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Running head: FLIP SIDE

The Flip Side: An Investigation into the Depersonalization of Communication

Eileen S. Myer

The College at Brockport, State University of New York

Acknowledgments

To the midnight IM companions, early morning texters, and all day library goers that provided the laughs!

1 - p.s. I LOVE that you are sitting across from me and talk to me on the computer instead of speaking the words for me to hear. I think I will include this in my study!!

2 - nice, cite me!

3 - stop it. do work. jeez. Slackers!

2 - Wow, seriously? Remember when you were sitting right next to me doing work?? I mean, on the computer?

3 - you guys are so distracting.. txting me all the time

2 - mmhmm, it's all us right? End scene (Barrell, 2008)

1 - guys...shhhhh we're at the library...WORK!!!!

3 - actually I think "end scene" was (Bliss, 2008) I don't think I was cool enough to start that one

2 - Oh ok, I will have to cite her in the future then, although this is how it will work....end scene (Barrell, 2008; Bliss, 2008)

1 - I think we need to coin the term "Library Therapy" definition: the use of computers and the library to provide relief in high stress situations

3 - yeeesss

2 - awesome...agreed.

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Abstract

The author investigated the depersonalization of student communication in grades six through twelve. The Flip Side Survey was run to focus in on whether or not the use of instant message programs and text messages via cellular telephones is depersonalizing communication between 6th through 12th grade students ($N=213$). Depersonalization was broken down in to five constructs: empathy, compassion, conversational cue usage, personal communication skills, and consequence recognition. Each construct was measured in relationship to face-to-face communication and each question was repeated in relationship to text message and instant message communication. The results showed little evidence to support the depersonalization of communication due to the use of text/instant messaging.

The Flip Side: An Investigation into the Depersonalization of Communication

The climate of today's society, with its rapid development of communication technologies, presents young people with many new challenges, foreign to older generations (Charlton et al., 2002). New technologies (i.e., the Internet, the computer, computer-mediated communication (CMC) devices, & cellular telephones with text messaging capability) have the ability to "connect people irrespective of time or place, enabling interactions from interpersonal to mass communication" (Postmes et al., 2002, p. 3). The limiters of communication have been expanded to stretch across time and spatial gaps, previously unattained goals of older communication devices (e.g. the telegraph, telephone, television, and radio) (Bargh & McKenna, 2004). Electronic communication creates a setting in which individual differences, such as appearance, social rank, status ...etc., are relatively insignificant to the communication process. In comparison with face-to-face communication, electronic communication can be considered depersonalized in the sense that communicators are less individuated, less visible, or visible in different ways during conversation (Postmes et al., 2002; Flaherty et al., 1998).

Postmes et al. (2002) defined depersonalization as an effect of communication that prevents communicators from being perceived as "individuals with a range of idiosyncratic characteristics and ways of behaving" (p. 4). Depersonalization is the lack of identifying individual characteristics of the self to others which creates a reciprocal anonymity of others to the self. The purposes of this study require that depersonalization be defined by the researcher as the decrease of individualized characteristics of communication (i.e., ability to show empathy, ability to show compassion/emotion, ability to respond to nonverbal communication/cues, level of commitment to interpersonal communication, and ability to recognize consequences for written actions) through written electronic communication mediums. The scant amount of research (McKenna & Bargh, 2000) on depersonalization, as it is defined by this researcher in relation to electronic communication, provides ample evidence to support a need for study in this emphasis of communication.

Review of the Literature

The rapid infusion of communication technologies, specifically the Internet, instant messenger programs and cell phones with text messaging capabilities, into society provides researchers with a once-in-a-lifetime opportunity to study new communication mediums (e.g., instant messages [IMs], text messaging [texts] by way of cellular telephones) and one emerging pattern of communication (i.e., deindividuated communication) from their inception (DiMaggio et al., 2001) and compare them to standardized communication outlets (e.g. face-to-face communication) and style (e.g., interpersonal communication). To provide insight into a new area of research this study reviews the literature on previous forms of communication technologies, in chronological order up to the advent of modern technologies, discusses interpersonal communication, computer-mediated communication (CMC) and mobile text messaging, and provides a comparison between the two, as well as provides an investigation into the constructs that create depersonalization, and provides a view of new communication behavior observed through the use of CMC and mobile text messaging. The literature is being reviewed to help answer the question of whether or not the use of instant message programs and text messages via cellular telephones is depersonalizing communication between 6th through 12th grade students.

History

The reaction to new technology is dependent on when a person sees that technology for the first time. In a study conducted by Lacina (2007) regarding childhood education, learning to use technology ranked third in importance only behind reading and writing. However, children and adolescents tend to adapt to new technology faster than any other groups in society (Merchant, 2001). Young people view the world from a fresh standpoint when it comes to new technologies. These innovations seem normal to young folks because the new technologies were around before they were born or before they were able to comprehend what they actually were (Madden et al., 2005). Technology is no more intimidating to the children of the current generation than a DVD player or a

toaster (Landerholm, 2004). Adults on the other hand need time to be gradually introduced to new technologies. After the age of thirty new things seem against the natural order and take about 10 years to become well integrated. The age at which new technologies are first encountered is a determinate for the attitude held about them (Madden et al., 2005).

In addition to the fact that the older one gets the more foreign new technologies seem (Madden et al., 2005) there is a tendency to discredit new innovations by describing the effects they produce as the result of other more generic mediums. The opposite hyper-reactions to new technologies are not new either, for instance, when a prediction is made about a new technology that incites a panic (Spears et al., 2002). The reactions to new technologies stem from a “fear of the unknown and have been a feature of the introduction of most previous technological breakthroughs that greatly affect nearly everyone’s lives” (McKenna & Bargh, 2000, p. 58). Bargh and McKenna (2004) suggested reviewing the past reactions and uses of technological breakthroughs to develop a gauge for determining the impact of new communication technologies (p.575).

The Telegraph

The closest parallel to today’s communication technologies, particularly the Internet, is the innovation and use of the telegraph. Prior to the 1930s messages could not move from one location to another faster than a person could travel (Bargh & McKenna, 2004). This fact was changed dramatically when Samuel F.B. Morse created the best system of the time for sending messages long distances, the telegraph. The telegraph was a system of codes sent over wire from one location to another, regardless of distance. The telegraph was a simple electromagnetic circuit that contained a telegraph key and an electromagnet at each end of the communication. When the telegraph key was pressed by the sender it completed the circuit and allowed the flow of current, created by a battery, from one location to another. The electrical current attracted an iron lever which created a clicking sound that became the key to long distance communication. Morse manipulated the sounds made by the telegraph and

developed a code (“dot”, “dash”, “space” p.39) for the English language that could be sent across wires around the world (Sterling et al., 2006).

The telegraph eliminated the element of physical distance between people as a limiter of communication. In 1858 the connection between Europe and America was made when the transatlantic cable was put in place. The event was met with great enthusiasm and called the event of the century (Spar, 2001). Messages could now be sent all around the world in a matter of minutes and events in distant parts of the world would be known within hours or days as opposed to the weeks or months it had previously taken a person to travel the same distance (Bargh & McKenna, 2004). And thus an instrument had been created that most resembles online Internet communication used today.

Considering all communities of past communication technologies, the telegraph operators, who totaled in the thousands, most resembled Internet users of today. They shared news, personal information, stories, gossip...etc. over the telegraph wires. Many relationships developed but very few turned into anything more than acquaintanceships over a wire (Bargh & McKenna, 2004). The system of communication was much the same as the CMC used today, with abbreviations, acronyms, and shortened word used to express all communication needs. The telegraph created an “online” communication community that very rarely met face-to-face. The telegraph had a profound impact on the nineteenth century, by eliminating distance as an obstacle to communication (Bargh & McKenna, 2004). This has been the most important advancement of communication technologies to date (Nastri et al., 2006).

The Land-line Telephone

Prior to the 1870s personal messages could only travel as far as a human voice could be carried without writing a letter or sending a telegraph. Beyond the reach of the human voice messages could only travel as fast as an individual or mail carrier could travel, with the exception of the telegraph which was mainly used for intercity communication and rarely for personal use (Fischer, 1992). The invention

of the telephone by Alexander Graham Bell and Thomas Watson in 1876 changed the way people were able to communicate at short distances, and then long distances. Voice travel through the telephone was made possible by sound traveling through copper wires which limited the use of the telephone at first. A direct connection needed to exist between the two communicating parties which led to the inception of the telephone system (Sterling et al., 2006). The original home telephones and system are best described by Fischer (1992):

The instrument itself was a set of three boxes. The top box held a magneto generator, a crank, and bell. The middle box had a speaker tube protruding forward and a receiver tube hanging from the side. The third box contained a wet-cell battery that needed to be refilled periodically and occasionally leaked. A caller turned the crank to signal the switchboard operator; the signal mechanically released a shutter on the switchboard in the central office, showing the origin of the call. The operator plugged her headset into the designated socket and asked the caller whom he or she was seeking. Then the operator rang the desired party and connected the two by wires and plugs in the switchboard. (p.37)

The development of the telephone system started with many people sharing one line of communication, called the party line, where up to 20 customers could be connected using one connection. As the telephone system expanded, as more and more connections were made, party lines were turned into individual connections and the system that exists today was created (Sterling et al., 2006).

The implications of the telephone were not seen before its inception into society (Lievrouw & Livingstone, 2002). The telephone was created for businesses as a communication tool but quickly became a means for social interactions (DiMaggio et al., 2001). The telephone provided increased contact between people, family, friends, and co-workers who lived long distances away from one another. Like many other innovations the telephone also raised concerns from critics that “the telephone would harm the family, hurt relationships, and isolate people” (Bargh & McKenna, 2004). It

was rumored that the telephone could pick up conversations within a household even when the receiver was on the hook, which caused hesitation in the acceptance of the telephone (McKenna & Bargh, 2000).

Computers

Computers rose to prominence in 1983 when they were mainly used in the areas of science, engineering, and business. Computers, in their early stages, were large bulky machines and their monitors frequently had black backgrounds with green writing. Fifteen years later, in 1998, the rise of computers brought personal computers into 40% of American households (Kraut et al., 1998). Drastic price cuts on personal computers and massive production in past years have made the personal computer affordable to most people in the United States (McKenna & Bargh, 2000).

Today people are using computers, especially those connected to the Internet, for many different activities like communication, education, entertainment and retrieving information (Kraut et al., 1998). Computer technology can undoubtedly enhance a student's education (Starkman, 2007). Students in the United States have been asked for over a decade to turn in assignments written on the computer (Ling & Baron, 2007). The alternatives to computer writing are typewriting and handwritten work. Computers are not only useful for neat and organized work but also contribute to cognitive skills, specifically visual skills (Jackson et al., 2006). Computer programs now include sounds, video imaging, and photographs in text to enhance the audio-visual experience of the user (Landerholm et al., 2004). Jackson et al. (2006) suggested that technology is most likely to have a positive effect when it is used to support active engagement in the classroom, participation in groups, constructive feedback, and connections to context from the real-world. Computer usage is a strong predictor for academic and personal success (Jackson et al., 2006). Computers allow children to develop positive attitudes toward learning and also advance their spoken communication (Lacina, 2007-2008).

“Social interaction has become the primary use of home computers (McKenna et al., 2002, p. 9).” Computers hooked up to networks, including the Internet, become powerful tools for

communication. The computer is a unique mode of communication because it encompasses all old methods of communication in addition to adding many new avenues for communication, allowing people to be in constant contact (Postmes et al., 1998). The use of computers for communication purposes is a relatively new subject area therefore it will be important for researchers to study the social and psychological implications of communication over the computer (Kiesler et al., 1985)

The Internet

The Internet is one of the newest technological devices created that encapsulates new outlets for interpersonal communication following the telegraph and the telephone (Bargh & McKenna, 2004). The Internet came into public view in the early 1980s, however was developed in the 1960s for rapid distribution of military information, and made its rapid rise in popularity in the early 1990s (DiMaggio et al., 2001). The almost invisible universe known as the Internet is a gigantic collection of networks, computers, users, communication protocols, connection devices and application programs (Yan, 2006). Greenfield and Yan (2006) described the Internet as a universe behind a small screen on which developmental issues are sorted out in old and new ways. The Internet has profound positive and negative consequences like many other man-made technologies. The Internet has many positive attributes but has also created societal concerns around the issues of privacy, security, a digital divide, Internet crimes, the creation of a virtual community, and property rights (Yan, 2006). "The Internet has implications for the physical, cognitive, social and behavioral development of children and adolescents (Yan, 2006, p. 418)."

