

A qualitative investigation of the incongruent interaction styles individuals exhibit when communicating on social networking sites in comparison to subsequent face to face interaction

Kate Emily Rylance

A qualitative investigation of the incongruent interaction styles individuals exhibit when communicating on social networking sites in comparison to subsequent face to face interaction

ABSTRACT

The purpose of this study was to explore the incongruence between face to face interaction and online communication via social networking sites using a qualitative method. The topic of interest was explored using semistructured interviews and analysed through interpretative phenomenological analysis. The four key themes found were: identity, friendship and socialisation, the importance of face to face and the dark side of online communication. The interviews highlighted that an incongruence between online and offline worlds does appear to exist. However participants believed that linguistic communication plays only a part in this online/offline inconsistency. Participants instead suggested that the incongruent nature between the ways in which an individual presents and portrays them self, both on and offline, holds an equal significance to the incongruent interaction styles exhibited.

KEY	WORDS:	FACE TO FACE INTERACTION	ONLINE COMMUNICATION		INCONGRUENCE	IDENTITY
-----	--------	--------------------------	-------------------------	--	--------------	----------

Introduction

The development of technology and social networking sites (SNS) within society today enables us, as individuals, to communicate in a vast majority of ways, both physically and electronically. If modern society is seeing a rise in online communication, based wholly on linguistics, does this affect the way in which we now communicate during a traditional, face to face dyadic interaction?

Communication

Littlejohn & Foss state that "Communication is one of those everyday activities that is intertwined with all of human life...we sometimes overlook its...importance and complexity." (2008, p. 2). Thus, to ensure its importance is not overlooked in this study, a brief definition and exploration of communication is necessary. Communication is a vital part of all individual's everyday life. Both consciously and subconsciously we spend our waking lives communicating with one another whether this be a quick text message, a brief glance at the bus stop or a lengthy catch up with a friend or relative. It is the way in which we express our thoughts, feelings and opinions, resulting in the sculpture of our individuality. It is the basis of all human relationships, leading Heath and Bryant to state that it is vital in order for "society to function" (2000, p. 91) The fragmented, complex nature of communication makes it difficult to define. An attempted definition may describe human communication as a combination of vocal language and symbols, used simultaneously to create meaning. These symbols are made up of many different non-verbal actions such as hand gestures, eye contact and body language, thus it would be naïve to assume that communication is wholly defined by two or more individuals verbally communicating with each other. Although other living species may have ways of communicating with one another, the rich depth and emotional basis of human interaction makes it the most complex yet rewarding form of inter-human communication, an experience unique to mankind (Tomasello, 2008). Society today, enables individuals to choose how they communicate with one another, whether this be via telephone, in writing, via computer or face to face. Therefore, the complexity of the term communication makes a thorough, succinct exploration almost impossible. Thus, for the purpose of this study a focus on the two most popular forms of communication, face to face communication (FtF) and computer mediated communication (CMC) will be emphasised.

What is in a face?

The face is the feature in which an individual is made most easily identifiable, thus making it extremely important in terms of socialisation and communication; it is the key to relationship development in terms of expression, non verbal cues and identification (Qi, 2011). The importance of the face within socialisation consequently emphasises the vitality of face to face conversation, highlighted by critics on numerous occasions (Begley, 2004; Brown & Duguid, 2000; Bruce, 1996; Coyle & Vaughn, 2008; Roane, 2008; Winger, 2005; Wood, 2009). Simplistically defined, face to face communication is "the exchanging of information...when the participants are in the same physical space" (Begley, 2004, p. 6). This idea of shared proxemics and physical space whilst conversing results in individuals experiencing an interaction

using all five senses (Winger, 2005). Face to face communication sculpts and shapes the person we become, as highlighted by body language expert, Patti Wood,

"It is sustenance. The smile, the eye contact of recognition, the light touch of hands across the counter, insures us we are seen, are known, that we exist" (Wood, 2009, para. 2).

If human interaction is indeed sustenance, a vital ingredient in everyday life, then what is it that makes face to face interaction so unique and personal, differentiating it from other forms of communication? As suggested by Bruce (1996), the human face and body are vital to communication due to the "wide variety of social signals" produced during face to face interaction, (p. 166). This type of interaction is "multimodal" (Dohen et al. 2010, p.477) as it involves a blurring of linguistics and paralinquistics, along side non verbal communication such as eye contact, gestures and emotions. These non verbal signals work in parallel with the individual's spoken word to produce substance and meaning. It is this multimodal, layered dynamic that leads Littlejohns and Foss to conclude that communication is so broad that it cannot be "essentialized or confined with a single paradigm" (2008, p. 5). Expanding on this conclusion, it is possible to assume that communication's most powerful agent is spoken language, an assumption that ignores and undermines the importance of the "silent language" (Calero, 2005, p. 277). However, Mehrabin, (as cited in Calero), reveals that only 7% of a communicated message is portrayed and delivered solely through verbal language, thus meaning that the remaining 93% of interpretation relies heavily on non-verbal signals. This may come as a surprise, we spend our childhood lives learning and perfecting how to read, write and speak, yet this innate realm of implicit signals, an "elaborate and secret code that is written nowhere, known by no one and understood by all." (Sapir, as cited in Calero, pg. 2), still predominately prevails.

Face to face interaction is also embedded with prosodic elements such as rhythm, tone and pitch. A study by Flecha-Garcia (2010), examined these factors, exploring the relationship between eyebrow raises and the verbal language spoken in terms of structure, meaning and pitch. Flecha-Garcia discovered that eye brow raises were more predominant in verbal instructions than requests. Results also concluded that as the individuals pitch ascended, so did the frequency of the eye brow raises. Conclusions therefore emphasise the paralinguistic qualities that must be taken along side speech as part of an individual's communication in order to retrieve a reliable, precise semantic understanding. The fact that the frequency of eye brow raises differed between verbal instruction and requests, highlights that the face is vital in interpreting not just *what* is said, but the way in *which* it is said, therefore inability to recognise these prosodic features could lead to misinterpretation.

Thus, it is these external signals, known as non-verbal signals (body language, facial expressions and hand gestures etc.), which provide face to face communication with the rich, complexity and understanding of semantic meaning that other forms of communication, such as computer mediated communication (CMC), lack. It is due to the presence, or absence, of these non-verbal signals, that previous researcher has claimed that computer mediated communication is less effective than face to face interaction (Coyle & Vaughn, 2008).

Computer Mediated Communication (CMC) and Social Networking Sites (SNS)

The role of technology is becoming increasingly important in the society in which we live, resulting in the discovery and development of social networking sites (SNS) such as Facebook and Twitter. It is becoming a major part of our everyday live, forming the foundations of both our practical society and our communication. Even those who make a conscious attempt to steer clear of modern technology, are more than likely to indirectly incorporate technology into their everyday routine (Wood & Smith, 2010), whether that be withdrawing cash from a cash machine or setting an alarm before going to sleep. This rise in the use of technology has correlated with a rise in the use of CMC via social networking sites, possibly causing traditional face to face interaction to become forgotten or considered less necessary, promoting an "internet-driven transformation of social life" (Weisbuch *et al.* 2009, p. 573).

Morreale *et al.* define computer mediated communication as, "any human symbolic interaction that takes place through digitally based technology" (2007, p. 400). The term mediated derives from the Latin '*medius*' meaning middle, suggesting that CMC involves the computer screen literally coming between the middle of the two speakers, implying a sense of division. Opposingly, the development of social networking sites has been noted to break this online physical divide, through definitions such as "a cluster of people connected for a specific reason" (Ryan, 2011, p. 4). They are believed to provide a global unity, allowing family members, friends and in some cases strangers to remain in contact despite the physical, geographical separation. The past five years have seen a magnificent rise in social network usage with Facebook being home to "more than 500 million active users" in 2010 (Lusted, 2011, p. 9).

research on online communication presents conflicting results. simultaneously highlighting the advantages and disadvantages of social networking communication. A significant advantage of SNS is its convenience and the ability to communicate with numerous friends at the same time, providing an "instant communication and connection" (Cheung et al. 2011, p. 1340). Social networking conversation is quickly written and instantly transmitted, allowing individuals to communicate wherever they are despite the destination of the desired recipient. It provides us with an "instantaneous present" (Carey, 2009, p. 2) allowing the whole globe to become instantly connected, creating a sense of togetherness. It is such advantages that could be causing social networking to "quickly become one of the most popular methods of communication" (Lusted, 2011 p.9). Not only can individuals communicate from afar through written speech, recent video technological advancements have resulted in people being able to communicate orally, whilst seeing each other via webcam. As noted previously, the role of the face in communication is vital, thus, this new integration could possibly be technology's attempt to incorporate Calero's "silent language" (2005, p.277), implying that a persons physical presence is not required to feel their psychological presence (Wood & Smith, 2010).

A study by Park *et al.* (2009), explores the positive aspects of social networking sites, by highlighting users' main motives. Park *et al.* constructed an online web survey which was taken by 1,715 college students. Results highlighted that the four main purposes for students Facebook usage were beneficial motives such as

socialising, entertainment, self-status seeking and information. Valkenburg and Peter (2011), also regard the social networking phenomenon in a positive light, explaining how the internet and social networking sites provide adolescents "with many opportunities to explore their identity, find support and information ... and develop close and meaningful relationships" (p. 121). Valkenburg and Peter determine the advantages of online communication in relevance to an individual's psychosocial development stating how an online existence enhances the development of selfpresentation and self-disclosure through anonymity, asynchronicity and accessibility. Both self anonymity and audiovisual anonymity (the lack of non verbal signals) enhance psychosocial development online by giving adolescents an "ample opportunity to control the richness of cues they wish to convey" (p. 122). Similarly, asynchronicity (the edibility of the written online word) also enhances psychosocial development by forcing adolescents to "carefully think about and edit information, and by doing so, optimize their self-presentation and self-disclosure" (p. 123). Park et al. (2009) also highlight that online communities have specific benefits to those who are shy and self-consciousness, those who feel "physically unattractive ... those who are easily embarrassed" (p. 123). Social network sites have also been considered beneficial in relieving users in times of distress (Third & Richardson, 2011).

