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Adolescents' cyberconnections: identity definition and intimacy disclosure on a social networking site

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Adolescents' cyberconnections: identity definition and intimacy disclosure on a social networking site

by

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A dissertation submitted to the graduate faculty

in partial fulfillment of the requirements for the degree of

DOCTOR OF PHILOSOPHY

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Ames, Iowa

2010

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CHAPTER I: INTRODUCTION

   Online social networks have become mainstream in a relatively short amount of time

mainly due to their popularity among adolescents. In the last five years, high school and

college students have integrated this technology into their daily lives, taking advantage of

their features to enhance social interactions with their peers. A case in point: Since its

creation in 2004, Facebook (FB) has grown exponentially to reach 175,000,000 active

members in March 2009 (Facebook, 2009). This site, originally intended as a reference

service for college dorm roommates from Harvard University, was met with great demand

from college students across the United States. In response, the site owner opened its

membership to college students from most campuses in the United States. Eventually, the

site was opened to the general public.

   Possibly as a result of their disappointment with other social networking sites or as a

function of the need to be connected with other people who are members already, adolescents

flocked to Facebook. Since the site's creation, its integration into American life has been

unstoppable. As a result of its popularity, and in line with its numerous membership,

Facebook has become more than just a medium of communication; it has obtained the

stability and influence of a new sort of social institution.

   Since the launching of MySpace a couple of years before Facebook (FB) was even

conceived, the fast-paced adoption of social networking sites (SNSs) by adolescents attracted

the attention of the popular media. Soon, media coverage began to be concerned with the

amount of intimate information adolescents offer on their SNS profiles. One such discussion

warned that these networks can serve as repositories for pedophiles to obtain information about potential victims. For instance, in 2007, various televised news programs and websites announced that a 14-year old girl had sued MySpace, alleging that it was instrumental in the sexual assault she suffered at the hands of an adult user (MSNBC, 2006). News about employees of public and private institutions who have been fired from their jobs or college students expelled as a result of information about them others have obtained in these sites have also been discussed. In any case, the drawbacks related to the use of SNSs bring to the forefront the need to address the open vaults of information created by new media and the measures necessary to protect, if not guarantee, users' safety.

Facebook has allowed adolescents to connect with peers by publishing information in various formats and using various communicative elements (e.g., text, video, audio). They have capitalized on the features of the site to share their most intimate thoughts. By integrating FB in their daily interactions, adolescents have extended their circles of intimacy well beyond the reach of face-to-face communication. However, adolescents' lack of awareness and understanding of the "public and persistent" (Lenhart and Madden 2007, p. 3) nature of the information they publish online seems to clash with their perception of the site as a private space. The intimate information adolescents tend to share with their peers on Facebook is spread throughout networks that would not have had access to the information through usual offline interactions.

At first sight, the quantity and quality of information released and exchanged through Facebook by and between adolescents escape the social norms traditionally governing such interactions. However, this perception does not take into account how adolescents who

experience identity crisis now do so within digital networks whose members have access to personal information. Moreover, FB, like other SNSs, have structured a way for users to related to each other that does not take into account the nuances of real life relationships. The friend relationship[3] (i.e., the "yes" or "no" link to another member of the SNS) limits a profile owner's capacity to control information people usually have in face-to-face interactions. Altogether, the ease of access, persistence, reach, and the blurriness of the "friend" construct on FB make intimate information available to individuals and organizations.

Challenged to establish and maintain their popularity during a period of self definition, adolescents on Facebook actively negotiate the boundaries of their intimacy in the constant interactions they engage in with their Facebook "friends." Moreover, even with the availability of features that allows them to manage the privacy of their profiles (i.e., the settings that determine who can gain access to their information), the majority of adolescent users keep their information open to the general public (Gross and Acquisti, 2005).

According to Erikson (year), adolescence is a period when young people begin to establish their sense of self identity. Some, unfortunately, experience identity crises. Some adolescents, those who have not fixed their identity, can be said to be at "moratorium;" those who have made commitments to a fixed identity are said to be in "achievement." Shaping

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3 The friend-not friend dichotomy encrypted on Facebook's structure does not reflect hues in relationships. For example, a person may have different types of friends to whom he/she discloses different types of information (boyd, 2006; Ellison, Seinfeld, and Lampe, 2007).

personal identities and resolving identity crises are played out, Erickson suggests, in many types of social interactions. In the case of today's young people, the greater part of these interactions is increasingly becoming computer-mediated.

This study asks: What causes adolescents to disclose intimate information on Facebook? What are adolescents' disclosure behaviors on Facebook? It is hypothesizsed that disclosure of intimacy on Facebook is influenced by adolescents' identity status and their tendency to disclose information in face-to-face contexts. Also, adolescents undergoing identity crisis are expected to disclose more intimate information than those who have settled commitments for adult life.

