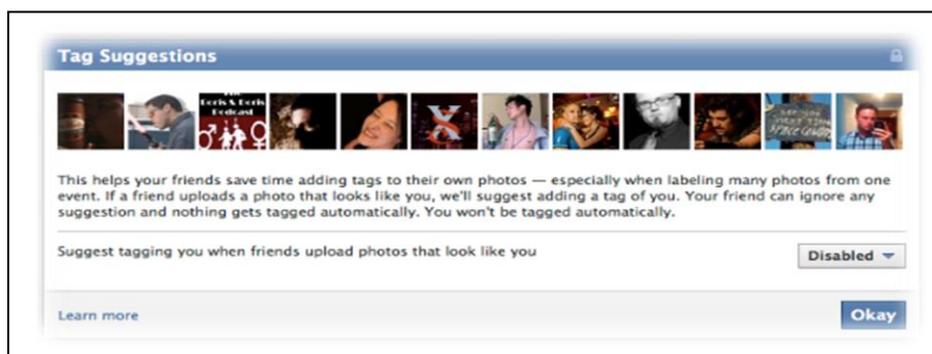
[110] Facebook has suspended its facial recognition tool in Europe, and is set to change tagging features in an effort to implement changes recommended by the Data Protection Commissioner in Ireland last year (Klienman 2012). Facebook is currently reviving issues relating to tagging; it now offers a 'report or remove tag' option to users by hovering over the 'edit options on the photograph'.

The networked/diffused agency within sites featured in discussions across the sample. In a final example, Ben, Daniel and Katie commented on what they felt as restrictions for (unpaid forms of) self-promotion within Facebook. The disliked the ways the sites restricted them from sending information to friends within their networks. Katie, a part-time musician and the two part-time DJs had experienced problems with Facebook in relation to notifying their networks about upcoming performances or releases. In two instances, Facebook had contacted them directly warning them that they were in danger of having their accounts terminated because of 'spam' messages. Facebook argued that this provide protection for other users. However, by the same logic, sponsored ads constitute a form of spam, the main difference being that sponsored ads pay to contact people and people who use the site for self-promotion among their networks do not. The recent change to Facebook messages further exemplifies this point. As discussed in Chapter 6, the current message system makes it possible for anyone to send another user a message (*see figure 47*).

Figure 47: Screenshot of a pop-up explaining the changes to the Facebook messaging service in 2012

Whilst users are informed that they have filtering controls, the small print at the bottom states that people can now 'pay to ensure their message is routed to your inbox instead of your other folder' (Facebook 2012). The new settings introduce the option for some users to pay to have their messages routed to users, even if the user does not wish to receive messages from unknown parties. Katie had been contacted by Facebook, warning her that her account might be closed down if she continued to notify her network about her upcoming activities. However, the recent changes to Facebook messages enable unwanted contact and communication, which itself can be described as spamming. This point illustrates how, in this case, design encourages promotional activity that generates profit for the site but similarly, discourages social forms of networked self-promotion. Discussions on the particular modes of

technical and social forms of interactivity permitted by the site raises questions about how and why the design of these sites enables and constrains different interactions and practices.

These three examples given by participants reveal some of the drawbacks of site design. Sites both empower and disempower users in different ways; they empower them to connect, create and share but they also disempower them by diffusing control over information flows within the network. The techno-cultural coding of sites is an example of the politics of the interface. Any tactical use of features, in terms of active appropriation, needs to be contextualised within broader design strategies which are encoded as technological frameworks. Reflection on interface design details the interface as a site of power, of agency and of negotiation.

8.10 Conclusions: User-Interface Design and Social Media Habits

This chapter has reported on participants' encounters and interactions with Facebook and Twitter at the computer interface. It has demonstrated how the user-interface shapes how users perceive what they can do on these sites and how people encounter the mediated social. This chapter demonstrates that how techno-cultural frames encoded at the level of the user-interface interplay with active practice – an example of the triple articulation of social media/ted practice. Papacharissi (2012) has remarked that when looking at social media it is not a question of choosing to look at architecture and affordances over habits and routines, but employing both to get a historically and culturally contextual understanding of the place of technology in the longer 'duree'. This chapter has argued that participants' understandings of features and routine interactions are related to design, and they are vital to understanding how wider social practice is configured. Social media technologies are complex technologies configured through the micro-interactions between people and technologies at the interface, and design structures play an important role in shaping practice. Furthermore, as Galloway (2012) argues, the interface is a site of concealed power; it is a locale for the negation of a range of competing interests. As such users to have critical skills to be able to read navigate and maximise the affordances of social media technologies. Users must be able to understand how to critically read and appropriate technical opportunities for interaction in order to attend to their interests.

Chapter 9: Beyond the 'Social' Affordances @ the Interface

9.1 Chapter Overview

Chapter 6 detailed how the design of Facebook and Twitter can be considered as a techno-cultural framework for interaction; a framework which showcased the social aspects of these technologies and somewhat obscured the wider forms of networked connectivity. This was supported through a discussion in Chapter 7 about the social framing of sites and in Chapter 8, through a discussion of how social media/ted practice is configured out of the micro-interactions between a user and the technological assemblage, at the interface. This chapter focuses on explicitly discussing social media/ted practice with regard to participants' understandings of the wider forms of networked connectivity afforded by Facebook and Twitter. For example, it analytically reports on how users encounter and understand networked connectivity in social media/ted environments outside of the visually articulated networks at the interface. These sites are more than 'social tools'; it is crucial to recognise that they are commercial businesses and engender rich environments for commercial and promotional activity which happen both at the interface and behind the interface[111] (Rogers 2004). Furthermore, these sites are deeply embedded in a wider information-based economy where data about users is bought and sold on the market (Turow 2011). This chapter analytically details how participants understand their connections to Facebook and Twitter as companies - the largest and arguably the most important node in these networks - as well as to parties that stand to profit most directly from users' participation. The chapter argues that the overly social framing of sites codified at the level of design becomes particularly important when considered with regard to users' understandings of service providers, contractual agreements, privacy and commercially orientated networked activity and information flows within the site. Moreover, the findings suggest that the degrees to which people understand these issues relate to variable levels of cultural capital specific to 'digitally networked media'. For example, it discusses the importance of having a particular type of knowledge about, and experience working with social media, which equips people with a practical working knowledge of the *networked nature* of the technology.

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[111] See Roger's (2004) discussion on the politics of information. He uses the term front-end and back-end processes to refer to activity at, and behind the interface.

9.2 Visualising Networked Activity: The Missing Node in the Network

Chapter 7 reported on participants' visualisations of their networks. It reported that overwhelmingly, participants imagined that their networks were configured out of interpersonal connections, especially on Facebook. This reflected on one level the codified language embedded in the design of sites (see Chapter 6). On another level it reflected how they experienced the site in practice (Chapter 7 and 8). In light of this, during the interview participants were asked a series of questions to examine what they understood about the nature of information flows within these digitally mediated environments. Participants were invited to talk about Facebook and Twitter as a digital network more generally. This was intended to encourage discussion about sites, people, organisations, things and places they envisioned they were connected to via these technologies and subsequently, to explore who they envisioned had access to their data and in what form, e.g. personal data, aggregated data and information about their activities. The continued focus on 'friends' on Facebook and people on Twitter when talking about networks was significant because it called attention to a partial framing of SNSs, which is highly discursive. Participants' visualisations of their networks focused on an imagined section of the network, made up of close friends and family, and people who have a strong visible presence on the site. Similarly, on Twitter, this amounted to the accounts of people and organisations that users followed and again, typically those with a strong visible presence. Leanne, an office worker from Liverpool, gives what was a standard response from the sample:

> On Facebook, it's just family and friends really, and a few work colleagues, just people I know either now, or I have done in the past. Twitter, well I'm connected to different people on Twitter, I follow celebrities and comedians, and random people who make me laugh – so I get updates from them. I also follow things like Glastonbury (Interview 18, 2012).

The focus on individuals in networks across the sample illustrated two key points. Firstly, that networked connectivity on SNSs was conceived of as 'social' (i.e. interpersonal) - that is to say people-to-people (rather than people-to-technology, people-to-things, people-to-industry or business). Secondly, it reinforced the importance of data that is visible at the level of the user-interface (Bucher 2012). With regard to Twitter, networks were typically more diverse than Facebook, and did include some reference to organisations in the form of accounts that participants followed. Participants reported networks as consisting of a mixture of friends, 'celebrities', organisations and 'random people of interest'. This said, participants still had imagined audiences for Twitter (Grudez *et al.* 2007). Participants' visualisations of their

Facebook networks showed a particularly strong focus on interpersonal connections. Research by boyd (2004; 2008) into SNSs and network publics also documents the tendency for users to imagine their audiences, a tendency which is particularly pronounced on Facebook. In a recent examination of users' visualisations of networked audiences on social media, Bernstein *et al.* (2013) also show that users of Facebook consistently underestimate the audience size for their posts, assuming their audience to be about a quarter of its true size. The authors suggest that one reason for this is that SNSs have fewer contributors than viewers which results in people only registering who *they see* contributing on Facebook. However, this still doesn't account for the underestimation of other forms of networked connectivity, namely commercial forms of networked connectivity.

The participants in this study clearly imagined their networks as configured out of the interpersonal connections between people. Networks are described as imagined because they are not accurate depictions of *entire networks* but rather, they are personal visions of their networks based on a restricted set of people with whom they see themselves connected. Networks are also imagined because they only account for the foregrounded *human aspect* to the network that is visible to the user at the interface, whilst they typically omit less visible forms of networked connectivity, including connectivity to the company itself (i.e. Facebook or Twitter), connectivity enabled by interfacing third-party applications, and back-end forms of business-to-business connectivity. As van Dijck (2013) argues, companies try to emphasise the human connectivity and minimise technological and commercial forms of connectivity. The research derived further evidence of this in action, for example, without an interview prompt, participants did not typically show awareness of the connections to the service providers in their network visualisations. As Kendon explains:

> **I:** You've talked about your friends, would you include the site in your network?
>
> **Kendon**: Errrm... I don't think of it that way, I don't communicate with the site itself, so no (Interview 1, 2012).

Kendon's omission of the site could be read as unsurprising, as the connection is to some extent 'a given'. However, as the quote illustrates, it is also because the sites are not directly implicated in their visible social interactions (unless perhaps you 'follow' Twitter). This point is further illustrated through the responses that were generated from discussing the networked connection they had to the service providers. For instance, for some participants this

connection was interpreted as personal as opposed for example to technical or contractual. As Seosaimhin remarks in regard to Facebook:

> The site? [laugh] yes, probably. Well I'm on it every day. I just constantly log on to it and browse. I've become quite addicted to the site. So I would say I had a relationship with it in that sense (Interview 6, 2012).

The service is viewed as a medium for social interaction and subsequently, the company is not recognised as part of the 'social network'. Relationships with service providers were described on several occasions in affective ways, for example one participant stated '*I feel like we're married'*. Participants' framings of their connections to service providers as a 'relationship' could be seen as a result of the deep integration of the technology into their routines and everyday lives. However, this thesis attributes this in part to the 'social' lens through which Facebook and Twitter, and other social media sites are framed. The importance of the social lens in discursively framing these technologies is further exemplified in this chapter in discussions about company practices and commercial activity on sites. The key point to be made here is that Facebook and Twitter are more than social media (Van Dijck 2013). They are shaping up to be powerful and profitable 'new' media industries alongside more established companies such as Google. This is why MacKinnon (2012) has described Facebook as a global corporate superpower. Moreover, Facebook and Twitter are embedded in wider digitally networked commercial ecologies and are proving to be a generative force in the information economy as it exists in the digital age (Turow 2011). Whilst participants' social visualisations of networks were accurate insofar as these networks are configured out of social connections and interaction, these visualisations omit important commercial links and information flows in these networked environments.

9.3 The Interpersonal Framing of Information Flows

During the interviews, privacy did emerge as an important theme. Privacy has been a hot topic for social media researchers and continues to be a key area of critical debate (see for example, Abrechslund 2008; Andrejevic 2005; boyd 2007; boyd and Hargittai 2010; Dwyer *et al.* 2007, Debatin *et al.* 2009, Gross and Acquisti, 2005; Fuchs 2012; Lewis *et al.* 2008; Marwick 2012). The interviews included discussions of privacy that included participants' views on; privacy, privacy practices, the privacy settings and controls and the privacy policies provided by sites. It was clear that, in the main, privacy was understood among participants as an

interpersonal issue, or as a '*social*' issue. Users 'imagine' their audiences/networks on SNSs as interpersonal, and their self-disclosure is strongly tied to these visualisations of 'context' (Nissenbaum 2010) and to evolving social conventions with regard to social media, such as the normalisation of 'sharing' in Web 2.0 (Papacharissi 2011, John 2012).

For the participants in this study, privacy was about protecting or controlling information flows within their personal networks and within particular social contexts. This was evident in for example, concerns that a boss or an ex-boyfriend might be able to access photos or that a friend might use the geo-tagging capabilities to reveal their location. Subsequently, participants' *privacy concerns* were often related to controlling information about themselves to their networks. Fuchs (2011; 2012) observes this as a wider problem, where issues relating to the political economy of Facebook, such as advertising, capital accumulation, the appropriation of user data for economic ends, and user exploitation have tended to be neglected in discussions of privacy. Privacy is often conceived of as a 'front-end' user-to-user issue, rather than a back-end, user-to-company or company-to-company issue (Rogers 2004). Subsequently, privacy matters have been typically discussed in terms of the difficulties associated with upholding personal integrity online (see also Dwyer *et al.* 2007, Debatin *et al.* 2009), rather than in terms of taking back-end processes of data storage, sharing, personalisation and monitoring into account (Andrejevic 2011).

It was clear that networked connectivity and data flows that are not visible at the interface, i.e. not socially articulated in participants' personal networks, did not feature in discussions about privacy unless prompted by the researcher. In 'Saving Facebook', Grimmelmann (2011) urges researchers to understand privacy by considering what motivates Facebook users to upload information in the manner that they do and to consider, why, in many cases, they underestimate privacy risks. The social function of sites is a reason for the former, (why they share), and the social framing of privacy may be one reason for the latter, (why they underestimate related privacy risks). In order to promote a greater sense of user awareness of these issues, Stutzman and Hartzog (2012) recommend that designers build in reminders to alert users to the potential network audience and to remind users that their activity will be searchable.

Privacy practices were not routine practices; the controls were accessed only occasionally. Whilst most participants had set up their privacy controls at some point during

use, the majority of participants reported checking them once every year or when key changes were introduced to a site. On top of this, as Chapter 8 revealed, privacy settings were continually overlooked at the interface and the self-reporting of privacy management did not always correspond to actual privacy management. This disconnection between participants' perceptions of privacy management and the reality of their privacy management is an important reminder to the researcher to treat the self-reporting (of privacy management amongst other things) with caution, as it was the case in this study that participants where prone to narrativise their privacy settings as strong to make them feel at ease when engaging with SNSs.

9.4 Privacy by Design – A User's View: Binary Versus Granular Control

As detailed in Chapter 2, privacy has been a central concern with regard to SNSs. This is intrinsically connected to their reliance on UGC. SNSs are void without UGC – they have no existence outside of social practice. This is because they are *socio*-technical systems. In addition, UGC is leveraged to provide commercial revenue, whereby it is monetised and exchanged in economic transactions. As such it is important to critically scrutinise what data and how much data is stored, archived, accessed and shared (Bodle 2011). Existing research into privacy has demonstrated that the public nature of SNSs remains unclear to many users (Stutzman, 2006) and has documented important discrepancies between users' desire for privacy protection and their actual behaviour (Acquisti & Gross, 2006) – a point which was also highlighted in this research in Chapter 8 in terms of participants' interactions with privacy settings at the interface. This also related to a set of important questions and issues pertaining to ownership and rights over information, data-sharing practices and control over information flows - again, much of which remains unclear to users.

