Digital Relationships in the 'MySpace' Generation: Results From a Qualitative Study

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Abstract

A qualitative study was conducted to explore how subjects use social networking sites and instant messenger to engage in interpersonal relationships. The results were used to develop a preliminary framework that models how attitudes towards privacy and impression management, when mediated by technology, translate into social interactions. This paper begins with a review of relevant literature, then describes the experimental design, summarizes the results, introduces the framework, and finishes with a discussion of conclusions and implications for future research. This paper describes the collection and analysis of qualitative data, and its use to inform a preliminary theoretical framework that can support future research into the design of systems that support social interactions.

1. Introduction

The study of computer mediated communication (CMC) has been an active area of academic research for several decades [1-6]. This paper will describe research conducted on two types of communications technology, instant messenger and social networking sites. These have been selected because of their widespread popularity and use for interpersonal relationship management.

Instant messenger is a lightweight chat program. It allows users to conduct discussions in real time. The dominant systems include AOL instant messenger, MSN Messenger, and Yahoo! Messenger [7].

Social networking sites encourage social interaction by emphasizing connections through shared interests or causes. Two popular examples are Facebook (www.facebook.com), intended for college students, and MySpace (www.myspace.com), a large site with an emphasis on popular culture and music. Users join the site by completing a profile describing personal interests. This profile information can be shared with others, depending on the privacy preferences of the individual as well as the supported features of the site.

1.1. Reduced social cues – cues filtered out perspective

Relevant to the development of interpersonal relationships is the processing of social cues [8]. Research in social psychology has indicated that when people perceive social context cues, these can trigger cognitive interpretations and related emotional states. In response to these cues, people adjust their communication depending on their subjective interpretation of the situation. When social context cues are strongly perceived, behavior becomes more other-focused and carefully managed. Conversely, when communication of these cues is weak and cues are not perceived, feelings of anonymity result in more self-centered and unregulated behavior [9].

Prior research has indicated the use of communications technology does diminish the exchange of social context cues. This tendency has been labeled as the "cues filtered out" perspective [10]. This perspective suggests that nonverbal cues not easily transmitted via CMC influence social interaction, and provide valuable information about communication partners. This information influences the formation of impressions, impacts the ways in which participants understand and reply to messages, and is used to gauge the truthfulness of the participants' communication.

1.2. Social information processing model

Walther [6] proposes the Social Information Processing Model, which argues that social context cues are not filtered out in computer mediated communication, but instead are transmitted at a slower rate. While face to face communication can provide multiple communication channels (i.e. spoken words, body language, emotional tone, and the reactions of others), computer mediated communication relies on paralinguistic cues to provide emphasis or to signal humor, anger, pathos, and so forth [11, 12]. Walther's theory explains experimental results indicating that

participants do obtain social context information while using computer mediated communication.

1.3. Impression Management

Impression management captures the methods people employ in order to "make a good impression," or control the impressions others form of them, first described by Goffman [13]. Impression management has been defined as the goal-directed conscious or unconscious attempt to influence other's perceptions about a person, object or event by controlling or managing the exchange of information in social interaction. If a person's goal is to influence perceptions of his/her image, this is called self-presentation [14].

Goffman argues that impression management is a subtle and fundamentally subjective activity. It seems barely visible, and is difficult to capture with empirical tools. Yet its power is unmistakable, and a constant factor in everyday interactions [13]:

It is probably no historical accident that the word person, in its first meaning, is a mask. It is rather recognition of the fact that everyone is always and everywhere, more or less consciously, playing a role … it is in these roles that we know each other; it is in these roles that we know ourselves (p. 19).

Goffman's contribution is his ability to capture the complexity involved within interpersonal relationships:

It is highly important for us to realize that we do not as a matter of fact lead our lives, make our decisions, and reach our goals in everyday life either statistically or scientifically. We live by inference (p. 3).