Although this instant, virtual community initially appears beneficial, (Ellison *et al.* 2007; Wellman *et al.* 2001), does this sudden shift in communication preference simultaneously diminish the time spent communicating in the natural world, face to face? As previously discussed, the vitality of human face to face interaction shapes and defines us as individuals, so is a decrease in this form of rich, complex communication really beneficial and 'social'? Coffman states, although SNS can facilitate our "communication efforts online", they simultaneously "hinder the communication we have with our friends in face to face situations" (2010, para. 1).

As well as highlighting the advantages of the social network phenomenon, research has also highlighted a darker side to social networking sites, attempting to reveal an intrusive, harmful, virtual world to vulnerable users. Although creating or maintaining online friendship is convenient and socially rewarding, how do we know that the recipients are being truly honest, that their mediated self is congruent with their real self? The physical separation and lack of presence during online communication makes false personas and identities easily adoptable, possibly leading to negative outcomes such as trolling and cyber bullying (Phillips, 2011). Recently televised programmes such as BBC 3's "The Anti-Social Network" (Hasan *et al.* March 19, 2012) and Channel 4's "My Social Network Stalker" (Lazarus, S. February 20, 2012) have also revealed these negative products of social networking in attempt to make today's society more 'cyber safe' whilst simultaneously highlighting the continuous rising impact social network sites have on our everyday lives.

This rise towards a predominately mediated reality has led critics to begin to question the concept of the self, introducing the idea of a mediated self (Wood & Smith, 2010) to comfortably reside in his/her mediated world. They claim this self "constructs a sense of 'who am I' through interaction with others by various media" (p. 6). Thus, this could be seen as one of the implications of CMC via SNS. If one's mediated identity relies on mediated interaction, then what happens to the real self, the self present in intimate face to face interaction and relationships? This introduces

the theme of a divided culture, a Jekyll-Hyde demeanour within, a self we openly present to the immediate culture and a self we sub-consciously construct to introduce to the mediated culture. The concepts of anonymity and identity are predominantly discussed in negatively constructed SNS research. Accordingly, more recent research has progressed from a linear discussion of advantages and disadvantages of social networking sites, moving towards a more specific focus on the congruent (or incongruent) nature of one's online and offline self. There are two main hypotheses regarding identity on social networking sites, *idealised virtual identity hypothesis* and *extended real-life hypothesis*. The former refers to the creation and portrayal of idealised characteristics, inconsistent with the individuals real self, where as the latter involves an individual using their online pages to portray a true representation of the self.

Online and offline congruence

Back *et al.* (2010) examine the degree to which one's profile accurately reflects their offline personality, believing that users "integrate various sources of personal information that mirror those found in personal environments" (p.372), thus suggesting a congruence between on and offline selves. The results of the 236 social network users were consistent with the extended real-life hypothesis as no participants showed evidence of self-idealization, deeming social networking sites as an "efficient medium" (p. 374) to express participants' true offline personality. Research on likeability also highlights a congruence of online and offline selves (Weisbuch *et al.* 2009). Therefore such research implies that socialising on the internet may be relatively similar to face to face socialisation.

Online and offline incongruence

Although critics such as Bicen and Cavus (2011) believe that online users' online lives "seamlessly meld with their off-line world" (p. 943), research has conversely highlighted that these selves are not congruent online and offline. Face to face socialisation occurs in real time thus embodying spontaneity, where as online individuals have unlimited cyber time to construct how they are perceived by others (Weisbuch et al. 2009). Zhao et al. (2008) conducted a study criticising Facebook users' online identity construction. Zhao et al. examined 63 Facebook profile pages with the expectation that individuals would present their "hoped-for-possible selves rather than their 'true' or hidden selves" (p. 1819). Thus supporting that belief that an incongruence of selves exists between online and offline realms. Zhao et al. differentiated the numerous strategies adopted in online identity construction, subcategorising theses strategies into implicit representations (visual representations such as photographs) and explicit representations (narrative representations such as users' 'About Me'). Results highlighted that 91-95% of participants visually represented themselves using photographs compared to the 8-37% of participants who verbally constructed their online identities. These predominant visual strategies promote a "showing without telling" phenomenon (p. 1825). Zhao et al. relate the findings to the renowned saying a picture speaks a thousand words, concluding that "the hoped-for possible selves users projected on Facebook" were not the "real selves people presented in localized face to face interactions" (p. 1830).

Research has also highlighted other negative effects of frequent social network usage such as narcissism (Buffardi & Campbell, 2008; Mehdizadeh, 2010). Carpenter (2012) examined 294 students, finding a significant relationship between the number of friends Facebook users have and the degree to which these individuals exhibit a "socially disruptive" (p. 483) narcissist personality, thus implying the continuous rise of self-image obsessed adolescents in today's society.

In order to grasp a full understanding of these false personas exhibited via social networking, a brief historical overview of the origins of identity theory may be desirable. The concept of social identity theory was first introduced by Henri Tajfel in the early 1970's. He established how the interpersonal groups we belong to in society determine our identities. He specifically distinguished between inter-personal and inter-group, labelling this distinction "acting in terms of self" in comparison to "acting in terms of [ones] group" (Turner, 1966, as cited in Robinson, p. 3), thus emphasising how "social behaviour...should presumably tend to display some characteristic variation" (Turner, 1982, p. 20).

Erving Goffman's dramaturgical game theory of social identity is also relevant in grounding the present study. Goffman (1959) likened all face to face interaction to a theatrical production. He believed that when socially confronted, individuals exhibit a socially constructed self in attempt to sculpt and adapt how they are perceived by others, maximising the possibility of deception. Goffman likened this change in persona to the role of an actor. When individuals endure face to face interaction they are live on stage, performing to their recipient (1959). The performer "puts on his show for the benefit of other people" (Goffman, 1959 p. 17). He states this mask is our "truer self, the self we would like to be...our conception of our role becomes second nature and an integral part of our personality" (p. 30). Thus Goffman's theory can be directly linked to the adoption of the false persona or avatar individuals adopt via sites such as Facebook; this self constructed avatar could be said to be a modern day digital interpretation of Goffman's actor, highlighting the relevance of his theory, despite its aged nature.

The removal of non-verbal signals in CMC must also be considered in terms of online communication effectiveness. The shift from voice to text is efficient in some ways; however does this shift successfully capture and maintain the rich, non verbal nature of vocal interaction. Brown and Duguid (2000) use a car analogy to describe the reductionist nature of the "information age" (p. 1). They describe how in this day and age immediate gratification is desirable. As a society we dislike waiting, hence the ever rising popularity of text and e-mail. The constant development in technology allows short cuts to be easily taken and the need for non verbal communication may be deemed unnecessary and irrelevant. Brown and Duguid title this naïve point of view "tunnel vision" (p.1), explaining that the "stuff around the edges" (p. 1) is not as unnecessary as it may appear, "what lies beyond" (p. 2) is what determines how much sense is made out of information. Thus, metaphorically driving through the tunnel of mediated communication, though convenient, may cause the driver to miss a variety of crucial turnings.

In order to assess whether CMC can be deemed as rich and stimulating as interpersonal communication, Lefler and Barak's research (2012), explores the online disinhibition effect (Suler, 2004) exploring how the abandonment of face to

face social restrictions online, allows users to "loosen up, feel less restrained, and express themselves freely (p. 321). This loss of inhibition can have negative consequences or *toxic disinhibition* (Suler, 2004). Results of 142 participants revealed that eye-contact has a significant main effect on *toxic inhibition*; where eye contact was present, participants experienced fewer negative incidents, thus implying the nature of human interaction is un-replicable and that the lack of these non verbal signals can have negative consequences on online socialisation.

Much research has explored how adolescents use social network sites to communicate and how communicating regularly on these sites has both positive and negative consequences (Coyle & Vaughn, 2008; Carpenter, 2012; Cheung et al. 2011; Valkenburg & Peter, 2011). However, it proves more difficult to determine why this preference for CMC exists. The complexity and richness of face to face interaction offers individuals a truly unique experience (as previously discussed), thus if teens now "conduct a higher proportion of their time communication through writing in electronic medium" (Subrahmanyam & Greenfield, 2008, p. 136) it could be that this complexity and sharing of personal space in face to face interaction may intimidate socialites, making social network communication "a potentially less difficult way to meet and interact" (Ward & Tracey, 2004 p. 612). Much research quantitatively emphasises the advantages or disadvantages of CMC, whilst distinguishing a consistency or inconsistency in online identity development. However, this qualitative study aims to specifically compare these two popular communication forms along side one other, exploring not just if a difference exists but determining and gaining a deeper understanding of why and what lies beneath this occurrence. As much previous research has numerically investigated social networking sites and communication, this study aims to fully consider the worldviews, consequently gaining a richer, more understanding; an understanding not available through quantitative means. A qualitative methodology was also chosen due to the reflexive nature in which the research question was proposed. Self recognition of the ways in which certain face to face conversations experienced are much more awkward than face to face interaction interested me greatly, thus leading me to this specific research question in order to discover and learn more:

A Qualitative Investigation of the Incongruent Interaction Styles Individuals Exhibit When Communicating on Social Networking Sites in Comparison to Subsequent Face to Face Interaction

Methodology

As previously discussed, research concerning social network sites and communication has been predominately quantitative, thus this study aims to explore the incongruence between communication online and offline using a qualitative, subjective approach, not just confirming the 'what' but interpretively exploring the 'why', in attempt to elucidate the reasons behind this incongruence. In terms of understanding the motives for this qualitative research, an understanding of the hermeneutic and phenomenological roots of qualitative methodology is essential.