Discussions about privacy on Facebook and Twitter varied significantly. This was related to participants' particular understandings about each site as a digitally mediated context. As detailed in Chapter 7, Facebook was conceived of as a personal *interfacial* place to check in with friends and family whereas Twitter as considered to be a public information stream. However, it was also clear that discussions about privacy were directly related to the particular ways in which privacy was *coded into the sites*. The techno-cultural coding of privacy had important implications for privacy perceptions and practices. For the participants

in this study, Facebook was considered to be a personal context because it contained a lot of their personally identifiable and socially contextual information, such as birthdays, interactions, activities, interests, locations etc. On the other hand, Twitter was largely considered across the sample as a public context. This was related to the restricted profile format, and the short fragmented and distributed comments which were seen to reveal less socially contextual information. In addition to this Facebook and Twitter have different privacy and account settings. Twitter has a binary privacy model of open or closed privacy – users can choose to have their tweets public or protected. Moreover, Twitter makes a very open public stance: 'What you say on Twitter may be viewed around the world instantaneously' (Twitter 2012). This makes a clearer distinction between Twitter as public or private insofar as account holders have a clear idea about [potential] networked visibility within Twitter's network articulations at the interface (those accessible via the user-interface). The majority of participants had this option set as open and because of this they saw the network as public. In contrast to Twitter, Facebook offers users a set of granular controls which are intended to give users 'increased control' over their networked information flows. They are provided with multiple settings and 'choices' to control which people can see what information. It is clear that controls are largely related to controlling interpersonal information flows in visually articulated networks (Donath and boyd 2004). Account holders have little control over how Facebook, or indeed third-party applications, make use of data that they share. Despite having more controls, the interviews showed that participants were *overwhelmingly* more concerned about privacy on Facebook. As Kendon, a young father of two explains:

> Well privacy is a big thing on Facebook, settings are a big thing too – but understanding the site and the privacy settings are difficult. For example, with Facebook I thought I had controlled my privacy settings, I didn't realise that people who weren't my friends could still see some information – it's hard to figure out how they work, good privacy settings are important on a site, being able to understand the privacy settings is just as important (Interview 1, 2012).

Privacy was very important on Facebook because of the 'rich' contextual information in the digitally mediated social context. This results in a variety of privacy related concerns including managing collapsed social contexts, managing visibility and managing tags and geo-tags. The multiple, granular, controls are not necessarily effective in practical terms. For example, several participants commented that the number of controls dis-incentivised them

when it came to managing privacy on the site. Participants were put off by the high amount of options available to them. This is because it takes time to fully comprehend the implication of activating controls for networked flows. Although on the surface, Facebook appears to offer its users more granulated control than Twitter, this appeared to impede the participants of this study in engaging with the available controls. They saw the gradated technical controls as a hindrance, rather than a help to privacy management. The overriding consensus about Facebook was that privacy controls had become too complicated, which acted as a disincentive to users to engage. The settings were now too complex as the site provided too many options for different types of content, and the layout was not particularly user-friendly. As a consequence the responsibility falls to the user, as Kathy explains:

> I think […] well I think it's naive of people to put up sensitive information and not look into their privacy settings, to allow people in that they don't really know […] at the same time I don't think Facebook makes it easy for people. Well for a start you can only find your privacy settings by going down that little drop down thing at the top – it's not immediately obvious errm and no I don't think it's particularly easy to use. I don't know whether it's in their interests to keep everything accessible, I imagine they would say, of course, you can access your privacy settings whenever you like but, unless you've got someone to show you how to do it and you have the time to do it, it's difficult and you probably won't (Interview 8, 2012).

9.5 Sharing by Design: Facebook Registration and the Road to Self-disclosure

Current calls for further efforts to encode effective privacy controls by design (FTC 2012) are a direct response to the tendency of sites to encourage the disclosure of information and content in social media environments. As argued in Chapter 6, the Facebook registration process is characterised by a default encoding of sharing by design. The research found that for most of the participants, initial experiences with sites are framed by the registration process, which encourages the user to import connections and upload information about themselves. The registration process is important for a number of reasons, it is the first encounter a new user has with the service and as Chapter 8 detailed, initial encounters play an important role in solidifying early understandings of the technology, including what it can and should be used for. It is also important because it is the point at which the contractual agreement between the service provider and the new user is established – which provides *important information about issues, such as information copyright, data-sharing practices and how advertising works*. However, as participants reported, the overwhelming desire at

this point is to *'just get up and running on the site'*. This overrides any desire (assuming there is one in the first place) to ascertain the full nature of the terms of service (ToS). Furthermore, the emphasis is on generating a natural and digitally mediated social context. As Seosaimhin explains:

> I think I just started with going through the process, entering your email and put in personal details. At first I wasn't really sure about privacy; I hadn't really gone through the settings. Now I am aware of all that, but at first I didn't know how to limit my profile so that other people couldn't find me. I would get things like friend requests, which you do quite frequently, when you first sign up, I would click on the request and I would be given the option to accept, this automatically generated a news feed, and I took it from there, the prompts provided and then when things came up there was always a button to comment on and I would take it from there. It was all about getting started, the other stuff came later (Interview 6, 2012).

Access and agreement to the ToS is codified into Facebook and Twitter on the Welcome page. They require a new user to click a tick box under the 'sign up' button. This generates consent to the terms of service. The registration sequence is very important and to 'get up and running' the required box must be ticked. Participants recollected agreeing to terms of service but very few read through them at this point. Katie explains:

> I'm not gonna lie to you – I didn't read them. I signed up because it was a trend and I just wanted to get involved, I just ticked the box (Interview 2, 2012).

Furthermore, there are no mechanisms in place to verify that they have been read. It is not just a case of registration, the majority of participants had never returned to read the ToS at a later date, or the privacy policy for that matter. This results in users giving consent to a contractual agreement where no guarantees are in place to verify that they understand what they have signed up to. This design feature is ineffective as a way to ascertain informed consent. In social research, researchers are expected to go to extreme lengths to make sure that the participants understand what the research is about, how information about them will be collected, made use of, and stored. Whilst information is being collected about people through participation in these environments, the same standard of ethical conduct does not apply, nor does it seem to be expected. Rather, the registration process prompts a series of interactions and activities designed to kick-start the social flows that configure and give value to the

network - the design of the registration process contains no comparable efforts to provide guidance or education on the technological or commercial aspects of the site and there is little effort to educate potential users about data sharing practices, privacy and commercial activity. The outcome of this is that users begin interacting with sites without an understanding of copyright issues, data use and sharing practices, cookies, and third-party relationships.

9.6 Users' Understandings of SNSs as Services: 'Power-Knowledge'

Foucault has (1977:27) argued:

> Knowledge linked to power, not only assumes the authority of 'the truth' but has the power to make itself true. All knowledge, once applied in the real world, has effects, and in that sense at least, 'becomes true.' Knowledge, once used to regulate the conduct of others, entails constraint, regulation and the disciplining of practice. Thus, there is no power relation without the correlative constitution of a field of knowledge, nor any knowledge that does not presuppose and constitute at the same time, power relations. (Foucault 1977: 27)

MacKinnon (2012) argues that our increasing dependence on Internet technologies presents us with a problem because, as of yet, there is no clear understanding of how power works in digital realms. Additionally, there is also a problem about how issues of power, control and agency are understood by users, at the level of the everyday. It has been argued that it is important that people understand the wider forms of networked connectivity on sites and the terms of service they agree to through participation. This said, the majority of participants had not read the ToS and whilst several had accessed them, they found them difficult to comprehend and gave up. Overall issues about content ownership, data sharing and commercial practices were not widely understood among the participants of this study. Although the interviews were primarily interested in understanding social media/ted practice as it is configured at the interface, in order to do this effectively it was important to examine what users understood about contractual agreements and company practices as well as what they knew about the wider networked ecology of Facebook and Twitter.

Most participants had not read the ToS or privacy policies. It has already been noted that participants typically bypassed the ToS in the initial registration process because they are eager to get up and running on sites. Furthermore, very few reported returning to read them at

a later date, reasons given included the complexity of the documents and the time required to read and process them. As Sky explains:

> No [I didn't read them], well it's far too wordy for a start, long-winded and it would take up far too much time. It's tucked away really, I can't imagine anyone would read through what you can and can't do. When it's going to take that long to read, it's going to discourage people to read it (Interview 16, 2012).

This was a common response. The majority of participants reported difficulty in being able to access and process the ToS (for a discussion on the complexity of SNS policies, see Fuchs 2011). Account holders do have a responsibility to read the ToS before agreeing to them but companies need to make an effort to make the ToS accessible and transparent. As Ben discusses:

> I'm not too sure how much of my data is being used by Facebook – that's a concern. I think that's one of the main things people don't understand. Journalists are always saying that we're willingly giving away our freedom. (…) there was a series... something like love and machines about man and technology and the series ended with a bit about social networking and media and how we're willingly giving up our freedom to use these sites as the information we upload can be accessed by these companies. I don't really understand how it works, it's impossible to read the ToS, *I'm educated and I struggle*. I don't think that many people know and if they did have a better understanding of it, it might affect how they feel about the sites (Interview 5, 2012).

The Federal Trade Commissions (2012) report acknowledges the complexity of current policies and the challenges many consumers face in understanding the nature and extent of current commercial data practices. However, understanding is crucial as it relates to choice (agency). A lack of understanding about contractual agreements, data-sharing practices and how to effectively use available settings directly impacts how people can exercise available choices regarding SNSs. In this study, the majority of participants had a limited knowledge of the ToS and company data sharing practices and several participants imagined that Facebook and Twitter did not share any form of data with any third-party or organisation or advertisers. Responses included '*Facebook says it will protect your information from other companies at all costs'*. Whilst it is true that Facebook does not share personally identifiable data with advertisers or companies, it does provide access to aggregated information that is leveraged out of its social graph. Moreover its platform enables connections to be forged with third-party applications, in effect opening up the network. For example, Facebook recently revised

its ToS and the revised statement informs the user that [Facebook] uses the information they receive in connection with the services and features they provide, the advertisers that purchase ads on the site, the developers that build the games, and applications and Websites that you use (Facebook 2012). The introduction of the Facebook platform is particularly important. As van Dijck (2013: 48) highlights, the platform has changed the contextual meanings of connectedness and sharing; sharing in Facebook is no longer interaction within the social network site, it now means interaction outside Facebook. This said, Facebook's information about sharing continues to be framed in terms of social consequences; the company makes it known that they do not share personally identifiable information. This works to support the broader social framing of privacy in sites. However Turow (2011) importantly challenges this distinction between personal and aggregated information, and anonymity and nonymity. For Turow, whether your information has a number or a name, you are still treated like a person online, in effect you are sold and you are subject to marketing.

9.7 Trusting Technology and Companies: Perceptions of Responsibilities

In the absence of informed understandings of copyright and data sharing practices, a trust in the technology becomes paramount. Participants reported trusting sites to act ethically and responsibly (see Dwyer *et al.* 2007). Participants identified two main factors for trusting sites in the absence of informed understandings about data sharing practices, these were scale and visibility. Participants felt safe in sharing information within Facebook and Twitter because they were known services, they were popular with friends and they were constantly being discussed in the mainstream media. Media visibility suggests that the 'branding' of sites was a factor in establishing trust (for a discussion on the importance of branding in establishing trust and credibility online see Hargittai *et al.* 2010). In terms of perceptions of security, participants reported a logic similar to that of 'safety in numbers' – everybody uses the sites so it is unlikely that anything would happen to them, and if it did – it would happen to everyone. Moreover, they 'read' the fact that the organisations had a visible presence in the media to mean that the companies would act in an open, ethical and honest manner that would prioritise the consumers' interests. As Sky explains:

> **I:** You mention you trust Facebook, what makes you trust the site?

> **Sky**: The size of it really, and the fact that everybody uses it, if there was a security breach it would cause a lot of trouble for them, so I imagine that they would act in people's interest (Interview 16, 2012)

Because Facebook and Twitter are well known, participants believed that they would be 'kept in check' by the public. This importance of trust has been documented elsewhere, research has found trust to be strongly related to information disclosure (Fox, 2000, Fox and Lewis, 2001, Metzger, 2004, Dwyer *et al.* 2007). Trust is defined in Mayer, Davis, and Schoorman (1995: 72) as 'the willingness of a party to be vulnerable to the actions of another party based on the expectation that the other will perform a particular action important to the trustor, irrespective of the ability to monitor or control that other party'. The on-going importance of consumer trust for Web users who disclose personally identifiable and non-identifiable information online has also been reported by the Pew Internet and American Life Project, who note that trust becomes especially important or those who have concerns about privacy violations. SNSs rely heavily on user content and therefore building trust is a key factor. Trust comes to replace informed knowledge about ToS and company practices. In the absence of knowledge users have a 'faith' in the effectiveness of the security built into the technology. Talking about Google, Vaidhynanathan has noted that Google represents a new ideology of techno-fundamentalism which encourages a 'blind faith in technology' on the part of the people who use it (cited in MacKinnon 2012:10). It is important that companies' data collection practices are consistent with what an account holder might expect; if they are not, companies should provide prominent notice and choice to opt out, or better yet, reverse the settings to allow people to opt in. For example, it has been reported that of online users, 86% prefer 'opt-in' policies, which require Websites to ask for permission before collecting or using personal data, however the default setting in often to opt out (The Pew Internet and American Life Project). Company practices need to be consistent with consumer expectations about how (and where) information flows in networked environments, and they need to build in a 'respect for context'[112], where consumer data is put to purposes consistent with the context in which consumers originally disclosed the data (also see Nissenbaum 2010).

This research found that users believed that ultimately, it was their responsibility to look after themselves online. However, this highlights an inherent contradiction, given the evidence that suggests that users lack informed understandings about how to do this. This incongruity emerged in the interviews in light of discussions about design, responsibility and use. For instance, participants were very quick to identify the responsibilities of users towards the site, for example in Facebook users were aware that there was a requirement 'to use your

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[112] See The Administration's Consumer Privacy Bill of Rights, United States.

own name' - a policy and intended push towards real-names and single online identities. They were also very quick to discuss the responsibilities users have towards other users, for example, proper and decent conduct, no bullying, and no indecent content. However, they were less vocal on what types of obligations the site has in terms of protecting its users. Issues such as data ownership, and data use did not feature in the discussions about privacy. There was a view among participants that responsibility in terms of use fell largely to the user. Participants re-iterated a version of the neo-liberal discourse of consumer 'choice' and individual responsibility. Despite many reporting that they found it difficult to read the ToS and privacy policies provided by sites, and stating elsewhere in the interview that they believed that sites should make these documents more accessible, paradoxically, they felt it was up to them to take on the responsibility.

9.9 C/overt Information Ecologies

So far it has been argued that participants had limited understandings of the way that information flowed between sites and users, and this was evidenced by the fact that participants did not think that they were interacting with commercial entities or with businesses, organisations and third-parties. This became apparent in discussions focused on the Like button and other social plugins, games, applications and advertising more generally. An important consequence of participants viewing their networks in terms of people and interpersonal visually-articulated social networks was that participants excluded types of commercial connectivity and related activity and commercial information flows from their perceptions of their networks. This was most obvious in Facebook. This research discusses this, and presents an argument that these features are 'designed in' covertly, rather than overtly, framed in the wider design languages of the sites and the wider discourse that surrounds 'social media'.