The capacity of the Internet is far ranging to include features of previously introduced technologies as well as adding new previously unseen features with unseen consequences. The interactive features of the Internet resemble those of the telegraph and telephone, and can conquer great distances in real-time. Like the radio and the television the Internet can also produce media to a mass audience at one time. The features that are unique to the Internet, in relation to communication,

are the anonymity of participants and the ability to provide venues for communication for who would not be able to meet in a common physical space. The Internet is the latest technological advancement that is changing the world in a profound way (Bargh & McKenna, 2004).

Since the 1990s the growth of the Internet has been exponential. The Internet is not yet as ingrained as the telephone, but it will not be long before an Internet connection is critically important. Public apprehension regarding the Internet (McKenna & Bargh, 2000) will have to be set aside to make way for a new medium used in place of newspapers, radio and television (Postmes et al., 1998). As computers continue to drop in price and increase in usability more and more people are able to share information over the Internet (McKenna & Bargh, 1999). The rapid progression of the Internet, the fortune of resources it makes available (Kraut et al., 1998) and its power to perform communication functions gives people a new level of accessibility and autonomy to perform functions in a new and unprecedented way.

The complexity of the Internet has made it an interesting topic of research because it shows a world that children and adolescents actually participate in, unlike television which only involves watching. The Internet must be viewed as a new social environment that plays a role in developmental issues, old and new (Greenfield & Yan, 2006). The Internet will have repercussions for child and adolescent development in the cognitive, behavioral, and social areas (Yan, 2006). Access to the Internet has created a plethora of information-gathering opportunities and alternative sources of information for learning (Raskauskas & Stoltz, 2007). The Internet has not fared any better than previous technologies in the area of hype (McKenna & Bargh, 2000) and it is suggested that the Internet may even complement existing areas of growth, development, and communication (DiMaggio et al., 2001).

Instant Messages

Instant Messages (IM) are chat in real-time between two people on different computers connected to the Internet. A conversation window appears upon first contact and as each participant

adds to the conversation the previous messages scroll upwards and eventually out of view (Lee, 2007). “AOL’s free software, AIM, is the most common platform among American teenagers and college students, though alternatives include MSN messenger and Yahoo! Messenger (Ling & Baron, 2007). The users of an instant messenger program log on to their messenger accounts and a list pops up of previously marked contacts with whom to communicate. People refer to their online messenger friends as “buddies”, making the list a buddy list. IM is a tool for communication that has turned into a major social practice. It has become integrated into people’s everyday lives (Lee, 2007).

The increasing popularity of IM has made it more than just a communication tool. The everyday use and exchange has turned IMing into a social practice with its own set of values that dictate how it is used. IM is not a natural form of communication but is based on how people think it should be used (Lee, 2007). Baron (2004) explained that swift keyboarding skills used for school compositions add to the sophistication of adolescent use of IM. Lee (2007) states that society has deemed IM one of the most popular forms of everyday communication.

Cellular Telephones

Cell phones, since their invention, have a profound effect on how people communicate and organize their lives (Smith & Williams, 2004). The appearance of cell phones has changed the way people communicate in their daily lives. The mobile phone’s functionality is one explanation for its popularity in that it can be with the owner at all times and in most locations (Charlton et al., 2002). The cell phone’s feature of “attachedness” contributes to the change in communication and organization because phones carry contact details for all the phone owner’s friends (Thompson & Cupples, 2008). It allows the cell phone user to contact people anytime anywhere (Merchant, 2001), a possibility that was unimaginable with the fixed telephone (Thompson & Cupples, 2008). Private conversations that were once being had in the privacy of a home can now be carried into public places enmeshing public and private places. The beginning of the cell phone brought about great change from the use of the landline

phone. The technology of the cell phone is becoming so entrenched in society that the technology of it could be taken for granted even though twenty-five years ago cell phones were not public yet (Thompson & Cupples, 2008). Cell phones have extended the realm of talking to include new ways of communication that were previously restricted to writing (Merchant, 2001). The potential of mobile phones is widely recognized by young people and not always seen by the current parental generation (Smith et al., 2008). Cell phones have presented adolescents with a new ability to engage in private social communications that did not exist with the use of the landline telephone.

Text Messages

“Cell phones have made it easier for people to communicate both in verbal and in written form by way of cell phone text message communications otherwise known as SMS (short message service) (Smith & Williams, 2004, 292).” In any public place text messaging allows users to exchange short, generally limited to 160 characters (Ling & Baron, 2007), private messages (Merchant, 2001) that cannot be heard by anyone else, as opposed to the way a verbal communication can be heard in a public place. In addition, the writers of text messages are more in control of a text response, or initiation, because sending a text suspends the transition from inside thought to actual spoken words that get said (Thompson & Cupples, 2008).

Young people are comfortable using text messages and cell phones because they are both easy and effective. Text is often used as a precursor to meeting someone face-to-face. Texting allows contact to be made with a person who is not very well known in a much less intimidating manner than face-to-face communication. Students can actually get to know somebody before they decide to meet them, or hang out with them. Text messages allow bodies in different places to share space because when the text message travels it “stretches social connectivities across space” (Thompson & Cupples, 2008, 104).

Chronological Breakdown of Events

The speed at which information and communication technologies are developing has allowed for radical change in just a fraction of a generation (Madden et al., 2005). In the past thirty years there have been dramatic increases in the availability of new technologies:

Thirty years ago:

- Computers were complex machines delicate to the touch and were not accessible to people who were not highly trained and educated (Madden et al., 2005).
- E-mail was a system set up by the government to share research information (Baron, 1998).

Twenty-five years ago:

- Computers made appearances in the workplace but use was only seen by people who were old enough to work or who had entered graduate school or higher (Madden et al., 2005).
- The cellular telephone made its first appearance and started its surge to popularity (Charlton et al., 2002).

Twenty years ago:

- Text messaging was developed to inform customers of network problems. Customer communication with each other was not anticipated (Thompson & Cupples, 2008).
- The systems leading up to what is now called the Internet change dramatically and created a new phenomenon (Yan, 2006).

Fifteen years ago:

- Personal computers started becoming commonplace in schools, universities, and offices across the United States.
- Students make use of new information and communication technologies, particularly the Internet (Madden et al., 2005).

Ten years ago:

- The children's Internet Protection Act was signed into law. This placed strict regulations on Internet use for children in institutions that received federal funds (Yan, 2006).

Five years ago:

- The national educational curriculum infiltrates information and communication technologies.
- Teachers must demonstrate a working knowledge of information and communication technologies in the classroom (Madden et al., 2005).

Presently:

- Newly qualified teachers are being employed as the first generation which grew up with the new information and communication technologies; they have no qualms using them in the classroom (Madden et al., 2005).
- Adolescents today are the first generation to have grown up knowing about and using the Internet (Berson et al., 2002).

Communications technologies have developed to the point that industrial society has given way to the current information society. The social consequences in today's information society were first predicted by Daniel Bell (DiMaggio et al., 2001) who wrote about the future introduction of telecommunications, computer processing and miniature networks of information (Bell, 1973). At the time Bell was writing there was no way to predict with any accuracy, due to novelty of digital media, what the social consequences would be for the rise in communication technologies. Now that Bell's predictions have been shown to be accurate, choices are being made, money invested, laws passed, and regulations created to norm the structure of communication technologies for the future generation (DiMaggio et al., 2001). The social changes that result from new communication technologies are likely to happen faster and be more in depth because newer technologies are developing at a rapid rate of speed.

Forms of Communication

Interpersonal Communication

Traditional interpersonal communication research studies how people communicate rather than why people communicate in the ways they do (Rubin et al., 1988). The how of communication can first be studied by observing communication before any words are spoken. Examining what people wear while they communicate, how they stand during a conversation, the volume of their voice, etc. provides a nonverbal aspect to how interpersonal communication is received by the listener (Kiesler et al., 1985). Interpersonal relationships are important in the way people think not only about each other but also how they think about themselves (Baumeister & Leary, 1995). The most basic interpersonal communication need is to feel a sense of belonging within a group. The need to belong not just to any group, but a group that shares values similar to those an individual holds and a group that appreciates that individual for who he or she is and offers the opportunity for friendships and intimate relationships (McKenna & Bargh, 1999). Love and belongingness needs rank in the middle of Maslow's (1968) hierarchy, less important than basic needs like food and shelter but more important than esteem and self-actualization. Baumeister & Leary (1995) stated that "the existence of a need to belong is thus a familiar point of theory and speculation" (p.497) in relation to interpersonal communication.

The need for interpersonal communication requires that people have frequent interactions with at least one person with whom they feel connected. The feeling of connection, or an interpersonal bond, is created by stability within the relationship, the belief that the participants like, or love, each other, and an anticipation that the relationship will exist in the future. In general, people are able to gauge the extent and quality of their interpersonal relationships. Stable, long lasting relationships are wanted and therefore motivate individuals to maintain interpersonal communication ties (Baumeister & Leary, 1995). The motivation for the need to belong should be fundamental enough in human nature to create goals that satisfy the need (McKenna & Bargh, 1999). Observing interpersonal communication

should show people seeking out interpersonal contacts until they reach a minimum level of social connections. The need for belongingness should be strongly enough entrenched in human society that no force, or influence, could enforce its removal.

Face-to-Face Communication

Face-to-face communication is an entity that is driven by the humanistic need for interpersonal communication (Flaherty et al., 1998). It has been thought that face-to-face encounters release dopamine, which provides euphoric feelings which in turn would lead people to seek out more face-to-face interactions (Starkman, 2007). People are intrinsically motivated, and biologically assisted, to communicate face-to-face to fulfill their need for interpersonal communication (Flaherty et al., 1998). The need for face-to-face interactions is more than a need for affiliation with an individual or group. The cognitive action of knowing that a bond exists is not enough to provide satisfaction without some form of interaction (Baumeister & Leary, 1995). Baumeister and Leary (1995) put forward that the feelings of acceptance, inclusion and welcome, experienced through face-to-face communication, provide positive emotions not experienced through other communication opportunities.

Society provides most people with the opportunities to engage in face-to-face communication. Proximity is a factor that provides people in every society with the opportunity to develop bonds with the people they live near. Every society has people who belong to small groups that partake in face-to-face communication (Baumeister & Leary, 1995). Face-to-face communication does require that two parties are available to meet at the same time; this is where everyday life interferes with face-to-face communication. Obstacles such as distance prevent the physical meeting between two parties, as well as the need for babysitters to watch children, regularly scheduled activities...etc.(McKenna & Bargh, 1999).

Electronic Communication

Traditional communication mediums have been joined by new communication technologies, specifically instant messages and text messages. Electronic communication is most frequently referred to as Computer Mediated Communication (CMC) but can also be expanded to include communication shared over cellular telephones in the form of text message (Flaherty, Pearce, & Rubin, 1998). "CMC, and the Internet, offer new opportunities for creating relationships" (Lievrouw & Livingstone, 2002). The Internet is being primarily utilized as a source for interpersonal communication (Kraut et al., 1998; Bargh & McKenna, 2004). Internet users are relying more on the Internet for communication than for any other services (Postmes et al., 2002). The Internet is being used as a quick and easy way to keep in touch and maintain relationships with family and friends (Lewis & Fabos, 2005). CMC allows people to stay in contact with one another who were once limited by the boundaries of distance, and changing friendships that accompanied life transitions, such as graduating from college, moving away from a long lived in town,...etc. (Baumeister & Leary, 1995). CMC is viewed as a positive and efficient way to communicate by people who enjoy interpersonal communication (Flaherty et al., 1998).