Although the differing nature of hermeneutic philosophy and phenomenology is to be noted, a converging description of the two philosophical concepts is inevitable.

Simplistically, hermeneutics is "the theory of interpretation" (Smith et al. 2009, p. 21), where as phenomenology is the approach adopted for "the study of experience" (Smith et al. 2009, p. 11). Founding phenomenologist Husserl (1982) stated that in order for an individual's experience or a certain phenomenon to be explored and fully understood, the exploration is to take place in the same environment as the experience occurs. A reflexive attitude must be adopted to allow an examination of everyday experiences, that is, our natural attitude is to be put aside in an attempt to remove ourselves from our everyday experiences resulting in the adoption of a phenomenological attitude. Heidegger's (1962) concept and definition of phenomenology provides one of the strong links between phenomenology and hermeneutics. Heidegger states that Dasein ('being' in its philosophical sense) or appearance holds a multiplicity of meaning, that is, understanding an individual's experience involves recognition of both a latent, literal meaning and a meaning that may be sub-consciously (or purposely) concealed. Thus, for the study of an individual's experience to be understood, a hermeneutic theory of interpretation is simultaneously required. Hermeneutic theory is heavily based on the reciprocal nature of the whole and the sum of its parts, "to understand any given part, you must look to the whole; to understand the whole, you look to the parts" (Smith et al. p. 28). This continuum of interpretation is better known in the philosophical field as the hermeneutic circle, thus in terms of the renowned saying, the whole is greater than the sum of its parts, for hermeneutic philosophers the whole is not greater, and in fact would not exist without the sum of its parts, and vice versa. Thus, this unified method of phenomenological hermeneutics can be directly related to the choice of qualitative methods within this study. A qualitative methodology was chosen in order to simultaneously explore the experience of the participants consequently gaining rich, complex data. The concept of the hermeneutic circle will be the basis in ensuring that the participants are viewed as both the parts and the whole. Similar to Heidegger's duality of meaning (1962), hermeneutics of suspicion can be employed to discover what is not said is equally as important as an individual's verbal linguistics, again another reason for the use of a qualitative method, a qualitative approach allows access to a participant's non verbal and unspoken demeanour compared to the numeric statistical portrayal in quantitative research. Thus, to conclude, a subjective, qualitative approach was chosen in order to access the participants' world in order to gain a further, truer representative of the motions and actions that sculpt their communication experience, therefore implying why interpretivism is desirable over positivism for this specific study. The study aims to go beyond the basis of the hermeneutic or the hermeneutic circle, instead adopting the notion of a double hermeneutic. That is the study aims to "makes sense of the participants trying to make sense of their [own] world" (Smith & Osborn, as cited in Smith, 2008, p. 53). This phenomenological, hermeneutic philosophy will be later discussed in terms of its relevance in the selection of data collection methods.

Methods

Research design

In reference to psychological research design, there are two main paradigms; quantitative and qualitative. Although qualitative methods have always existed in some form it is not until recently that "qualitative methods [have] emerged as part of a broad movement" (Kelley, 1999, p. 398), quickly developing into the mainstream of

psychological research (Willig & Stainton-Rogers, 2009). Until this movement, quantitative methods predominately ruled over psychological research designs, assuming that research should be scientific, leaving qualitative to be adversely labelled the "realm of the unscientific" (Danzinger, 1990, as cited in Willig & Stainton-Rogers, p. 4). The quantitative methodology takes a positivist, top down approach, meaning it is an objective, theory driven approach, producing statistics based on supposed theory, where as this qualitative data will focus on an interpretative understanding, adopting a bottom up approach, a "thick detailed description, followed by an attempt to draw on psychological theory" (Willing & Stainton-Rogers, 2009, p. 8). Quantitative researcher, Fred Kerlinger, stated that "There's no such thing as qualitative data. Everything is either 1 or 0" (cited in Miles & Huberman, 1994, p. 40). A qualitative methodology was chosen for this study to oppose Kerlinger and others' belief, to give a voice to the participants instead of a statistical number, allowing their own perspective and emotions to be considered. To embark on a journey of exploration and discovery as a team not structurally labelled investigator and subject matter. The differing nature of these two paradigms does not need to be further discussed as a status of 'the most powerful' is not what this study desires, I hope that the subjective, rich data and analysis speaks for itself. Thus, the research question for this study is:

A qualitative investigation of the incongruent interaction styles individuals exhibit when communicating on social networking sites in comparison to subsequent face to face interaction.

The research question was chosen due to a reflexive realisation and personal experience of a social awkwardness offline that was not present when communicating online (see appendix 1). Qualitative methods were chosen as the research question takes a specific focus on communication. As Husserl states, if my aims are to truly capture the participants' worldview and their communication experiences then the phenomenon should be explored in the context it occurs (as cited in Smith et al. 2009). Therefore, to explore face to face interaction, talking to the participants face to face in real-time is desirable. Accordingly, semi structured interviews were chosen for this study as numerically based methods may be unreliable in portraying the participants' true thoughts and feelings. Four participants were interviewed in order gain a consensus view of the communication online and offline phenomenon (see appendix 10 for profiles). Interpretative Phenomenological Analysis (IPA) was used for analysis, due to its grounding in the philosophy of knowledge, to interpret the transcripts in order to achieve a true sense of the participants' experience, as the experience will be explored in its own terms (Smith et al. 2009). Reasons for choosing these methods will be justified in later sections.

Data collection methods

"Interviewing is one of the most powerful and widely used tools of the qualitative researcher" (Eatough & Smith, 2009 p. 187)

Semi-structured interviews were chosen to ensure the participants' true emotions and thoughts were captured and were not altered by any leading questions that may have been present in a structured interview. This allows an experience of the participants' worldviews, gaining a valid account of their life-story, which is un-tainted

by my own opinions as a researcher, through the removal of a schedule and structured questions (see Appendix 9 for brief interview topics). The use of semi-structured interviews also ensures that an individual's multiplicity of meaning is fully understood, the physical presence in the interview allows access to both the participant's literal, true meaning and their hidden or concealed meaning, revealed through non-verbal signals, which would not be accessed through any other method. The choice of semi-structured interviews goes beyond this philosophy of the hermeneutic circle and the sum of its parts, also adopting the hermeneutics of suspicion by allowing access to what is not said as well as what is said. Conversing with participants directly in real-time also allows a trustful relationship to be built; I was able to offer some information about myself in order to gain the trust and relaxation of the participants and could also acknowledge the participants' body language should they feel awkward or unease.

Participants

A purposive sample was selected, consisting of two males and two female students of Liverpool Hope University. A purposive sample was necessary as the inclusion criteria demanded that participants must regularly use social networking sites, in order for this online/offline phenomenon to be explored. Selecting a mixed gendered sample allowed an attempt to establish whether any differences found were a general participant consensus or gender dependant, thus attempting to "uncover the full array of multiple perspectives" (Lincoln & Guba, 1985, p. 40). Students were purposively selected as previous research has highlighted that "youth are at the forefront of technologies that are transforming social interactions" (Manago et al. 2008, p. 447). Participants were e-mailed, and on agreeing to take part a time, date and place was arranged. Rather than considering myself as the psychological expert, the participants were perceived as the expert, as it was an understanding of their specific world and life-stories that interested me. Each participant was considered unique and previous interviews did not bias interviews vet to come (see Appendix 1). In order for each participant to be seen as individual and unique, participant profiles were written to further enhance the understanding of each person's life story (see Appendix 10). In addition to the four students interviewed, I was lucky enough to speak to leading expert, Baroness Susan Greenfield, a British scientist, renowned for her research on the impact of technology in the 21st Century (see Appendix 19 for transcript). This therefore meant this study was able to explore student users' experience alongside professional opinion.

Ethics

Informed consent

After agreeing to take part, all participants were given a participant information sheet (see Appendix 6) and consent form (see Appendix 7) explaining the nature of the study and the rights they each had should they wish to take part. After any further questions were answered, participants willing to take part signed the consent form (see Appendix 8) and details for further contact and queries were provided. The participants were informed that they had the right to withdraw at anytime, and due to the qualitative nature of the study, pre-agreed consent was to be negotiated, for example, although the individual had agreed to take part in the study, they had the

right to decline any given question during the interview, participants were made aware of this before the interview started (see Appendix 6). Should any participant wish to withdraw before, during or after the interview, they were assured that their data would be destroyed and not used or accounted for in anyway. The participants were told that the nature of the study was a dissertation and were precisely informed on what the data was being used for and that they were able to receive a copy of their findings should they wish to see the outcome of the study. Participants were strongly advised that they should further contact myself or my tutor should there be any problems at all.

Privacy, anonymity and confidentiality

Participants were assured that their identities and data would remain anonymous to ensure maximum privacy and confidentiality. In order to ensure their anonymity each individual was invited to pick their own non-identifiable pseudonym to be used throughout the study. Accordingly, names, signatures and email addresses have been obscured on the consent forms (see Appendix 8) to ensure this guarantee was carried out. The names stated on all the interview transcripts (see Appendix 11-20) are therefore the participants' chosen pseudonyms. Should any personal information have been revealed during the interview, this too would have been obscured on the transcripts to ensure participant privacy and confidentiality. Participants were informed that all their transcripts and interview recordings were locked away when not in use to ensure confidentiality and I ensured that I was alone and in my own private room when transcribing and analysing data (see Appendix 1).