Since impression management is carried out by the careful supervision of the exchange of information and interpreted by inference, a critical question is how effectively this exchange is implemented within CMC. Goffman's theory evolved from a longitudinal study during the 1950's in the Shetland Isles among subsistence farmers. The use of technology was not a factor in Goffman's analysis.

How the complexities of relational interaction can be modeled in technology is an interesting question. The difficult technical challenge presented by controlling access to information is discussed by Ackerman in [15]:

People have very nuanced behavior concerning how and with whom they wish to share information.

People are concerned about whether to release this piece of information to that person at this time, and they have very complex understandings of people's views of themselves, the current situation, and the effects of disclosure. Yet, access control systems often have very simple models (p. 181).

This divide between what occurs in the social world and what can be supported by technology has been labeled the social-technical gap. How designers can close this gap and how users of social systems compensate for this gap is an active area of research [15-20].

1.4. Privacy and Sharing of Personal Information

The development of a Concern for Information Privacy construct has been described by Smith in [21], and further explored in [22] and [23]. Smith's construct consists of four sub-scales that explored privacy dimensions related to collection, data errors, unauthorized secondary use, and improper access.

While surveys and studies regularly indicate the concern for information privacy is very high among consumers [24], social networking sites, which facilitate the exchange of personal information, are booming in popularity. This seems to be a paradox. If consumers are concerned about privacy, what makes them willingly disclose information in social networking sites? Further investigation is needed to explore what attitudes individuals hold towards privacy, and explore how these attitudes relate to the kind of information people are willing to share when using instant messenger and social networking sites.

2. Research Questions and Development of the Interview Guide

The objective of this research study was to undertake a qualitative study of how individuals use technology to develop and maintain interpersonal relationships. While face to face communication is considered to be "normal," with so many technology-enabled channels available it is a diminishing part of social interactions. The heavy use of cell phones, text messaging, instant messenger, email and social networking sites imply that computer mediated communication is a significant factor in the management of interpersonal relationships. This leads to the following research questions: how and to what extent do individuals use technology to manage interpersonal relationships? How does the use of

communications technology mediate the behaviors that manage interpersonal relationships?

An interview guide was developed to explore these questions. The guide focused on the use of two broad categories of systems, instant messenger and social networking sites. The first version of the interview guide was piloted, and feedback resulted in revisions to the guide.

The guide contains questions that explore how participants present themselves to others, i.e. impression management. The guide also prompts participants to describe positive and negative features of these systems. It also includes questions about frequency of use and dependence on these systems for interpersonal contact.

The guide has questions probing how participants used these systems to develop new social relationships. The management of social relationships is investigated through questions prompting participants to describe how they used system features to restrict access or respond to negative social interactions. The guide also includes questions on the participant's expectations of privacy, and how it affected the kind of information they felt comfortable revealing while using these systems.

Basic data was also collected from the participants on their use of cell phones and text messaging. Demographic information, such as age, ethnicity, major field of study, and year in school was collected as well.

3. Research Design

The research method used was the semi-structured interview. The interviews were conducted primarily by undergraduate students as part of a class project for CIS350, Computers in Society, a required course for several undergraduate degrees. Students have the option of working on a research project or doing community service. Six elected to participate as student researchers for this study.

The student researchers were given the interview guide and were trained to conduct semi-structured interviews. The training consisted of the following steps. The student researchers completed an online training module covering Research on Human Subjects, and read material on social networking sites [25, 26]. The student researchers also viewed a four hour audio PowerPoint lecture on how to conduct semi-structured interviews.

The student researchers then met as a group for face to face training, were briefed on the overall goal of the research study and advised on how to recruit subjects. During the session one of the student researchers was interviewed using the guide while the others observed. This gave the student researchers a more realistic idea of how to conduct a semi-structured interview.