This study provides an account of the understanding late adolescents (college students 18-21) have of Facebook as a tool for social interaction, and reports on their perceptions about the privacy issues related to its use. Facebook profiles and responses to a survey are examined to expose the relationship between the psychosocial stage of development and willingness to disclose intimate information online or otherwise.

The findings are expected to illuminate the online communication practices of adolescents, especially how they use SNSs. The study also aims to determine the kinds of intimate information adolescents disclose on Facebook, and the reasoning and decision-making associated with these behaviors.

Chapter 2 of this study reviews Erikson's theory and Marcia's account of adolescence statuses along with a detailed explanation of the various factors associated with adolescent disclosure behaviors on face-to-face and online contexts. Chapter 3 discusses the methods

employed to gather self reports as well as behavioral data that offer insights into these
negotiations. The findings of this study are presented and discussed in Chapter 4. Chapter 5
presents the conclusions, outlines the implications of te findings to theory, proposes future
directions for study, and discusses the limitations of this study.

CHAPTER 2: LITERATURE REVIEW

In the last 20 years, people have been heavily affected by rapid developments of technology. As opposed to those who were born before computers were common, young people today seem to thrive on computers. The so-called "net generation" (Tapscott 1998) has become what anthropologist Margaret Mead (1973) would have called a "prefigurative society" where the young teach the old the competencies to function properly in society; in this case, how to use and deal with computers.

One of the first researchers to address people's relationships with computers was Sherry Turkle. By the 1980s, Turkle (1984) was already documenting children's fascination with early personal computers and how they relate to them. As technology became more ubiquitous and applied to daily life, Turkle (1995) noted that the traditional notion people generally held about the so-called division between humans and machine was receding. She found that understandings of the real and the virtual were being restructured to accommodate "computers' representations of the world as the world" (p. 63). In effect, computers have come to be considered by younger people who are accustomed to them as a sort of intelligent objects or "objects to think with" (p. 47).

One of the most eager populations to appropriate SNSs is adolescents. Young people seem to have recognized the value of these sites as a means for self expression and interaction with their peers and have populated them at a faster pace than any other demographic segment. For those who belong to the digital generation, the most recent trend seems to turn the computer into the new "mirror to the self" (Cooley, 1964, p. 2).

Computers, and the intricate network of acquaintances adolescents form through them, seem to be at the top of their most prized possessions. Computers have become adolescents' repositories of memories and secrets. Computers act as the gates to the internet and, with it, allowing them to connect with people they know, and those they may have never met in real life.

Many scholars have been preoccupied with understanding the social interactions that ensue on the web. This new way of exchanging information and forming relationships through machines has been met with great academic interest so that a number of disciplines now simultaneously examine computer-mediated communication (CMC). Among these disciplines are anthropology in which the discussion of cyberanthropology, computing anthropology, and the anthropology of computing has yet to come to a common research agenda (Hakken 1993 and Escobar 1994). Information technology experts, on the other hand, have examined CMC from the perspective of its influence on group cohesiveness (Becker and Mark, 1999). Researchers from social psychology have considered aspects of the new digitally enhanced relationships related to affect (Kiesler, Zubrow, and Moses, 1985; Gibbs, Ellison and Heino, 2006), and mass media and communication scholars have dealt with the concepts of social presence online (Biocca, Harms, and Burgoon, 2003) and embodiment (Biocca, 1997). However, the social scenarios mediated by computers are difficult to evaluate. For one, rapid developments in technology enable all kinds of functions that may enhance or impeded social interactions online. Researchers can barely keep up with the effects such technological advances.

In 2005, a study by the Pew Research Center for the People and the Press on teenage use of technology confirmed that most young people have made the internet an important venue for social interactions. According to this study, "nine in ten teens [were] internet users," and their internet use had also increased over time (Lenhart, et al., 2005, p. i). Furthermore, participation in online role-playing games grew to over three quarters of adolescent online users (Lenhart et al., 2005). A subsequent study by Lenhart and Madden (2007) indicated that 55% of online teens had profiles online and were "among the most avid users" of SNSs like MySpace and Facebook (p. i).

Members of the so-called "net generation" can now extend their social networks beyond the limits of physical proximity. How they disclose information about themselves and the way they do so sometimes exceed the traditional social norms for the regulation of privacy. Processes that used to take place privately are now enacted before a much wider online audience. Why is the wanton disclosure of personal information commonly observed among adolescents? To answer this question, some theories have proposed that young people go through a period of transformation characterized by tensions that go with the development of personal identities. Young people, these theories suggest, negotiate meanings that help establish personal identity through social networks, whether these are online or offline. Among these theoretical frameworks is Erikson's (year) theory of psychosocial development as guided by Marcia's (year) identity statuses of adolescence.