Protection from harm

It is evident, that as a qualitative researcher my participants' health and both physical and psychological well-being was essential and a prior concern during the study. The semi-structured, relaxed interviews emulated a natural every day, face to face interaction and therefore did not remove the participants from their normal, everyday lifestyle. As mentioned above, before the interviews commenced, participants were fully aware of the nature of the study and had the chance to ask any questions necessary. The participants' well-being was regarded after the interview had finished, and participants were asked again if they would like to ask anymore questions, the rip-off section of the consent form (see Appendix 7) ensured that participants had myself and my tutor's contact details should any problems arrive after leaving the interview. Throughout the research I ensured that I was only analysing what was directly written in front of me to ensure the participants' words were not sensationalised. Accordingly, participants were offered a chance during the transcription and analysis stage to ensure that their data had been interpreted correctly and their true meaning was portrayed through the analysis. As evident, a conscious effort was made to ensure any researcher biases were removed in order to portray a true representative of participants' worldviews (see Appendix 1 for eliminating researcher bias).

Debriefing

Although participants were provided with an information sheet (see Appendix 6) and a pre-agreed consent form was signed before the interviews took place, a verbal de-

brief after the interview process was also provided. Although already stated, the aims and purpose of the study was re-iterated and after experiencing the nature of the interview, participants were given another chance to withdraw should they feel necessary.

Interpretation and ownership of material

Participants were assured of their importance and high regard throughout the research process. As well as being offered a chance to ensure data was being correctly interpreted, they were also assured that their full transcript was available should they wish to own a copy. Contacting the participants to ensure their data was being correctly interpreted, means that the results are more reliable and valid and not a misinterpretation of meaning, whilst also providing the participant a chance to correct any misinterpretation should it have occurred. During this clarification, should the participants wish to proceed with the study, but remove a certain aspect of the transcript, this possibility was also granted. Although during the transcription and analysis progress data was kept confidential, participants were informed that once completed, a copy of the dissertation would be kept by Liverpool Hope University who would hold ownership for this copy (see Appendix 6). Thus, informing the participants of this information prior to the interview meant that they had the right to decline should these ownership matters trouble them.

Procedures

After the research question was selected, a pilot study was conducted to ensure the topic was relevant (see Appendix 1). The pilot study consisted of a small focus group of myself and four people in which we discussed the phenomenon of online and offline communication. After relevance was apparent, the research question was confirmed and data collection began. Semi-structured interviews were chosen and took place in Liverpool Hope University Library. A brief interview guide was taken into the interview (see Appendix 9) containing topic areas to be covered; however this was kept extremely brief in attempt to ensure no leading questions were asked, and that all the interviews truly captured the participants' own world and view point. As previously stated participants were addressed via e-mail, and were a purposive sample to ensure the inclusion criteria was met. All participants in the study agreed to take part through a consent form (see Appendix 8), were de-briefed and were assured anonymity and confidentiality before, during and after the interviews as previously mentioned. The interviews were recorded via a digital tape recorded and no notes were taking during the interviews. The choice to digitally record the interviews meant that participants had my full attention which allowed the interviews to flow smoothly. Taking notes during the interview also could have made the participants feel uneasy, wondering what was being written as they were speaking, thus highlighting the decision for a digital recording. As stated above, participants were informed that the tape recording would be kept secure and that only I would have access to and hear the tape. A brief discussion commenced before the tape recorder was switched on to ensure the participants were relaxed and ready to take part.

Transcription and data analysis

After the interviews had taken place, interpretative phenomenological analysis (IPA) was used to analyse the interview transcripts produced. IPA was chosen due to its philosophical grounding (as previously discussed), with its specific focus on gaining insight into an individual's lived experiences (Smith & Osborn, cited in Smith, 2008). The personal reflection which led to the development of the research question lent its self perfectly, as the use of IPA acknowledges that research is "a dynamic process with an active role for the researcher" (Smith & Osborn, 2008, p. 53). As seen in the methodology, a double hermeneutic exploration of the researcher making sense of the participants making sense of their own world was required, again highlighting the reasons behind an interpretative phenomenological analysis. After the interviews had been converted from spoken to written, the initial stage was a close line-by-line analysis of each individual transcript. A descriptive commentary was produced down the left hand margin of the transcripts containing all semantic elements and initial thoughts of the participant's dialogue (see Appendix 11-20). The second stage was the development of emergent themes, the left hand side of the transcripts were reread and any emergent themes apparent in both the noting and the dialogue were noted down the right hand margin of the transcripts. These emergent themes were then chronologically listed in a document (see Appendix 12-20) in order to see predominately emerging themes. These themes were then categorised into superordinate themes which were noted on a separate document. Each super-ordinate theme had its own colour, and all dialogue relating to each theme was accordingly colour coded throughout the transcripts (see Appendix 11-20). When this process was completed individually for all interviews, a data matrix was complied using the super-ordinate themes from all interviews in order to bring the transcripts together in a gestalt like manner and to identify the main themes for data analysis (see Appendix 21). The four main themes deriving from the data matrix, thus serving as the studies overall key themes (see Appendix 22) can be found in the following section, along side a detailed analysis and discussion.

Data analysis and discussion

Throughout the process of this study four university students were interviewed along side a leading expert (see Appendix 10). The interpretative phenomenological analysis of the interview transcript produced several emergent themes which were then further categorised into four key themes. These main themes are:

- 1. Identity and the protagonist self.
- 2. What is your name and where do you come from: Friendship and socialisation.
- 3. What is in a face: The importance of real-time communication.
- 4. The dark side of online communication.

The current section will chronologically explore these themes in relation to the participants' interviews and relevant psychological theory. However it is important to remember the hermeneutic grounding of the study, understanding that although these interviews are displayed as parts, it is in attempt to portray a further understanding of the whole.

Identity and the protagonist self

A re occurring theme throughout all of the interview transcripts was that of identity construction and the extent to which one's identity is consistent or inconsistent between online and offline situations. As Boyd and Ellison state, the initial step to joining a social networking site is the creation of the individual's personal profile creating "a 'live' virtual persona" (as cited in Anderson *et al.* 2012, p. 27). Online communication and networking relies on this creation of an online profile or identity, thus it is not surprising that all participants regarded it as a significant topic of discussion. Prior to 'The Social Networking Age' identity was some what innate, a process usually formed by a collaboration of who you know and where you have been. However, talking to the participants revealed a new identity revelation, an identity which can be specifically chosen and moulded by its owner. Not only do SNS alter one's definition of identity, the participants all agreed that this new age has bought about a sense of a 'double identity'.

Throughout the interviews, it was evident that all participants made a conscious differentiation between one's online and offline self, recognising the distinct differences between the two:

```
"...a whole new persona" (Sam, p. 13)
```

- "...an online self" (Bill, p. 5)
- "...you can be whoever you want to be online" (Lilly Davies, p. 16)
- "...it's not like you" (Emily, p. 4)

Despite the variation in terminology, the predominant meaning from all four of these online identity descriptions is that each one of us has a multiplicity of selves that are inconsistent with one and other, opposing the view online identities are continuous or congruent with offline selves (Back *et al.* 2010; Kennedy, 2006). Not only did all four participants clearly acknowledge this mediated self, but the tone in which it was discussed appeared to be negative on all four occasions, contradicting Valkenburg and Peters' optimistic conclusion that a positive advantage of social networking sites is for individuals to "explore their identity" (2011, p. 121).

Although participants seemed to describe this online self as a negative, undesired attribute, situationalists such as Walter Mischel (1968) may in fact suggest that this divided self is due to the altering nature and situational dependency of personality traits. Mischel's situational personality theory, opposed trait theory, claiming that personality traits do not really exist, instead believing that situations are the key principle to understanding behaviour. This appears relevant to understanding online identity, and may need further research in order to further understand this new exhibited self.

Participants felt that a key factor in the creation of the online self is anonymity, the fact that we are hidden behinds a screen allows leeway in self-presentation which would not be available in face to face communication:

"I think sort of anonymity can lead to sort of false personas online" (Bill, p.12)

Bill cleverly links anonymity with persona, rooted in old Latin, meaning to mask, highlighting the metaphorical mask online users wear to cover their true identity. Not only does this metaphorical mask or persona cover the online user's identity, the covering of the face could also be symbolic in showing that the face is no longer important as it is computer mediated communication which now prevails. Bill expands on this, explaining how this adopted false persona is often used to create an idealised self. An avatar used to:

"...boost your own image" rather than "express any little dark dirty secrets" Bill (p. 5/6)

Bill's comparison relates to Zhao *et al.*'s study discussed earlier, abiding to the belief that users pick or exaggerate their desired traits, leaving behind their least desired in attempt to portray a hoped-for-possible self, rather than revealing their true self which exists during face to face communication (Zhao *et al.* 2008). Emily appears to agree with Bill, further highlighting this exaggeration of desirable traits.