The student researcher's next step was to recruit a subject and complete a single interview, then post the transcript for review. This transcript was reviewed, and comments were offered to inform the student researcher on how they could improve their interviewing technique. Each student researcher then recruited two more subjects and completed two more interviews, for a total of three each.

The final step for the student researchers was writing a report describing what they learned from carrying out this process, analyzing the results they obtained, and making suggestions on how to improve the interview guide. 17 of the 18 student researcher interviews are used in this study (one file was corrupted and not available). Two additional interviews from training sessions were added to the data set, for a total of 19 participants.

The 19 participants consisted of 6 females and 13 males. There were two graduate students and 17 undergraduate students. Their average age was 22.2. Their ethnic origins are shown in Figure 1. The size of the data set is small, the subjects were not selected randomly, so the statistics described here cannot be generalized to larger populations. However from these 19 interviews there are interesting insights and examples that provide rich data regarding the effect of CMC on relationship management.
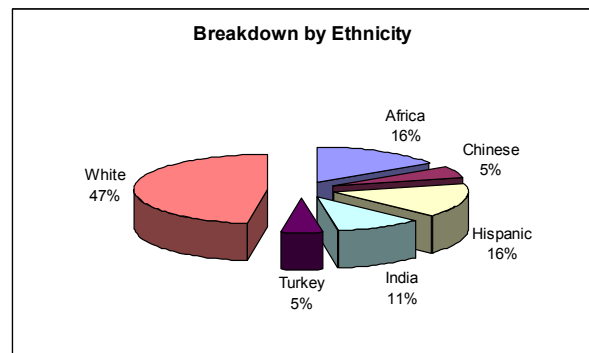

Figure 1: Distribution of participants by ethnicity

The interview transcripts were analyzed for common themes using QSR NVivo software, which has been used extensively in qualitative research. Since this was an exploratory study, the approach taken was one of content analysis [27]. Codes came from the interview guide itself, such as "advantages of instant messenger." These codes were then broken into sub-codes arising from the responses of the participants. For example,

sub-codes for advantages of instant messenger include convenience, access, and low cost. The codes were not mutually exclusive, that is sections of text could be labeled with more than one code.

4. Results: Patterns of Use

How did the participants use these systems? An analysis of the interviews indicated they used them to a great extent. Every participant reported having a cell phone. 17 out of 19 use both instant messenger and text messaging; one person used just text messaging and not instant messenger, and another just used instant messenger. 16 out of 19 reported using social networking sites (see Figure 2). The participants reported their heavy use was motivated by convenience, easy access to friends, and overall enjoyment when using these systems.
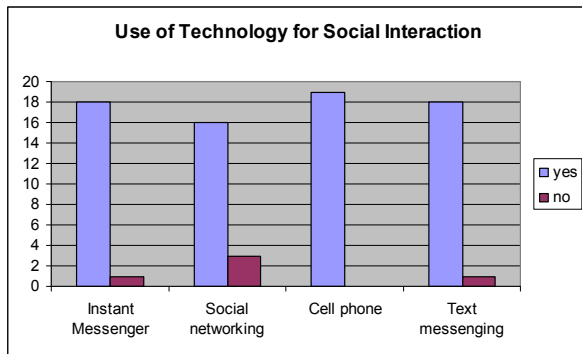

Figure 2: Participants report use of technology mediated communication modes

The participants' regular use of these methods implies a substantial reliance on technology mediated communication for maintaining interpersonal relationships. The most popular method was instant messenger. Participants said they were on "all day every day." Low cost was a strong motivating factor. "I can talk to my friend in Florida without paying."

For many, instant messenger was their primary method of maintaining social contact, "because I find it the easiest way to keep in touch with anyone." Its convenience and popularity are regularly cited: "Everyone has it. Everyone I know has it." For international students and those far from friends and family, instant messenger is essential: "[I use it] to keep in touch with friends in India who I cannot contact normally. I know a lot of people who [live far away], I know them really well. Keeping in touch with them is very important, and this is what I use."