Social media companies often assume that terms like cookies, third-party applications and social plugins are reasonably understood by everyday users. However, these terms are understood to varying degrees by users, often contingent on a range of social and cultural factors, for example, education and experience relating to digital media technologies. The interviews found that key features which were important for understanding networked connectivity on Facebook and Twitter were not widely understood. For example, whilst the

majority of participants used third-party applications, very few could define what a third-party application was, and this was also the case with terms like widgets, cookies and social plugins. Sky was asked what she understood by the term 'third-party application' on Facebook, she responded:

Sky: Hmm, I don't know really? (pause) hmmm, in what sense?

I: how would you describe what a third-party application is and what do you know about how these work in relation to the site?

Sky: It's just something that you can use, and then other people can see that you use that app. Like with the news apps, they can see what you've read (Interview 16, 2012).

Sky, like many of the participants had a loose notion of what a third-party application was, which was founded on her experience using the site. Sky considered games as 'add-ons' as part of her Facebook experience, but she could not describe how applications were integrated into the network. In one sense, Sky conceived of 'apps' as separate because they were optional but in another, she saw them as integrated because she could interact with her friends via these applications on Facebook. Sky can connect to her friends via social applications because Facebook provides third-party applications with access to Facebook's social graph – the network of connections that exist on Facebook through which people communicate and share information. The social graph is a global map of people and the nature of their relationships through Facebook.

In another example, Kathy had stated in her interview that she did not use third-party applications. However, the researcher had access to her account during the interview and could observe that she had a number of active third-party accounts – but Kathy was unaware of it. Kathy did not recognise these as third-party applications because they 'appeared integrated into the site'. As Bodle (2012) has argued, open APIs support interoperability and they achieve seamless integration into social media services which give rise to mutually beneficial third-party developer ecosystems that build on top of social media platforms. As Bodle explains, open APIs enable interfaces, services, and applications to connect seamlessly with one another. Social applications like social games, mashups, widgets, social plugins, and share buttons enable users to play, comment, recommend, and share in an increasing number of ways and spaces within social media sites *but also importantly, outside of them* (ibid).

Kathy was not alone in being unaware of the 'apps' on her Facebook account. Similarly, Sky was not the only participant who could not discern where Facebook started and stopped in regard to applications. Kathy's failure to distinguish third parties within Facebook illuminates the difficulty for users in grasping the interoperability of digitally networked environments - how different software applications can interface with one another. Everyday users do not always have the specialist knowledge be able to make sense of how information flows within these digitally networked environments.

In a further example, Laurie was discussing her privacy issues and she explained to the researcher that she had 'tight' privacy settings so that only her 'friends and family' could see her information. She did not consider herself to be connected to third-parties. However, the researcher could see that she was connected to a range of commercial entities on Facebook. The reason for this discrepancy was Laurie's use of the social plugin - the Like Button. Laurie used the Like button to express approval and link to various consumer goods and brands but she only recognised the first aspect. The Like button was typically described by participants' as '*a way to express to your friends what you are interested in*'. This mimics how the Like Button is promoted within the site to user, 'the Like Button is a way for users to '*share a Web page or a piece of content with friends in one click*' (Facebook 2012). This does not emphasise the networked connectivity created by interacting with the feature. However, in the developers section of Facebook this is articulated with greater transparency (*see figure 48*). It states that if a user clicks on a Like button outside of Facebook it creates a link, similar to that of a page, which then appears on the user's account. It creates a nodal connection which allows information to be sent to the user and allows the page to target ads to the user. This was not always clear to the participants.

Figure 48: Screenshot of the description of the Like button provided for developers
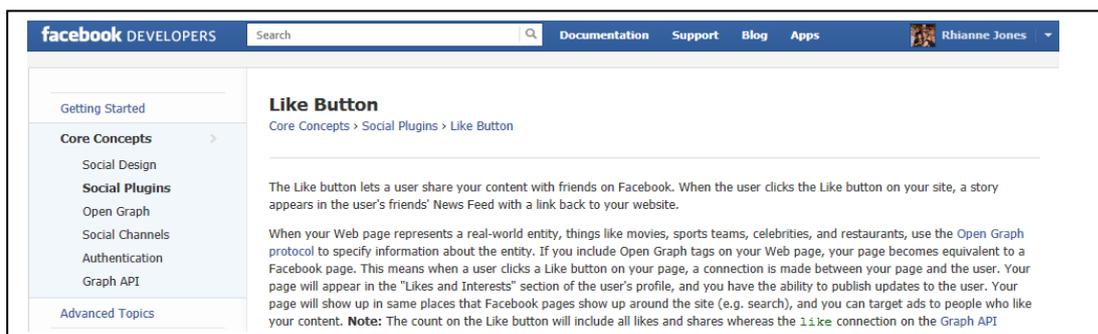
The Like button caused a lot of confusion with participants as did other social plugins. They did not always comprehend that using the Like button embedded in a Website meant that they connected to a page or company. The same goes for inside the site - several participants did not consider 'liking' advertisements or commercial content as linking to them within the site. Whilst Facebook does not provide access to personal information, nonetheless, a link between two nodal connections is forged which enables information to flow within the network. The Like button was one of several features that obscured networked connectivity in and outside of Facebook. For Bodle (2012), in recent years, Facebook and its partners have increased their access to users' information flows while at the same time user control and autonomy have diminished. Bodle argued that this results in an asymmetrical relationship between Facebook's ecosystem, and members of the social network.

Social plugins did not appear to be widely understood by participants *(see Table 4 for a list of social plugins available on Facebook in January 2013)*. Social plugins are often pitched to the users as features to share information with friends, rather than networked connections used for example, to promote or drive traffic to a Website.

Figure 49: Screenshot of the description of social plugins for users in the help centre

Although commercial practices are a key part of the networked environment, these sites strive to frame commercial activity as an inherently social affair; they frame features in a way designed to make people conceive of sharing only through the social lens. The companies create an environment whereby commercial connectivity and activity is, to some extent, a covert aspect of the networked context. The networked ecosystem is somewhat concealed by the social lens, which marries particular ideas about the technology in design with particular practices, in such a way that it conceals as much as it reveals (see van Dijck 2013). For example, several participants asked the interviewer why they could see their Facebook profile

picture and an opportunity to post content when they browsed other sites. This indicates a lack of understanding about how Facebook is embedded in the wider Web ecology or indeed how the Web is becoming part of Facebook's ecology. Participants did not understand Facebook's open graph and the nature of the interoperability between Websites, applications and Facebook. Furthermore, participants did not have informed understandings of Facebook and Twitter as companies. Participants had partial, socially framed perceptions of network flows, which did not always correspond with actual network flows. Participants *envisioned* information flows within personal social networks did not always correspond with *actual* information flows, which take place in more complex social and commercial ways. In the main, participants only registered those information flows that they could see at the interface. The sites remain framed as 'social' ecologies, rather than data-based ecologies or commercial ecologies.

Understandings of Facebook and Twitter were formed through a particular social lens, which is embedded in the design. The social framing of these services omits important aspects of these networked environments, the commercial and data sharing practices which are integral to the business models of SNSs. In the 'information age' where access and control of information carries with it great political, economic and social weight and rights are equated with market power, asymmetrical power relations are being established between those who produce content and those who profit from it. For Bodle (2012), the present conditions for sharing through social applications include a lack of control over one's own information and a lack of transparency as to what information is being collected, and how this information is being used, which he argues undermines privacy, data security, contextual integrity, user autonomy and freedom. Bodle makes a number of important points based on a very detailed examination of issues around networked connectivity and commercial activity with regard to social media, however from the political economy perspective he adopts it is difficult to determine how these issues are intertwined in social media/ted practice at the level of the everyday. This examination of design in practice has found initial evidence for these asymmetrical power relations, as the researcher encountered them in examining practice, at the interface.

Table 4: List of Social Plugins available on Facebook, January 2013

The Like button	The Like button lets users share pages from your site back to their Facebook profile with one click.
The Like Box	The Like Box enables users to like your Facebook Page and view its stream directly from your Website.
The Send button	The Send button allows your users to easily send your content to their friends.
The Follow button, (formally Subscribe)	The Follow button allows people to subscribe to other Facebook users directly from your site. Prior to this, the feature was called the Subscribe button
The Comments button	The Comments plugin lets users comment on any piece of content on your site.
The Register button	The registration plugin allows users to easily sign up for your Website with their Facebook account.
The Activity Feed	The Activity Feed plugin shows users what their friends are doing on your site through likes and comments.
Recommendations box	The Recommendations plugin gives users personalised suggestions for pages on your site they might like. The Recommendations box allows users to like content, get recommendations, and share what they're reading with their friends
The Login button	The Login button shows profile pictures of the user's friends who have already signed up for your site in addition to a login button
The Facepile	The Facepile plugin displays the Facebook profile pictures of users who have liked your page or have signed up for your site .

9.8 Diffused Agency and Asymmetrical Power Relations in Digitally Networked Environments

Fuchs (2011: 304) has argued that the corporate monitoring, storing and processing of data clearly involve a set of asymmetrical power relations through which 'the subjects of communication become objects of information'. The asymmetrical power relations are

evident at the level of practice in the lack of understanding people have about these digitally mediated environments. As Foucault (1977) reminds us knowledge is power. Fuchs (2011) makes an important point about the political economy of social media, which highlights the political nature of social media technologies. Political economy approaches to new media examine these issues at an institutional level and critical theories of technology extend this to examine how these are manifest at a technological level. Importantly, this research found evidence for this at the level of the interface. As already argued in Chapter 6, design reflects strategic decisions and intentions and is a techno-cultural framework which renders the interface a site of power. Chapter 6 documented some of the problems with the ways in which communication about wider networked activity was communicated to users at the level of the interface, whilst Chapters 7, 8 and 9 have explicated how these asymmetrical power relations are manifest in everyday practice.

9.10 Conclusions: The Social Lens in Practice

Feenberg (2010: 2) has argued that when a society is organised around technology, technological power is the principle form of power in a society. It is realised *through designs* that narrow the range of interests that can be represented by the normal functioning of the technology and the institutions that depend upon it (cited in Frieson and Lowe 2011: 198). Similarly, van Dijck (2013) reminds us that the world of social media is anything but a neutral infrastructure. This chapter has discussed participants' view of the networked affordances of sites that extend beyond the interpersonal visually-articulated network displays – which amount to 'the social'. It has analysed participants' understandings of privacy policies and terms of service and their understandings of the wider networked ecosystems. Foucault (1976: 94) reminds us that power is not something that is acquired, seized or shared (…) power is exercised from innumerable points, in the interplay of non-egalitarian and mobile relations. This thesis provides further evidence for the asymmetrical power relations between companies and users, which stem from the way that power, structure and agency are distributed in the socio-technical network. This chapter provides evidence of the implications of a social lens, documenting how this lens is coded into social media designs which prioritise particular types of sharing and provide a particular discursive framing of features, settings and controls and also, importantly, how this lens operates at the level of everyday practice. It demonstrates that this social lens frames issues of connectivity and privacy as an interpersonal

issue and that it works to obscure wider aspects of the digital commercial ecosystem. Overall, the chapter paints a complex and somewhat contradictory picture: on the one hand the data reveals that consumers do not fully understand the nature of the digitally networked environments they act with and through - including key technological and commercial features and processes, algorithms, cookies, social plugins and company data-sharing practices, the monetisation of data and personalisation and targeted advertisements; on the other hand, the findings reveal feelings of personal responsibility to ensure adequate control over information flows. This paradox is replicated more generally, for example the current, largely self-regulated, digitally mediated environment is relying on informed consumers but the study has found evidence to suggest that the everyday user remains largely uninformed about key aspects of the networked environment, including contractual agreements and privacy control. There are no straightforward solutions to this, but possible responses might include further governance, for example at the level of interface design and to provide further investment into critical 'new' media literacy skills, or efforts designed to empower the user in an effort to re-balance the asymmetry in power relations that currently exist between service providers and users. This research sees these responses as desirable. However, design is considered a particularly practical starting point to target some of these issues. It has been argued throughout this thesis that design is a technical and cultural structure that informs practice, and whilst there are over 1 billion users on Facebook worldwide, there is only one Facebook. Changes at the level of design could prove an effective way to tackle these issues so that these platforms can put the everyday end-users' interests on par with the interests of influential stakeholders and interested parties.

Chapter 10: Conclusions

10.1 Introduction: Key Findings/Contributions

1. The key finding this thesis puts forward is the *triple articulation of social media/ted practice.* The research finds evidence for a triple articulation between the social as embodied in the technical, the social as symbolic and the social as practiced, which occurs in distributed and reflexive real-time networked environments like SNSs.

2. This thesis has shown the interface to be a key boundary point to study this triple articulation.

10.2 Discussion

(1) The triple articulation of social media/ted practice

The theoretical framing of this research offers an original framework based on a particular synthesis of existing ideas. Starting from a Sociological perspective on media practice in everyday life, this thesis appropriated ideas from Media Studies, New Media Studies and SST to develop a theory of the triple articulation of social media/ted practice. This unique framework has been applied to critically examine design in practice with regard to SNSs but it has the potential to be used more extensively to study new media. This thesis adds to the existing field by providing a useful, theoretically sound framing for the study of social media which could be appropriated by other new media researchers in the future. In addition, the framework could be applied to study design in practice from other key vantage points in the socio-technical network, for example in regards to design practices in production contexts. The triple articulation of social media/ted practice could be applied in Media Studies to examine 'new' media audiences/users - at the interface. In Sociology, the framework could be applied to study forms of social media/ted practice. Lastly, in SST, it could be applied to examine the techno-cultural coding of technologies in design contexts, in terms of the implications for social media/ted practice.

The triple articulation of social media/ted practice refers to the interrelated articulations between the social as practiced, the social as symbolic and the social as embodied in the technical. The triple articulation is an integrated theoretical approach that can inform empirical work into distributed (and reflexively constituted) real-time networked environments. The reason they are reflexively constituted is that designers' and users' interactions with the real-time network are constantly feeding back into the system; these systems are in a permanent state of beta. These networks are characterised by continuity and change, by materiality, by ideas and by appropriation in practice - they provide technical and symbolic structures *and opportunities* for interaction in practice. The triple articulation of social media/ted practice considers technological materiality, cultural coding at the level of design and everyday social practice with regard to social media as locked into a circular interdependency. The social is encoded into materiality and diffused as a wider socio-technical network, which shapes (and is shaped by) practice in the context of active use.

The term *articulation* has been advanced in Cultural Studies as a means to denote a 'code structure' and a duality of patterning. Silverstone and Haddon (2006) use double articulation with regard to media and communication technologies to describe the dual-nature of a technology as both an object and a medium. Through the concept of double articulation[113], Domestication Studies acknowledged that media are both 'texts and technologies', the meanings of which are emergent properties located within, but not determined by, micro-social environments in which their use is 'domesticated'. The concept of double articulation aimed to examine the interplay between media and cultural forms. Crucially, for Morley and Silverstone (1990: 33), the 'acts of consumption (of both texts and technologies) provide the articulating dimension'. This approach aimed to locate media technologies in everyday life though analyses of the media as technological objects located in particular spatio-temporal contexts and as texts with symbolic messages located in wider social and cultural discourses (Livingstone 2007). With regard to social media, the technology is *a text; the graphical user interface* which presents codified opportunities for use and appropriation in social context. Furthermore, it *shapes as it mediates forms of social practice* and it textually archives and *represents* social practice at the interface. The triple articulation of social media/ted practice looks at the *social shaping* (and interdependencies) of (1)

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[113] The concept of 'double articulation' has a longer history in Media and Cultural Studies, see for example Hall (1980). However it was traditionally employed with regard to text and was later applied to study the circuit of culture more generally (Du Guy *et al.*1997).

materiality of digital media technologies (2) the symbolic coding of this materiality and (3) the technologies as embedded in social practice. The outcome is social media/ted practice. This articulation does not suggest causal relationships but rather dynamic and interrelated processes.