"I think people online are funnier, wittier." (Emily, p.3)

Emily's use of 'people' rather than 'I' suggests that she views this inconsistency as a generalised identity alteration rather than just one experienced herself. Inclusion in all five interviews further highlights this consensus view. It is interesting to note that the most common personality traits discussed in relation to the portrayal of the idealised self were confidence and humour, thus implying that confidence and humour may be considered as the most desirable or attractive qualities for an individual to advertise (Greengross & Miller, 2011; Martin, 2007). It should be noted that although all participants discussed this exaggerated self, only Emily and Lily admitted to actually adopting these habits themselves. The male participants described this construct of identity via witnessing it through others but claimed their own identity was consistent between online and offline situations; where as the females talked about it from a personal point of view, adopting the first person descriptive rather than the third. This may imply that the way individuals portray themselves and the importance of online self-presentation is gender dependant or that willingness to confess a conscious exaggeration of the self is more likely to be admitted by females. Therefore future research may take a particular interest, not just with identity and false personas, but the differences between the construction of male and female online avatars. Either way, it was surprising to note that all participants were aware of this online idealised self, thus suggesting its adoption is a conscious attempt for one to mould their identity rather than a sub-conscious side effect of the SNS community. It is thus hard to establish if the incongruence between online and offline selves highlights two completely separate worlds lived in by the user and the real time individual or if the online self is just a situational exaggerated extension of the offline self, (Mischel, 1968) a signifier that social behaviour is bound to experience "characteristic variation" (Turner, 1982, p. 20), an opportunity to "stretch the truth a bit" (Yurchisin et al. 2005) rather than a deceitful ploy. Lilly expands on how this exaggeration of desired traits can result in an avoidance of reality:

"If you make a fool of yourself you can just log off, and it's gone. You can just pretend that it never happened." (Lilly, p. 8)

Sam also provides a similar statement:

"Just switch it off and go and make a cup of tea can't you and delete them" (Sam, p. 5)

Lilly's and Sam's descriptions imply that this new mediated identity also means users do not have to face up to the reality of problematic real time emotions and situations. If an emotion is not wanted, instead of finding a solution, it is just removed in a 'click'. A new online identity thus, appears to welcome an acceptance of a complete detachment between online and offline situations. It is a mixture of an individual's exaggeration of desired qualities and the ability users have to avoid reality that leads Toma and Hancock (2011) to label Facebook as "a place where people go to repair their damaged ego" (as cited in Carpenter, 2012, p. 485). If an individual's ego has been embarrassed, by face to face rejection for example, the online world offers an ego cleanse by allowing this embarrassment to be completely inexistent, the user is in control and can just 'turn off' or 'delete' at any stage of communication, should it be necessary or inflict any negative emotions upon the user. Sam's description highlights the ease SNS provide for reality avoidance by associating it with an everyday mundane activity like making a cup of tea, showing SNS simplification of the offline world. A real-time reaction that may produce an extreme intensity of emotions, can now be simply be resolved by 'turning off' and making a cup of tea. Although this instant removal of undesired emotions may seem initially desirable, leading expert Susan Green disagrees, stating:

"...being embarrassed is a good thing. There's a reason, so you understand people and you know how you learn to react. The freedom it gives you, erm, not having constraints isn't necessarily a good thing you know". (Susan, p. 10)

Susan reminds us that every emotion we experience is for a specific reason. If one's online world avoids acceptance of reality and negative experiences, then this may cause problems when individuals are actually required to solve such situations in real-time everyday life.

As previously discussed, all interviews acknowledged this adoption of a false persona, a continuous 'act' performed for the individual's online friends and acquaintances, the SNS audience. As Bill states:

"...you're projecting to a much wider audience when you're online" (Bill, p. 5).

Bill's choice of the word 'audience' over friends or other SNSs users is very interesting. Not only does the use of 'audience' imply the distant nature of those viewing your online profile, it also provides a new theatrical metaphor to describe the revelation of an online split identity. As previously discussed, Goffman (1959), likened social interaction to the role of an actor in the sense that in the presence of

others we are 'performing' live on stage, presenting our self-constructed self or as Goffman referred "the self we would like to be" (1959, p. 30). Despite the aged nature of Goffman's dramaturgical theory, it can be directly linked to social networking sites and the creation of the online, protagonist self. The SNS user carefully constructs an online character, presenting or acting out an idealised version of themselves front of stage, whilst all insecurities and imperfections remain hidden backstage. However, expert Susan Greenfield believes this constant, continuous performance means we are:

"Living in the eyes of the others rather than the eyes of yourself" (Susan p.2)

All participants evidently felt strongly about the incongruence between one's online and offline selves, as highlighted throughout their transcripts. The general consensus was that the average SNS user experiences and demonstrates an inconsistency between one's mediated self, residing in their online community and their real, true self living and communicating offline in real-time. However future research may be beneficial in exploring whether this shift in identity is just an inevitable inconsistency within social behaviour (Mischel, 1968; Turner, 1982). Another area for future research may be to consider gender differences in terms of online identity formation, expanding on research such as Manago et al.'s which deems social networking sites "may be utilized as a tool for gender and sexual exploration in ways not possible offline" (2008, p. 448). Goffman's theatrical theory is also relevant in exploring the performance one takes part in when portraying and communicating themselves online, a journey in which the user becomes the protagonist, this "online performance of self allows one to alter one's physical appearance, likes/dislikes, tastes, humour, popularity, etc. in a way that offline interactions would not permit" (Manago et al. 2008, pg. 450). Although this study aims to discover the incongruence between face to face and computer mediated communication, analysis of the transcripts revealed that the participants deemed the way in which the self is communicated equally as important as the literal linguistic communication.

What is your name and where do you come from: Friendship and socialisation

As a result of exploring one's online identity, the theme of friendship and socialisation emerged. As the opinions of others and social interaction is vital in identity formation, the two themes complimented each other sufficiently and friendship evidently lends itself to the concept of communication. As Dunbar states, "our social world has been redefined by social networking" (2010, p. 21), thus an exploration to whether the rise in social network usage may also have redefined friendship is intriguing. The participants differed in their main motives of communication regarding online friendship; some participants used social networking sites for communicating with close friends only, where as others had individuals on their 'friend' list in which communication was sparse. Participants also differed in the number of Facebook friends they had (see Appendix 10). This diverse concept of online friendship proposes the question, what is the definition of a real friendship, are the people we spend an increasing amount of time communicating with online, real friends existent in the offline world?

All participants explained how social networking sites, specifically Facebook, are useful in helping them to keep in contact and socialise with real-time, close friends. However one participant, Emily, described how her Facebook page is home to unfamiliar Facebook 'friends':

"I wouldn't call them all people I speak to a lot. Some of them I never speak to."

(Emily, p. 2)

Emily provides an interesting point to the concept of friendship; she has people that she labels friends online yet never actually converses with them. This could imply that the quantity of online friendships may be perceived as more important than the quality. Whether the participants' online friends were close friends with regular contact or previous acquaintances with minimal contact, one consensus agreement throughout all the interviews was that participants did not use social networking sites in order to find or form completely new relationships with strangers.

The fact that participants had 'friends' they barely communicated with implies there may be a limit on the amount of true friendships an individual can experience and maintain. Despite revealing he has 200 online friends, Sam's interview explored the large quantities individuals claim as friends, questioning the physical possibility for individuals to maintain such a large friendship group:

"...apparently you can only sensibly maintain about 140 people as friends, but that includes very peripheral friends that you hardly ever see." (Sam, p. 23)

Sam suggests that there is a limit to the amount of social relationships each individual can successfully maintain, thus suggesting that it is impossible for all Facebook friends to be coherent with real-time, close friends. Sam's opinion is strongly associated to Dunbar's Number, an evolutionary theory suggesting the limitation that we as humans face, in successfully creating and maintaining significant relationships with others (2010). Although Dunbar's theory is renowned and well established, it is surprising that the exact number of friends we can successfully maintain is yet to be given a precise value; the approximate value is known to be 150. (Dunbar, 2010). If Dunbar's Number is to be taken into consideration, it would suggest that this limitation of successful friendship maintenance would apply to an individual's online and offline social world. All participants interviewed had over 200 online friends, evidently exceeding the approximated limit suggested by Dunbar, this may therefore suggest that Facebook 'friends' are not necessarily meaningful, close relations to the user and may be deemed as false friendships. Dunbar answers the earlier posed question, what constitutes a real friend?:

"...you wouldn't need to introduce yourself too because they would know where you stood in their social world, and you would know where they stood in yours".

(2010, p. 20).

If this is true and the number of meaningful relationships is approximately 150, this could be seen to highlight why participants explained they had people in their friend lists that they did not really speak to. This concept of false friendship and lack of communication seems slightly ironic considering Facebook is titled a 'social' network. However, opposing research labels online friendships as a "second circle of friends" (Manago *et al.* 2008, p. 450), suggesting they are not necessarily false friends, just that friendships levels may be more complex, a combination of inner and outer circles, "rather than friendship circles representing a small clique of people...the friendship network is now a larger and more abstract mass of people" (Manago *et al.*, p. 450).

Another aspect of friendship and socialisation participants explored was how online communication can in fact excel relationship formation, providing a quicker, simpler process than face to face communication. Emily explains how communication on line may quicken up the usual face to face procedures in relationship formation:

"...face to face if we were sort of to meet people when Facebook wasn't invented you'd have the long chat about all the boring things, what's your favourite things blah blah. Where as on Facebook BAM it's all already there...That's quite nice though". (Emily, p. 12).

Sam also refers to a similar process in which online relationship formation is in someway a simplification of face to face relationship formation:

"it somehow excels that relationship progression...we would slowly build up a relationship, I'd know about about you, where you live this that or the other you know the sort of information comes in dribs and drabs and where as on Facebook you accept the friend request and that's it you're friends" (Sam, p. 19).

Although previous research has evaluated the incongruence of online and offline friendships (Chan & Cheng, 2004; Tang, 2010), this concept of social networking sites guickening friendship formation appears to be unique and may be a proposed basis for future research. This simplified form of meeting online, which Sam and Emily explain, 'cut out' the initial stages of relationship formation, could suggest why critics such as Ward and Tracey (2004) believe that CMC "presents a potentially less difficult way to meet people" (p. 612). The fact that meeting online is being described as an easier alternative, may imply that some initial stages of face to face relationship formation me be unnecessary, contradicting a large amount of previous research (Coyle & Vaughn, 2008; Roane, 2008; Qi, 2011). However, despite participants noticing this online simplification, they contrastingly all noted the importance of face to face communication too. Emily's onomatopoeic description, 'BAM' highlights the instantaneous display of a Facebook user's personal information. A person's name, age, occupation, interests, relationship status, hometown are just a few of the 'about me' details instantly communicated. This information is normally the initial discussion topics in a face to face friendship formation, thus explaining why participants believe having it instantly available on Facebook simplifies this usual process. Emily concludes, explaining how this instant access to a person's life story allows one to assess whether they are compatible friends or not:

```
"It's like I can assess, do I want you to be my friend tick, tick, tick. Yes I do. Yeah it's like a CV". (Emily p. 14)
```

Emily's relation to a CV also relates back to the concept of an individual communicating their idealised self as previously discussed, highlighting how the key themes found are some what entwined. The rise in social networking sites has simultaneously resulted in a transformation of one's social life (Weisbuch et al. 2009), thus explaining why an exploration of the differing nature of friendship formation on and offline may be desirable. Despite differing in number of Facebook friends, all participants agreed that communication online was between themselves and individuals they had met at least once before. Future research may take a particular interest in Sam's comment, discovering how many friends once can realistically maintain and communicate with in relation to the high number of online friends users appear to have and whether this consequently results in different levels of friendship emerging. Although social networking sites are usually described as a virtual community, residing in real-time, this study controversially appeared to highlight a catalectic phenomenon in which real-time is in fact accelerated. Thus research may also find interest in discovering whether online relationship formation provides a quickened process and thus is incongruent to friendships formed in realtime.