While participants reported they used text messaging and social networking sites, the frequency of

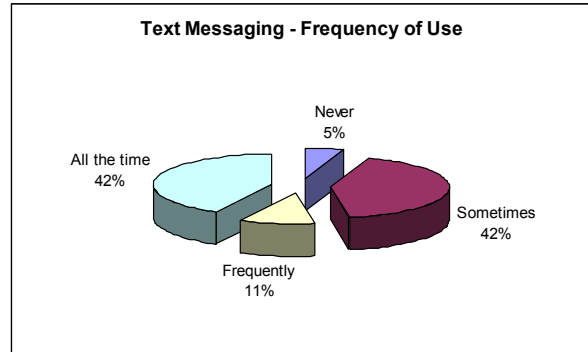use was more varied compared to instant messenger (see Figure 3 and Figure 4).

Figure 3: Participant's use of text messaging

Those who did not regularly use text messaging cited the difficulty and awkwardness of using a phone keypad to input a message, and their dislike of short-cuts to make typing easier: "I find it extremely annoying, actually, I hate having to press one button four times just to get one, and I can't stand improper grammar. It takes me a really long time to write a message, even text I don't write t-x-t I write t-e-x-t."
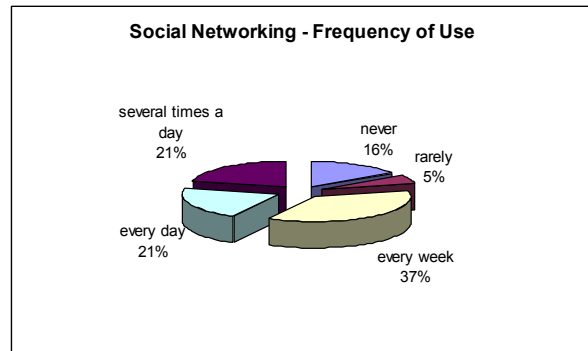

Figure 4: Participant's use of social networking sites

There was no conclusive reason articulated for the distribution of frequency of use of social networking sites. One issue mentioned was that use of these sites is "addictive" and it takes a lot of time. "They're so addictive, it's like cocaine, I can't stop." "It is just like a cult and sucks you in, and there is no positive thing about them." The fact that 79% of participants reported accessing these sites at least once a week, and 21% reported doing so several times a day demonstrates there is regular use of these sites among the participants interviewed for this research.

4.1. Attitudes towards impression management

Impression management is a key component of face to face interactions. How we dress, when we laugh or smile, and the way we present ourselves are all part of non-verbal cues that can strongly influence social relationships. Impression management can result in intentional or un-intentional outcomes. We may intend to convey a particular impression by acting in a certain manner. Or we may unconsciously convey private attitudes that can damage social relations [13].

Techniques of impression management have been studied for face to face communication, and it is therefore important to understand how impression management translates to a technology mediated setting. The statements expressed by participants in these interviews support the view that these systems can communicate both intentional and unintentional impression management goals.

In the case of social networking sites, one way users carry out impression management is by creating a profile, which is a list of information concerning the user's background and interests. This can include blog-like sections with personal opinions or diary entries. A profile often includes photographs, as well as links to other friends who participate in the same social networking site. Users can spend hours adjusting their profile as events in their life occur. They will also spend time viewing profiles of friends and others they may encounter within the social networking site.

A profile on a social networking site is an opportunity to present yourself, as you really are, or as you would like to be, i.e. impression management. Remarks made by the participants indicated that profiles are judged on the impression management skills of its creator, and especially noticed impressions that are artificial or contrived: "[I like to see] all the hot chicks who pretty much show that they have no self esteem, that amuses me." When expectations created by a profile did not match reality, relationships were severed (blocking is a way of preventing someone from contacting you using the site):

Interviewer:	Have you ever blocked someone?
Subject:	Yes I have.
Interviewer:	How come?
Subject:	She was fatter in person.