Erikson's Theory of Psychosocial Development and Marcia's Identity Statuses of Adolescence

The post-industrial revolution era has been characterized by an increasing physical separation of adults from their young not only in the workplace as a result of stricter labor laws, but also because of the increasing amount of time young people dedicate to schooling. This is so because as society becomes more service and technologically-oriented, the job market demands that people stay in school longer to receive proper training. As a consequence, young people today spend less time with adults and family members and more time with peers. Furthermore, unlike other societies where rites of passage clearly mark the transition from childhood to adulthood, there are no standard rituals marking the individual's coming of age in American society. Therefore, there are no generally agreed upon boundaries between childhood and adulthood.

Stanley Hall, the "father of adolescence," proposed that this developmental stage is part of a cumulative process toward adulthood (Vadeboncoeur, 2005, p. 3). Hall is responsible for the widely accepted notion of adolescence as a period of "storm and stress" (p. 57). This construction of adolescence sees young individuals as incomplete and have yet to attain a *bona fide* status as fully integrated members of society. All these conditions position adolescents at a liminal state in society where the individual is neither a child nor an adult. The neither-nor stage of adolescence helps to foster an implied societal agreement that they should be accorded time to experiment with their identities before they commit to an adult identification.

One of the most influential theories about adolescence as a stage of identity crisis is that proposed by Erikson (1968) in his work on psychosocial development. According to him, adolescence is a period of identity definition in which "the individual seeks to balance ecological and internal factors to achieve the fixation of an identity" (p. 245). The adolescent's task, identity definition, is achieved only "when the individual has subordinated his childhood identifications to a new kind of identification achieved by absorbing sociability and in competitive apprenticeship with and among his age mates" (p. 155). The affiliations resulting from this critical period lead to commitments the individual engages "for life" (p. 155). Erikson holds that the moratorium granted adolescents is a period of "free role experimentation" followed by the desire to "find a niche in some section of his society, a niche which is firmly defined and yet seems to be uniquely made for him" (p. 156). The moratorium stage is characterized by a need for recognition and in delaying "adult commitments," allowing the individual a "provocative playfulness" (p. 157) of which he or she may not be aware. Nevertheless, the adolescent may eventually realize this is just a passing stage (p. 158). The individual's identity, according to Erikson (1997), is born out of:

> …the selective affirmation and repudiation of an individual's childhood identifications; and the way in which the social process of the times identifies young individuals—at best recognizing them as persons who had to become the way they are and who, being the way they are, can be trusted" (p. 72).

Erikson suggests that the negotiation of identity is a struggle which is solved mainly as a result of adolescents' interactions with others who, in line with Cooley's (1964) tenets, act as "mirror(s) to the self" (p. __). Erikson confirms Cooley's notion of the social construction of

the self when he declares that adolescents "are sometimes morbidly, often curiously, preoccupied with what they appear to be in the eyes of others as compared with what they feel they are" (1968, p. 128). Erikson's theory offers a basis for understanding the "playful" use of intimacy in online interactions. He explains that young people who have not defined their identity do not involve themselves in intimacy, but throw themselves "into acts of intimacy which are 'promiscuous' without true fusion or real self-abandon" (p. 135).

Rawlins (1992) supports Erikson's contentions and states that "adolescents achieve their self-definition communicatively in conjunction with their social networks" (p. 59). Like Erikson, Rawlins argues that friends aid adolescents in the process of articulating identity. According to Rawlins, identity and intimacy are closely related in adolescence as young people test the taken-for-granted identities they play out in front of the family against the identities acquired from peer culture.

Based on Erikson's work, Marcia (1966) proposed four statuses of identity characteristic of this developmental period (Table 1).. He also identified two dimensions of identity that were later developed by Adams (1998) in the questionnaire we employ in this study. These dimensions are the ideological that includes "occupational, religious, political and philosophical life-style values, goals, and standards" and the interpersonal which includes "aspects of friendship, dating, sex roles, and recreational choices."

Marcia sees identity formation as a process in which there are two possible paths. Both of these paths start with the individual at diffusion status in which he/she is tied to childhood identifications and commitments. In the first path, the individual goes directly to a

foreclosure status fixes commitments bound by childhood identifications (Figure 1). In the second path, the individual undergoes a crisis at the moratorium stage, where he/she experiments with different commitments until he/she determines that certain characteristics are suitable for moving on to adulthood thereby entering the identity achievement status (Figure 2).

According to Adams (1998), individuals can be at different statuses as they go through the two dimensions identity, ideological and interpersonal. That is, a person can be at one status in terms of ideological commitments (religious and political) and another status in terms of interpersonal commitments (dating, sex roles). Adams measured the two dimensions separately.

Adolescent Identity			
Diffusion The subject "may or may not have experienced a crisis period; his hallmark is a lack of commitment" (Marcia 1966, p. 551)	*Moratorium* The subject is "in the crisis period with commitments rather vague" but on an "active struggle" to make those (p. 552).	*Foreclosure* The subject has preemptively committed himself without "having experienced a crisis" (p. 552).	*Achievement* The subject "has experienced a crisis period and is committed to an occupation and ideology" (Marcia 1966, p. 551).