What is in a face: The importance of real-time communication

As previously discussed, communication is a necessity to all individuals' waking lives. The creation of social networking sites such as Facebook, have produced a new form of communication. Does the development of a new form of communication imply that traditional face to face interaction is limited, or is the main purpose of social networking sites simply to provide a convenient communication alternative when face to face is unavailable? Whether the two styles of communication are meant to compliment or oppose each other, all participants discussed the two communication forms in terms of their incongruent nature, relating to the properties which make face to face interaction unique.

Sam begins by highlighting that the key difference when communicating online is that:

```
"You don't see the faces" (Sam, p.5)
```

This physical separation between speaker and recipient online consequently means that online:

```
"...you can't use body language, facial expressions, intonations in your voice or anything like that"
(Bill, p.3)
```

Bill highlights that online, these non verbal signals are components that CMC lack. Bill is not alone in his observations as research highlights that the lack of non verbal cues is a frequently reported problem for CMC users (McDougald *et al.* 2011). These non verbal components of face to face interaction are part of Calero's "silent language" which has been proven to be the most significant factor in interpretation of meaning (Mehrabin as cited in Calero, 2005, p. 277). Despite being innate, these non verbal signals are incorporated into all humans' real-time communication, further suggesting their importance. Lily confirms that communication relies on more than just text-based linguistics:

"...you can really get a lot from their facial expressions and their mannerisms and I think you know it's quite hard if you're reading a message from someone on Facebook".

(Lily, p. 5)

As well as acknowledging the importance of non verbal signals, Lily also explains how the removal of these during CMC actually makes deciphering online messages problematic, suggesting that online communication may be less efficient than face to face interaction (Coyle & Vaughn, 2008). Expert Susan Greenfield appears to be strongly opinionated regarding the inefficiency of CMC:

"...if you're restricted to a screen where you can't use those clues then obviously it's going to be a very different type of communication". (Susan, p.2)

It could be argued that social networking sites have noticed the problematic consequences resulting from the absence of non verbal communication, hence the integration of emoticons (emotional icons) and video communication (Skype) into sites such as Facebook. The name alone suggests the pictorial symbols are an attempt in representing offline emotions, supported by Emily who believes emoticons are:

"...just another way of expressing an emotion" (Emily, p. 4)

McDougald *et al.* compliment Emily's description stating that "emoticons can mimic some of the properties of nonverbal, visual cues" (2011, p. 1948). The word 'some' here is significant, suggesting that although emoticons may be sufficient in imitating some facial expressions, their imitation efficiency is limited. As McDougald *et al.*'s study highlights, research on online emoticons is limited, thus the current study would support why future research on emoticon efficiency may prove useful. The recognition of emotions and expressions is not a recent development; research has continually worked on examining the universal nature of expression recognition (Eckman & Friesen, 1971) therefore research could be carried out to see if, when unaccompanied by text, emoticon emotions are as easily recognised as facial expressions. The recent integration of Facebook and Skype could also be an attempt to bring non verbal communication into the social networking world. On Skype, users can now see each other live whilst having the opportunity to maintain a text-based conversation. However Bill believes it is still not a true imitation of real-time interaction:

"...like eye contact and stuff like that is never going to be perfect because obviously you're looking at a visual representation of the person rather than their actual eyes" (Bill, p.4)

It is likely that 'and stuff' would refer to the other factors that work alongside eye contact to produce non verbal communication. However it should be noted that Bill specifically chose to name eye contact over other components, possibly suggesting the key importance of the eyes in human interaction. Lily also provides her opinions on the integration of Skype and Facebook:

"I think it is better. I mean an improvement on chat on Facebook...but I still think like not having the physical presence there definitely eliminates certain aspects" (Lily, p. 11)

It appears that the overall consensus is that online communication will never be able to successfully live up to the intimacy and complexity of face to face interaction, a similar conclusion to previous research by Coyle and Vaughn (2008). Although it should be recognised, it is important not to excessively dwell on the inefficiency and lack of non verbal signals in online communication; after all it *is* a different form of communication that has never personally claimed to serve as a face to face alternative.

Another unique component of face to face interaction is its classification as a multisensory event (Winger, 2005). Conversing face to face provides a wholesome intimate interaction, encapsulating the whole body from head to toe, a process made unique by the compilation of all five senses. Susan Greenfield explains how the online world differs from the offline as it reduces three dimensional individuals to a static two dimensional representation and questions if this is desirable:

"...do we want a society where people have adapted to a two dimensional word using only two senses?...Why should it be that this two dimensional form of this conversation out competes the old fashioned, you know full five senses, three dimensional interaction" (Susan, p.5)

Susan's questioning appears to be rhetorical as her view that face to face communication has been and should always remain the primary source of human bonding and interaction is evident.

All participants described the incongruence between online and offline communication and in doing so explored the complexity of face to face interaction. It is important to note that although all student participants seemed to praise face to face interaction, they all still own a Facebook account in which they communicate with friends on a regular basis. This may suggest that social networking sites may be used to communicate when more intimate forms of communication are unavailable. In terms of personal preference, both Emily and Lily confirmed that they would much rather converse with friends in a personal, real-time environment, where as Bill and Sam failed to display a preference. This may therefore suggest that preferred

methods of communication may be gender specific, highlighting an area suitable for future research.

The dark side of online communication

During the interviews, participants made constant reference to the dangerous elements individuals are exposed to once residing in cyber space. Although all participants acknowledged the advantages of online communication, a discussion of the disadvantages appeared to dominate across the board. The main disadvantages discussed by participants were isolation, confrontation and anonymity.

As previously discussed, the past couple of years has branded social networking as one of the, if not most, popular forms for young adults to communicate (Weisbuch *et al.* 2009; Lusted, 2011). If social networking sites are the most popular form of communication, this would imply that a high proportion of the majority of young adults' time is spent 'logged in', socialising with peers. Participants acknowledged the convenience of online communication, its instant present, removing geographical barriers (Carey, 2009) and the ability to converse with multiple friends in the same conversation:

"I think it's just more convenient and we know we are all going to have that in put so rather than send eight different text messages for advice, I know I can put one message on Facebook and I have all my, all my girls reply straight away". (Lilly, p. 4)

However, despite her own motives for social networking usage, Lilly also acknowledges that others may have different, more dangerous motives:

"...like bullying and things that happen on line and it's – they probably wouldn't do it necessarily in real life... but on Facebook it's so easy because you type it, you send it".

(Lilly, p. 14)

Lilly appears definite in saying that online is the home to 'bullying and things', and in doing so highlights how the positive conveniences she discussed earlier can also lead to negative consequences that would not necessarily occur in the offline world. The situational basis of this deviant behaviour may be due to the online combination of anonymity and asynchronicity (as discussed previously). Lily's description agrees with Cassidy *et al.* (2009) who believe that along side the development of a new computer based communication process a "new and distinct form of bullying" (p. 383) has simultaneously emerged.

Leading expert Susan Greenfield also highlights the negative attributes of social networking sites:

"...there are trends like social networks, like erm bullying and also for unspeakable things like trolling and you know the riots. What monsters do that sort of thing?! It just gives people a licence in a way that brings out the worst". (Susan, p. 11)

Susan's dialogue clearly distinguishes a strong disgust with these problematic 'trends'. To one unfamiliar with the concept of trolling, an online troll can be described as "A loose community of anarchic and anonymous people...testing the limits of free speech on the internet" (Phillips, 2011, p. 68). Although this description appears to be subtle, Susan's dialogue highlights the harm that can be caused by this troll like behaviour, further echoed by Phillips who states a trolls behaviour may range from "the vaguely distasteful to the borderline illegal" (p. 68) including comments or a racist, sexist, homophobic nature as well as shocking images of an erotic nature. Bill appears to offer another reason for this recent concept of trolling:

"...because obviously it is an individual typing that horrid stuff. Yeah in the real world you'd be held accountable for it, like if I insulted you now, you'd probably damn well make sure I knew about it!" (Bill, p. 12)

Bill therefore suggests that accountability/responsibility may also play a part in this deviant behaviour. An anonymous environment and the adoption of a false persona may produce an avoidance of reality, that would not be possible in the offline world (see previous sections), resulting in this increased disobedient behaviour online. This therefore opposes Zhao *et al.* who claims that social networking sites are not "a dreamland for deviant behaviour" (2008, p. 1831).

Despite claiming innocent use of SNS, all participants were aware of this uprising trend, suggesting that it is becoming a well known online phenomenon to all networking natives. As the participants were aware of this cyber bullying but had not taken part themselves, future research may wish to explore the relationship between personality types and deviant behaviour to further understand the motives behind this unusual behaviour. Research may also wish to explore if trolls have a consistent behaviour pattern in both online and offline situations, if so, this may imply that this anti-social behaviour may be down to the specific individual rather than the social networking site itself.