Participants also discussed how efforts to create a good impression affected their use of profiles: "You can't just completely be yourself, you have to play the game, and have some sort of cool factor [so that] people are interested in speaking to you. It's just like high school, you know, you have to be all pretty and

proper … and that's how you build your social network."

Nevertheless, participants did enjoy the ability to present themselves via a profile. Here are some descriptions of how they constructed their profile:

- "[I include] the music I listen to, just the basics, pictures of my friends, movies I like, just all the things that make me unique, and intriguing, and brilliant"
- "The fact I play guitar and I am emotional"
- "I found it was a means of getting things on my mind out and letting other people read it"

The specific use of social networking sites for impression management is an interesting topic for future research. In some respects, impression management seems to be the main point of social networking sites. This attracted criticism from one of the student researchers, who wrote in his final report:

Most people will try to distort the truth to make themselves look better to the masses, whom they don't even know. As a social networker, you must choose between knowing too much, or knowing too much BS. It has gotten to the point where pictures used on MySpace are presented in a way (intense angle, close up, black and white, blurry, inverted colors) to mask the true appearance of the person.

The defining characteristic of social networking sites is extreme impersonality. The people that one talks to on these sites are not treated as other human beings. **They appear more like characters in a story** [emphasis added]. The whole network is held together by a web of lies and exaggeration. As far as I can tell, this is simply the nature of social networking sites.

As characters in a story, or in roles participants hope to fulfill and express, impression management is evident in how participants describe their use of social networking sites. "It's based on your superficiality because you have to limit the amount of issue (sic) about another person. And you're judging them and you're trying to talk to the people with the little information they share with you."

4.2. Attitudes towards privacy

Although individual concern about the privacy of personal information is very high [24], participants accepted the tradeoff of access to no-fee sites in exchange for diminished protection of their private information. "I don't know what to expect in terms of

an organization, especially with free service. Do I really trust that they can keep my information secret? I'm hoping that they can. Do I really think that they can, or would I be surprised to find out later that they can not? I probably wouldn't be." "It's pretty much up to me what I post there. I should be concerned with my privacy and control it myself. It shouldn't be up to them."

While most social networking sites did offer privacy options, most participants did not make much of an effort to customize who could view their profile. "MySpace does have an option where you can set your profile to private, and only people you add as a friend can look at it, but since I don't really care, I don't take that." The most common attitude expressed towards privacy indicated was that the participants felt it was their responsibility to control what information was available. "You put it out there, everybody should be able to see it, if you don't want anyone to see it, then you don't put it out there."

Privacy concerns may also be lessened by the ability to use more than one communications channel. There are many instant messenger and social networking sites available. The barrier to use is very low (no cost), and so are the switching costs. If participants encounter a privacy problem with one communications technology, they can switch to another very easily. This fact, along with a general use of pseudonyms for both instant messenger and social networking sites, may have made the participants less vigilant about monitoring their information privacy.

4.3. Interpersonal relationship management behaviors

Of interest in this study is how the participants carried out interpersonal relationship management behaviors using features provided by these systems. Participants described how new relationships between people can develop, and how existing relationships are maintained by regular contact and sharing of new information. Participants also discussed what steps they took to avoid interaction with people they did not want contact with. There were examples of all of these components of relationship management, carried out using functions provided by these systems.

4.3.1. Developing new relationships.
One of the most interesting aspects in the use of social networking sites is that it does enable participants to form new friendships, often with people who live far away. "You get to meet all these people that you never met before, you would never meet, from Florida or from Chicago, people [who] I would have never met otherwise." The

system also supports the ability to maintain an expanded social network: "I was completely fascinated. I was interested in meeting all these people and [I became part of] this huge social network going back and forth messaging people."

Some participants indicated that they did end up meeting face to face with friends they first met online, but this was the exception. While there was a degree of excitement and novelty associated with using these sites to meet new people, participants did acknowledge the friendships were "superficial."