The scope of the personal computer's ability has expanded to include auditory and visual processing features but text based communication remains the most common form of CMC (Lee, 2007). The written text of the communication sequence is the focus of the communicator's attention in a CMC conversation much like that of writing a letter (Kiesler et al., 1985). Talking, or chatting, in CMC conversation actually refers to the written presentation of speech (Lievrouw & Livingstone, 2002). CMC communicators must display the textual qualities of written language with the conversation qualities of spoken language. "Instant message users have to be good at sounding as though they are speaking in written text (Lewis & Fabos, 2005)." The multimodality of IM confuses the rules between written and spoken language usage (Luke, 2003). The differences between written and spoken language, such as timing and pacing, influence the flow of the conversation and in essence the connection between two

people in a conversation. The individual is granted a greater sense of control over their half of the conversation because the amount of information shared, and at what speed, is subject to the writer's discretion (McKenna & Bargh, 2000). CMC users use strategic tactics to control their half of the conversation and to keep the other communicator engaged in the conversation. The rapid movement of a chat session leaves communicators with the need to respond quickly, yet intelligently, to keep the interest of the other party(ies). IM does not support long sentences and therefore short sentences, or partial sentences, are used to keep all parties interested in continuing the conversation. The entire chat conversation, flow, is enjoyable at the conclusion, when all thoughts have been conveyed and a narrative conclusion has been reached (Lewis & Fabos, 2005).

Face-to-Face Communication vs. Electronic Communication

The need for comparison between face-to-face communication and electronic communication arose from questions that have been posed by researchers. First Flaherty et al. (1998) asked "why do children who live next door to one another interact in chat rooms rather than play together or talk by phone?" (p. 250). Secondly McKenna & Bargh (1999), asked "are acquaintances and relationships formed on the Internet as durable, meaningful, and "real" as one's other friendships and close relationships?" (p.251). The fact that people are using the Internet mainly for interpersonal communication implies nothing about electronic social interactions and relationships being comparable to traditional interactions and relationships (Kraut et al., 1998).

Comparing the two communication alternatives starts with determining whether the two are functional alternatives for one another or functionally specialized to coexist. Functional alternatives can be described, for the purposes of this study, as two communication mediums that meet the same need equally. Communication tools that produce need satisfaction separately would be considered functionally specialized (Spears et al., 2002). The coexistence of face-to-face and CMC suggests that CMC may be a portal for meeting interpersonal needs not satisfied by typical face-to-face communication. If

the use of CMC is functionally alternative to face-to-face communication then the use of CMC should fulfill interpersonal needs at the same level as face-to-face communication. Examining face-to-face and CMC communication as functional alternatives allows for an investigation into what interpersonal units are being met by both face-to-face and CMC alike and how they are different (Flaherty et al., 1998). Bargh and McKenna (2004) stated that as far as “depth, breadth, and quality” go online relationships are comparable to in person relationships (p581).

Starkman (2007) stated that the “average youth between ages 12 and 17 reports spending 10.3 hours a week with friends doing social activity outside of school and about 7.8 hours talking with friends via technology” like text/instant message (p. 35). The grand total of hours spent with peers in a week is roughly 58 hours a week for these adolescents. Adolescents’ relationships with their peers take up the good majority of their time in a week. The youth in the Starkman (2007) article reported that the use of alternative communication is used when face-to-face communication is not possible. The use of both face-to-face communication and CMC allow adolescents the opportunity to escape daily activities and fulfill the interpersonal need for pleasure and entertainment (Flaherty et al., 1998). Lievrouw and Livingstone (2002) suggested that over time, and with some spent energy on behalf of the participants, CMC becomes more similar to face-to-face communication. Social interactions on the Internet seem to resemble the communication seen in typical face-to-face situations (McKenna et al., 2002). Flaherty et al. (1998) made the argument that face-to-face and CMC can coexist and substitute for each other, meaning that the two can be both functionally alternative and functionally specialized.

Contrary to earlier beliefs (Wellman, 2004), CMC has not put face-to-face communication out of place and may actually be aiding in the longevity of relationships that would have petered out in previous situations (Lewis & Fabos, 2005). The degree to which a CMC program aids face-to-face communication depends on that program’s ability to reproduce the effects of face-to-face communication (Postmes et al., 1998). People do set a preference, at least personally, for which form of

communication style they prefer to meet their needs. When considering CMC's ability to reproduce face-to-face situations and meet interpersonal needs there becomes an overt necessity to compare CMC and face-to-face interactions (Flaherty et al., 1998).

Depersonalization

Depersonalization is the lack of identifying individual characteristics of the self to others which creates a reciprocal anonymity of others to the self. The purposes of this study require that depersonalization be defined by the researcher, as the decrease of individualized characteristics of communication (i.e., ability to show empathy, ability to show compassion/emotion, ability to respond to nonverbal communication cues, level of commitment to interpersonal communication, and ability to recognize consequences for written actions) through face-to-face and written electronic communication mediums. To gather a firm understanding of whether or not communication is depersonalized the five depersonalization constructs must first be understood.

Empathy

Van Lange (2008) suggested "that empathy is the key to understanding social interactions" (p. 766). Empathy is defined as the understanding of others' emotional states and an emotional reaction based on the situational and experiential feelings of another (Paolo et al., 2009). Knafo et al. (2008) described empathy as having two parts that must both be understood, a cognitive facet and an affective facet. The cognitive aspect of empathy allows people to understand an emotional situation from the perspective of another. The affective aspect of empathy involves the ability to have an emotional response strictly based on another person's expression of emotion. Empathy is an affective condition that is brought out by imagining or observing another's affective state (Van Lange, 2008). Young people start expressing empathy differently than adults, often starting with questioning that provides them with answers about another's situation. The questioning allows young people to develop an understanding for other people's situations (Knafo et al., 2008). Empathy provides an aspect to

communication that allows people to negotiate a sense of personalization that exceeds social differences between communication partners (Postmes et al., 1998).

Internet interactions facilitate true self expressions with friends and strangers alike. The Internet allows people to remain anonymous, which is impossible with face-to-face communication, providing an opportunity to present a new self or a self that is kept hidden from family and friends (McKenna & Bargh, 1999; McKenna & Bargh, 2000). The sense and reality of anonymity presents an opportunity for the sharing of less mainstreamed and more marginalized viewpoints to be shared (McKenna & Bargh, 1999). Individuals who communicate over the Internet are less aware of what others think and therefore are less likely to care what others think of their behavior (McKenna & Bargh, 2000). McKenna et al. (2002) suggest that relationships should form faster and with more depth over the Internet due to the ease of self-disclosure. Intimacy experienced in social interaction is amplified when self-disclosure and partner disclosure is increased. When self-disclosure increases and people develop a relationship it becomes apparent that people are attracted to others who are similar and hold comparable viewpoints (McKenna et al., 2002).

Compassion

Compassion is an element of moral fiber that calls attention to the well-being of others in stressful situations. Empathy is critical to the expression of compassion (Knafo et al., 2008). Compassion would not be expressed if there was not first a sense of empathy within an individual. Empathy provides individuals with the moral fiber to express a feeling of compassion (Knafo et al., 2008). When compassion is expressed it is thought to be out of consideration for others' well-being and the avoidance of harming others through selfish actions. Compassionate people should feel close to others and experience a range of calm and positive emotions. These emotions could be expressed and felt through love, understanding and empathy (Crocker & Canevello, 2008).

Conversational cues

Mobile phones and young people have a close connection and a concern is that the extensive use of cell phones and their texting properties will destroy face-to-face communication (Thompson & Cupples, 2008). The new teenage-created communication which has been ditching grammar, spelling, vowels and punctuation could undermine written language and spoken communication as it is now known (Merchant, 2001). The introduction of the emoticon, a new form of expression that has entered the world of writing in order to convey emotion or facial expression, has been the topic of study of linguists to try and develop a better understanding to this new communication style. Text punctuated with emoticons would suggest that typed text is “governed by linguistic programming that segregates language and emotional expression” (Provine et al., 2007, 301). Emoticons tend to resemble similar names for facial expression (i.e. smiley, frown, rolling eyes, etc...).

In a studied conducted by Provine et al. (2007) on the placement of emoticons in text, it was found that emoticons are placed in logical places like the end of a sentence and did not disrupt phrase structure as had been suggested. Emoticon usage is an effort to provide the visual and auditory cues given in face-to-face communication. The use of the emoticon is different than the inherent nature to laugh at the end of a funny sentence, which Provine at al. (2007) stated as the punctuation effect. There are no cues given in distanced communication which suggest that the punctuation phenomena must be a “higher-order linguistic process” (p. 303). Text messages provide much more control for the use of laughter and emotion yet it still occurs in this new form of written language. Linguists are continuing to study this topic to further define the linguistic process involved in emoticon usage.

The new forms of online communication are filled with new orthographic forms such as abbreviations, emoticons, misspellings, and non-standard uses of punctuation (Smith et al., 2008). Participants in IM, chat rooms, and text messaging all reported to Merchant (2001) having some knowledge of new shorthand used with new technologies. Merchant (2001) categorized these

abbreviations into four categories: First, the use of non-alphabetic characters to create emoticons. Secondly, abbreviations that are simply shorthand for other words. Third, combinations of letters and numbers to create phonetically close approximations of words, and fourth, actual phonetic spellings of words.

Merchant (2001) described young people as the innovators of change in the face of a new communication landscape. The change in communication is becoming a struggle for typical linguists who view these new patterns as damaging to the existence of the current written and spoken language. Young people do not view this new language as a problem because essentially they are the innovators of change in the face of new social times. Merchant (2001) again suggested that these innovators of a new communication may make a career out of their new skills. Access to the Internet is the key to developing these skills which will place those youth in middle and upper class families ahead of the learning curve because they are more likely to have Internet access in their homes. The changes in communication can only be studied at the current time. The study of speaking and writing may discuss the need for creation of a new hybrid or multi-modal form of communication.

Personal communication

Bargh and McKenna (2004) stated that “on no issue has research on the social effects of the Internet been more contentious than as to its effect on close relationships, such as those with family and friends” (p. 580). Personal communication is the main reason people use the Internet, as e-mail and IM provides for frequent interpersonal communication (Bargh & McKenna, 2004; Hampton & Wellman, 2001; McKenna & Bargh, 2000). Close relationships play a central role in adolescent development and can be a foundation for social and scholastic competence (Laursen & Mooney, 2008). The emotion felt through a connection, or the experience of bonding, is shared through relationship consistency, the thoughts of being liked and loved, and future expectations for a relationship. The ability to gauge the quality and scope of a relationship provides for an analysis of how personal a connection exists between

parties. Steady, unwavering, supportive relationships are wanted and therefore motivate individuals to sustain personal communication outlets (Baumeister & Leary, 1995).

Consequence recognition

Life provides individuals with a series of actions and events that in essence create a sense of being; the same is true when it comes to understanding consequences that accompany actions. The “ability to predict consequences of certain actions” develops from an “internal model of that action” (Petrini et al., 2009, p. 432). In order to act socially appropriate there is a certain level of understanding of one’s own biological reactions to a situation and what the consequences may be to that reaction that one must develop (Petrini et al., 2009). These lessons are learned throughout life and in different situations including through communication outlets.

The anonymity of the Internet provides for a new area of research in that consequence recognition is viewed in a different dimension (McKenna et al., 2002). The Internet provides anonymity that reduces the risk of trouble for poor choices. There are fewer repercussions, in real-life relationships for bad actions (McKenna & Bargh, 1999) and the Internet provides less opportunity for feelings of repentance, understanding, or compassion towards other people (Strom & Strom, 2005). The anonymity can produce a feeling of power (Spears et al., 2002) that leads to spontaneous and unrestrained behaviors (McKenna & Bargh, 2000). Adolescents may not know the level of force their words have over the Internet on another person or the level of duress they are causing another person because they cannot see the pain like they would in a face-to-face confrontation (Strom & Strom, 2005). The Internet can provide as low level of consequence recognition due to relative anonymity (McKenna et al., 2002).