A triple articulation recognises that social media environments go beyond traditional media in that they are real-time technologically mediated con/texts which represent and remediate the social in real-time; they are constantly configured through the interactions between the technology and the users, as opposed to being primarily a medium for one-way content distribution. Social media technologies are configured out of technical-symbolic code structures; layered technical architectures intermeshed with cultural codes that take on meaning and form when embedded in active social practice. As Livingstone (2007) explains with regard to social media, people must necessarily, interact overtly (through selecting, clicking, scrolling and typing), coinciding in an auditable manner the symbolic and the material. The triple articulation of social media/ted practice illustrates the dialectical relationship between technology and society as configured by evolving technological resources, symbolic frameworks, and social norms, values and practices.

The interface has provided a unique positional vantage point to examine the triple articulation of social media/ted practice. The findings suggest a new framework for theorising and researching new media, suggesting researchers can expand the Web 2.0 research agenda by examining the triple articulation of social media/ted practice. It provides a critical framework for examining how power, structure and agency operate in digitally networked social media/ted environments. Design and practice reflexively coalesce, and come into conflict with each other within a distributed system and new social structures and everyday practice emerges through the multi-directional articulations between the social as technical, the social as symbolic and the social as practiced.

(2) Researching @ the Interface

This thesis explicates an analytical framework for researching social media: @ the Interface. This research has provided a theoretically informed *integrated* research strategy for analysing social media/ted practice, which enables new media researchers to study design in practice at the interface. The analytical framework consisted of site analysis and interviews at the user-

interface. The thesis adapted the traditional interview to incorporate observations of interactions with technological artifacts with an explicit focus on design. It developed a research strategy to facilitate research into social media design and practice in today's 'interface culture'. The method combined interview style questioning with observational components to provide a practical, viable means to explore people's understandings and interactions with new media technologies. This was combined with a form of critical structural/textual analysis at the interface to examine the interactive technical and textual structures of social media technologies as they are presented to be encountered by the everyday user at the interface. The overall approach provides an in-depth analytical framework for studying social media design as a techno-cultural framework for everyday media/ted practice. People actively interact with this framework in routine practice, but nonetheless, the design of the user-interface works to shape people's interactions at, and beyond the interface.

10.2 Introduction to Empirical Findings

The thesis set out to answer two primary questions:

(1) What is the relationship between social media design and social media practice?

(2) What can studying interactions at the interface tell us about the interrelationships between social media design and social media practice?

The research objectives included discerning and analysing the available opportunities for interaction in Facebook and Twitter and examining how these are culturally codified for interaction at the interface. The objectives included providing an account of participants' social media/ted practice on these two sites which entailed providing an analytical account of how they made sense of sites at the interface and how they interacted with sites at the interface. The final objective was to analyse the findings from interviews with the findings from the site analysis to enable the researcher to critically comment on the implications of design in practice.

The empirical findings are extracted from the site analysis and the interview and observational data explicated in Chapters 6-9. The collective findings demonstrate that social media design works to technically and symbolically frame opportunities for interaction and in turn, shape social media/ted practice in the context of active use and system feedback. Through a case study of Facebook and Twitter, the chapters explicate how sites are technically, spatially and semantically codified at the level of the user-interface, to enable action and integration and frame the technologies as socially and culturally meaningful and useful. Through a case study of use of Facebook and Twitter, this thesis provides data which explicates 'design in practice'

10. 3 Discussion

As argued in section 10.1, the interface is a key site to research the triple articulation of social media/ted practice because it is an interactional point in the sociotechnical network between companies, designers and everyday end users. This is because social media *technologies* can be theoretically considered as digitally mediated networked *con/texts*. They are techno-cultural representations and remediations of the social world which introduce affordances and shape evolving practices in everyday social practice.

Chapter 6 showed how the user-interface is technically, spatially and semantically engineered to render technologies culturally meaningful and useful. It used a range of examples to show how social media design is technically and culturally meaningful for interaction and social practice. The chapter presented an account of the affordances of sites based on an analysis of the micro-architectures and opportunities for interaction, as discerned at the user-interface. It argued that design has important implications for shaping practice on two levels: design is important for bringing into existence a micro-architecture which engenders a number of affordances for networked connectivity and activity. Design is also important for presenting and cultural coding these opportunities for interaction; presenting them to users in ways intended to be transparent and meaningful. For example, the user-interface/interaction design continues to make aspects of the technology visible, accessible and the design is entered to create a cultural narrative for the technology, codified into features, guides, prompts warnings and pop-ups. Subsequently, the chapter called attention to the way the interface works as a site of power insofar that it embodied multiple interests. The design of the interface reflects the interests of companies and a range of different users.

Chapter 7 discussed how Facebook and Twitter were understood and appropriated as technically and culturally meaningful technologies. The chapter showed the appropriation of the specific opportunities for interaction, supporting the view that the specific micro-architectures of sites engender particular types of social media/ted practice - in the context of active motivation and appropriation. In addition, the chapter demonstrated the importance of the cultural coding of technologies, by pointing to a convergence between design languages encoded into sites and the language used to articulate understandings of the technology. In doing so it supported the argument that the coding of technologies works to shape how people perceive and understand these technologies for practice. The chapter also discussed a range of important contextual technical and social factors that shape social media/ted practice, including the importance of device and context for interactions at the interface and use, variations in motivations and routine use, the importance of existing social networks, and the power of social lock-ins.

Chapter 8 provided data on design in practice showing how social media/ted practice is configured out of the micro (routine) interactions that take place at the user-interface. The chapter discussed the findings from the interactive tours of sites which demonstrated how users perceived the micro-affordances of the software at the interface. It showed the importance of the visibility of opportunities for interaction for perception and use, and it revealed the importance of the framing of features in rendering them meaningful for practice. The analysis also reveals that routine technical operations and interactions at the interface underpin wider social media/ted practice in important ways that shed light on wider social trends. The findings show how routine micro interactions become habitual, working to close down experimentation and interpretive flexibility and to stabilise the technology in practice, which goes hand in hand with evolving norms of social media use (Papacharissi and Easton forthcoming). This specific finding challenges the overly simplistic accounts of participation and interactivity by calling attention to different levels of engagement and opportunities for interaction. In doing so, the chapter calls attention to overt and covert opportunities for interaction in the context of use. The chapter also reveals the interface to be perceived as channel for social engagement, rather than a highly engineered and automated system for the production of social context. In doing this it points to participants' reliance on interpreting technologies at *inter/face value.*

Chapter 9 examined participants' understandings of the wider forms of network connectivity beyond interpersonal visually articulated networks. It argued that codified design structures frame technologies as 'social' in ways that obscure/conceal commercial activity from users' conceptions of networked connections, information flows and activities. It shows how Facebook and Twitter are strategically designed to promote social interaction and 'sharing', (arguably) at the expense of educating users and providing a range of effective mechanism to enable account holders to assert effective networked control. It reported on the limited understandings that participants have of company practices and non-interpersonal networked features and networked ecologies. This provides evidence of asymmetrical power relations between users and companies. Everyday users cannot be expected to have expert understandings of social media technologies and network flows in wider information ecologies, therefore the thesis calls for further transparency to be encoded into social media design, for example in terms of how features are presented and how information is communicated to the user. The thesis argues that this will help to ensure that users are aware of how sites function commercially, as well as socially, in a wider information economy. It will also help to ensure that they understand how to make informed decisions and assert effective control within these networked environments. The thesis also suggests that users would benefit from more developed critical media literacies, which help them understand, navigate an appropriate media technologies in a digitally networked age. Digital media literacies need to be developed to help users fully utilise social media platforms and make informed choices about their use and their practices.

In summary, the thesis demonstrates the value of the interface as a digital structure that works to shape evolving social media/ted practices. By examining 'design in practice' the research has proven the user-interface to be a key site for (1) examining how people make sense of social media technologies, (2) mediating social practice and understanding emerging social trends (3) social media governance (4) developing digital literacy and skills. The research has demonstrated how the technical and cultural coding of the 'micro-affordances' of social media technologies acts as a framework that shapes social media/ted practice - in the context of active use, taking into account how use is motivated and mediated by wider social and cultural factors. Studying interactions at the interface reveals how wider social media/ted practices are configured out of the micro-interactions that take place at the interface. Moreover, it shows the user-interface to be a site of power, conflict and negotiation. The findings suggest that everyday users' explanations of sites are largely informed by the design

languages that have been encoded, and these design languages can work to frame the technologies in ways that serve commercial interests. The cultural coding of features embedded in sites set the perimeters for particular readings of functionality and the design languages encourage particular readings of the technology, which are reified in practice As Bijker (1992) reminds us, the question is not, what is a technology, the question is how is a technology.

10.4 Policy Implications, Design in Practice

Existing research into social media has addressed critical questions concerning the politics of technological design at the level of the user-interface, but there is little empirical work to support many of these assertions. This thesis explicates the implications of social media design in practice and the consequences this has for wider forms of mediated sociality. The research highlights how digital structures enable and constrain action, shape practice and frame action and agency. In doing so, the thesis uses empirical work to draw attention to the importance of the politics of the technology at the level of user-interface design. Moreover it makes a number of recommendations to address the above, which are:

- Increased Regulation/Governance at the level of design – users cannot be expected to understand complex policies. The developers of social media services are urged to provide more effective design communication and control mechanisms, which (1), make it clear to consumers how various aspects of the technology work and (2), enable them to engage with the controls provided effectively.

- Investments in critical forms of digital literacy. The research finds that participants' had relatively low levels of critical literacy with regard to social media. The thesis recommends further investment into developing public critical digital media literacies. It suggest that developing key critical media literacy skills can better equip users to navigate, evaluate, and exert effective control when using social media services. The thesis urges the development of critical 'new media' skills which (1), develop users' understandings of how information is generated, curated, shared and stored in digitally mediated environments (2), enables them to critically evaluate information flows, as they act with and through these technologies and (3), provides practical skills which empower them to exert effective control over personal data flows.

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In conclusion, *design matters in social media/ted practice.*

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Appendix 1: Research Explanation

Using Social Media @ the Interface

Rhianne Jones: PhD candidate, The University of Salford.

Explanation

This project aims to explore public perceptions and understandings of sites (such as MySpace and Facebook) as well as observe people's' real time engagement with these sites. The research is comprised of a series of interviews that take place at the computer, designed to investigate people's understandings of the technology and how they interact with the platforms.

Participation consists of:

- An interview at the computer that considers your use of one site in detail. *If you use more than one site you may be asked if you are happy to discuss another site during the interview.*

The short form available to fill in now will ask you some general questions about your use of SNSs. The form has approximately 15 questions and should take about 15- 20 minutes to complete.

The interview takes place at a computer. In this interview you will be asked to log on to a site that you regularly use and talk the researcher through your routines. This part of the research will investigate your understanding of the site, how you use it and ask for your opinions on the specifics of the design. The location of and times of the interview will be agreed beforehand to accommodate you.

All interviews will be anonymised - this means that no names will appear in the write up of the research or any related papers or publications. Any data that is collected will be held securely in accordance with the Data Protection Act and will only be used for the purpose of this research. Please feel free to ask if you have any further questions relating to this. If you agree to take part there are no obligations attached and you have the right to withdraw from the research at any point.

Thank you very much for your time.

Any additional questions or queries please feel free to contact me on either 07837778720 or via email on <u>r.jones4@edu.salford.ac.uk</u> or <u>r.jones@ljmu.ac.uk</u>

Appendix 2: Consent Form

Using Social Media @ the Interface

Rhianne Jones: PhD candidate, The University of Salford.

Please read the following statements carefully and indicate that you have read the research explanation and are willing to take part in the research by entering your details and signing the form. You will be given a copy of this form for your records.

- I understand that by signing below, I give my permission for the data collected in the interviews to be used anonymously in written reports, presentations and published papers relating to this study.

- I understand that my participation is voluntary and that I may withdraw my consent at any time. I also understand that I may request to withdraw the data collected from me before September 2012 and that in such an instance it will be destroyed. After which the data will be securely held as an archive and held in accordance with ESRC guidelines.

- I understand that the results of the research constitute personal data under the Data Protection Act and that it will be managed in accordance to Data Protection guidelines. It will be kept secure and will not be released to any third party beyond the research team.

First Name: (please print) …………………………Surname: …….……………

Signature: ………………………………………. Date: …......… /…......./ ……......

Email address: …………………………………………………

Contact telephone number: …………………………..

Thank you very much for your time.

Any additional questions or queries please feel free to contact me on 07837778720 0r via email at r.jones4@edu.salford.ac.uk or r.jones@ljmu.ac.uk

Appendix 3

Using Social Media @ the Interface: Pre Interview Questions

Rhianne Jones: PhD candidate, The University of Salford.

1. These logos are associated with social network sites. How many of these do you use recognise? Please place a circle around the logos that you recognise.

2. How many of these sites (those represented by the above symbols) have you used before? Please list. If you use any sites not indicated above, please include them in your list.

3. Please tell me a bit about the sites you use in a couple of sentences.

4. If you use more than one site, which site do you use the most and why? If you have only ever used one site, please move on to the next question.

5. Why did you decide to join these sites? If you use more than one site and you had different motivations for joining different sites please state the different motivations.

6. Who do you connect with via sites? Can you briefly describe your networks? If they differ by site, please tell me about this.

7. Please tell me a bit about how you use these sites. For example, how frequently do you log on to the sites you use? How much time you typically spend on them?

8. Would you describe yourself as an active user? (Please circle appropriately)

    Yes   No

9. Please list the networked devices do you own (e.g. mobile phone, laptop, home shared/private computer, work computer) and tell me which devices you use to access the sites you use.

10. Do you have any preferences about how which device you use? If yes, please tell me about this.

11. Do you use the site differently according to the device you use? If so, could you explain how?

12. Finally, are you familiar with the term social network site? (please circle appropriately)

Yes   No

If yes, could you tell me what you personally understand by the term 'social network site'

13. Finally, are you familiar with the term social media? (please circle appropriately)

Yes   No

If yes, could you tell me what you personally understand by the term 'social media'

14. Finally, please tell me a bit about yourself…

Name: _____

Age: _____

Gender: _____

Occupation: (optional) _____

Your email address: _____

Contact Number: (optional)_____

Thank you for your time

Rhianne Jones – r.jones4@edu.salford.ac.uk

- Blank space for additional comments -

Appendix 4: Micro Architectures and Affordances @ the Interface

Facebook and Twitter: A Comparative Analysis

Facebook and Twitter both share basic affordances; the ability to create a profile, link that profile to others and transverse network connections. This said, Papacharissi (2009:1) observes that the specific architectural arrangements of sites 'set the tone for particular types of interaction'. The architecture of virtual spaces simultaneously suggests and enables particular modes of interaction (ibid). Table 1 compares and contrasts key aspects of design. This is then discussed in relation to key themes (1), networked connectivity (2), key features, (3), controls and settings. Tables 2- 7 examine key features, areas, settings, connectivity and the wider affordances based on the former.