4.3.2. Maintaining relationships.
If face to face contact is the only communication method available, then the pool of people you are able to continue relationships with is limited to those you interact with in person. Instant messenger and social networking sites make it possible to maintain relationships with people that participants do not see on a daily basis.

While many participants enjoyed using technology to support an expanded social network, their descriptions of the advantages it brings at first seem trivial. Six participants described automatic reminder of their friends' birthdays as the most attractive feature of social networking sites. However silly this sounds, for social reasons, recognizing special events like birthdays is part of maintaining a relationship. Participants also mentioned being able to regain contact with long lost friends. "I've gotten basic contact with friends I haven't spoken to since high school, they send me a message now and then, it's good, its fun to remember certain times."

Many participants indicated they strongly prefer instant messenger as a way of staying in touch with friends compared to using a phone. "What I love most about using instant messenger is that I am not much of a phone person so I get to keep in contact without the phone." "It's informal, very informal you can send a message, they get it on their own time so, you never have to worry about bothering somebody with it."

4.3.3. Visibility Management.
Visibility management in instant messenger controls who is able to send you a message. For most systems, there are various levels of visibility available, going from visible to all users to visible to no one (called ghosting or hiding). Participants with a strong dependence on instant messenger were usually on all the time, visible to everyone. "I don't mess with the visibility, I'm always visible." This was particularly true of those who used instant messenger at work: "When I'm at work, uh, work is obviously available. For my friends, I have it

usually always available." "I don't go on and basically ghost myself, I let people know I'm on if I'm on."

There was also a style of use to be signed onto instant messenger, but with the "away" message up, that places communication partners at a distinct disadvantage. "My visibility is usually I'm online, but with my away message up." This means the participant hides behind the away status while monitoring the availability of others. In this case the participant keeps control over who can initiate communication. They use instant messenger to view who is available while raising a barrier to those who may want to communicate with them.

Decreasing visibility is useful for managing interruptions. "If I am busy with something I will use it, make myself go away….If I am doing something else, studying, researching something online for a project." Although these participants indicated they wanted to prevent interruptions, they preferred to leave instant messenger running rather than exiting the program: "Just to keep track of who is online, I might want to go back."

4.3.4. Anonymity and the use of pseudonyms.
Participants discussed both the advantages of maintaining their own anonymity, and the disadvantages of being unsure about whom their communication partner actually was. Participants indicated they used anonymity as a protection measure: "I tend to keep my settings to anonymous so [that when] someone [accesses] my profile I don't really know who they are and [when] I look at their profile they don't really know who I am. I don't know, I like the little bit of anonymity." This increased the participants comfort level when using these systems: "I've set it to anonymous. I used to keep it [not anonymous]. I don't know why I decided I wanted to have anonymous, but now I do."

While appreciating the protection anonymity provides, participants expressed uneasiness when they were unsure of the identity of their communication partners. In the case of instant messenger, it can be very easy to use someone else's screen name, because login information is often saved when you use other computers. People can also easily change their screen name, so if you block a screen name, they can create a new one and contact you again. "Sometimes you don't really know who your talking to, usually you do, but you could be talking to a friend, or you know I've had my little brother online and starting talking to people on my account and they don't know its not me, and I don't know what's on the other end sometimes."

The use of pseudonyms allowed participants to take advantage of the "reduced social cues" [28] characteristics of instant messenger and social networking sites to allow relationships to develop based on interaction rather than personal appearance. "If you are meeting somebody you don't know what they are going to think of you. So if you are just typing they [can get] an idea of what your personality might be. So once they get to meet you, it is not going to be about the attraction, or the physical part, it will be about the individual. That is why I like instant messenger better."