Method

This project is an investigation into the communication lives of 6th through 12th grade students. “Ninety-seven percent of adolescents 12-18 years of age use the Internet...almost half have their own cell phone and one third communicates via text message (Kowalski & Limber, 2007, 22).” These statistics

show that technology has been integrated into the everyday lives of adolescents as a communication tool and has created a need for research on the subject. Questions remain to be answered about how that technology is actually affecting these adolescents' communication patterns. Specifically, there is little or no information in the literature (McKenna & Bargh, 1999; Postmes & Spears, 1998; Postmes et al., 2002) regarding how the use of electronic communication tools is affecting the personalization of communication among adolescents. It is with this information, or lack thereof, that a study was conducted to look at the self-reported perception of personalization of communication among today's middle school and high school students.

Research Design and Approach

In order to get accurate insight into this area of research a survey, shown in Appendix A, was created and run by this author. Depersonalization was measured by the survey, as it relates to both face-to-face communication and electronic communication via text message or instant message. The survey will be used to answer the question of whether or not the use of instant message programs and text messages via cellular telephones is negatively affecting personalization, causing depersonalization, of communication between 6th and 12th grade students. Personalization for the purposes of this project will refer to the closeness expressed by way of text message, instant message or face-to-face communication between project participants, the lack of personalization will be called depersonalization.

The research for this project was conducted in a rural middle school and high school in Western New York. The middle and high school has a population of 626 students in grades 6 through 12. The district is comprised of 97% white students and 3% black students, 22% of the overall district is eligible for free and reduced lunch. Surveys, created by the primary researcher, were distributed in 6th, 7th and 8th grade English classes, in 9th and 10th grade physical education classes, and during 11th and 12th grade flex periods (free period). Classes were selected by the number of students that could be reached on a

daily basis, to include the entire school in as few classrooms as possible. Surveys were administered over two days, different days based on the grade level, to reach all students based on a rotating block schedule system. Students were told about the survey two days prior to its administration and given parental consent forms (Appendix B) to return on the day of the survey. Teachers collected parental consent forms and handed out student consent forms (Appendix C). Once students completed their consent form they were given a survey. Selected teachers in each grade were responsible for administering surveys, and ensuring that surveys were given to only those students who had both consent forms completed. The teachers were given packets including all information they needed prior to students being informed: script for survey administration (Appendix D), class list, student consent form, consent form envelope, and survey envelope. Students were given 15 minutes to complete their survey. Exceptions were made for those students with special needs. Those students who were not given permission to participate were asked to read a book in English class, to get warmed up for Physical Education in P.E. or asked to work independently in Flex, while they waited for the rest of the class to be finished. Surveys will be used to determine the extent of personalized communication during face-to-face conversation versus the extent of personalized communication over a text or instant message conversation.

Students' anonymity was protected by not including their name or any personal identification on the survey. In addition surveys were kept separate from consent forms by the classroom teachers collecting consent forms. Teachers were responsible for collecting parental and student consent forms and only administering surveys to students with two consent forms. The teachers then submitted completed surveys and consent forms in separate envelopes to further ensure anonymity. In addition all completed surveys have been kept in a locked file cabinet and will be shredded and disposed of when they are no longer of use to the researcher.

Setting and Sample

All students at the middle and high school were contacted during selected class periods, depending on grade level (i.e. all 8th grade students were be contacted about this survey during their English block), with a short presentation and the opportunity to participate in a research project. The reason for selecting different classes per grade level was to work with teachers who were most willing to give up class time to run a survey. In addition, it was hoped that the fewer number of teachers involved would hopefully increase the number of signed parental consent forms returned. Those students who return signed consent forms were eligible to participate. To encourage the return of completed consent forms, students who returned signed parental consent forms were given candy and they were able to enter into a raffle for various prizes. No prizes exceeded \$20 in value and were acquired by the research investigator from merchants located in the township.

Instrument and Materials

The survey was named The Flip Side Survey to highlight its investigation into two forms of communication that look to be on opposite sides of the coin at first glance. The survey was created as a pen and paper survey for easy distribution. The survey contains two written scenarios that each student was asked to read. The first scenario provides an example of face-to-face communication followed by questions that measure, on a Likert-type rating scale, the amount of personalization involved in such a conversation. The second scenario gives an example of electronic communication and students are asked to answer the same set of questions from scenario one to measure the amount of personalization involved in the conversation. The questions from scenario 2 appear in a different order to prevent redundancy for the survey taker and repeated answers from scenario one. The survey has a key to explain to researchers which questions are identical between scenario one and scenario two to make sure information is analyzed correctly. The survey also asks students a group of questions to help create a picture of actual technology usage among these students. Questions such as whether or not students

have cell phones to text with and/or screen names with which to send instant messages were asked to accurately measure students' communication patterns. The results found will be used to determine what percentage, if any, of students' communication is being depersonalized by electronic communication.

There have been five constructs determined to measure depersonalization for this study. The lack of ability to show empathy, compassion, conversational cues, personalized communication, and consequence recognition in a conversation together create depersonalization. Each section of the survey asked two questions on each construct and compared the correlations between a face-to-face communication scenario and a text/instant message communication scenario for each question. There was one question asked as a control for immediate response sets that measured the inverse of personal communication. The lower the correlation for each construct the more it supported the hypothesis that communication is being depersonalized by the use of text/instant messages. If three of the five constructs supported the hypothesis of depersonalization then the results of the survey were determined to support the investigation measuring depersonalization of communication.

Results

The resulting data for the Flip Side Survey were analyzed using SPSS version 16.0 (SPSS, 2009). The total number of students eligible to participate in this study was 626. The total number of actual respondents to this survey was 213 students. This represents a 30% return rate from the student body. The sample size is relatively representative of the population, as far as age is concerned, with only one exception; 18 year old students reported were at an extreme minimum.

Table 1.1

Age of Respondents

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	11	30	14.1	14.7	14.7
	12	36	16.9	17.6	32.4
	13	52	24.4	25.5	57.8
	14	15	7.0	7.4	65.2
	15	27	12.7	13.2	78.4
	16	25	11.7	12.3	90.7
	17	16	7.5	7.8	98.5
	18	3	1.4	1.5	100.0
	Total	204	95.8	100.0	
Missing System		9	4.2		
Total		213	100.0		

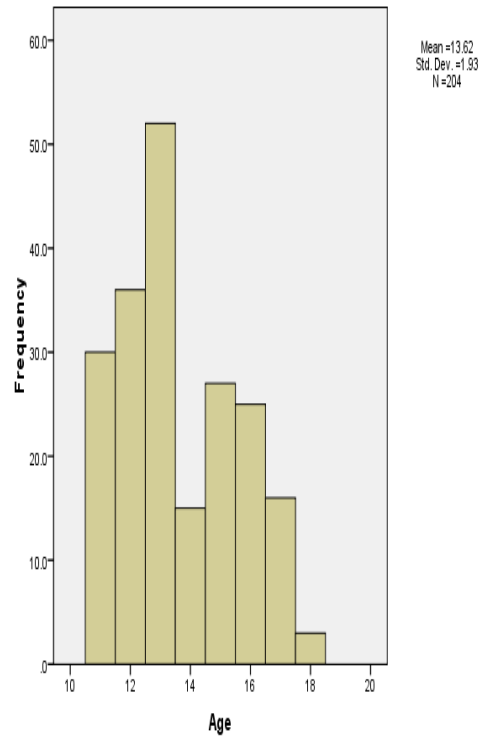


Figure 1.1 Frequency of student ages.

Age and Grade level

Participants in the study were broken down by age and grade level to develop a picture of the participants as shown in Table 1.1 and figure 1.1. The following student ages are from an $n=213$: Age 11, (30 students), make up 14.7% of participants; age 12, (36 students), 17.6%; 13,(52 students),24.4%; 14, (15 students), 7.4%; 15, (27 students), 13.2%; 16, (25 students), 12.3%; 17, (16 students), 7.8%; 18, (3 students), 1.5%; and 9 participants neglected to enter their age on the survey and were not included in the determination of percentages. The frequency results per grade level, as depicted in Chart 1.2 and Figure 1.2, are as follows: Grade 6 provides 20.2% of responses with 43 participants; grade 7, 21.2%, 45 respondents; grade 8, 21.1%, 45 respondents; grade 9, 5.6%, 12 respondents; grade 10, 15.0%, 32

respondents; grade 11, 10.8%, 23 respondents; and grade 12, 6.1%, 13 respondents. The breakdown of frequency by grade and age level provided researchers with a visual picture of the sample.

Table 1.2

Grade Level of Respondents

	Frequency	Percent	Valid Percent	Cumulative Percent
Grade 6	43	20.2	20.2	20.2
Level 7	45	21.1	21.1	41.3
8	45	21.1	21.1	62.4
9	12	5.6	5.6	68.1
10	32	15.0	15.0	83.1
11	23	10.8	10.8	93.9
12	13	6.1	6.1	100.0
Total	213	100.0	100.0	

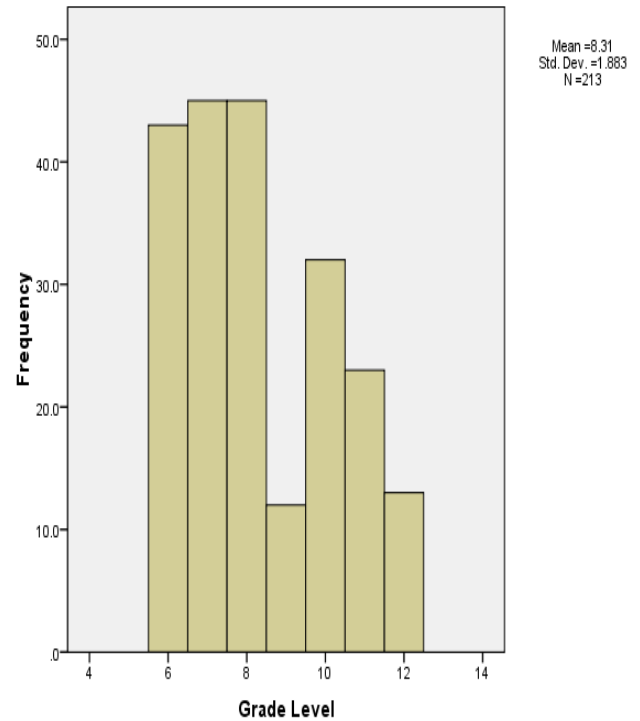


Figure 1.2 Frequency of student grade level.

Chart 1.3 shows the relationship between age and students owning a cell phone. The age of the students goes up as the cell phone ownership decreases. The younger students own more cell phones than the older students.

Chart 1.3

Age and Cell Phone Ownership Correlations

		Age	Do you have your own cell phone?
Age	Pearson Correlation	1.000	-.294**
	Sig. (2-tailed)		.000
	N	204	204
Do you have your own cell phone?	Pearson Correlation	-.294**	1.000
	Sig. (2-tailed)	.000	
	N	204	205

** . Correlation is significant at the 0.01 level (2-tailed).

Cell Phone and IM

The ownership of cell phones by respondents and the possession of a screen name for sending instant messages were collected to determine what percentages of the sample could be affected by the depersonalization of communication. As Figure 2.1 shows 71.4% of respondents own their own cell phones, while 24.9% do not, and 3.8% did not respond to the question. Figure 2.2 also shows that 63.8% of students have their own screen name for sending instant messages, 31.9% do not, and 4.2% did not answer the question.