Table 1: An overview of the similarities and differences between Facebook and Twitter

Table 2: Key forms of networked connectivity on Twitter

Table 3: Key Interactive Areas and Features

Table 4: Account settings/controls

Table 5: Primary forms of UGC

Table 6: Networks afforded by Twitter and Facebook - based on site analysis, use and participant observation

Table 7: Network cultures afforded by Facebook and Twitter – based on site analysis, use and participant observation

Table 1 – An overview of the similarities and differences between Facebook and Twitter

Comparable features
Distinctive features

Site	Facebook	Twitter
Access	Registration required Web/Mobile	Registration required Web/Mobile
Networks/network connections	Ego- centric, relationship- orientated Friends – two way (New)Subscriptions/follows – one way Widgets, Social plug-ins	Ego- centric, interest-orientated Followers- one way/two way temporary hyperlinked connections(@ #) Widgets/social plugins
Characteristics of site architecture	Networked Based on a 'social graph' Pulls in content/stories Tends not to push out	Networked Based on an interest graph Pulls in content Pushes out – sites and stories
Key features for social Interaction	News feed, mini-feed Status update (post update) Posts, poke Like Button Share button (& social plugins more generally) Photo/ video upload User generated content feeds Distribute links Direct messages Tagging content Geo tagging Visual -location based maps Photo albums Play games Instant chat	Tweet Twitter feed Hashtag (#), at sign (@) Tweet (post updates) Re-tweet Favourite Photo/ video upload User generated content feeds Distribute links Direct messages Tagging content Geo tagging –
Privacy/account settings	**Account settings** General Security **Privacy settings - Granular controls** Timeline and tagging Blocking Notifications Mobile Followers Apps Adverts Payments/ Gifts	**Privacy and account settings** **Account Settings** Mobile Emails settings Apps Widgets Tweet Location Tweet Media **Privacy Settings - Binary** Public or protected Tweets
Advertising	Banner ads, referral marketing, games socially integrated commercially orientated activity e.g. sponsored stories pages, likes, shares	Promoted accounts/tweets organically though business accounts

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Table 2: Key forms of networked connectivity on Twitter.

Networked Connectivity on Facebook	Networked connectivity on Twitter
Between Facebook and User, Registration Connection to the service/platform	Between Twitter and the User, Registration Two way connection between company and users established via software
Between users, Friends Two-way connection between users	Between account holders, Following One way connections between users
Between users, Subscribe (soon to be Follow) Two-way connectivity between users One way connectivity between account holders	Via the Hashtag # Temporary connections between users via hyperlinked content
Join a networks, Join a Groups, link to a Page Connectivity in the form of networks/ networked spaces	Via the sign @ Temporary Connections between uses via hyperlinked Twitter handles
Widgets/Social Plug-ins/Applications/Games Connectivity enabled through technical interaction with a button places on a page or Website. Connectivity enabled through enabling an application or participation in a game	Widgets/social plugins Temporary connectivity forged through visibility and interactive buttons which connect users, Twitter and Websites

Table 3: Key Interactive Areas and Features

Facebook Key Areas	Twitter key Interactive Areas
• Profile Page/Timeline • Homepage • Account settings • Privacy settings • Help Page • App Centre • Designers Section	• Me page • Homepage • Discover page • Interactions page • Account/Privacy settings • Help Page • Designers section

Facebook Key Interactive Features	Twitter Key Interactive Features
• Profile page/Timeline News feed • News feed/Mini Feed • Status update box • Posts/comments boxes • Direct Messages • Like/share content button (interests, signals, taste cultural capital) • Add content buttons • Photo albums	• Twitter feed, discover feeds, interaction feeds • Tweet, direct messages, Re-tweet (less visual displays of intimacy, more commentary) • Embedded hyperlink • Trends, Lists

Table 4: Privacy and Account Settings

Facebook's Account Privacy Settings	Twitter's Account Privacy Settings
• Separate Privacy/ Account settings e • Granular controls	• Privacy/ Account settings combined • Binary controls – public or private

Table 5: Primary forms of UGC

UGC on Facebook	UGC on Twitter
• Status updates • Posts • Photos/Videos • Messages • Chat • Like Button	• Tweets • Direct messages • Photos/video

Table 6: Networks afforded by Twitter and Facebook based on site analysis, use and participant observation

Facebook Networks	Twitter Networks
• Ego centric, • Relationship orientated • Largely static, closed • Pre- existing known • Predominantly Interfacial with real world Linked to social capital but lends itself to social network maintenance	• Ego –centric • Interest-orientated • Shifting, open, fluid • Mix of pre-existing, known, known of and established online • Heterogeneous • Linked to social capital, lends itself to social network building

Table 7: Network cultures afforded by Facebook and Twitter – based on site analysis, use and participant observation

Affordances for Networked cultures on Facebook	Affordances for Networked Cultures on Twitter
• Real-time • Interpersonal • Image-orientated • Interaction based social context • Context based - relevant and recognised contexts • Contextual information • Searchable, archived but experienced as tractable.	• Real-time • Reputational • Commentary orientated • Written Text based • Information based feeds • Context-less information • Shifting, Ephemeral • Searchable, archived, but experienced as ephemeral.

Appendix 5: Participant Profiles

Katie is a 28. Katie is a local singer songwriter and social worker by profession. Katie has a long history using the internet socially, she grew up using chat rooms and SNSs such as Facepic and HighFive and MySpace. Today Katie mainly uses Facebook and Twitter. She accesses Facebook at home using a desktop and her mobile and mainly accesses Twitter by her mobile. Although Katie uses these sites socially, she now primarily uses SNSs as promotional tools for her public persona and her music.

Harry is 55. Harry is a recently retired fire-fighter. He is a father of two adopted girls and a recent grandfather. His hobbies include cycling and all things cycling related. Harry describes himself as Internet enthusiast, he likes to experiment with new sites and services when they initially become available. He uses Facebook and Twitter but has experimented with a range of SNSs in the past including FriendsReunited and MySpace. He is currently exploring Pinterest.

Natalie is 30. Natalie is recently married with three children and has another child on the way. Natalie describes herself as a homemaker. She has a part-time job in a local wedding shop but spends a large amount of her week at home looking after her three children. Natalie mainly uses Facebook which she accesses using a laptop. She logs on regularly for long sessions. Natalie likes how Facebook provides her with a link to world when she is at home during the day.

Shaz is 29. Shaz is Muslim by faith and a family man. He is a husband and a father of three. He works as an Apple specialist full time and devoted fan of Manchester United. He is an apple enthusiast, and has been using Facebook and Twitter for some years now. He accesses the sites using different devices when at home he uses the desktop but he regularly uses his IPhone to access Facebook and Twitter when he is out and about.

Leanne is 27. Leanne currently works in a busy city centre office, she has a business degree in marketing and communications. Leanne is very active on social media, she has an account with Facebook and Twitter which accesses intermittently throughout the day via her mobile phone. Leanne also uses Instagram, a social media photo sharing application with networking capabilities.

Kathy is 61. Kathy is a retired schoolteacher, married with two adult children. Kathy started using Facebook in the last 24 months and it has become an important part of her Internet routines. She only accesses the sites via her home computer, she currently does not have an internet enabled phone. Prior to Facebook Kathy experimented briefly with FriendsReunited to contact pupils of a recently closed primary school in her area. However, this account is now largely inactive and most of her social interaction online is via email or Facebook.

Seosaimhin is 26. Seosaimhin is originally from Ireland. She is an FE teacher and over the summer she splits her time between charity work in Africa and coaching football to young people in a summer school. She regularly plays Gaelic football herself for a local women's team. Seosaimhin is single and lives in a shared house with two other young professionals. Seosaimhin primarily uses Facebook, accessing it from her desktop at home. She has a mobile but prefers to use the computer. Her Facebook routine is organised around her working hours. In the past Seosaimhin was active on Bebo, the account is still accessible, but is largely inactive now she has moved over to Facebook.

Peter is 42. Peter is a primary school teacher by trade. Peter has a long term partner who he currently lives with. Peter is an active Facebook user which he accessing using desktop and mobile computing devices. Peter considers himself to have a high degree of computer literacy and regularly uses Facebook.

Hannah is 21. Hannah left school after her G.C.S.E.s and currently volunteers at a local charity shop. Hannah has been using the Internet to socialise since she was in her early teens, she describes spending most of her teenage years using chartrooms and messenger services to meet people online. She currently spends most of her time on Facebook, although she still visits interest-based chatrooms. Hannah deleted the Facebook account she was using at the time and has set up a new, limited profile on the site.

Kendon is 27. Kendon is an Afro-Caribbean male. Kendon is a recently qualified male nurse and father of three. He is a devoted Arsenal football fan, and a self-described Twitter addict. Kendon has an account with Facebook and Twitter and accessing the sites using a combination of his home desk/laptop and his Blackberry phone. He is also an active user of the Blackberrry Messenger Service.

Daniel is 33. Dillon is a media technology student by day and a local DJ by night. Daniel is currently single with no children. He is passionate about music and his hobbies include keeping fit and regularly going to the gym. Daniel has recently set up his own business. Daniel uses social media for promotional and personal reasons. He has personal accounts on Facebook, MySpace and Twitter and pages for his business. His personal accounts are also used to promote his music related activities, local gigs. He uses a range of other social media applications with SNS features such as SoundCloud and Instagram.

Sally is 45. Sally is a marketing manager for a local news-based company. She is in charge of managing aspects of digital communications in her work. Sally mainly uses Twitter, Facebook and LinkedIn. She has personal profiles and profiles for the business on Facebook and Twitter.

Ben is 31. Ben is a games tester. He produces his own dance music semi-professionally under a pseudonym. His hobbies include socialising, watching football and listening to music and producing

music/videos. Ben uses digital technologies and Internet on a regular basis, he spends time in work, testing out new games, he produces his own music using digital technologies and he uses social media to promote his work and for personal reasons. He actively uses Facebook, Twitter and SoundCloud and still has a semi-active MySpace account.

Richard is 49. Richard is an industry 'tech man' and self-described Internet hobbyists. He is an active blogger on Tumbler, operating under multiple account names, and uses Facebook and Twitter, as well as a range of other sites. He has basic programming skills and he has a long history of internet use for social purposes, dating back into the 1990's.

Laurie is 25. Laurie is a young female recruitment officer, she has recently returned to work after being made redundant. She is recently engaged and he and her partner are currently moving into the first home together. Laurie has a Facebook and a Twitter account and now uses both sites actively. She uses her laptop and her mobile phone to access the sites. Laurie has been using SNSs for over five years. She previously had accounts with MySpace, Facepic and HighFive.

Jai is 28. Jai currently works for the NHS. He is a Liverpool fan and his hobbies include watching films, going the gym and playing football. Jai is currently using Twitter, he has an active Facebook account but is more interested in, and spends more of his time, using Twitter. His Twitter account has a strong football focus, using the site to link to commentary about football and follow footballers.

Sky is 35. Sky is mature student in her first year at University. She is training to be a social worker. Sky has been in various jobs over the last four years, from working in a local pub to long distance teaching assistant. Sky likes to socialise. She is an active Facebook user and regularly uses the site to play games. Sky had a MySpace account long before registering with Facebook, but now prefers to use Facebook, although her MySpace account is still registered and semi- active. Sky only accesses the site from home; her mobile provides limited Internet access.

Michael is 30. Michael has a long term girlfriend and works in an office. Michael only uses Facebook, it is his first and only experience of a SNSs. He uses a desktop and mobile phone interchangeably to access the site. Michael describes himself and family and friends orientated. Michael uses Facebook occasionally; he does not consider himself an active user. He is looking to settle down with his girlfriend.

Lola is 27. Lola has spent the last four years living in on an Island off the coast of Malaysia. She originally went travelling with a friend and decided to stay. She is now a trained diving instructor. She describes herself as non-materialistic and outdoorsy. Her interests include marine life and her hobbies include rock-climbing. Lola mainly uses Facebook, in the past she has used internet chat rooms,

messenger services and MySpace. She is also an active user of Skype to enable her to freely chat to family back home. Lola was on a visit back to the UK during the data collection stage of the research.

Evan is 33. Evan lives in Liverpool and he has one (semi-active) SNS account. He does not have Internet in the home - he accesses the Internet via his mobile phone. Evan has a limited 'digital identity' online. He dislikes putting personal information online which makes him 'trackable'. Evan lives alone. He has a long-term part-time job. His hobbies include watching football and films.

Pilot interviewees; not included in the full study.

Dillan: Male early thirties, technical engineer.
Bryanni: Female mid-twenties, PhD student.
Elizabeth: Female in her early thirties, receptionist.
Craig: Male, just turned 60, Educational Practitioner.

Appendix 5: Publications, Selected Papers and Invited Talks

Jones, R (2012). Design Matter(s) in Social Media Practice. Invited Talk. CCSE Research Seminar Series, Liverpool John Moores University, UK

Jones, R (2012). The Invisible Node in the Network. Paper presented at the annual Association of Internet Researcher Conference, Salford, UK.

Jones, R (2012). Technology as Text: Analysing Social Media @ the Interface. Paper presented at The Digital Culture Conference, June 2012, Media City, Salford, UK.

Jones, R (2012). Investigating SNSs at the Interface. Paper presented at Researching SNSs, Manchester Digital Media Network. Manchester University.

Jones, R (2012). Book review: 'Tales from Facebook' by Daniel Miller. *Cultural Sociology*, SAGE 6 (1) http://cus.sagepub.com/content/current

Jones, R & Light, B (2011). Re-Evaluating the Role of Technology in SNSs. Paper Presented at MeCCSA. Salford.

Crawford, G, Krepps, D, Jones, R, Light, B *et al.* (2010) *Digital and Media Technologies: A review of Infrastructure Needs of Leading Edge Research in the United Kingdom.* Available at: http://usir.salford.ac.uk/29147/1/AHRC_Report.pdf

Jones, R (2009). Using SNSs to Foster Informal Learning and Intercultural Awareness. Queen Mary University. Commissioned Literature Review. Available at: http://www.esd.qmul.ac.uk/sande/projSNS/index.html

Jones, R (2009). Interviewing at the Interface. Notes on Method. Exploring Online Research Methods. Available at: http://www.geog.le.ac.uk/ORM/futures/futuresblogs2.htm

Appendix 6: Glossary of Terms

(Sourced from Stone et al. (2005) and Facebook and Twitter, unless otherwise stated).

The @ Sign: Used to call out usernames in Tweets. When a username is preceded by the '@' sign it becomes a link to a Twitter profile.

Algorithm: A computational process that transforms input data into output data.

API: An Application Programming Interface.

Application (Third-Party): A third-party application is a software product created by a company other than the specified site.

Browsing: Non- specific web surfing.

Control: The use of discrete interactive options to control conditions in an account.

Design principles: High generic information for designing user-interfaces, design principles include: consistency, feedback, visibility, simplicity, structure.

Dialogue box: A secondary window displayed by an application. They are used when additional information is required from users.

Direct Message: Private message between the sender and recipient(s).

Feedback: Information sent back to the user to confirm what action has been done or what result has been accomplished.

Feature: A distinctive element of a site**.**

Friending: The act of creating a two-way connection on Facebook.

Following: The act of creating a one way connection on Twitter (Follower A follower is another Twitter user who has followed you).

Frames: Are a structuring device used to partition up a user-interface - they are used to group together related information and controls.

Hashtag (#): The # symbol is used to mark keywords or topics in a Tweet. It was created organically by Twitter users.

Link: A pathway to another webpage or a pathway within the user-interface. There are different types of links (1), associative links takes a browser to a different part on the same page (2), a structural navigation link, takes a browser to another page within a site. There are also discrete links take a user to another area which then becomes their focus.

Like: A pre-programmed signal in Facebook that provides 'positive' feedback to content and establishes a networked connection.

Menu: A screen or widget with options. A Menu selection is when a user has to choose from a section of pre-specified options on a screen.

Metaphor: The metaphorical use of words on a screen using images, icons and graphics, they are used to draw on users existing cultural knowledge.