Table 1. Adolescent identity statuses according to Marcia (1966).

Figure 1. Identity achievement through the path of foreclosure. The individual does not experience moratorium and adopts childhood commitments to move on to adulthood (Marcia, 1966).

Figure 2. Identity achievement through moratorium (Marcia, 1966)

Erikson and Marcia stress the importance of friends in helping to discern commitments. Some scholars claim that identity negotiations at this critical period may have changed in the last few decades as the emergence of adulthood is delayed in response to further societal constraints. A number of factors, among which are higher societal expectations (i.e., more schooling, higher costs of living) and the increasing amount of identity playfulness allowed in the virtual scenarios of the web, may be at the root of this shift.

Turkle (1999) states that Western culture has come to disregard the moratorium (i.e., adolescents tried as adults in court) and expects adolescents to act as adults (p. 645). Because of changes in the social structure, the consequences of sexual behavior, the pressures of college life, and health issues, among others, the struggles at moratorium are now played out online. In other words, Facebook now functions as a venue in which adolescents can navigate the difficult moratorium stage.

Intimacy and Disclosure

In this study, intimacy and disclosure are treated as two separate albeit interconnected constructs. According to the Cambridge Dictionary, intimacy is "when you have a close friendship or sexual relationship with someone," or the "things which are said or done only by people who have a close relationship with each other" (www.dictionary.cambridge.org, n.d.). Disclosure is "the act of making something known or the fact that is made known" (www.dictionary.cambridge.org, n.d.). In Western societies, these two constructs are often seen as reciprocal. That is, if an individual discloses what he/she deems an intimate bit of information, his/her counterpart should correspond with a an equivalent disclosure, or one that matches the level of intimacy of the original disclosure. The relationship between intimacy and disclosure, then, is progressive. As the number of disclosures increases, the intimacy or closeness in the relationship between individuals grows.

Cozby (1972) found evidence to oppose these contentions. His results suggest that when confronted with a higher amount of disclosure, an interlocutor rated his counterpart as "significantly less well-adjusted than either the low or medium disclosers" (p. 151). Cozby's subjects also refused to share highly intimate information regardless of interpersonal distance (p. 261). He concluded that reciprocity was related to increases in self disclosure, but that this

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relationship seemed to be curvilinear. In other words, even when an initial onset of

disclosures was met with less reciprocity, as the relationship persists and disclosures increase,

the relationship reverses and reciprocity increases. In contrast to Argyle and Dean (year)

who found a direct relationship between intimacy and self-disclosure, "liking alone is not a

sufficient definition of intimacy" (p. 262).

Wheeless (1978), on the other hand, posits that due to a tendency toward general

disclosiveness, people tend to err in favor of their interlocutor when they do not know each

other well enough or when their relationships "are only moderately solid" (p. 145).

Following Wheeless' definition, general disclosiveness is defined in this study as the general

tendency to disclose intimate information to a stranger. Rather than referring to "any

message about the self," intimate self disclosure in this study relates to the elicitation of

information of an intimate character, what Greene, Delega, & Mathews (in Gibbs et al. 2006,

p. 155) catalog as the "highly personal," of the type usually disclosed in a romantic

relationship (p. 156).

Intimacy has been traditionally seen as a relational goal in dyadic relationships, generally

in married couples. However, an individual can categorize information as more or less

intimate in response to his/her interlocutor and/or the context of the pronouncement.

Although the concept of intimacy is often used to measure closeness between two

individuals, this study applies it in the classification of information about a person by the

individual himself. It follows Jourard and Jaffe's (1970) approach by measuring the content

of elicitations or the topic's "intimacy value" (p. 134).

In their study of the reciprocity of disclosure between interviewers and interviewees, Jourard and Jaffe (1970) measured topic intimacy value by asking their subjects to "signify which topics of a personal nature they had disclosed to someone else in the past, and which topics they would be willing to reveal to the experimenter" (p. 253). The subjects were then asked to rate the topics on a five-point scale according to their intimacy value. This study adopts a similar approach (see Chapter 3 for more details).

Moon's (2000) findings on how computers affect consumers' release of intimate information also applies in this case. Moon (2000) found that the vulnerability of the discloser and the information he/she is willing to reveal is related to the possibility of physical harm, material damage or emotional distress (p. 323). In Moon's study, people showed more resistance to give out information about themselves to a computer when it came to an emotional topic (p. 333). Moon's list of topics is used in the current study to construct a metric of the intimacy value of topics. By determining the amount of intimate disclosures participants engage in on Facebook, the present study seeks to assess the impact of a virtual setting in the exercise of disclosive behaviors.

Adolescents who have not committed to an identity may perceive Facebook as a space where they meet their peers and test ways of being in their definition process. Since this type of interaction represents computer-mediated communication, to make up for the loss in cues characteristic of face-to-face discourse, adolescents may be willing to disclose more intimate information online. The sense of proximity afforded by CMC and how it may affect interaction is explained in the following section.