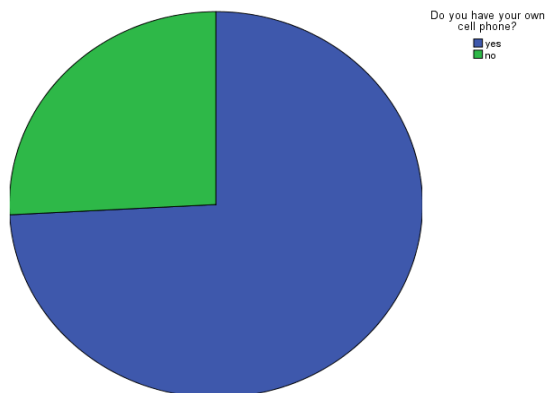


Figure 2.1 Cell phone ownership percentages

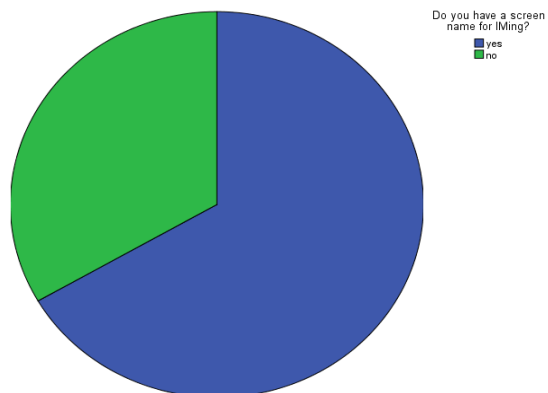


Figure 2.2 Instant message screen name percentages

Number of Texts Sent and Received

Questions about the number of text messages sent and received, in one day, questions had the largest range of variability among the respondents. The range varied from 0 texts sent and received in a day to 300+ texts sent and received in a day. The largest majority of students responded that they sent and received 0 text messages in one day. Figure 3.1 represents the sending of text messages while figure 3.2 represents the text messages received, both measuring one day’s usage.

Table 3.1 shows the correlations between age, how many texts do you send in one day, and how many texts do you receive in one day. Running the Pearson product-moment correlation (r) showed a .403 correlation between age and texts sent, and a .396 correlation between age and texts received that were both statistically significant at the .01 for a two-tailed test ($p < 0.01$). The correlation between texts sent and texts received in one day returned a .987 correlation with a p-value at 0.01.

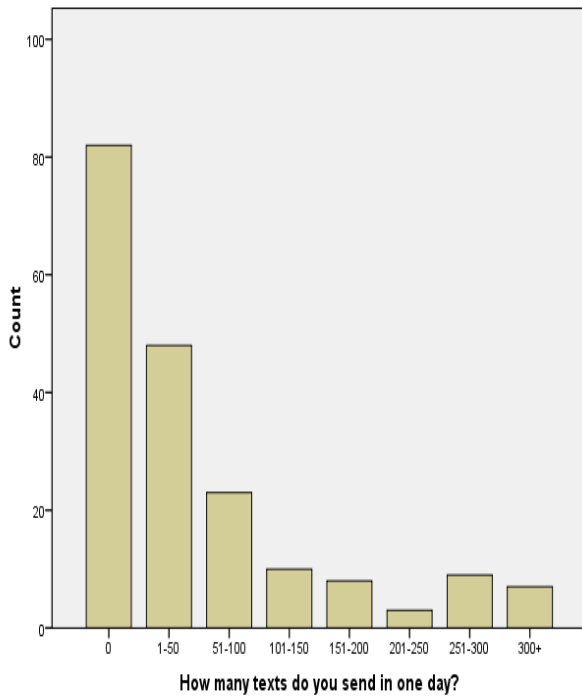


Figure 3.1 Sent text message count

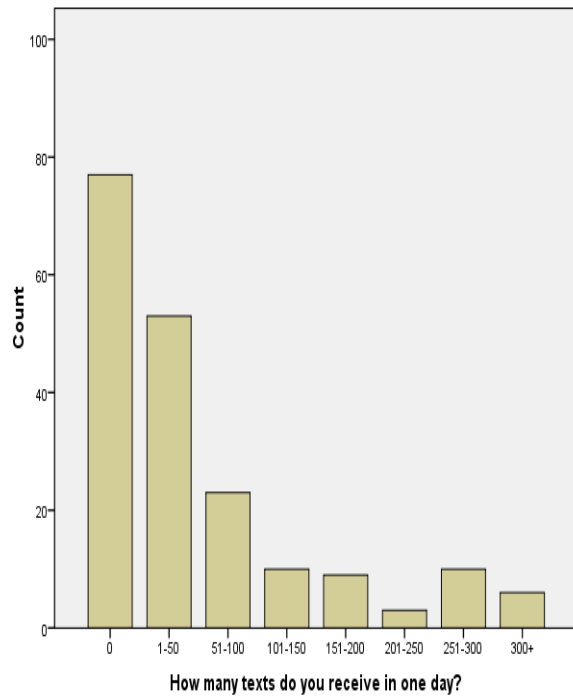


Figure 3.2 Received text message count

Table 3.1

Age, Texts Sent & Text Received Correlates

		Age	How many texts do you send in one day?	How many texts do you receive in one day?
Age	Pearson Correlation	1.000	.403**	.396**
	Sig. (2-tailed)		.000	.000
	N	204	189	190
How many texts do you send in one day?	Pearson Correlation	.403**	1.000	.987**
	Sig. (2-tailed)	.000		.000
	N	189	190	190
How many texts do you receive in one day?	Pearson Correlation	.396**	.987**	1.000
	Sig. (2-tailed)	.000	.000	
	N	190	190	191

Choice and Reason Given

The final question on the survey gave students three choices, talking face-to-face, texting, and IMing then asked them to pick the communication outlet they would choose if they could only pick one. The responses are depicted in figure 4.1. An astonishing 58.7% of respondents would choose speaking face-to-face versus text messaging and instant messaging. Sixty-three percent of students reported having screen names for IMing but only 6.6% would choose IM as their chosen method of communication. Text messaging came in second with 32.4% of students preferring text over face-to-face and IM communication.

The majority of students reported that they would choose to communicate face-to-face if they were forced to choose between face-to-face, texting, and IM communication. As reported in Chart 4.1, of the 123 students that chose speaking face-to-face, 89 students reported owning cell phones and 34 students reported not owning cell phones. The students who chose texting, $n=67$, as their number one preferred method of communication, 13 students reported not owning cell phones while 54 reported

yes to owning a cell phones. As depicted in Chart 4.2 the $n=13$ students chose IM as their method of choice communication 12 of 13 had screen names for IMing.

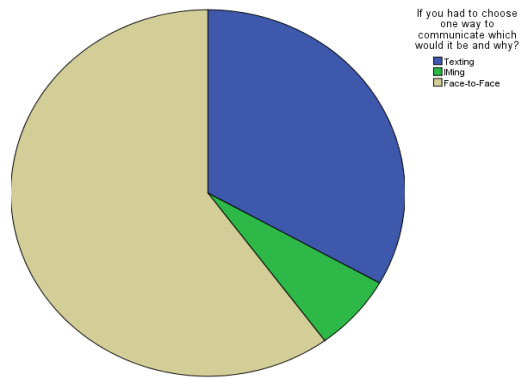


Figure 4.1 Communication Choice Percentages

Table 4.1

Crosstabulation of Communication Choice and Cell Phone Ownership

		Do you have your own cell phone?		
		yes	no	Total
If you had to choose one way to communicate which would it be and why?	Texting	54	13	67
	IMing	8	5	13
	Face-to-Face	89	34	123
	Total	151	52	203

Table 4.2

Crosstabulation of Communication Choice and Screen Names

		Do you have a screen name for IMing?		
		yes	No	Total
If you had to choose one way to communicate which would it be and why?	Texting	47	19	66
	IMing	12	1	13
	Face-to-Face	76	47	123
	Total	135	67	202

Students were asked which method of communication they would choose but were also asked to provide a reason for why they chose that particular method of communication. The question of why was the only question on the survey that needed to be measured qualitatively and was broken down for most frequent response for each of the three choices. The results showed that for each communication method, face-to-face, text message, and instant message the most frequent response for why it was chosen was a statement by students that each was the easiest method of communication. Since all methods returned the same number one response the results were reanalyzed to report the second most frequent response. For face-to-face communication the second most popular reason stated was the ability to understand the other person better within a conversation. For text messaging the second most popular response stated was an easier ability to share feelings with friends. Lastly the second most popular statement given for IM was that IMing is an entertaining form of communication.

Comparison of Face-to-Face and Text/Instant Message Communication

Empathy

The questions, “I can understand what my friends is feeling” and “I can understand what my friend is thinking”, were used to measure the construct of empathy when used in determining depersonalization between face-to-face and text/instant message communications. After running the Pearson product-moment correlation, between the first and second asking of the questions, it was found that there is a low level correlations, .220 with $p < .01$ (2-tailed) & .144 with $p < .05$ (2-tailed), between the understanding of a friend’s feelings when speaking face-to-face and when speaking over text/instant message, and understanding a friend’s thoughts in person and over text/instant message, respectively. Table 5.1 and 5.2 show the correlational value as well as the level at which these correlations are significant, for each question respectively.

Table 5.1

Empathy Correlations 1

		A. I can understand what my friend is feeling	B. I can understand what my friend is feeling
A. I can understand what my friend is feeling	Pearson Correlation	1.000	.220**
	Sig. (2-tailed)		.001
	N	212	209
B. I can understand what my friend is feeling	Pearson Correlation	.220**	1.000
	Sig. (2-tailed)	.001	
	N	209	209

** . Correlation is significant at the 0.01 level (2-tailed).

Table 5.2

Empathy Correlations 2

		A. I can understand what my friend is thinking	B. I can understand what my friend is thinking
A. I can understand what my friend is thinking	Pearson Correlation	1.000	.144*
	Sig. (2-tailed)		.037
	N	212	210
B. I can understand what my friend is thinking	Pearson Correlation	.144*	1.000
	Sig. (2-tailed)	.037	
	N	210	210

*. Correlation is significant at the 0.05 level (2-tailed).

Compassion

To measure the compassion between persons having a face-to-face conversation or a text/instant message communication the questions "I can tell my friend I care about them" and "I can show my friend I care about them" were asked of each respondent. The ability to tell friends that they

are cared about returned a moderate correlation, .545 with $p < .01$ (2-tailed). The ability to show friends that they are cared about returned a much smaller correlation, .219 with $p < .01$ (2-tailed). Results seen in Charts 6.1 and 6.2

Chart 6.1

Compassion Correlations 1

		A. I can tell my friend I care about them	B. I can tell my friend that I care about them
A. I can tell my friend I care about them	Pearson Correlation	1.000	.545**
	Sig. (2-tailed)		.000
	N	212	209
B. I can tell my friend that I care about them	Pearson Correlation	.545**	1.000
	Sig. (2-tailed)	.000	
	N	209	209

** . Correlation is significant at the 0.01 level (2-tailed).

Chart 6.2

Compassion Correlations 2

		A. I can show my friend that I care about them	B. I can show my friend that I care about them
A. I can show my friend that I care about them	Pearson Correlation	1.000	.219**
	Sig. (2-tailed)		.001
	N	212	209
B. I can show my friend that I care about them	Pearson Correlation	.219**	1.000
	Sig. (2-tailed)	.001	
	N	209	209

** . Correlation is significant at the 0.01 level (2-tailed).

Conversational cues

“I know when it is my turn to talk in the conversation” and “I know when my friend has completed a statement” were two questions asked to develop a look into the conversational cue correlation between face-to-face communication and text/instant message communication. Each question returned a moderate level correlation, as seen in Charts 7.1 and 7.2, .395 with $p < 0.01$ (2-tailed) and .470 with $p < 0.01$ (2-tailed), respectively.

Chart 7.1

Conversational Cues Correlations 1

		A. I know when it is my turn to talk in the conversation	B. I know when it is my turn to talk in the conversation
A. I know when it is my turn to talk in the conversation	Pearson Correlation	1.000	.395**
	Sig. (2-tailed)		.000
	N	210	208
B. I know when it is my turn to talk in the conversation	Pearson Correlation	.395**	1.000
	Sig. (2-tailed)	.000	
	N	208	209

** . Correlation is significant at the 0.01 level (2-tailed).

Table 7.2

Conversational Cues Correlations2

		A. I know when my friend has completed a statement	B. I know when my friend has completed a statement
A. I know when my friend has completed a statement	Pearson Correlation	1.000	.470**
	Sig. (2-tailed)		.000
	N	210	208
B. I know when my friend has completed a statement	Pearson Correlation	.470**	1.000
	Sig. (2-tailed)	.000	
	N	208	210

** . Correlation is significant at the 0.01 level (2-tailed).

Personal Communication

Students were asked to report on their personal communication in both a face-to-face conversation and a text/instant message conversation by answering the questions “I can communicate my feelings to my friend” and “I can communicate my thoughts to my friend”. The two questions produced low level correlations, depicted in Charts 8.1 and 8.2, .338 with $p < .01$ (2-tailed) and .384 with $p < .01$ (2-tailed) respectively.