Navigation Aid/Bar: A Navigation Aid is a section of the site which provides the user with an overview of the structure of the site and enables them to move around the site. A Navigation Bar: an area of the webpage that contains structural navigation links.

Profile: A network facing account page displaying information about a user.

Screenshot: An image captured on your computer or phone displaying your screen's output.

Search (as integrated in sites): A box on your homepage that allows you to search the site.

Social media: A loose descriptor for sites that enable networked connectivity between users and that provide features for social interaction and content sharing.

Social Media/ted Practice: Used in reference to forms of social practice mediated via social media technologies. The term is intended to foreground the mediating role of the technology.

Social Network Site: Social Software services that enable digitally networked mediated interaction and support the production, distribution and consumption of user generated content (UGC).

Social Plugin: Tools that other websites use to provide people with 'personalised' user experiences. When users interact with social plugins they send networked signals across the network.

Timeline: A new profile page on Facebook and a real-time list of Tweets on Twitter, sometimes called the Twitterfeed.

Tweet/Re-Tweet: The act of posting a message, often called a 'Tweet', on Twitter. Tweet by another user, forwarded to you by someone you follow. Often used to spread news or share valuable findings on Twitter.

User: Anyone who uses a computer system. Here the term user is reserved for the everyday users who interact with the technology at the user-interface.

User-generated Content (UGC): Used here in reference to content that was created by users of social media that is publically available to others. It ranges from social signals to the creation of images and videos.

User-interface (UI): The part of the system in which the user interacts with. A Graphical User Interface (GUI) is when the majority of information is represented in a graphical form, social media sites use GUIs.

Versatility: A design feature that encourages the user to interact in novel and creative ways.

Visibility: A design principle: The properties that make it obvious to users that the object is there and what it is used for.

Widget: An interface component – for example a check box, a command button.

Web 2.0: A second stage of Web development (O'Reilly 2005), a set of socio-technical arrangements; clusters of technologies, devices, applications and people which generate networked social spaces and information flows on the Internet (Castells 2009: 65).

References

Acquisti, A. Gross, R. (2006). Imagined Communities: Awareness, Information Sharing, and Privacy on the Facebook**.** In Golle, P. and Danezis, G. (eds.), *Proceedings of 6th Workshop on Privacy Enhancing Technologie*s. (pp. 36 -58).Cambridge, U.K. Robinson College. June 28-30

Adorno, T,. Horkheimer, M. (1944). *The Culture Industry: Enlightenment as Mass Deception*. [Online] Available at: http://www.marxists.org.[Accessed 10.4.2011].

Akrich, M,. Latour, B. (1992). A Summary of convenient vocabulary for the semiotics of human and non-human assemblies. In *Shaping technology: Building society*: *Studies in Sociotechnical change*. Bijker W.E,. Law, J. Cambridge MA, MIT Press.

Albrechtslund, A. (2008). Online Social Networking as Participatory Surveillance. *First Monday*, Vol 13 (3).

Amin, A,. Thrift, N. (2002). *Cities: Reimagining the Urban.* Polity Press, Cambridge, Massachusetts.

Anderson, B,. Tracy, K. (2001). Digital Living: The Impact (or Otherwise) of the Internet on Everyday Life. *American Behavioral Scientitst*, Vol. 45 (3).

Andrejevic, M. (2005). The Work of Watching One Another: Lateral surveillance, Risk and Governance. *Surveillance & Society,* 2 (4) pp. 479-497.

AoIR (2012). *Ethical Decision-Making and Internet Research Recommendations from the AoIR Ethics Working Committee* (Version 2.0- earlier version 2002). [Online] Available at: http://www.aoir.org/reports/ethics2.pdf [Accessed 1/2013]

Aoki, P, M., Woodruff, A (2005) "Making Space for Stories: Ambiguity in the Design of Personal Communication Systems." *Proc. ACM SIGCHI Conf. on Human Factors in Computing Systems (CHI 2005)*, Portland, OR, Apr. 2005, 181-190.

Arthur, B. (2009). *The Nature of Technology: What It Is and How It Evolves*. Penguin. London

Athique, A. (2013). *Digital Media and Society: An Introduction.* Polity Press. Cambridge.

Bailyn, E. (2012). *Outsmarting Social Media, Profiting in the Age of Friendship Marketing*. Indiana. Que Publishing.

Bakardjierva, M. (2005). *Internet society: The Internet and Everyday Life*. SAGE. London

Bakardjieva, M. (2006). Domestication running wild. From the moral economy of the household to the mores of a culture. In: Berker T, Hartmann M, Punie Y and Ward K (eds) *Domestication of Media and Technology*. Maidenhead: Open University Press, 62–79.

Bakardjieva, M, Smith R, (2001). The Internet in Everyday Life: Computer Networking from the Standpoint of the Domestic User. *New Media and Society* **,** Vol. 3 (1): 67-83

Bakardjieva, M, Feenberg, A, Goldie, J. (2004). User Centred Research: The Ethical Challenge. In Buchanan, E.A. *Readings in Virtual Ethics: Issues and Controversies p338-35.* Hershey PA, Philadelphia, IGI Global.

Barney, D. (2004). *The Network Society*. London. Polity Press.

Barnes, S. (2006). A Privacy Paradox: Social networking in the United States. *First Monday*, 11 (9).

Baudrillard, J. (1981) *For a Critique of the Political Economy of the Sign*. Telos Press Publishing.

Beer, D. (2008). Social network(ing) sites...revisiting the story so far: A response to danah boyd & Nicole Ellison. *Journal of Computer-Mediated Communication*. Vol 13 (2) pp. 516-529.

Bell, D. (1973). *The Coming of a Post-industrial Society*. Basic Books. New York

Benton, T,. Craib, I,. (2001). *Philosophy of Social Science: The philosophical Foundations of Social Thought.* Palgrave Macmillon

Berg, M. (2012). Social Intermediaries and the Location of Agency: A Conceptual Reconfiguration of Social Network Sites *Contemporary Social Science*. [Online]. Available at: http://www.tandfonline.com/doi/abs/10.1080/21582041.2012.683446

Berker, T., Hartmann, M., Punie, Y, Ward K,. (2006). *Domestication of Media and Technology.* Maidenhead. Open University Press.

Bernstien, M,. Bakshy, E,. Burke M,.Karrer, B (2013) Quantifying the Invisible Audience in Social Networks. CHI 2013, April 27–May 2, 2013, Paris, France. [Online]. Available at: http://hci.stanford.edu/publications/2013/invisibleaudience/invisibleaudience.pdf [Accessed 22.2 2013)

Berry, D. Pawlik, J. (2005) What is code? A conversation with Deleuze, Guattari and code**.** *Kritiskos,* Vol 2. [Online]Available at: http://intertheory.org/berry.htm [Accessed 10.2012]

Bigge, R. (2006). The Cost of Anti-Social Networks: Identity, Agency and Neo-Luddites. *First Monday.* Vol 11(12) [Online] Available at: http://firstmonday.org/article/view/1421/1339. [Accessed 2.2011]

Bijker, E., Law J, (eds) (1992). *Shaping Technology / Building Society. Studies in Sociotechnical Change*. Cambridge, MA: MIT Press.

Blank, G., Dutton, W.H. (2011) republished in (2013) Next Generation Internet Users: Digital divides, choices, and inequalities. In M. Graham and W.H. Dutton (eds) *Society and the Internet: How information and social networks are changing our lives.* Oxford: Oxford University Press.

Boczkowski, P,. Lievrouw, L. (2008). Bridging the Gap between STS and Communication Studies in Hacket, J, E,.Amsterdamska, O,. Lynch, M,. Wacjman, J,. (2008) *Handbook of Science and Technology Studies*, MIT Press. Cambridge, Massachusetts.

Bodle, R. (2010). Social Networks as International Platforms. *Journal of International Communication.* Vol. 16 (2)

Bodle, R.(2011). Regimes of Sharing Information. *Communication & Society*, Vol 14 (3) pp. 320-337

Bolter, J., Grusin, R. (2000). *Remediation.* Cambridge. MIT Press.

Bourdieu, P. (1977). *Outline of a Theory of Practice Cambridge*. Cambridge University Press. (trans. R. Nice).

boyd, D. (2004). Friendster and Publicly Articulated Social Networts**.** *Proceedings of ACM Conference on Human Factors in Computing Systems (CHI 2004)*. (pp. 1279 - 1282). ACM Press. Vienna, April 24-29

boyd, D, Jeffrey, H. (2006). Profiles as Conversation: Networked Identity Performance on Friendster. *Proceedings of Thirty-Ninth Hawai'i International Conference on System Sciences (HICSS-39), Persistent Conversation Track***.** Los Alamitos, CA: IEEE Press. Kauai, HI, January 4 - 7.

boyd, D (2007). Social Network Sites: Public, Private, or What? *Knowledge Tree 13, May* [Online] Available at: http://kt.flexiblelearning.net. [Accessed 7.2010]

boyd, D. (2008). None of this is Real. In Karaganis, J. (eds.), *Structures of Participation*. New York.

boyd, D. (2011). Social Network Sites as Networked Publics: Affordances, Dynamics, and Implications.' In Papacharissi, Z (eds.) (2011). *A Networked Self: Identity, Community, and Culture on Social Network Sites*. New York. Routledge. pp. 39-58.

boyd, D, Ellison, N (2007). SNSs: Definition, History, and Scholarship**.** *Journal of Computer Mediated Communication*. Vol. 13 (1). Special Issue of JCMC on SNSs, (eds) boyd, D,. Ellison, N.

boyd, D, Hargittai, E. (2010). Facebook Privacy Settings: Who Cares? *First Monday*. Vol. 15 (8).

boyd, D., Scott G., Gilad L. (2010). "Tweet, Tweet, Retweet: Conversational Aspects of Retweeting on Twitter." HICSS-43. IEEE: Kauai, HI, January 6. [Online] Available at: http://www.danah.org/papers/TweetTweetRetweet. [Accessed 2. 2012]

Brown, S, J., Drugid, P. (1994). Borderline Issues: Social and Material Aspects of Design. *Human Computer Interaction*. Vol 9 (3-36)

Brown, S, J,. Drugid, P (1996). Keeping It Simple. In Winograd, T (eds.) (1996) *Bringing Design to Software*. ACM Press. New York

Bruns, A. (2008). *Blogs, Wikipedia, Second Life and Beyond: From Production to Produsage*. Peter Lang, New York.

Bucher, T. (2013). The Friendship Assemblage: Investigating programmed sociality on Facebook. *Television & New Media*. Published online before print, August 24, 2012.

Bucher, T. (2012). Want to be on the top? Algorithmic power and the threat of invisibility on Facebook. *New Media and Society*. Vol. 14 (7).

Castells, M. (1996, 2nd edition, 2000). The Rise of the Network Society, *The Information Age: Economy, Society and Culture Vol. I*. Cambridge, MA; Oxford, UK: Blackwell.

Castells, M. (1997, 2nd edition, 2004). *The Power of Identity, The Information Age: Economy, Society and Culture Vol. II*. Cambridge, MA; Oxford, UK: Blackwell.

Castells, M .(1998, 2nd edition 2000). *End of Millennium, The Information Age: Economy, Society and Culture Vol. III*. Cambridge, MA; Oxford, UK: Blackwell.

Castells, M. (2001). *The Internet Galaxy: Reflections on the Internet, Business and Society*. Oxford. Oxford University Press.

Cohen, N (2008). The Valorization of Surveillance: Towards a Political Economy of Facebook. *Democratic Communique* Vol 22 (1).

Coté, M,. Pybus J. (2007). Learning to Immaterial Labour 2.0: MySpace and social networks. *Ephemera* 7 (1) pp. 88-106.

Couldry, N. (2003). Actor Network Theory and Media: do they connect and on what terms in Hepp *et al*. (2004) *Cultures of Connectivity*. [Online] Available at: http://www.andredeak.com. [Accessed 4.2010]

Couldry, N. (2004). Liveness, 'Reality,' and the Mediated Habitus from Television to the Mobile Phone. *The Communication Review.* Vol 7 (4)

Couldry, N. (2012). *Media, Society World: Social Theory and Digital Media Practice*. Cambridge. Polity Press.

Coyier, C. (2012). Quotes on Design. Available at: http://quotesondesign.com/archives/ [Accessed 8.2011]

Crampton Smith, G,. Tabor, P, (1996). The Role of the Artist Designer. In Winograd, T (eds) (1996) *Bringing Design to Software*. ACM Press. New York

Crawford, K. (2013) *Untangling algorithmic illusions from reality in big data*. O'Reilly Radar. Available at http://radar.oreilly.com/2013/03/untangling-algorithmic-illusions-from-reality-in-big-data.html. [Accessed 3.2012]

Cruz, J., Lewis, J. (1994): *Viewing, Reading, Listening: Audiences and Cultural Reception.* Boulder, CO: Westview

Curran, J,. Seaton, J. (1991). *Power Without Responsibility.* New York. Routledge.

Dant, T. (2005). *Materiality and Society*. Maidenhead. Open University Press.

Dant, T. (2007). The Pragmatics of Materiality *Journal of Consumer Culture*, Vol. 8(1) pp. 11-33.

De Certeau, M. (1984). *The Practice of Everyday life* (S. Rendell, Trans.). Berkeley: University of California Press.

Debatin, B,. Lovejoy, J P., Horn, A, Hughes, B (2009). Facebook and Online Privacy: Attitudes, Behaviors, and Unintended Consequences. *Journal of Computer-Mediated Communication*. Vol. 15 (1) pp. 83 - 108.

Dealanty, G,. Strydom, P (2003). *Philosophies of the Social Sciences: The classic and Contemporary Readings*. Open University Press. Maindenhead.

DiMaggio, P., Hargittai, E. (2001). *From the 'Digital Divide' to 'Digital Inequality': Studying Internet Use as Penetration Increases*. Centre for the Arts and Cultural Policy Studies. Working Paper, Series 5. [Online] Available at:*Webuse.org*: http://www.princeton.edu/~artspol/workpap/WP15%20-%20DiMaggio%2BHargittai.pdf.

Donath, J,. boyd, D. (2004). Public Displays of Connection. *BT Technology Journal*. Vol. 22 (4), 71-82.

Douglas, M,. Isherwood, B. (1979). *The World of Goods*. New York. Basic Books

Drucker, J. (2011). Humanities Approaches to Interfaces. Culture Machine. Vol 12. [Online] Available at: www.culturemachine.net [Accessed 5.2011]

Dwyer, C., Hiltz, R., Passerini, K. (2007). Trust and Privacy Concern Within Social Networking Sites: A Comparison of Facebook and MySpace**.** *Proceedings of AMCIS 2007*.

Dwyer, T. (2010). *Media Convergence*. England. Open University Press.

Ellison, N, B., Steinfield, C., Lampe, C. (2006). The Benefits of Facebook 'Friends:' Social Capital and College Students' Use of Online SNSs. *Journal of Computer-Mediated Communication.* Vol. 12 (3). Article 1.

Ellison, N.B., Steinfield, C., Lampe, C. (2011). Connection Strategies: Social capital implications of Facebook-enabled communication practices. *New Media & Society*.

Ellison, N, Lampe, C, and Steinfield, C. (2009). SNSs and Society: Current Trends and Future Possibilities. *Interactions Magazine,* 16 (1).

Ess, C. (2009). *Digital Media Ethics*. Cambridge. Polity Press.

Facebook [Online]. Available at https://www.facebook.com

Fairclough, N. (1992) *Discourse and Social Change*. Cambridge: Polity Press

Farman, J. (2012). *Mobile Interface Theory*. London. Routledge.