4.3.5. Blocking.
When conflicts occur in relationships, a common response in instant messenger is the use of blocking. You can use blocking to prevent another user from viewing your presence online and sending you messages. It is a way of cutting off communications. The majority (12 yes versus 7 no) reported at least one incident of blocking, replying with comments such as "of course," and "yeah, some people get annoying."

The following exchange reflects how instant messenger is used for intimate communications, and how breakups can trigger blocking episodes:

Interviewer:	Have you ever had to block anyone?
Subject:	Yes.
Interviewer:	Personal?
Subject:	Yes.

Although many took the step of blocking another user, most indicated it was a rare event. Blocking is a way participants can cut off conversations, like hanging up the phone and pulling the plug. Participants reported they had used it, but all in all it was not an everyday occurrence.

Instant messenger's convenience and ease of access becomes a disadvantage when it is used as an instrument of anti-social deviant behavior. "Strangers want to talk with me." "[I had to] change my screen name, because of creepy people IMing me." "[I have had to block] some people with weird screen names, like offensive screen names, a screen name that makes no sense at all."
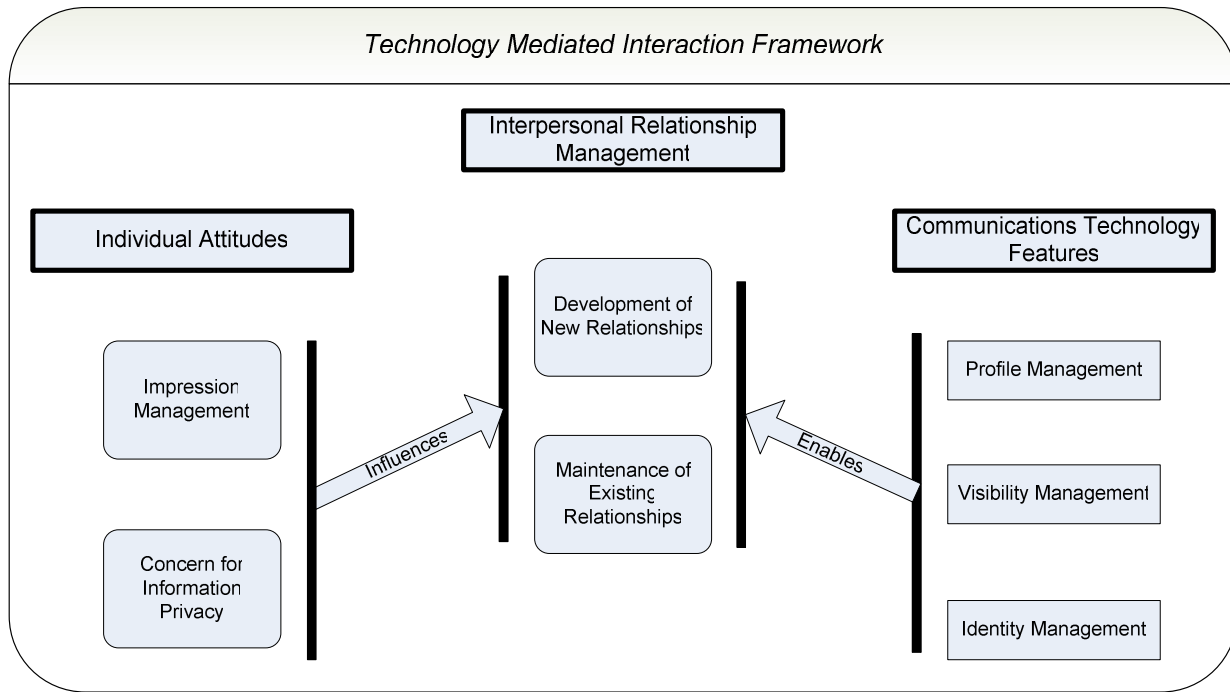
Figure 5: Modeling the interaction between attitudes, technical features, and social interaction

5. Framework

The management of relationships includes the ability to form new relationships as well as maintain existing ones. All of the participants in this study indicated that technology played a role in their management of relationships. The ability to develop new relationships seems to be a stronger feature of social networking sites. Some participants indicated that friendships begun through these sites led to face to face meetings and continued relationships. For maintaining existing relationships, instant messenger was the most popular tool.