In addition there was a question asked as an inverse operation to measure impersonal communication and to have one control question that could be used to measure automatic response sets. “I speak to other friends at the same time” was used as a control and produced a moderate correlation, seen in Chart 8.3, of .476 with $p < .01$ (2-tailed). This one particular correlation should be taken for its inverse because it is asking whether an action is already depersonalized.

Chart 8.1

Personal Communication Correlations1

		A. I can communicate my feelings to my friend	B. I can communicate my feelings to my friend
A. I can communicate my feelings to my friend	Pearson Correlation	1.000	.338**
	Sig. (2-tailed)		.000
	N	212	209
B. I can communicate my feelings to my friend	Pearson Correlation	.338**	1.000
	Sig. (2-tailed)	.000	
	N	209	209

** . Correlation is significant at the 0.01 level (2-tailed).

Chart 8.2

Personal Communication Correlations 2

		A. I can communicate my thoughts to my friend	B. I can communicate my thoughts to my friend
A. I can communicate my thoughts to my friend	Pearson Correlation	1.000	.384**
	Sig. (2-tailed)		.000
	N	210	208
B. I can communicate my thoughts to my friend	Pearson Correlation	.384**	1.000
	Sig. (2-tailed)	.000	
	N	208	209

** . Correlation is significant at the 0.01 level (2-tailed).

Chart 8.3

Personal Communication Correlations3

		A. I speak to other friends at the same time	B. I speak to other friends at the same time
A. I speak to other friends at the same time	Pearson Correlation	1.000	.476**
	Sig. (2-tailed)		.000
	N	212	210
B. I speak to other friends at the same time	Pearson Correlation	.476**	1.000
	Sig. (2-tailed)	.000	
	N	210	210

** . Correlation is significant at the 0.01 level (2-tailed).

Consequence Recognition

Consequence recognition is a construct of depersonalization that was measured by asking the questions “I edit what I’m going to say before I say it” and “I care if I hurt my friend’s feelings”. The editing provided a low level correlation, .373 with $p < 0.01$ (2-tailed). The caring about hurting friend’s feelings produces a moderate to high level correlation, .593 with $p < 0.01$ (2-tailed) showing that people care about their friend’s feelings in both face-to-face communication and in text/instant message communication.

Table 9.1

Consequence Recognition Correlations 1

		A. I edit what I'm going to say before I say it	B. I edit what I'm going to say before I say it
A. I edit what I'm going to say before I say it	Pearson Correlation	1.000	.373**
	Sig. (2-tailed)		.000
	N	210	208
B. I edit what I'm going to say before I say it	Pearson Correlation	.373**	1.000
	Sig. (2-tailed)	.000	
	N	208	210

** . Correlation is significant at the 0.01 level (2-tailed).

Chart 9.2

Consequence Recognition Correlations 2

		A. I care if I hurt my friend's feelings	B. I care if I hurt my friend's feelings
A. I care if I hurt my friend's feelings	Pearson Correlation	1.000	.593**
	Sig. (2-tailed)		.000
	N	210	208
B. I care if I hurt my friend's feelings	Pearson Correlation	.593**	1.000
	Sig. (2-tailed)	.000	
	N	208	210

** . Correlation is significant at the 0.01 level (2-tailed).

Discussion

Baumeister & Leary (1995) described the term interpersonalness as the degree to which a relationship between an individual and other people is affected by a focal event. The definition of interpersonalness can be used when describing the act of depersonalization as it happens. When face-to-face and text/instant message communication is studied to determine the level of depersonalization

between two individuals it could be said that it is measuring the absence of interpersonalness. The determination of whether or not communication is actually being depersonalized starts with looking at the five constructs that construct depersonalization: empathy, compassion, conversational cues, personal communication, and consequence recognition. Comparing the five constructs of depersonalization within face-to-face communication and comparing them to the same five constructs within text/instant message communication allows for the determination of whether or not the use of instant message programs and text messages via cellular telephones is depersonalizing communication between 6th through 12th grade students.

Interpretation of the Findings

Empathy

Knafo et al. (2008) stated that empathy is an “enduring disposition, which is relatively stable across time and consistent across contexts and across its cognitive and affective aspects” (p. 737). It may be thought that empathy would remain consistent despite differences in communication styles like face-to-face communication and text/instant message but the results from this study show otherwise. The correlations found using the Pearson product-moment correlation show that empathy when compared between face-to-face and text/instant message communication shows very little correlation. The evidence does not support Knafo et al.’s statement that empathy should remain stable across time and context. Empathy does not appear to remain constant across contexts. The questions asked to measure empathy appear to accurately measure aspects of empathy, the ability to understand another person’s thoughts and feelings (Grühn et al., 2008) but the translation of empathy is lost when information is passed electronically. The low correlations found for questions measuring empathy are inconsistent with the research and show that empathy expressed during communication is being depersonalized (Knafo et al., 2008).

Compassion

McKenna and Bargh (2000) stated that people have expectations for the way other people will act and how others express themselves that are based on perceived notions of that person. The expectations of how others will act allow people to understand when a person is in need of compassion because they are acting out of their normal realm of actions (Knafo et al., 2008). Compassion is the ability to show caring for another person, be a positive force in another person's life and not cause harm to another (Crocker & Canevello, 2008).

The previously discussed notion that empathy is essential to the expression of compassion has been shown to not necessarily be the case in electronic communication. The questions used to measure compassion did so accurately, developing a picture of the fact the students can tell and show friends that they care about them. The ability to tell friends that they are cared about returned a moderate correlation between face-to-face and text/instant message communication leading towards the thought that depersonalization is not occurring when measured through the construct of compassion, communication is in fact remaining personalized. The ability to show friends that they are cared about however returned a low correlation and supports depersonalization of communication. The two sets of correlations are both statistically significant with a moderate (.545 with $p < .01$ (2-tailed)) and low level (219 with $p < .01$ (2-tailed)) correlation it is thought that compassion expression might be depersonalized by the use of electronic communication.

Personal communication

The stability of a relationship along with shared mutual feelings enables adolescents to form personal relationships with others. When people feel close and connected to other people then they are able to form personal connections and form personal communication patterns that are not necessarily present when talking to a stranger (Baumeister & Leary, 1995). The questions asked to measure

personal communication between students both returned low level correlations which do not support the depersonalization of communication.

Studies (McKenna & Bargh, 1999; Parks & Floyd, 1995) support the fact that CMC may actually satisfy interpersonal communication needs and that students are making personal connections through electronic communication media. The removal of a student from the traditional form of face-to-face communication may in some cases increase his or her ability to form bonds on a more intimate level (McKenna et al., 2002). Postmes et al. (1998) stated that CMC is capable of breaking down social boundaries, group limits, and social rank providing individuals with the ability to share personal characteristics, often overlooked in person, with others. The anonymity experienced by the use of CMC provides individuals with a safer environment to take risks with their personal information sharing (McKenna & Bargh, 1999). The idea has been presented by McKenna et al. (2002) that those individuals who share more over the Internet with online friends than they would in person would report that Internet communication is meeting more of the interpersonal needs than face-to-face communication.

Conversational cues

CMC is not conducted face-to-face which develops the need to understand the role of conversational cues, typically present in spoken communication, presented in textual speech. The expressive nature of tone of voice, facial expression, and physical appearance provide vitally important conversational cues to face-to-face communication that now need to be studied in absence (Bargh & McKenna, 2004; DiMaggio et al., 2001) CMC creates a deficiency of naturally occurring cues in spoken communication. The deprivation of non-verbal cues in communication creates a sense of anonymity that can lead to less accountability and less personalization on behalf of the speaker (Lievrouw & Livingstone, 2002). Bargh and McKenna (2004), described conversation that is lacking social cues as “impoverished social interaction” in comparison to an equal face-to-face communication exchange (p. 578).

Conversational cues have created a structure for conversation that is being broken by the use of CMC. Conversations in person or on the phone elicit an immediate response during a conversation whereas during a CMC communication exchange respondents can take as little or as much time to respond as desired. In conversation once a person starts to speak there is no taking it back, but in written speech there is still the opportunity to erase without providing any sort of cues to the other party that speech was apparent. In addition one party may speak for extended periods of time, not usually seen in a verbal conversation (McKenna & Bargh, 2000). In addition the non-verbal aspects of a conversation assist in coordinating and comprehending messages efficiently. When the cues are taken out of the conversation it increases the likelihood that anecdotal meaning of the messages will be incorrectly inferred (Kiesler et al., 1985). The lack of cues can cause misinterpretations of meanings in written text and in lack of written text. Thompson and Naddler (2002) discussed that lack of information in a written text exchange or delayed response to a written text exchange can cause feelings of resentment and hostility that would not be present in a quick response verbal exchange.

The correlations for the conversational cues returned two moderate correlations. These statistics show that the ability to recognize the structure of language remains consistent across both face-to-face communication and electronic communication. Despite what the research supports students are able to follow the structure of a conversation over text/instant message. An interesting topic of discussion in this area would be to study the ability to understand conversational cues as cell phone ownership age and IM usage age gets younger. It would be interesting to see how conversational cues are expressed in electronic communication if students learn to use CMC before they have mastered their understanding of conversational cues.

Consequence Recognition

The correlations reported for consequence recognition provided the most support that communication is not being depersonalized by the use of text/instant messages. The results show that

students care very much if they hurt their friends' feelings and they edit what they are going to say before they say it. Each question measures that students do care what they say to people when they speak both in person and over text/instant message. Students are supporting the literature provided by Pertini et al. (2009) by understanding how their biological reactions play into situations and the consequences of their actions because they are choosing to care how their reactions affect others. Students are showing the ability to recognize consequences before they happen. The lack of face-to-face contact alone does not appear to have much of an impact on how students treat their friends.

Choice and reasons given

Spears, et al. (2002) described two forms of communication that meet the same needs for an individual and therefore should be considered functionally alternative to the other. The lack of evidence to support the depersonalization of communication supports the fact that face-to-face communication and CMC are functionally alternative. Students are however stating loud and clear that they would prefer to speak face-to-face if they had to make a choice. Students state that it is easier to communicate with others face to face and they are better able to understand the communication occurring in a face-to-face manner versus texting or IMing. There is an unstated element of face-to-face communication that is meeting the interpersonal needs of students that is not being met by texting or IMing, this is supported by the overwhelming choice of students to communicate face-to-face instead of over text or instant message (Flaherty et al., 1998).

Limitations

The most apparent limitation to the Flip Side Survey is the absence of a question asking the participants whether or not they are male or female. The question was not transferred from a preliminary version of the survey and was overlooked upon final editing. The question asking male or female should be added if the survey were run again to help determine gender differences in the area of depersonalization. In addition the sample size could have had an impact on the results found. The

number of respondents could have been increased by offering different rewards for participation. Upon future study using this survey there should be an incentive directed at high school students to help increase participation.

The questions on the survey all appear to measure depersonalization accurately but it is always advantageous to think of more efficient, or more accurate, ways to do things. The number of questions asked per construct could be increased to raise the levels of reliability and validity within the instrument. In addition the questions in scenario 1 and scenario 2 could be changed to delve further into the study of depersonalization. The questions in scenario 2 could be changed to be functionally equivalent to the question in scenario 1 instead of being identical. The correlations between scenario 1 and 2 would then correlate one empathy question to another. The reworking of question is endless but could help produce more accurate results in a more efficient way.