Presence

In his discussion of social interaction and the construction of the self, Goffman (1959) equated real life social interaction to a theatrical performance. The concept of "presence" aids in explaining the kind of performance adolescents engage in through Facebook. This concept might also help explain why people are drawn to this social networking site.

On Facebook, individuals exchange information using digital representations of themselves to effect an impression. Devoid of physical presence, the self online is made up of data. These data can be graphic, auditory, textual or combinations of these. In face-to-face communication and in communication through channels like the telephone, the nuances of the non-verbal complement verbal messages can be discerned. In the case of a Facebook profile, the user creates what can be called a "dormant presence." Here, communication is mostly given in an asynchronous way such that messages are not exchanged in real time. In this case, a "Facebooker" could use increased intimate disclosures to make up for the information he/she would normally relay via other non-verbal channels. In other words, faced with the limitations imposed by the medium, the profile owner may use intimate disclosures to impress his/her uniqueness upon the intended receiver.

Nevertheless, the added layers of information have a byproduct the user may not be aware of or may willingly compromise. As a result of FB's way of connecting people, there is an unintended audience, a crowd of "friends" in the background, that may have access to the information published, even if it was not really meant for them. The communication process on FB seems to be modified by the computer mediation factor known as "presence."

In mediated communication, presence has been defined as the "feeling of being there." Lombard and Ditton (1997) hold that new media are designed to provide the user with precisely the "illusion that a mediated experience is not mediated," or a "sense of presence" (p. 1). The characteristics of the user which are most influential in the experience of presence are his/her: 1) willingness to suspend disbelief and 2) experience with the medium (p. 22). Lombard and Ditton (1997) argue that it is critical that the mediation is not evident or, conversely, that the user is willing to ignore it. They suggest that the user can make up for the lack of transparency in the online medium. In other words, the willingness to suspend disbelief is a conscious effort that requires less cognitive effort as the medium reaches total transparency. They compare the refusal to suspend disbelief to watching a horror film while constantly reminding oneself that the experience is not real. This seems to indicate that their explanation of presence presupposes intentionality rather than the concept being one of a passive cognitive process.

Opposing the argument of a conscious effort to suspend disbelief, Biocca et al. (2001) argue that studies dated 60 years ago demonstrate that human behavior is influenced even by the mere thought of the other. They contend that presence can be felt even with as small a trigger as the thought of a distant person. According to them, an individual's sense that there is a form of intelligent behavior sparks a "mental model of the other" (p. 11). They propose an analogy, if not a direct relationship, between the sense of presence and the primitive reactions of the brain to danger (p. 11). The willingness to suspend disbelief, according to these researchers, is a more automatic process than what Lombard and Ditton (year) grant.

In his evolutionary psychology argument, Lee (2004) supports the idea that human brains have developed in such a way as to respond to the virtual representation of something or someone as if it was real. In other words, humans tend to take input at face value. Lee's (2000) explanation seems to indicate that the brain has been biased to accept representations of things and events as truthful rather than questioning them (p. 497). Lee says that new media present a challenge to "the adaptive value of rapid application of the causal reasoning modules to all incoming stimuli" (p. 499).

Patrick (2002) also agrees with an evolutionary basis for the illusion of presence, but seemingly echoing Lombard and Ditton (1997), he argues that the medium drives the experience even further when it does not draw attention to itself (p. 3). The illusion, according to Patrick (2002), is stronger as more senses are summed up into the equation (p. 4). In other words, the more senses involved in the transaction, the stronger the sense of presence. Patrick also contends that the ability to control the environment and manipulate objects naturally can be related to the feeling of presence (p. 4).

Zhao (2003) directs his attention to the sense of shared experience he terms "copresence." According to him, the interface determines the mode of communication between individuals. The effectiveness of co-present environments, according to Zhao, should be measured through the "embodiment, immediacy, scale, and mobility" the media offer (p. 449).

Even in the absence of space that simulates the physical context, SNSs promote the feeling of copresence. Although Zhao (2003) excludes exchanges that are asynchronous from his definition, the most proximate label for an SNS he proposes is that of "hypervirtual

telecopresence." To him, this is a "synthetic environment in which individuals interact with each other remotely in real time via avatars that operate in virtual settings" (p. 449). Although there is no avatar representing the user on Facebook, there is a profile page that represents the user. Such a profile remains in this space as a persistent presence that does not expire at sign out.

Biocca, Harms and Burgoon (2003) state that the "embodiment" given in mediated interactions can have various forms that range from an avatar to "a simpler representational device" (p. 462). They also hold that the particularities of the environment and the type of representation it provides influence the sense of social presence the user attains (p. 462). Presence, Biocca and his colleagues claim, is closely linked to intimacy and immediacy (p. 464), and the cues provided in any context affect the relationships given in that context. In short, the medium's affordances[4] should be related to the strategies employed to convey a message, and the sense of presence should be a factor in online representations.