A further discussion, common throughout all the interviews was that of isolation. Evidently, CMC takes place between users via computer, consequently meaning that users' time online is spent in the comfort of their own home. Expert Susan Greenfield explains how this increased time spent inside worries her:

"I think what worries me most about screen technology, that no one can deny, is every hour you spend doing that, that's one hour less of you doing something else...it's a deficit model. If you're spending an hour on a computer that's an hour... not giving someone a hug, not having the sun on your face". (Susan, p. 4)

Susan symbolically juxtaposes the inside and outline worlds, producing a feeling of isolation. Susan's use of the word 'worry' highlights that she believes this technological replacement of offline activities is not necessarily a good thing. Sam expands on this isolated feeling that accompanies online communication:

"...we will come that individualised that we literally, will be one person at home in a small house...broken down to complete individuals". (Sam, p. 15)

Sam's use of 'we' suggests that he believes this individualisation will affect society as a whole rather than a selected number or users. His description, 'one person at home' is particularly intriguing. On a literal meaning, we are in fact one person at home, however Social Identity Theory suggests the importance of one's status within a group as well as one's social relationships is what determines the person we become (Tajfel as cited in Robinson, 1996). This therefore highlights how, metaphorically, we are more than just our individual singular self, thus showing how isolation from face to face interaction with social groups and peers down can break us down to 'one' as Sam explains.

The fact all participants explored how an existence online can lead to isolation appears highly paradoxical. Although participants reported that the purpose of their existence online is to stay connected with friends, it appears that social networking sites may in fact detach users from socialisation, socially segregating them from their real time friendships and placing them into a world of mutually shared isolation, suggesting the belief that society today is constantly connected may be a mere illusion (Turkle, 2011).

Although all participants provided an opinionated account into the 'dark' side of social networking, it is important to acknowledge that several participants also attempted to counter-balance these negative attributes:

"...lets not forget kids are still going to be attending school on a daily basis so forced to interact with people... then you've got parents and adults who spend time from very early ages so you're always going to have that sort of social exposure".

(Bill, p. 10)

Bill reminds us that despite an individual's online existence, primary socialisation will always exist, suggesting that the assumption social networking sites inevitably lead to isolation and individualisation may be failing to acknowledge the importance of parental and educational roles within young adults' lives.

Conclusions

Overall, all participants provided a thorough account of the four main themes. The personal interview process provided a deeper insight into all the participants' worldviews, allowing an experience of their true thoughts and beliefs to be obtained. The fact that similar themes emerged in all interviews suggests that these findings could possibly exist in discussion with other small groups of individuals. However it is to be noted that due to the sample size, the findings of the present study can not be assumed to hold global generalisation. The study and the relative findings produced are indexical in relation to the context of the present study; however this present work exists as a thorough exploration of the identified themes, providing an increased understanding of the topics explored, accordingly providing a basis for future research.

A qualitative investigation took place exploring the incongruent nature of online and offline communication. The participants' online and offline worlds were accessed through semi-structured interviews. The four emergent themes arising from the interpretative phenomenological analysis were, 'Identity and the protagonist self', 'What is your name and where do you come from: Friendship and socialisation', 'What is in a face: The importance of real-time communication' and 'The dark side of online communication'. Initially the interviews set out to discover the inconsistency between online and offline realms with a specific focus on communication, however, the close analysis of the participants' dialogue revealed that the inconsistent nature of communication not only refers to linguistic communication, but how an individual 'communicates' themselves when on and off the metaphorical networking stage. Zhao et al. (2008) state that it is "incorrect to think that the online world and the offline world are two separate worlds" (p. 1831) however, through exploring the phenomenon involving current users' life experiences, this study concludes that these worlds can be deemed incongruent and separate to one another. Although generalisation of participant findings may not be possible, this study provides a thorough account into expanding the existing body of knowledge on such topics.

Reflexivity

During this study, not only were the life stories of the participants addressed and explored, I, myself as the researcher undertook a journey of exploration and learnt many things about myself as well as the participants. As my first qualitative piece of research, the process was challenging, but none the less extremely enjoyable and I am extremely proud of this piece of qualitative research I have produced. I sincerely hope that reading this piece of work projects my enthusiasm and is as enjoyable for any reader as the process was for me.

The overall process was more difficult than I had first anticipated. The transcription process and data analysis required full dedication and motivation, due to its complex and time consuming nature. However this was all worth while after seeing the piece of research in its completed state. Despite its challenging nature, the research process was extremely enjoyable and the sense of achievement on completion was heightened by the challenging nature of the transcription and data section of the research.

Another of the difficult challenges to overcome during the process was the attempt to eliminate researcher biases. I feel that addressing and confronting these biases and outlining my attempt to overcome them is now necessary in order to provide the truest account possible. In the initial stages of research, I attempted to ensure an unbiased approach by making sure my reading of topic related research looked at all different perspectives of social networking and communication, thoroughly exploring articles both in favour and in criticism of social networks. Reading a diverse mixture of arguments, ensured my own worldview was left behind and that I was entering the research process as unbiased as possible.

The pilot study also provided a method to avoid biases by highlighting that the incongruence in communication via social networking and face to face interaction is a more generally perceived inconsistency, rather than a situation I had experienced

alone. Realising that other people had also experienced this offline social awkwardness provided a basis to continue researching this specific topic.

As this was my first piece of qualitative research I was extremely nervous about interviewing people I had never met before as my interviewing skills were yet to be developed. Before the interviews took place, I spent time watching all genres of interviewers from Parkinson to Jeremy Kyle, to discover techniques that I deemed both important and unimportant as an interviewer. To further develop my interview technique, I engaged in semi-structured conversations with family members and friends on random topics in attempt to strengthen my interviewing skills and highlight any areas where improvements were needed. I found my inexperience as an interviewer meant that I used the recipients' replying time to think of what to say next instead of engaging and fully understanding their replies. Highlighting my errors before the real interviews meant that the same mistake was not repeated and during the participant interviews I fully engaged with the participants, absorbing their every word. Despite practising my interviewing technique, it is to be remembered that these were the first interviews I had conducted and therefore may not have been to up the standard I would have desired. Although a rough plan of topics to be covered was created before the interviews, the majority of the questions asked depended on the flow of the interview and the participant's response, thus were created and asked during the course of the interviews. Although acknowledging before hand that any questions asked must not affect or bias the participants' answers, my inexperience in the interviewing field may have unintentionally affected participant responses through leading or closed questions. In future research, I shall embrace this first attempt at interviewing and use it as a learning curb to grow as a qualitative researcher.

Providing participants with the chance to monitor the accuracy of their transcript interpretation meant that any biases or misunderstandings that may have occurred when analysing the transcripts were not transferred into the data analysis, thus increasing the validity of the research by offering a true representation of the participants' life stories. It is also to be noted that I ensured analysis of each individual transcript occurred on separate days so that analysis of one transcript was not influenced by any others previously analysed. The transcripts were first considered in relation to each other during the creation of the data matrix (see appendix 11). Despite my conscious attempt to deliver a true representation of the participants' views and beliefs, it is important to acknowledge that ensuring participants answered truthfully was a variable beyond my control. The results highlighted the importance of self-presentation, therefore it is possible that participants may have felt the need to distort or sculpt their answers in attempt to portray and idealised self during the interviews, thus resulting in results that do not offer an accurate representation.

It is to be acknowledged that the research question was formed through reflection of my own personal experiences, thus revealing that I am a frequent user of social networking sites. Although this could be seen as a bias, I believe I made the best attempt possible to eliminate all biases in ways previously explained. Alternatively, I believe that the fact I am a frequent social network user provides my research with originality as most previous research on similar topics appears to have been carried out by researchers and professionals older than myself.

Should I have the chance to expand and further explore this topic, a larger sample size would be desirable, containing students from a variety of universities. Although the results allowed a comparison of overall trends, these can not be transferred to a wider population due to the small sample size. Alternatively they offer a deeper understanding of the topic and a suggestion for future research.

Now the research process is complete, I am extremely happy with the final result of the research. The process has strengthened my passion for qualitative research and I definitely hope to have the opportunity to produce further pieces of qualitative work. I am particularly passionate in expressing that the complexity of an individual can not be successfully represented with a static 2D digit and thus am excited to voice this opinion and continue on my journey as a qualitative researcher.

References

Anderson, B., Fagan, P., Woodnutt, T., & Chamorro-Premuzic, T. (2012). Facebook psychology: Popular questions answered by research. *Psychology of Popular Media Culture*, 1(1), 2160-4134. doi: 10.1037/a0026452

Back, M.J., Stopfer, J.M., Vazire, S., Gaddis, S., Schmukle, S. C., Egloff, B. *et al.* (2010). Facebook profiles reflect actual personality, not self-idealization. *Psychological Science*, *21*(3), 372–374. doi: 10.1177/0956797609360756

Begley, K. (n.d.). Face to face communication making human connections in a technology-driven world. Retrieved December 20 2011 from http://www.axzopress.comm/downloads/pdf/1560526998pv.pdf

Bicen, H. & Cavus, N. (2011). Social network sites usage habits of undergraduate students: Case study of facebook. *Procedia - Social and Behavioral Sciences*, *28*, 943-947. Retrieved from http://ezproxy.hope.ac.uk:3004/science/article/pii/S1877042811026139

Brown, J.S. & Duguid, P. (2000). *The social life of information.* USA: Harvard Business School Publishing.

Bruce, V. (1996). The role of the face in communication: Implications for videophone design. *Interacting With Computers*, *8*(2), 166-176. Retrieved from http://www.sciencedirect.com/science/article/pii/0953543896010260

Buffardi, L.E. & Campbell, W.K. (2008). Narcissism and social networking web sites. *Personality and Social Psychology Bulletin, 34*(10), 1303–1314. doi:10.1177/014616720832006

Calero, H.H. (2005). The power of nonverbal communication: How you act is more important than what you say. Aberdeen: Silver Lake Publishing.