Implications for counseling and future study

Beyond a doubt the use of CMC is enhancing communication around the globe, with each enhancement there are new opportunities for people to exceed the previous limits and boundaries of communication and transcend across previously set social boundaries, homogeneity, and differences that have been known to keep people both together and apart (Postmes et al., 1998). The topic of depersonalization is a topic that should be monitored alongside the rise in new technologies, since the younger students are reporting higher rates of cell phone ownership. The current generation of young people must face up to the new trials and tribulations presented by the rise in new communication technology (Charlton et al., 2002). Communication has expanded into everyday living situations, irrespective of time or physical distance (Bargh & McKenna, 2004); now young people are faced with challenges unseen by previous generations (Charlton et al., 2002). Communication is showing slight signs of being depersonalized and therefore the study should be continued into the future. The topic

would benefit from a longitudinal study to witness how communication patterns are changing with the rapid growth of technology.

Adolescent Uses of New Technologies

In 2005 the United States Department of Justice expected that 77 million children would be online (U.S. Department of Justice, 2001). The new generation of children is growing up with these new technologies. Madden et al. (2005) coined child and adolescent know-how as information literacy. Information literacy is the fast nature by which children and adolescents identify gaps in their knowledge, search out strategies for finding information, organize, apply, and synthesize information (Webber & Johnston, 2000). The Internet is an important new medium of information and communication among adolescents (Becker & Schmidt, 2004).

Communication is the most important use of the Internet for adolescents (Greenfield & Yan, 2006). The main focus of communication over the Internet is for adolescents to develop new relationships and nurture existing relationships as peers play a critical role in social and emotional development of adolescents. Peer relationships of a positive manner provide positive self-identity, self-esteem, self-worth, skills for future romantic relationships, and provide higher mental health longer into life (Raskauskas & Stoltz, 2007).

Phones and IM are so enmeshed into the lives of adolescents they state that they cannot imagine their lives without them (Thompson & Cupples, 2008). The cell phone is a sign of growing emancipation but is also used to stay in contact with parents and request rides when necessary. The cell phone is so engrained in today's youth that it has become an artifact and not a fascinating new technology (Thompson & Cupples, 2008). It is used to make plans with friends, share jokes, check homework assignments, and post away messages letting people know where they are and what they are up to (Nastri, 2006). Teenagers consider IM to be a vital part of their social lives and a very important

connection with their peers. “Chat is the number one online activity among teenagers (Strom & Strom, 2005, 39).”

The Internet has provided researchers with a unique insight into adolescent activities and culture that was never possible in the past. The new communication functions of e-mail, IM, cell phones, text and chat are connections where adolescents are taking part in the creation of their own environments (Greenfield & Yan, 2006). Starkman (2007) explained that adolescents do like to distance themselves from their environments from time to time and using new technologies allows researchers and parents to see what adolescents do when they are distancing themselves from the non-virtual world. It is not a form of isolation but a time to step away from what they know and into a comfortable environment whether it be a chat room, an IM conversation, or putting on the headphones to their iPod.

The step away from reality is where a few of the dangers to adolescents present themselves. Youthful users typically know the complexities of the Internet by the age of 12 or 13, on roughly the same level as adult users (Wolak et al., 2008). Students know the risk of online activity but they do not always exercise this knowledge. Children say new technologies provide them with an opportunity to step away from stressful situations (Starkman, 2007). Many youth are stepping away from real life solutions and towards support and guidance provided on the Internet (Becker & Schmidt, 2004). The adolescents who visit chat rooms for advice and reach out for online support are those who may already have troubles in their personal lives (Wolak et al. 2008). “Youngsters are challenged by the climate of rapidly changing technologies (Charlton et al., 2002, 56) and it is up to researchers and adults to understand their perceptions and uses of rising technologies in order to help them on their journey.

Parental Uses of New Technologies

An interesting topic that could branch from this study is a longitudinal study of depersonalization in comparison with parental attitudes held about teenage cell phone ownership. The

majority of the students in this study were middle school students who reported higher percentages of cell phone ownership than the older students surveyed. A look into the adult perspective of new technologies might provide valuable information needed to develop future interventions for depersonalization.

According to Nastri et al. (2006) new technologies are viewed more generally by adults as being important to stay in touch with friends and family and to keep up on what they are thinking, doing, and feeling. Parents claim that cell phones are a good product for their children because they are safer and more secure in emergency situations if they carry a cell phone. When in crisis a child or adolescent can get in touch with their parents or emergency services. Additionally mobile phones allow parents and children to stay in touch while the child is away from home. The somewhat hidden message behind these safety concerns is that parents really enjoy keeping a watchful eye on their child, these new technologies allow them to do just that (Charlton et al., 2002). Charlton et al. (2002, 159) also created a list of reasons why children and adolescents should have cell phones:

- Calling for help when they came across an accident
- Calling for help when they were being bullied
- Letting parents know they would be delayed or they were lost
- Calling home when they were frightened
- Contacting parents to let them know they would be late

Parents view cell phones as safety features that provide fast, convenient ways for their children to keep in contact with them.

The computer is the number one new technology that parents view as beneficial to their child's education (Stalkman, 2007). Parents view computers as good ways to locate information and send e-mail; they view them as practical tools (Strom & Strom, 2005). Stalkman (2007) sent out a warning to parents not to let computers and their connections become their child's best friend. Children and

adolescents do not view computers in the same way as adults do; they do know how to locate information and use e-mail but there is much more to a computer than those components.

Adults also use new technologies for practical uses like arranging meetings or coordinating projects. IM is used in the workplace for scheduling and coordinating meetings as well as for informal communication in the workplace (Nastri et al., 2006). Along with these practical uses the Internet provides a challenge for adults who are trying to protect their youth. The Internet is viewed as a new social environment which includes the introduction of new topics to children and adolescents such as identity development, sexuality, and displays of self-worth (Greenfield & Yan, 2006). The research does not provide much insight in the views of adult use of the new information technologies. This could be for many reasons (i.e. they are not using these new technologies enough to require research into the area and the development of technology was so rapid the time elapsed has not provided the opportunity for research in this area).

Counselors working in the school counseling arena need to be up to date with technological advancements that are affecting their students. The use of text messaging on cell phones and instant messages over the Internet need to be studied by counselors so their impact can be evaluated within the school. Students are developing new ways to communicate and have technology at their fingertips and counselors need to understand new technology like they would view any culture that they are unfamiliar with.

Conclusions

New technological developments are creating new possibilities for conversational and communicative space (Merchant, 2001). Thompson and Cupples (2008) avowed that CMC is already destroying face-to-face communication in young people. Postmes et al. (1998) stated quite the opposite in saying that it is "too simplistic and mechanistic" to assume that depersonalization will be produced by anonymity experience in CMC (p.700). Looking at both perspectives alongside the results from the Flip

Side Survey it is safe to say that Postmes et al. (1998) were on a closer track to describing depersonalization and that Thompson and Cupples (2008) may have been mistaken with their previous statements. Communication technologies provide the opportunity for creating new online relationships as well as breaking down the limitations of previous social boundaries containing communication. Lievrouw (2002) asserted that the best thing about CMC is its ability to challenge current theories of communication and provides new opportunities to study communication technology from the foundation.

References

- Bargh, J. A., & McKenna, K. Y. (2004). The Internet and social life [Electronic version]. *Annual Review of Psychology*, 55, 573-590.
- Baron, N. S. (1998). Letter by phone or speech by other means: The linguistics of e-mail [Electronic Version]. *Language & Communication*, 18, 133-170.
- Baumeister, R. F., & Leary, M. R. (1995). The need to belong: Desire for interpersonal attachments as a fundamental human motivation [Electronic version]. *Psychological Bulletin*, 117, 497-529.
- Becker, K. & Schmidt, M.H. (2004). When kids seek help online: Internet chat rooms and suicide [Electronic version]. *Journal of American Academy of Child and Adolescent Psychiatry*, 43 (3), 246-247.
- Bell, D. (1973). *The coming of post-industrial society: A venture in social forecasting*. New York, New York: Basic.
- Berson, I.R., Berson, M.J., & Ferron, J.M. (2002). Emerging risks of violence in the digital age: Lessons for educators from an online study of adolescent girls in the United States [Electronic version]. *Journal of School Violence*, 1(2), 51-72.
- Charlton, T., Panting, C., & Hannan, A. (2002). Mobile telephone ownership and usage among 10 and 11-year-olds [Electronic version]. *Emotional and Behavioral Difficulties*, 7, 152-163.
- Crocker, J., & Canevello, A. (2008). Creating and undermining social support in communal relationships: The role of compassionate and self-image goals [Electronic version]. *Journal of Personality and Social Psychology*, 95 (3), 555-575.
- DiMaggio, P., Hargittai, E., Neuman, W. R., & Robinson, J. P. (2001). Social implications of the Internet [Electronic version]. *Annual Review of Sociology*, 27, 307-336.
- Fischer, C. (1992). *America calling: A social history of the telephone to 1940*. Los Angeles, CA: University of California Press.

- Flaherty, L. M., Pearce, K. J., & Rubin, R. B. (1998). Internet and face-to-face communication: Not functional alternatives [Electronic version]. *Communication Quarterly* , 46, 250-268.
- Greenfield, P., & Yan, Z. (2006). Children, adolescents, and the Internet: A new field of inquiry in developmental psychology [Electronic version]. *Developmental Psychology* , 42 (3), 391-394.
- Grühn, D., Rebucal, K., Diehl, M., Lumley, M., & Labouvie-Vief, G. (2008). Empathy across the adult lifespan: Logitudinal and experience-sampling findings [Electronic version]. *Emotion* , 8 (6), 753-765.
- Hampton, K., & Wellman, B. (2001). Long distance community in the network society: Contact and support beyond netville. *American Behavioral Scientist* , 45, 476-495.
- Jackson, L. A., Eye, E. V., Biocca, F. A., Barbatsis, G., Zhao, Y., & Fitzgerald, H. E. (2006). Does home Internet use influence the academic performance of low-income children? [Electronic version]. *Developmental Psychology* , 42 (3), 429-435.
- Kiesler, S., Zubrow, D., & Moses, A. M. (1985). Affect in computer-mediate communication: An experiment in synchronous terminal-to-terminal discussion [Electronic version]. *Human-Computer interaction* , 1, 77-104.
- Knafo, A., Zahn-Waxler, C., Van Hulle, C., Robinson, J. L., & Rhee, S. H. (2008). The developmental origins of a disposition towards empathy: Genetic and environmental contributions [Electronic version]. *Emotion* , 8 (6), 737-752.
- Kraut, R., Patterson, M., Lundmark, V., Kiesler, S., Mukopadhyay, T., & Scherlis, W. (1998). Internet paradox: A social technology that reduces social involvement and psychological well-being? [Electronic version]. *American Psychologist* , 53, 1017-1031.
- Lacina, J. (2007-2008). Technology in the classroom: Computers and young children [Electronic version]. *Childhood Education* , Winter, 113-116.

Landerholm, E., Gehrie, C., & Hao, Y. (2004). Educating early childhood teachers for the global world

[Electronic version]. *Early Child Development and Care*, 174 (7), 593-606.

Laursen, B., & Mooney, K. S. (2008). Relationship network quality: Adolescent adjustment and

perceptions of relationships with parents and friends [Electronic version]. *American Journal of Orthopsychiatry*, 78 (1), 47-53.

Lee, E. J. (2007). Effects of gendered language on gender stereotyping in computer-mediated

communication: The moderating role of depersonalization and gender-role orientation

[Electronic version]. *Human Communication Research*, 33, 515-535.

Lewis, C., & Fabos, B. (2005). Instant messaging, literacies, and social identities [Electronic version].

Reading Research Quarterly, 40 (4), 470-501.

Lievrouw, L., & Livingstone, S. (Eds.). (2002). *The handbook of new media*. Thousand Oaks, California:

SAGE Publications Inc.

Ling, R., & Baron, N. S. (2007). Text messaging and IM: Linguistic comparison of American college data

[Electronic version]. *Journal of Language and Social Psychology*, 26 (3), 198-291.

Luke, C. (2003). Pedagogy, connectivity, multimodality, and interdisciplinarity [Electronic version].