Featherstone, M. (2000). Archiving Cultures. *British Journal of Sociology* Vol. 51(1) pp.161–184

Feenberg, A. (1991). *Critical Theory of Technology*. New York. Oxford University Press

Feenberg, A,. Friesen, N (2012). *Re-inventing the Internet: Critical Case Studies*. Rotterdam. Sense Publishers.

Felt, A, Evans, D. (2008). Privacy Protection for Social Networking APIs. W2SP '08.

Flick, U,. Kardoff, E., Steinkem, I. (2004). *A Companion to Qualitative Research*. London. SAGE.

Flew, T. (2005). *New Media*: An Introduction. Oxford. Oxford University Press.

Fiske, J. (1987). *Understanding Popular Culture*. London. Routledge.

Fiske, J. (1989). *Reading the Popular.* London. Routledge.

Frieson, N,. Lowe, S. (2011). The questionable promise of social media for education: connective learning and the commercial imperative. *Journal of Computer Assisted Learning*. Vol 23 (3).

Fox, S. (2000) Trust and Privacy Online. *Pew Internet American Life Project.* Available at: http://www.pewinternet.org/

FTC (2012) Protecting Consumer Privacy in an Era of Rapid Change. Recommendations for Businesses and Policy Makers [Online] Available at http://www.ftc.gov/os/2012/03/120326privacyreport.pdf [Accessed 12.12]

Fuchs, C. (2009). *Social Networking Sites and the Surveillance Society*. [Online] Available at: http://www.icts.sbg.ac.at/media/pdf/pdf1683.pdf [Accessed 4.2011]

Fuchs, C. (2011). An alternative view of privacy on Facebook**.** *Information*, 2 (1) pp.140-165. Special issue on "Trust and privacy in our networked world". MDPI Open access Publishing.

Fuchs, C. (2012). Towards Marxian Internet Studies. *TripleC* 10 (2) pp. 392-412

Fuller, M. (2003). *Behind the Blip: Essays on the Culture of Software*, Autonomedia.

Foucault, M. (1977). *Discipline and Punish.* New York. Pantheon Books.

Foucault M (1976). *The History of Sexuality: An Introduction*. (New York: Vintage Books, 1990) Michel Foucault (trans. Robert Hurley)

Galloway, A. R. (2004). *Protocol: How Control Exists After Decentralization*. MIT Press.

Galloway, A. R (2012). *The Interface Effect*. Cambridge. Polity.

Gane, N,. Beer, D. (2008). *New Media*. New York. Berg.

Gardiner, M. (2002). *Critiques of Everyday Life*. Routledge. London

Gehl, R (2011). The Archive and the Processor. The Internal Logic of Web 2.0. *New Media and Society.* SAGE. Vol 13 (8)

Gibson, W. (2005, July 2005). God's Little Toys. *Wired, 13*.

Gibson, J. (1977). The Theory of Affordances. *In, Perceiving, Acting, and Knowing*, *Towards and Ecological Psychology* (eds). Shaw, R and Bransford, J.Hillsdale: NJ, Lawrence Erlbaum Associates.

Gibson, J. (1979). *The Ecological Approach to Visual Perception.* Boston. Houghton Millflin.

Giddens, A. (1993). Information, Reflexivity and Surveillance in Webster (1993). *Theories of the Information Society*. Routledge. New York.

Giddens, A. (1979). *Central problems in Social Theory: Action, Structure and Contradiction in Social Analysis.* London : Macmillan.

Gillespie, T. (2010). The Politics of Platforms. *New Media & Society*, Vol. 12 (3) 2010.

Gillespie, T. (2012). The Relevance of Algorithms. *Media Technologies*, ed. Tarleton Gillespie, Pablo Boczkowski, and Kirsten Foot. Cambridge, MA: MIT Press.

Glaser, B,. Stauss, A. (1967). *The Discovery of Grounded Theory: Strategies for Qualitative Research, Chicago*, Aldine Publishing Company.

Goffman, E. (1959). *Presentation of Self in Everyday Life*, Anchor Books.

Green, E. (2001). Technology, Leisure and Everyday Practices. In Green , E,. Adams, A (eds) *Virtual Gender, Technology, Consumption and Identity.* London. Routledge.

Grint, K,. Woolgar, S. (1997). *The Machine at Work*. Cambridge. Polity Press

Grimmelmann, J. (2009). *Facebook and the Social Dynamics of Privacy*. [Online] Available at: http://works.bepress.com/james_grimmelmann/20/. [Accessed 2.2012].

Gruzd, A., Wellman, B., and Takhteyev, Y. (2011). Imagining Twitter as an Imagined Community**.** *American Behavioral Scientist*. Vol. 55 (10), 1294-1318.

Hall, S. (1980). Encoding/Decoding in S. Hall, D Hobson, Lowe A and Willis P. Culture, *Media, Language, Working Papers in Cultural Studies* 1972-1979

Hall, S. (1997). *Representation: Cultural Representation and Signifying Practices*. London. SAGE.

Haddon, L. (1992). Explaining IT Consumption: the case of the home Computer in (eds) Silverstone, R and Hirsch, E. *'Consuming Technologies: Media and Consumption in Domestic Spaces'.* London. Routledge. pp. 82-97.

Haddon, L. (2007). The Contribution of Domestication Research to In-Home Computing and Media Consumption. The *Information Society: An International Journal*. Vol. 22:4, 195-203

Halavais, A. (2009). *Search Engine Society, Digital Media and Society Series*. Cambridge. Polity Press.

Hall, S. (1997). *Cultural Representations and Signifying Practices*. London. SAGE.

Hargittai, E. (2002). Second-level digital divide: Differences in people's online skills. *First Monday, 7*(4) [Online] Available at: http://firstmonday.org/htbin/cgiwrap/bin/ojs/index.php/fm/article/view/942/864

Hargittai, E. (2010). Digital Na(t)ives? Variation in Internet Skills and Uses among Members of the 'Net Generation'. *Sociological Inquiry*. 80(1):92-113.

Hargittai, E., Fullerton, F, Menchen-Trevino E & Thomas, K (2010). Trust Online: Young Adults' Evaluation of Web Content. *International Journal of Communication*. Vol. 4:468-494.

Hargittai, E. & Litt, E. (2012). Becoming a Tweep: How Prior online Experiences Influence Twitter Use. *Information, Communication and Society.* Vol. 15(5):680-702.

Hargittai, E. & Hsieh, Y.P. (2010). From Dabblers to Omnivores: A Typology of Social Network Site Usage. In Papacharissi, Z. (eds.) (2011). *A Networked Self: Identity, Community, and Culture on Social Network Sites.* New York. Routledge.

Hartmann, M. (2006). The triple articulation of ICTs. media as technological objects, symbolic environments and individual texts. In T. Berker, M. Hartmann, Y. Punie & K. J. Ward (eds.), *The domestication of media and technology* (pp. 80-102). Maidenhead: Open University Press.

Hayles, K. (2004). *Print is Flat, Code is Deep Poetics Today* 25.1 (2004) pp. 67-90

Heer, J,. boyd D. (2005). Vizster: Visualizing Online Social Networks. *IEEE Proceedings of Symposium on Information Visualization (InfoVis 2005)* (pp. 33-40). Minneapolis, MN: IEEE Press. Minneapolis, Minnesota, October 23-25.

Hermida, A. (2010). From TV to Twitter: How Ambient News Became Ambient Journalism. *M/C Journal*. Vol. 13 (2), NA.

Hesmondhalgh, D. (2002). *The Cultural Industries.* London. SAGE.

Hine, C. (2005). *Virtual Methods: Issues in Social Research on the Internet*. Oxford. Berg.

Hitwise (Experian Hitwsie) (2011) Resources. [Online] Available at: http://www.hitwise.com/uk/resources/ [Accessed 12.2011]

Hodgson, V., Watland, P. (2004). The Learner's Experience of a Networked Learning Knowledge Community Design. Presented at *Networked Learning Conference* [Online] Available at: > http://www.networkedlearningconference.org.uk. [Accessed 12.9.2011]

Hogan, B. (2012). Pseudonyms and the Rise of the Real-Name Web. In J. Hartley, J. Burgess, & A. Bruns (eds.), A *Companion to New Media Dynamics* (pp. 290–308). Chichester, UK: Blackwell Publishing Ltd.

Honeycutt, C., Herring, Susan C. (2009). Beyond microblogging: Conversation and collaboration via Twitter. *Proceedings of the Forty-Second Hawaii International Conference on System Sciences*.Los Alamitos, CA IEEE Press.

Howard, P. E. N., Rainie, L., & Jones, S. (2002). Days and nights on the Internet: The impact of a diffusing technology. In Wellman, B,. Haythornthwaite, C. (eds.) *Internet in everyday life*. Oxford: Blackwell, (pp. 45-73).

Hugo, P,. Davenport. (2006). Unravelling the taste fabric of social networks. *International Journal on Semantic Web and Information Systems,* 2 (1), 42 - 71. Hershey, PA: Idea Academic Publishers.

Hutchby, I. (2001). Technologies, Texts, and Affordances. *Sociology*. Vol. 35 (2), 441-456.

Ito, M. (2008). Introduction. In K. Vernelis (eds.) *Networked Publics* (pp. 1-14). Cambridge, MA: MIT Press.

Jameson, F. (1991). *Postmodernism, Or, the Cultural Logic of Late Capitalism*. Duke University Press.

Jarret, K. (2008). Interactivity is Evil. A critical Investigation of Web 2.0. *First Monday*. Vol 13 (3).

Jenkins, H (1992). *Textual Poaches. Fans and Participatory Culture.* London. Routledge

Jenkins, H. (2009). *Confronting the Challenges of Participatory Culture, Media Education for the 21st century*. Cambridge. MIT Press.

Jenkins , H. (2006). *Convergence Culture, Where old and New Media Collide*. New York. University Press.

Jenkins, R. (2008). *Social Identity*. Taylor and Francis Group. Routledge.

John, N, A (2012) [republished 2013]. Sharing and Web 2.0: The Emergence of a keyword. *New Media and Society.* SAGE. Vol. 15 (2)

Kallinikos, J. (2002). Re-opening the Black-box of Technology Artifacts and Human Agency. *Twenty- Third International Conference on Information Systems*. [Online] Available at: http://eprints.lse.ac.uk/190/1/Kallinikos-ICIS.pdf. [Accessed 6.2012]

Kaptelinin, V,. Nardi , B, A. (2006) *Acting with Technology*. Cambridge. MIT Press.

King, J,. Lampinen, A,.Smolen, A. (2011). Privacy: Is There An App For That? *Proceedings of the Symposium on Usable Privacy and Security, July 2011. Pittsburgh, PA.*. ACM. A survey of Facebook app users via Facebook Platform.

Kirkpatrick, D. (2010). *The Facebook Effect*. Virgin Books.

Kirkpatrick, M. (2010). 'Facebook's Zuckerberg says privacy is over'. *ReadWrite.* [Online]. Available at: www.readwriteWeb.com. [Accessed 8.2010]

Kollock, P., Smith, M. (1999) *Communities and Cyberspace*. New York. Routledge

Kuhn, T. (1970). *The Structure of Scientific Revolutions.* Chicago. University of Chicago Press.

Kvale, S. (1996). Interviews: *An Introduction to Qualitative Research Interviewing*. London. SAGE.

Larsen, M.C. (2007). '*Understanding Social Networking: On Young People's Construction and Co construction of Identity Online'*. Paper Presented at The Society for Social Studies of Science (4S) Annual Conference Montreal, Canada.

Lampe, C,. Ellison, N, Steinfield, C (2006). A Face(book) in the Crowd: Social Searching vs. Social Browsing. *CSCW'06*, November 4–8, 2006, Banff, Alberta, Canada. [Online] Available at: https://www.msu.edu/~nellison/lampe_et_al_2006.pdf [Accessed 9.2009]

Langford, D. (2000). *Internet Ethics*. London. MacMillan Press Ltd.

Langlios, G. (2011). Meanings, Semiotechnologies and Participatory Media. *Culture Machine.* Vol 12. [Online] Available at: > www.culturemachine.net. [Accessed 5.2012]

Langlois ,G., Elmer, G,. McKelvey, F,. Deveroux, Z. (2009). Networked Publics, The Double Articulation of Code and Politics on Facebook. *Canadian Journal of Communication*, Vol 34 pp. 415-434

Latour, B. (1991). 'Technology is Society Made Durable' in J. Law (eds) A *Sociology of Monsters: Essays on Power, Technology and Domination*. London: Routledge pp. 103-131.

Latour, B. (1993) *We Have Never Been Modern*. London: Prentice Hall.

Lazzarato, M. (2001) 'Towards an Inquiry into Immaterial Labour', *Makeworlds #1*. Available at: http://makeworlds.org/node/141 [Accessed 3.2012]

Lefebvre, H. (1991). *Critique of Everyday Life.* Verso.

Lessig, L. (2006). *Code Version 2.O.* New York. Basic.

Levey, P. (1997). *Collective Intelligence: Mankinds Emerging World In CyberSpace* (trans. R Bononno). Cambridge, MA, Pereusus Books.

Lievrouw, L,. Livingstone, S. (2006). *Handbook of New Media: Social Shaping and Social Consequences* (Updated student edition). London: SAGE.

Light, B., McGrath, K. (2010). 'Ethics and Social Networking Sites: a Disclosure Analysis of Facebook.' *Information Technology and People* 23(4). pp. 290-311.

Ling, R,. Donnar, J. (2009) *Mobile Phones and Mobile Communication*: *Digital Media Society Series.* Cambridge. Polity Press.

Livingstone, S. (2007). On the material and the symbolic: Silverstone's double articulation of research traditions in new media studies. *New media and society*, Vol. 9 (1). pp. 16-24.

Lister, M, Dovey, J. Giddings. G. Kelly. K. (2005). *New Media A Critical Introduction*. New York. Routledge.

Liu, H (2007). Social Network Profiles as Taste Performances. *Journal of Computer Mediated Communication.* Vol. 13 (1). Special Issue of JCMC on SNSs (eds) boyd, D., Ellison N.

Lockyard, J. (1997) Progressive Politics, electronic individualism and the myth of the virtual community. In Porter, D (eds) *Internet Culture* (219-323) New York. Routledge.

Lopez, M. (2012).*Unfriend, Unfollow, Unsubscribe: Unsociability on Social Network Sites*. M.Sc Thesis. University of Tampare. Available at: http://tutkielmat.uta.fi/pdf/gradu06020.pdf. [Accessed 2.2013]

Lombard, M,. Ditton, T. (1997). At the Heart of it All: The Concept of Presence. *Journal of Computer Mediated Communication.* Vol 3 (2). [Online] Available at: http://jcmc.indiana.edu/vol3/issue2/lombard.html [Accessed 9.2011]

Lovink, G .(2011). *Networks Without a Cause*: A Critique of Social Media. Cambridge, Polity Press.

Luders, M. (2010). Emerging Personal Media Genres. *New Media and Society.* SAGE. Vol 12 (6)

Lunt, P, Livingstone, S. (2012). *Media Regulation: Governance and the Interests of Citizens and Consumers.* London. SAGE.

Lyon, D. (1996). *The Electronic Eye*. Cambridge. Polity Press.

Lyon, D. (2001.) *Surveillance Society*: Monitoring Everyday Life, Buckingham: Open University Press.

MacKay, H,. Gillespie, G. (1992) Extending the Social Shaping of Technology Approach: Ideology and Appropriation. *Social Studies of Science*, Vol. 22 (4) pp. 685-716

MacKinnon, R (2012) *Consent of the Networked: The Worldwide Struggle for Internet Freedom.* New York. Basic Books.

MacKenzie, D,.Wacjman , J. (1999) *The Social Shaping of Technology*. Philadelphia. Open University Press.