A meta analysis of the presence literature suggests that mediated presence is a perception which is dependent upon: 1) the medium's ability to make itself transparent, 2) its capacity to convey acceptable sensorial input, 3) its capacity to portray natural mobility and control over the environment, 4) the type of representation it enables, and 5) the exposure the user has had

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4 The concept of affordance has been extensively dealt with by Norman (2004) in his work on usability and interface design. In response to what he considers the term's widespread misuse, he recently re-defined affordance as the "actionable properties between the world and an actor" (Norman, 2004). In interface design, the designer controls the perception of affordances by applying cultural conventions that signal the user. For example, a cultural convention today is that the pointer on the screen responds to the movement of the mouse by the user.

to it (Lombard and Ditton, 1997; Biocca et al., 2001; Lee, 2000; Patrick, 2002; Zhao, 2003; Biocca, Harms and Burgoon, 2003).   According to these precepts, in a continuum of computer-mediated channels, SNSs should offer a reduced sense of presence when compared to that of a virtual world. This reduced presence may act as a buffer that users manipulate many times to purposely control their messages. It could also act as a hurdle for conveying message which could, in turn, cause an increase in the amount of information provided and the number of disclosures contained therein.

Various studies have investigated a variety of media and the sense of presence associated with each medium. In the following, a discussion is found on studies that have shown that people employ different strategies to relate to each other and represent themselves depending on the sense of presence the medium fosters.

Early studies indicate that CMC results in less relational satisfaction. However, at that time, users were still considered "a subculture," and the social norms associated with computer use were not yet generalized (Kiesler et al., 1985, p. 80). In their study, Kiesler et al. (1985) had to remind users that they were not communicating with the computer but with a human being at the other end. Even at this early stage of CMC, Kiesler and his colleagues pointed to the possibility that a greater focus on message creation might have taken cognitive resources away from being aware of "people with whom one is communicating" (p. 81). They found that their subjects were more uninhibited in knowing more about their communication counterparts and evaluated these individuals less favorably when a computer was used (p. 98). They worried that CMC would drive unrestrained behavior, resulting in a lack of consideration for the other. According to Kiesler and colleagues (1985),

"communicating by computer might increase people's sense of anonymity and reduce their sense of others as individuals, and this would reduce their consideration of others' feelings and increase their assertiveness" (p. 82). Rather than presence, Kiesler et al. (1985) thought that the increased "rudeness" was a result of deindividuation, a "state of unself-consciousness and impulsivity that describes people caught up in the action of gangs, crowds, or mobs" (p. 82). They predicted that in the future, this deindividuation would bring about less "empathy for others and less guilt, as well as less social comparison, less embarrassment, and reduced fear of retribution or rejection; hence, more negative evaluations of others and more uninhibited behavior" (p. 82). Kiesler et al. observed more swearing and name calling in CMC, but no main effects on self-disclosure (p. 94). Finally, they predicted a reduction of "inefficient" aspects of mediation and greater self-disclosure in CMC as opposed to face-to-face communication (p. 99).

O'Sullivan (2000), studying channel choice as it relates to self-presentational goals, observed that leaner media seemed more convenient for representing oneself when the individual needs to avoid the possibility of giving negative impressions. He found that users manipulated the reduced cues of the medium to elaborate a favorable presentation. O'Sullivan acknowledged human agency in the selection of the medium according to the goal of the message and the type of relationship sought. He stated that self-presentation is made up of a dialectic between deceptive and honest tactics that fulfills the tension between ambiguity and clarity needed in a relationship (p. 406). He contends that the user applies a cost-benefit analysis of the channel to determine the appropriateness of use (p. 406). Mediated channels, for O'Sullivan, offer an opportunity for ambiguity (p. 408). Because

people tend to downplay the traits of their identity that may be considered negative by others, they will emphasize positive information about themselves, leading to what he calls a "'buffer effect'" on mediated channels. Such an effect influences channel preference in favor of the one that presents the user in a favorable way (p. 414). His findings contradicted media richness theory by indicating that people seek leaner channels for some relational purposes (p. 423).

Baxter (cited in O'Sullivan, 2000) coined the "openness-closedness" dichotomy to explain the dialectical mechanism by which individuals classify information to be disclosed. In this sense, mediated channels seem more favorable when users are communicating with others with whom they are not as close, and the perceived threat to invade their privacy is low (p. 425).

In his study of dating sites, Hardey (2002) looked at the ways in which relationships were carried from online to real life. He agrees with O'Sullivan that channel choice is a strategy to reduce the risk of embarrassment and awkwardness "often associated with 'real world' dating" (p. 572). According to Hardey, in the absence of the physical body, there seems to be a process that enables getting acquainted and finding out compatibility by "adopting a playful and ironic self-description" (p. 578). He also agrees that CMC provides the opportunity for building trust through self disclosure without the constraints of a first meeting face-to-face.