Carey, J.W. (2009). Communication as culture: Essays on media and society. New York: Routledge.

Carpenter, C.J. (2012). Narcissism on Facebook: Self-promotional and anti-social behavior. *Personality and Individual Differences*, *52*(4), 482-486. Retrieved from http://ezproxy.hope.ac.uk:3004/science/article/pii/S0191886911005332

Cassidy, W. Jackson, M. & Brown, M.N. (2009). Sticks and stones can break my bones, but how can pixels hurt me?: Students' experiences with cyber-bullying. *School Psychology International*, *30*(4), 383-402. doi: 10.1177/0143034309106948

Chan, D.K. & Cheng, G.H-L. (2004). A comparison of offline and online friendship qualities at different stages of relationship development. *Journal of Social and Personal Relationships*, *21*(3), 305-320. doi:10.1177/0265407504042834

Cheung, C.M.K., Chiu, P-Y. & Lee, M.K.O. (2011). Online social networks: Why do students use Facebook? *Computers in Human Behavior*, *27*(4), 1337-1343. doi: 10.1016/j.chb.2010.07.028

Coffman, S. (2010). Social networking sites: Really a communication phenomenon? Retrieved October 20 2011 from http://coffmansc.greenwoodlibrary.org/?p=102

Coyle, C.L. & Vaughn, H. (2008). Social networking: Communication revolution or evolution? *Bell Labs Technical Journal*, *13*(2), 13–17.

Dohen, M., Schwartz, J. & Bailly, G. (2010). Speech and face-to-face communication: An introduction. *Speech Communication*, *52*(6), 477-480.doi: 10.1002/bltj.2029810.1016/j.specom.2010.02.016

Dunbar, R. (2010). How many friends does one person need?: Dunbar's number and other evolutionary quirks. USA: Faber & Faber Ltd.

Eckman, P. & Friesen, W.V. (1971). Constants across cultures in the face and emotion. *Journal of Personality and Social Psychology*, 17(2), 124-129. doi:10.1037/h0030377

Ellison, N.B., Steinfield, C. & Lampe, C. (2007). The benefits of Facebook "friends": Social capital and college students' use of online social network sites. *Journal of Computer-Mediated Communication*, 12(4), 1143–1168. doi: 10.1111/j.1083-6101.2007.00367.x

Flecha-Garcia, M.L. (2010). Eyebrow raises in dialogue and their relation to discourse structure, utterance function and pitch accents in English. *Speech Communication*, *52*(6), 542–554. doi: 10.1016/j.specom.2009.12.003

Greengross, G. & Miller, G. (2011), Humor ability reveals intelligence, predicts mating success, and is higher in males. *Intelligence*, *39*(4), 188-192. Retrieved from http://www.sciencedirect.com/science/article/pii/S0160289611000523

Goffman, E. (1959). *The presentation of self in everyday* Life. New York: Doubleday, Anchor Books.

Hasan, A., Lewis, C. & Campbell, F. (2012, March 19). *The anti-social network*. London: BBC Three

Heath, R.L. & Bryant, J. (2000). *Human communication theory*. New Jersey: Lawrence Erlbaum Associates Inc.

Heidegger, M. (1662). Being and time. Oxford: Blackwell

Husserl, E. (1982). *Ideas pertaining to a pure phenomenology and to a phenomenological philosophy* (F. Kersten, Trans.). Dordrecht: Kluwer

Kelley, K. (1999). Hermeneutics in action: Empathy and interpretation in qualitative research. In M. Terre Blanche and K. Durrheim (Eds.) *Research in action: Applied methods for the social sciences* (pp.398 -420) Cape Town: UCT Press.

Kennedy, H. (2006). Beyond anonymity, or future directions for internet identity research. *New Media & Society, 8*(6), 859-876. doi: 10.1177/1461444806069641

Lazarus, S. (2012, February 20). *My social network stalker: True stories*. London: Channel 4.

Lefler, N.L. & Barak, A. (2012). Effects of anonymity, invisibility, and lack of eye contact on toxic online disinhibition. *Computers in Human Behavior, 28*(2), 434–443. doi: 10.1016/j.chb.2011.10.014

Lincoln, Y.S. & Guba, E.G. (1985). *Naturalistic inquiry*. Beverly Hills, CA: Sage Publications, Inc.

Littlejohn, S.W. & Foss, K.A. (2008) *Theories of human communication*. USA: Wadsworth Publishing.

Lusted, M.A. (2011). *Social networking: MySpace, Facebook and Twitter.* Minnesota: ABDO.

Manago, A.M., Graham, M.B., Greenfield, P.M. & Salimkhan, G. (2008). Self-presentation and gender on MySpace. *Journal of Applied Developmental Psychology*, 29(6), 446–458. Retrieved from http://www.cdmc.ucla.edu/Published_Research_files/mggs-2008.pdf

Martin, R.A. (2007). The psychology of humor: An integrative approach. USA: Elsevier Academic Press.

McDougald, B.R., Carpenter, E.D. & Mayhorn, C.B. (2011). Emoticons: What does this one mean? *Proceedings of the Human Factors and Ergonomics Society Annual Meeting 55*(1), 1948–1951. doi: 10.1177/1071181311551406

Mehdizadeh, S. (2010). Self-presentation 2.0: Narcissism and self-esteem on Facebook. *Cyberpsychology, Behavior, and Social Networking*, *13*(4), 357–364. doi: 10.1089/cyber.2009.0257

Miles, M. & Huberman, M. (1994) *Qualitative data analysis*. Newbury Park, CA: Sage Publications

Mischel, W. (1968). Personality and assessment. New York: Wiley.

Park, N., Kee, K.F. & Valenzuela, S. (2009). Being immersed in social networking environment: Facebook groups, uses and gratifications, and social outcomes. *CyberPsychology & Behavior*, *12*(6), 729-733. doi:10.1089/cpb.2009.0003.

Phillips, W. (2011). Meet the trolls. *Index on Censorship, 40*(2), 68-76. doi: 10.1177/0306422011409641

Qi, X. (2011). Face: A Chinese concept in a global sociology. *Journal of Sociology*, *47*(3), 279-295. doi: 10.1177/1440783311407692

Roane, S. (2008). Face to face: How to reclaim the personal touch in a digital world. New York: Fireside.

Robinson, P.W. (1996). Social groups & identities: Developing the legacy of Henri Tajfel. Oxford: Butterworth-Heinemann.

Ryan, P.K. (2011). Social networking. New York: The Rosen Publishing Group.

Smith, J.A. (2008) Qualitative psychology (2nd edn). London: Sage Publications.

Smith, J.A., Flowers, P. & Larkin, M. (2009). *Interpretative phenomenological analysis: Theory, method and research*. London: Sage Publications.

Subrahmanyam, K. & Greenfield, P. (2008). Online communication and adolescent relationships. *The Future of Children*. *18*(1), 119-146. Retrieved from http://www.jstor.org/discover/10.2307/20053122?uid=3738032&uid=2&uid=4&sid=56 100959383

Suler, J. (2004). The online disinhibition effect. *CyberPsychology & Behavior, 7*(3), 321–326. doi: 10.1089/1094931041291295.

Tang, L. (2010). Development of online friendship in different social spaces. *Information, Communication & Society, 13*(4), 615-633. doi: 10.1080/13691180902998639

Third, A. & Richardson, I. (2009). Cultural phenomenology and the material culture of mobile media. In P. Vanni (Ed.), *Material Culture and Technology in Everyday Life: Ethnographic Approaches* (pp. 145-156) New York: Peter Lang.

Tomasello, M. (2008). Origins of human communication. Cambridge: MIT.

Turkle, S. (2011). Alone together. Why we expect more from technology and less from each other. New York: Basic Books.

Turner, J.C. (1982). Towards a cognitive redefinition of the social group. In H. Tajfel (Ed.) *Social Identity & Intergroup Relations* (pp. 15-36). Cambridge: Cambridge University Press.

Valkenburg, P.M. & Peter, J. (2011). Online communication among adolescents: An integrated model of its attraction, opportunities, and risks review article. *Journal of Adolescent Health*, *48*(2), 121-127. doi: 10.1016/j.jadohealth.2010.08.020

Weisbuch, M., Ivcevic, Z. & Ambady, N. (2009). On being liked on the web and in the "real world": Consistency in first impressions across personal web pages and spontaneous behavior. *Journal of Experimental Social Psychology*, *45*(3), *57*3 - 576. doi:10.1016/j.jesp.2008.12.009

Wellman, B., Haase, A.Q., Witte, J. & Hampton, K. (2001). Does the internet increase, decrease, or supplement social capital? Social networks, participation and community commitment. *American Behavioural Scientist*, *45*(3), 436-455. doi: 10.1177/00027640121957286

Willig, C. & Stainton-Rogers, W. (2009). *The SAGE Handbook of Qualitative Research in Psychology*. London: SAGE Publications.

Winger, A.R. (2005). Face to face communication: Is it really necessary in a digitizing world? *Business Horizons*, 48(3), 247-253. doi: 10.1016/j.bushor.2004.11.004

Wood, A.F. & Smith, M.J. (2010). *Online communication: Linking technology, identity* & *culture.* (2nd edn.) London: Lawrence Erlbaum Associates Publishers.

Wood, P. (2009). *Texting vs face to face interaction*. Retrieved January 15 2012 from http://www.pattiwood.net/article.asp?PageID=8696

Yurchisin, J., Watchravesringkan, K. & McCabe, D.B. (2005). An exploration of identity re-creation in the context of internet dating. *Social Behaviour and Personality*, 33, 735-750.

Zhao, S., Grasmuck, S. & Martin, J. (2008). Identity construction on Facebook: Digital empowerment in anchored relationships. *Computers in Human Behavior*, 24(5), 1816-1836. doi: 10.1016/j.chb.2008.02.012