Manovich, L. (2001). *The Language of New Media*. Cambridge, MA: MIT Press

Manovich, L. (2008). *Software Takes Command*. [Online] Available at www.softwarestudies.com/softbook [Assessed 1.2012]

Marcuse, H. (1964). *One Dimensional Man*: *Studies in the Ideology of Advanced Industrial Society.* C Nicolls and Company Ltd

Markham, N, A., Baym, N. (2009). *Internet Inquiry:* Conversations About Method. London. SAGE.

Marx, K (1844 [1932]). *Economic and Philosophic Manuscripts.* Prometheus Books

Marx, K. (1846 [1932]). *The German Ideology.* International Publishers.

Marwick, A. (2005) 'I'm a Lot More Interesting than a Friendster Profile': Identity Presentation, Authenticity and Power in Social Networking Services. *Social Science Research Network* [Online] Available at: http://papers.ssrn.com/sol3/papers.cfm?abstract_id=1884356

Marwick, A,. boyd, D. (2011) To See and Be Seen: Celebrity Practice on Twitter. *Convergence.* Vol 17 (2) SAGE.

Mayer, R.C. Davis, J.H. & Schoorman, F.D. (1995). An integrative model of organizational trust. *Academy of management review.* 20 (3), p709-734.

McChesney, R (2008). *The Political Economy of Media: Enduring Issues*, Emerging Dilemmas . New York. Monthly Review Press.

McRobbie, A. (1978). *Jackie: An Ideology of Adolescent Femininity.* Birmingham. Centre for Contemporary Cultural Studies, University of Birmingham.

McKenzie, A. (2006). *Cutting Code: Software and Sociality*. New York. Peter Lang Publishing Inc.

Mclaughlin, C., Vitak, J. (2012). Norm evolution and violation on Facebook. *New Media & Society*. SAGE. Vol. 14 (2) 299-315

McLuhan, M. (1964). *Understanding Media: The Extensions of Man*: 1st Edition. McGraw Hill, NY; reissued by MIT Press, 1994, with introduction by Lewis H. Lapham; reissued by Gingko Press, 2003

McLuhan, M. (1967). The Medium is the Message: An inventory of Effects. McQuail , D (1994). *Mass Communication Theory*, 3rd Edition. London. SAGE.

Merton, R, K,. Fiske. M., Kendall, L, P. (1956). *The Focused Interview*. New York: The Free Press.

Mendelson, A,. Papacharissi, Z. (2010) Look at us: Collective Narcissism in College Student Facebook Photo Galleries. In Papacharissi (eds.) (2011). *A Networked Self: Identity, Community and Culture on Social Network Sites.* New York. Routledge.

Miles. M., Huberman, M. (1994). *The Qualitative Researchers Companion*. London. SAGE.

Miller, D,. Slater, D, (2001).*The Internet: An Ethnographic Approach*. Oxford. Berg Publishers.

Miller, D. (2011). *Tales from Facebook*. Cambridge, Polity Press.

Morely, D. (1980). *The Nationwide Audience*. London BFI.

Morely, D. (1986). *Family television: Cultural Power and Domestic Leisure*. London. Comedia

Murthy, B (2013). *Twitter. Digital Media and Society Series*. Cambridge. Polity Press.

Murry, C. Schroader, K, Drotner, K, Kline, S. (2003). *Researching Audiences*. New York. Oxford University Press.

Neervens, A. (2009) (Re-) *constructing Social Networking Sites Examining Software Relations and its Influence on Users*. MA Thesis[Online] Available at: http://annewilneervens.wordpress.com [Accessed 15.4.2011)

Neilson (2011) *State of the Media. The Social Media Report* [Online] Available at: http://cn.nielsen.com/documents/Nielsen-Social-Media-Report_FINAL_090911.pdf [Accessed 12. 2011]

Nissenbaum, H. (2010). *Technology, Policy, and the Integrity of Social Life*. Stanford. Stanford University Press.

Norman, D. (1988). *The Design of Everyday Things [originally published as The Psychology of Everyday Things]* New York: Basic Books.

Orlikowski, J.W,.Yates, J (1994). Genre Repertoire: The structuring of Communicative Practices in Organisations. *Administrative Science Quartely*. Vol 39 pp 541-574

O'Reilly, T. (2005). *What is Web 2.0?*. [Online]. Available at: http://oreilly.com/Web2/archive/what-is-Web-20.html [Accessed 5.9.2010]

Owens, J,. Lenz, K,.Speagle, S. (2009) Trick or Tweet: How Usable is Twitter for First-Time Users? *Software Usability Research Laboratory*. Available at: http://surl.org/ [Accessed 4. 2011]

Oudshoorn, N,. Pinch, T. J. (2003). How users matter: the co-construction of users and technologies, *Inside Technology*. Cambridge, MA: MIT Press.

Papacharissi, Z. (2009). The Virtual Geographies of Social Networks: A comparative analysis of Facebook, LinkedIn and ASmallWorld**.** *New Media & Society*, Vol 11, pp 199-220.

Papacharissi, Z. (2011). A Networked Self. In Papacharissi, Z (eds) (2011). *A Networked Self: Identity, Community, and Culture on Social Network Sites.* New York. Routledge.

Papacharissi Z., Easton, E (forthcoming) *In the Habitus of the New: Structure, Agency and the Social Media* Habitus. [Online] Available at: http://tigger.uic.edu/~zizi/Site/Research_files/HabitusofNewZPEE.pdf. [Accessed 2.2012]

Pariser, E. (2011). *The Filter Bubble: What the Internet is Hiding From You*. London. Penguin Group Ltd.

Parks, M. (2011). Social Network Sites as Virtual Communities. In Papacharissi, Z. (eds.) (2011*). A Networked Self: Identity, Community, and Culture on Social Network Sites.* London. Routledge.

Petzold, C. (2000). *CODE: The Hidden Language of Computer Hardware and Software.* Mircrosoft Press. Washington.

Philo, G. (1990). *Seeing and Believing: The Influence of Television*. London. Routledge.

Pinch, T, J,. Bijker, W. (1984). The Social Construction of Facts and Artifacts: or how the Sociology of Science and the Sociology of Technology Might Benefit Each Other. *Social Studies of Science,* 14 pp. 338-441

Postill, J. (2010) Introduction: Theorising media and practice. In Bräuchler, B. and J. Postill (eds) *Theorising Media and Practice*. Oxford and New York: Berghahn**.**

Radway, J. (1984) *Reading the Romance: Women, Patriarchy, and Popular Literature.* University of North Carolina Press.

Rapert, B. (2003) *Technologies, Texts and Possibilities: A Reply to Hutchby*, Sociology Vol. 37 (3)

Recwitz, A. (2002) Toward a Theory of Social Practice. A Development in Culturalist Theorizing, in: *European Journal of Social Theory*, Vol 2 pp 245- 265, reprint in: Gabrielle M. Spiegel (eds.): Practicing History. New directions in historical writing after the linguistic turn, London/ New York 2005, pp. 245- 263

Reichelt, L. (2007) *Ambient Intimacy, Diambuiguity.* Blog. Available at http://www.disambiguity.com/ambient-intimacy [Accessed1.2013]

Rheinfrank, J,. Everson, S (1996) Design Languages. In Winograd, T (eds.) (1996) *Bringing Design to Software*. ACM Press. New York

Ritzer, G. (2010). Production, Consumption, Prosumption: The Nature of Capitalism in the Age of the Digital Prosumer" *Journal of Consumer Culture*. SAGE. Vol. 10 (1) pp 13-36

Rheingold, H. (2000). *The Virtual Community: Homesteading On The Electronic Frontier*. Revised Edition. London: MIT Press.

Robins, K,. Webster, F. (1988). "Cybernetic Capitalism: Information, Technology, Everyday Life," in: Vincent Mosko & Janet Wasko (eds.), *The Political Economy of Information*, Madison: The University of Wisconsin Press, pp. 45–75.

Rogers, R. (2004). *Information Politics on the Web*. Cambridge. MIT Press.

Ross, P. (2011)**.** Problematizing the user in user-centred production; A new Media Lab meets its Audience. *Social Studies of Science.* SAGE. Vol. 41 (2) pp 251-270.

Sayer, A. (2000). *Realism and Social Science.* London. SAGE.

Schawndt, T, A. (1994) Constructivist, Interpretivist Approaches to Human Inquiry in *Handbook of Qualitative Research* (1994) Denzin, Norman K.; Lincoln, Yvonna S. Thousand Oaks: SAGE Publications.

Schatzki, T, Knorr Cetina, K,. Von Savigny, E. (2001). *The Practice Turn in Contemporary Theory*. Oxon. Routledge.

Schroder, K,. Drotner, K,. Klines, S,. Murry, C,. (2007). *Researching Audiences.* Bloomsbury Academic.

Shafer, M, T (2010) *The 'Social' in Social Media*. [Online] Available at: http://www.newmediastudies.nl/magazine/social-social-media. [Accessed 12.2012]

Shove, E., Pantzer, M. and Watson, M (2012). *The Dynamics of Social Practice: Everyday Life and How It Changes*. London. SAGE.

Shirky, C. (2005). "Ontology is overrated: Categories, links, and tags [Online] Available at: http://shirky.com/writings/ontology_overrated.html [Accessed 7.2009]

Silverstone, R, Hirsch, E., Morely, D (1992). Information and Communication technologies and the moral economy of the household in (eds) Silverstone, R and Hirsh, E '*Consuming tehcnologies: Media and Information in Domestic Spaces'.* London. Routledge (pp. 15-32)

Silverstone, R,. Haddon, L. (1996). Design and the Domestication of Media Technologies, Technical Change and Everyday Life', in Silverstone, R. and Mansell, R (eds.) *Communication by Design: The Politics of Information and Communication Technologies*. Oxford. Oxford University Press (pp. 44-74)

Silverstone, R., Hirsch, E. (1992). Consuming Technologies. London: Routledge

Simmel, G. (1955). *Conflict / The Web Of Group Affiliations*. New York. The Free Press

Stumpel, M. (2010*). The Politics of Social Media. Facebook: Control and Resistance*. MA Thesis [online] Available at http://marcstumpel.wordpress.com [Accessed 3.3.2011]

Stutzman, F, Hartzog, W. (2012). Obscurity by Design: An approach to building privacy in social media *CSCW'12*, February 11–15, 2012, Seattle, Washington, USA. ACM 978-1-4503-0556-3/12/02. [Online] Available at: http://fredstutzman.com/papers/CSCW2012W_Stutzman.pdf

Stutzman, F. (2006). An Evaluation of Identity-Sharing Behavior in Social Network Communities. *International Digital and Media Arts Journal*. Vol. 3(1) pp 10-18.

Szreter, S. (2000). 'Social capital, the economy, and education in historical perspective. In Schuller, T (eds). In *Social Capital: Critical Perspectives*. Oxford: Oxford University Press. (pp 56-77)

Terranova, T. (2004). *Network culture: Politics for the information age*. London. Pluto Press.

Thurlow, C, Mroczek, K (2011) Fresh Perspectives on New Media Sociolinguistics. To appear (2011). In C.Thurlow & K. Mroczek (eds), *Digital Discourse: Language in the New Media*. New York: Oxford University Press.

Toffler, A. (1980). *The Third Wave*. A bantam book published in association with William Morrow and Co. Inc. New York

Turkle, S. (1995). *Life On The Screen: Identity In The Age of the Internet*. New York. TouchStone.

Turow, J (2011). *The Daily You. How the advertising Industry is defining your identity and your worth.* US, Yale University Press.

Twitter [Online]. Available at: https://twitter.com

Wajcman, J,. Jones, P. (2012) Border Communication: Media, Sociology and STS. *Media, Culture and Society* Vol 34 (6) PP.673 -690. London. SAGE.

Walther, J,. Carr, C,. Choi, S, S, W,. Deandrea, D,. Kim, J, Tom Tong, S,. Van Der Heide, S. (2011) Interaction and Interpersonal, peer and Media Influence Sources Online: A Research Agenda for Technology Convergence. In Papacharissi, Z. (eds.) (2011). *A Networked Self: Identity, Community, and Culture on Social Network Sites*. New York. Routledge.

Webster, F (2002). *Theories of the Information Society*. New York. Routledge.

Wellman, B,. Quan-Haase, A,. Boase, J,. Chen, W,. Hampton, K,. Isla de Diaz, I,. Miyata, K (2003). The Social Affordances of the Internet for Networked Individualism. *Journal of Computer Mediated Communication.* Vol. (8) 3 [Online]. Available at: http://jcmc.indiana.edu. [Accessed 10.4.2010]

Wellman, B., Haythornthwaite, C. (eds.). (2002). *The Internet in Everyday Life*. Oxford: Blackwell.

Wellman, B. (2001). The Rise of Networked Individualism. In *Community Networks Online* (Eds) Leigh Keeble. London: Taylor & Francis.

Wellman, B, Guila, M. (1997). Net Surfers Don't Ride Alone: Virtual Communities as Communities. In *Communities and Cyberspace* edited by Kollock. P,. Smith, M. New York. Routledge.

Wellman, B. and Hogan, B. (2004). The Internet in Everyday Life. In: Bainbridge, W, S (Eds.) *The Berkshire Encyclopedia of Human Computer Interaction*. Great Barrington, MA: Berkshire Publishing (pp. 389-397).

Woolgar, A.(1996). The Turn to Technology in Social Studies of Science. *Science, Technology, Human Values* Vol 16 (20). SAGE, on behalf of Society for Social Studies of Science

Winograd, T. (eds.) (1996). *Bringing Design to Software*. New York. ACM Press.

Winner, L. (1986). Do Artifacts Have Politics? Reprinted in *The Social Shaping of Technology*. Donald A. M,. Wajcman, J. (eds) (1985) [2nd Edition1999] London: Open University Press.

Winner, L. (1993) Upon opening the black box and finding it empty: Social constructivism and the philosophy of technology. *Science, Technology and Human Values*. Available at: http://www.nyu.edu/projects/nissenbaum/papers/openingblackbox.pdf. [Accessed 9.2011]

Williams, R,. Edge, D. (1996). The Social Shaping of Technology in *Research Policy* Vol. 25, pp. 856-899

Wittel, A. (2001). Towards A Network Sociality. *Theory Culture and Society*. London. SAGE. Vol. 18 (6) pp 51 – 76.

Wittgenstein, L. (1958). *Philosophical Investigations*. 2nd Edition. Oxford/ Basil Blackwell.

Vaidhayanathan, S. (2011). *The Googlsztion of Everything (and why we should worry).* Berkeley. University of California Press

Van Loon, J. (2008). *Media Technology: Critical Perspectives*. England. Open University Press.

van Dijck, J. (2013). *The Culture of Connectivity: A Critical History of Social Media*. Oxford University Press.

Varnelis, K. (2008). *Networked Publics*. Cambridge. MIT Press.

Yoder, C. and Stutzman, F. (2011). Identifying Social Capital in the Facebook Interface. In *Proceedings of the ACM Conference on Human Factors in Computing Systems* (CHI '11). Vancouver, BC. 585--588.

Zang, W., Wang, R. (2010) Interest-oriented versus relationship-oriented SNSs in China. *First Monday*. Vol 15(8) [Online] Available at: http://firstmonday.org [Accessed 10.2011]

Zhao, S, Grasmuck, S., Martin, J. (2008). Identity Construction on Facebook: Digital Empowerment in Anchored Relationships. *Computers in Human Behavior*, 24. 1816-1836.

Zimmer, M. (2008). The Externalities of Web 2.0 The emerging privacy threats when the drive for the perfect search engine meets Web 2.0. *First Monday*. Vol. 13 (3)