Becker and Stamp (2005) interviewed chatroom users to develop a model for impression management using a "lean" medium.[3] They identified three motivations for impression

management: "desire for social acceptance, relationship development and maintenance, and desire for identity experimentation" (p. 246). In the case of chatrooms, Becker and Stamp found that users made up for the constraints of the leaner medium by resorting to an increased number of messages (p. 248). They observed that "to gain their partners' trust, participants reported attempts to enhance perceived similarity, increase reciprocity, and portray themselves as desirable to others" (p. 251).

In contrast with the studies above that point to CMC as sparking disclosure, Spears and Lea (2003) argued that the ambiguity created by lean media[4] is "supposed to reduce 'intimacy' and 'immediacy'" (as cited in Tanis and Postmes, 2003, p. 678). According to them, an increase in social cues results in more positive impression (p. 686). However, their findings demonstrated that simple cues could be enough to "improve rapport and reduce ambiguity" (p. 687). Furthermore, they found that the leaner capacity of the medium could be overcome when people had established relationships *a priori* and that time could also help overcome the limitations of the medium.

Walther (2007) proposed a hyperpersonal model of CMC in which "users exploit the technological aspects in order to enhance the messages they construct to manage impressions and facilitate desired relationships" (p. 2538). For Walther, hyperpersonal stands for the "potential exaggeration of impressions and relationships online" (p. 2539). According to his

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[4] Daft and Lengel (year) defined medium richness as "the ability of information to change understanding within a time interval." According to this definition, chatrooms would be a leaner medium than one enabling more nuanced communication like the telephone in which non-verbal cues like pitch and volume provide more information.

tenets, online communication tends to contribute to the creation of idealized notions about partners and may even "create dynamic feedback loops wherein the exaggerated expectancies are confirmed and reciprocated through mutual interaction via the bias-prone communication processes" (p. 2539). Walther contends that the absence of cues normally associated with face-to-face interaction restricts the message, causing less "leakage" (p. 2541). The sensory and cognitive focus of the interaction is then redirected to the creation of the message. The reduced cues, due to the affordances of the medium, are taken advantage of by the user who exaggerates those characteristics he/she wishes to call attention to (p. 2552). Interestingly, Walther argues that CMC, as compared to face-to-face interactions, leads to "more extreme impressions" and "more positive relations over time" with the exception of image or photographic content (p. 2539). The tendency of young people to go beyond the norm of privacy to make an impression online seems to conform with Walther's contention that intimate details are becoming an integral part of self portrayal online.

Tidwell and Walther (2002) also focused on self disclosure and impression formation as a function of the medium's capacity. Their results support Walther's hyperpersonal theory. They found that in comparison with face-to-face (FtF) interaction, people rated each other less in attributes during CMC, but with more extreme scores. In other words, there was "more selective and yet exaggerated social information sharing online, consistent with the hyperpersonal approach" (Tidwell and Walther, 2002, p. 319). Furthermore, they indicated that although Johnson (year) had already found more self-disclosure in CMC than on FtF, there was no specific reference to the connection between relational goals and disclosure (p. 320).

Tidwell and Walther (2002) did not establish a link between people's tendency to manipulate their presentation and the concept of presence; instead they used uncertainty reduction theory (URT) to explain how people exchange information online:

Our findings indicate that the restrictions of CMC prompt users' adaptation to the medium through modification of uncertainty reduction behaviors. Bereft of most nonverbal cues, CMC partners forgo the peripheral questions and answers that mark the normal, superficial exchanges among new acquaintances in FtF encounters. Instead, CMC interactants appeared to employ a greater proportion of more direct, interactive uncertainty reduction strategies—intermediate questioning and disclosing with their partners—than did their FtF counterparts (p. 338).

Another study that looked at the medium's capacity to convey information between interactants, Gibbs et al. (2006), examined online personals and found that the expectation that the user will meet the other in person drives self-disclosure. They argue that the anonymity of the mediated context drives an intimacy that is higher than the one that would have been developed in an initial face-to-face encounter.

Gibbs et al.'s (2006) study as well as others that have examined this concept have focused on a specific type of relationship (romantic love) or presentation (online personals, dating sites, etc.) which are by definition tied to the notion of a future encounter or a romantic relational goal. This is not necessarily the case in SNSs where users, rather than meeting new people and falling in love, may only be reproducing their real life networks of friends. In this respect, boyd (2007) contends that adolescents in SNSs do not seek out romantic love

but are there to: 1) validate their identity, 2) extend and maintain social networks, and 3) interact with their network of existing friends.

In studies investigating romantic relationships, selective self-presentation may be directly related to the relational goal. In SNSs, however, users are oriented to relationship maintenance rather than to the pursuit of romantic love. Thus, the disclosure behaviors adolescents resort to in SNSs could be related to factors other than the pursuit of romantic love. The disclosures could also be associated with a reduced sense of presence where, as if through a veil, the elicitor sees a need to increase the amount of information to compensate for the loss in "face time."