Reading Research Quarterly, 38, 397-403.

Madden, A. D., Nunes, J. M., McPherson, M., Ford, M. J., Miller, D., & Rico, M. (2005). A new generation

gap? Some thoughts on the consequences of early ICT first contact [Electronic version].

International Journal of Information and Communication Technology, 1, 19-32.

Maslow, A. H. (1968). *Toward a psychology of being*. New York, New York: Van Nostrand.

McKenna, K. Y., & Bargh, J. A. (1999). Causes and consequences of social interaction on the Internet: A

conceptual framework [Electronic version]. *Media Psychology*, 1, 249-269.

- McKenna, K. Y., & Bargh, J. A. (2000). Plan 9 from cyberspace: The implications of the Internet for personality and social psychology [Electronic version]. *Personality and Social Psychology*, 4, 57-75.
- McKenna, K. Y., Green, A. S., & Gleason, M. G. (2002). Relationship formation on the Internet: What's the big attraction? [Electronic version]. *Journal of Social Issues*, 58 (1), 9-31.
- Merchant, G. (2001). Teenagers in cyberspace: An investigation of language use and language change in Internet chatrooms [Electronic version]. *Journal of Research and Reading*, 24, 293-306.
- Nastri, J., Pena, J., & Hancock, J. (2006). The construction of away messages: A speech act analysis [Electronic version]. *Journal of Computer-Mediated Communication*, 11, 1025-1045.
- Paolo, A., Matricardi, G., Speltri, D., & Toso, D. (2009). The assessment of empathy in adolescence: A contribution of the Italian validation of the "Basic Empathy Scale" [Electronic version]. *Journal of Adolescence*, 32, 393-408.
- Parks, M. R., & Floyd, K. (1995). Making friend in cyberspace. *Journal of Communication*, 46, 80-97.
- Petrini, K., Russell, M., & Pollick, F. (2009). When knowing can replace seeing in audiovisual integration of actions [Electronic version]. *Cognition*, 110, 432-439.
- Postmes, T., Spears, R., & Lea, M. (1998). Breaching or building social boundaries? [Electronic version]. *Communication Research*, 4, 689-707.
- Postmes, T., Spears, R., & Lea, M. (2002). Intergroup differentiation in computer-mediated communication: Effects of depersonalization [Electronic version]. *Group Dynamics: Theory, Research, and Practice*, 6, 3-16.
- Provine, R.R., Spencer, R.J. & Mandell, D.L. (2007). Emotional expression online: Emoticons punctuate website [Electronic version]. *Journal of Language and Social Psychology*, 26 (3), 299-307.
- Raskauskas, J. & Stoltz, A.D. (2007). Involvement in traditional and electronic bullying among adolescents [Electronic version]. *Developmental Psychology*, 43, 564-575.

- Rubin, R., Perse, E. M., & Barbato, C. A. (1988). Conceptualization and measurement of interpersonal communication motives. *Human Communication Research*, 14, 602-628.
- Smith, P. K., Mahdavi, J., Carvalho, M., Fisher, S., Russell, S., & Tippett, N. (2008). Cyberbullying: Its nature and impact in secondary school pupils [Electronic version]. *Journal of Child Psychology and Psychiatry*, 49, 376-385.
- Spar, D. L. (2001). *Ruling the waves: Cycles of discovery, chaos, and wealth from the compass to the Internet*. New York, New York: Harcourt.
- Spears, R., Postmes, T., Lea, M., & Wolbert, A. (2002). When are net effect products? The power of influence and the influence of power in computer-mediated communication [Electronic version]. *Journal of Social Issues*, 58, 91-107.
- SPSS. (2009). SPSS 16.0 for Windows, release 16.0.0. Chicago: Author.
- Starkman, N. (2007). What students want: Leave me alone...I'm socializing [Electronic version]. *T.H.E. Journal*, 34 (3), 32-38.
- Sterling, C. H., Bernt, P. W., & Weiss, M. B. (2006). *Shaping American telecommunications: A history of technology, policy, and economics*. Mahwah, New Jersey: Lawrence Erlbaum Associates.
- Strom, P. S., & Strom, R. D. (2005). When teens turn cyberbullies [Electronic version]. *The Educational Forum*, 70, 21-36.
- Thompson, L., & Cupples, J. (2008). Seen and not heard? Text messaging and digital sociality [Electronic version]. *Social and Cultural Geography*, 9, 95-108.
- Thompson, L., & Nadler, J. (2002). Negotiating via information technology: theory and application [Electronic version]. *Journal of Social Issues*, 58, 109-124.
- U.S. Department of Justice. (2001). Internet crimes against children. Office for Victims of Crime Bulletin. Washington, DC: author.

Van Lange, P. (2008). Does empathy trigger only altruistic motivation? how about selflessness or justice?

[Electronic version] *Emotion* , 8 (6), 766-774.

Wellman, B. (2004). The three stages of Internet studies: Ten, five and zero years ago [Electronic

version]. *New Media and Society* , 6, 123-129.

Wolak, J, Finkelhor, D., Mitchell, K.J., & Ybarra, M.L. (2008). Online “predators” and their victims: Myths,

realities and implications for prevention and treatment [Electronic version]. *American*

Psychologist, 63 (2), 111-128.

Yan, Z. (2006). What influences children's and adolescents' understanding of the complexity of the

Internet? [Electronic version]. *Developmental Psychology* , 42 (3), 418-428.

Appendix A

The Flip Side Survey

Talk about communication!

The Flip Side Survey

Please read the following scenarios and answer all questions.

Information Corner

Age:

Grade Level:

In what block are you taking this survey?

Do you have your own cell phone?

Do you have a screen name for IMing?

How many texts do you send in one day?

How many texts do you receive in one day?

If you had to choose one way to communicate which would it be and why?

- Texting
- IMing
- Talking face-to-face
- Why? _____

Scenario 1: You are sitting in the cafeteria and a close friend approaches you. Your friend tells you something that gets you thinking and experiencing emotions. How well are you able to do the following things because you are communicating face-to-face with your friend?

	1-Always	2-Sometimes	3-Rarely	4-Never
When I communicate face-to-face...				
1. I can tell my friend that I care about them	1	2	3	4
2. I can show my friend that I care about them	1	2	3	4
3. I speak to other friends at the same time	1	2	3	4
4. I can understand what my friend is feeling	1	2	3	4
5. I can understand what my friend is thinking	1	2	3	4
6. I can communicate my feelings to my friend	1	2	3	4
7. I can communicate my thoughts to my friend	1	2	3	4
8. I edit what I'm going to say before I say it	1	2	3	4
9. I care if I hurt my friend's feelings	1	2	3	4
10. I know when it is my turn to talk in the conversation	1	2	3	4
11. I know when my friend has completed a statement	1	2	3	4

Scenario 2: You are at home one evening after school and you get either a text message on your cell phone or an instant message on your computer. The message is from a close friend. What your friend tells you gets you thinking and experiencing emotions. How well are you able to do the following things because you are communicating electronically?

	1-Always	2-Sometimes	3-Rarely	4-Never
When I communicate electronically...				
1. I care if I hurt my friend's feelings	1	2	3	4
2. I edit what I'm going to say before I say it	1	2	3	4
3. I can understand what my friend is feeling	1	2	3	4
4. I can understand what my friend is thinking	1	2	3	4
5. I speak to other friends at the same time	1	2	3	4
6. I know when my friend has completed a statement	1	2	3	4
7. I tell my friend that I care about them	1	2	3	4
8. I can show my friend that I care about them	1	2	3	4
9. I know when it is my turn to talk in the conversation	1	2	3	4
10. I can communicate my thoughts to my friend	1	2	3	4
11. I can communicate my feelings to my friend	1	2	3	4

Appendix B

Parental Consent Form

STATEMENT OF INFORMED CONSENT

The purpose of this research project is to answer the question of whether or not the use of instant message programs and text messages via cellular telephones is negatively affecting personalization of communication between 6th and 12th grade students. This research project is also being conducted in order for me to complete my master's thesis for the Department of Counselor Education at The College at Brockport, State University of New York.

In order for your student to participate in this study, your informed consent is required. You are being asked to make a decision whether or not to participate in the project. If you will allow your student to participate in the project, and agree with the statements below, please sign your name in the space provided at the end. You may change your mind at any time and your student will not be permitted to participate in the study even after the study has begun. There will be no penalty against any student who cannot, for any reason, participate in this project.

I understand that:

1. Your student's participation is voluntary and you or they have the right to refuse to answer any questions.
2. Your student's participation will not affect his/her grade in any way.
3. Your student's name will not be written on the survey. There will be no way to connect your student with his/her written survey. Consent letters will be kept separate from survey responses. If any publication results from this research, your student would not be identified by name.
4. The only risk to your student for participating is taking 15 minutes of time away from their academic schedule to complete the survey. There will be no benefit to your student for their participation.
5. Your student's participation involves reading a written survey of 30 questions and answering those questions in writing. It is estimated that it will take 15 minutes to complete the survey.
6. Approximately 600 people will take part in this study. The results will be used for the completion of a master's thesis by Eileen Myer.
7. Data will be kept in a locked filing cabinet by Eileen Myer. Data and consent forms will be destroyed by shredding when the research has been accepted and approved.

I am 18 years of age or older. I have read and understand the above statements. All my questions about my student's participation in this study have been answered to my satisfaction. I agree to allow my student to participate in the study realizing I may withdraw my student without penalty at any time during the survey process.

Signature _____ Date _____

If you have any questions you may contact:

Primary Researcher	Faculty Advisor
Eileen Myer	[REDACTED]
Counseling Intern	Department of Counselor Education
Phone Number	[REDACTED]
[REDACTED]	[REDACTED]

In order to get accurate results from the research survey it is very important that all students be allowed to participate. To promote participation, all students who return this form signed will be able to enter the form below into a raffle for various prizes from local [REDACTED] merchants. Thank you for your cooperation.

Name: _____

Grade: _____

1st Block Teacher _____

Appendix C

Student Consent Form

Student Consent to Participate

I, _____, agree to take part in Ms. Myer’s research
(PLEASE PRINT YOUR NAME)

project survey. I will answer questions about communication patterns during face-to-face conversation and during instant message conversation.

I understand I will not be asked to provide any personal information and my name will never be associated with the answers I provide. The information gathered will be used to answer the question of whether or not the use of instant message programs and text messages via cellular telephones is negatively affecting personalization of communication between 6th and 12th grade students.

I understand that:

1. My participation is voluntary and I have the right to refuse to answer any questions. I will have a chance to discuss any questions I have about the study with Ms. Myer after completing the survey.
2. My anonymity is guaranteed. Anonymity means no one will know what my answers on the survey are. My name will not be written on the survey. There will be no way to connect my name to the written survey. If any publication results from this research, I will not be identified by name. Results will be given anonymously and in group form only, so that neither the participants nor their schools can be identified. Participation will have no effect on my grades.
3. The only risk is 15 minutes of my time and there are no benefits because of participation in this project.
4. My participation involves reading a written survey of approximately 30 questions and answering those questions in writing. It is estimated that it will take 15 minutes to complete the survey.
5. Approximately 600 people will take part in this study. The results will be used for the completion of a research project by Ms. Myer.
6. Data and consent forms will be kept separately in a locked filing cabinet by Ms. Myer and will be destroyed by shredding when the research has been completed.

All results will be shown in Ms. Myer’s final Master’s thesis paper and could be published at a future date. If you have any questions contact Ms. Myer or Mr. Hernandez, their information is provided below.

Signature

Eileen Myer
Counseling Intern

Date

Associate Professor

Appendix D

Script for Teachers Administering Surveys

Script for Teachers Administering Surveys

Thank you for cooperating in Ms. Myer's thesis project survey. Soon I am going to pass out a permission slip for you to sign, please take the time to read through it and sign only if you agree to take the survey. When you have signed and dated the permission slip please bring it up and I will give you a survey to complete. Answer all questions honestly and to the best of your ability. When you are finished with your survey please bring it up and place it in the envelope labeled "survey envelope".