The framework presented in Figure 5 is a simple model of how attitudes influence and technology features enable interpersonal relationship management. The behaviors of interest include how participants develop and support relationships while using communications technology. There are both individual attitudes and characteristics of technology that impact these management behaviors. The attitudes included in the framework are impression management and concern for information privacy. These two attitudes do not make up an exhaustive list of individual attitudes that influence relationship development. But they do have a known impact, and they are of particular interest

to designers of social systems, since modeling their effect has proven to be quite difficult [15].

Impression management strongly influences how participants consciously present themselves. That is evident in the words of the participants -- "you can't just completely be yourself, you have to play the game, and have some sort of cool factor." What makes impression management difficult is that it is most effective when not noticed, appearing to be natural. Goffman applies the metaphor of a performance to represent efforts at impression management. This is a reminder of the comments of one of the student researchers, who wrote that people on social networking sites "appear more like characters in a story." From Goffman (p. 70):

> We tend to see real performance as something not purposely put together at all, being an unintentional product of the individual's unselfconscious response to the facts of his situation. And contrived performance we tend to see as something painstakingly pasted together, one false item on another … I would like to add the suggestion that the arts of piercing an individual's effort at **calculated unintentionality** [emphasis added] seem

better developed than our capacity to manipulate our own behavior [13].

A second attitude relevant to the management of interpersonal relationships is concern for information privacy. The interactions between attitudes towards privacy and technology features that support anonymity seem particularly salient. While participants said that maintaining privacy about the information they share was their responsibility, the ability to disconnect or become anonymous may lessen privacy concerns. "[When] I look at their profile they don't really know who I am. I don't know, I like the little bit of anonymity."

The communications technology features contained in this framework include profile management, which controls what personal information participants are able (and willing) to share. Sharing information is relevant to both developing new relationships and maintaining existing relationships. It is also influence by impression management and concern for privacy.

A second feature is visibility management, which controls access from communication partners. This includes this ability to display an away message, limit access to profile information, and completely block communication. Participants indicated they would strategically use visibility settings to appear to be unavailable while monitoring the availability of others: "just to keep track of who is online, I might want to go back."

The ability to block communication is something most participants took advantage of. As an indication of how technology does mediate relationship management behavior, consider the face to face version of blocking. Shunning or ostracizing a communication partner is a form of relational aggression which can have painful consequences for the person shunned [8]. One conjecture from the remarks of the participants is that blocking does not seem to carry the same punishing stigma as shunning, as indicated by the common use of blocking. The emotional impact of blocking was not explored in this study, but is an interesting topic for further research.

The final feature included in the framework is identity management. The use of anonymity and pseudonyms was mentioned by several participants as a strategy for protecting themselves from negative social interaction.

6. Contribution and Conclusions

This study reveals that the use of communications technology for social interaction is carried out through multiple channels. Each participant indicated they have a cell phone, and most make frequent use of text messaging, instant messenger, and social networking sites to maintain contact with friends, as well as make new friends.

This study has found that convenience, easy access, low cost and enjoyment are the main drivers when using electronic communications media to maintain social connections. With so many channels available, and most available for free, informants easily switch back and forth between them, and simply drop any method they do not like since they have at their disposal many other redundant methods of managing communication access.

The contribution of this paper is a preliminary framework which captures the attitudes and technology features that influence interpersonal relationship management. This framework can inform further study into the complexities apparent in the development of social relationships across so many different technology channels. The implication of the widespread multi-modal communication approach described by this study is that more research in needed to create a conceptual model that captures the interactions and implications of switching between communication methods.

7. Acknowledgements

8. References

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