Rubin (2006) argues that the honesty with which some individuals present themselves online is a function of the "passing stranger" phenomenon. Rubin proposes that individuals are more willing to reveal information to people they consider inconsequential acquaintances (as cited in Gibbs et al., 2006, p. 256). In the case of adolescents on FB, the apparent abandonment of the privacy norm in their representation could respond to the identity formation stage they are in. For adolescents, the portrayal of a distant and disconnected self could represent the ideal context for resolving the moratorium crisis. The presence offered by a Facebook profile, persistent but undemanding, may stand as a convenient outlet for young people to use and discard aspects of their representation as they come to terms with the commitments they must make in order to move on to their lives as adults.

An SNS profile provides a certain level of presence and copresence. In comparison to the sort of embodiment obtained in a virtual world where avatars interact in real time, Facebook

constitutes a leaner medium. But, as opposed to chatrooms, Facebook provides the space for a richer representation. Thus, in the digital realm, SNSs seem to be in some middle point in the continuum of embodiment and presence offered between chatrooms on the one side and virtual worlds on the other. FB also offers a number of formats (cues) that are in the middle ground between these online venues. Sproull and Kiesler (asvcited in Zhao, 2003) found that "disembodiment of interaction enables the interactants to be 'simultaneously linked to and buffered from one another'" (p. 451). This buffer effect, given in a less-embodied interaction afforded by Facebook, may help explain the perception that an increased disclosure is needed to get the message across.

The level of intimate details young people reveal online appears to be influenced by several factors. O'Sullivan (2000) argues that although research on privacy boundary management generally seems to indicate that mediated channels are actively sought as a way to control privacy, the mediation effect seems to foster looser boundaries among adolescents (p. 425). That is, adolescents think that "little vulnerability to privacy violations exist" through these channels where they actively vent out their secrets to others (p. 425).

In his review of virtuality, Carey (2007) found that after the limited expression allowed by e-mail exchanges and other pre-SNS applications "color and graphic added a warmer dimension and users invented simple tools to add some emotion to messages such as emoticons" (p. 82). Users actively manipulate the medium to add layers of information to achieve communication goals. Within a few years, characters-only media have been replaced by richer environments that integrate graphics, photos, sound, and video to enrich interactions online. As a result, representations have become richer and more nuanced.

SNSs offer the user a way to interact with others through a medium that is richer than synchronous text-only channels like chatrooms.

Although the development of a measure of presence in SNS is beyond the scope of this study, this literature review indicates that CMC offers a sense of "being there." Also, the studies discussed here indicate that the strategies people resort to in CMC obey to, among others, the capacity of the channel to convey their message. While face-to-face interactions may provide the most immersive sense of presence, through its advances, CMC today can be engaged through a variety of venues with affordances that span a presence continuum from the less conducive chatrooms and IM to virtual worlds like Second Life with "islands" to visit and "malls" to stroll through. The sense of presence sparked by each of these contexts is directly related to the strategies people use to make up for the perceived loss of cues. Research seems to lend validity to the claim that, in the context of Facebook, disclosure of intimate information is driven by the feeling of being there, the sense of presence, and, for adolescents, this is complicated by the identity crisis characteristic of this developmental stage. That is, adolescents may publish more intimate information in Facebook than other types of users as a way to deal with the task of identity achievement as well as to make up for those lost cues. The following section introduces the framework for this study. Then, a conceptual model is discussed to illustrate the process proposed here.

Through this literature review, an in-depth review of the factors converging in the process of adolescent identity definition has been provided. The moratorium stage, originally proposed by Erikson as an integral part of adolescents' identity development, is central to this study's contentions. The literature reveals the importance of this stage on disclosure

behaviors. The studies reviewed here on the field of CMC support the possibility of presence as a factor influencing FB interactions as well.

The research question guiding this study is: Why do adolescents disclose intimate information on Facebook? The hypotheses proposed are that 1) the majority of adolescents on Facebook are on moratorium identity, 2) those in moratorium have a higher tendency to disclose intimate information face-to-face and on their FB profiles than adolescents in the achievement status. In the following chapter, the methods used to test these assumptions are discussed.

Theoretical Framework

According to Callon (as cited in Luján, 1992), the framework imposed by the Actor Network Theory (ANT) answers the need to analyze technological developments from the perspective of the struggle among different actors who aim "to impose their definition of the problem to be solved" (p. 36). ANT argues that the study of technology development should take social forces and the social context into account. The basic tenet of this approach to the study of technology is that both human and non-human actors are parts of design negotiations (p. 36). Rather than merely critiquing the technology in question, ANT calls for a holistic view of the system in which the actors influence each other in a symbiotic relationship. In this study, the actors in question are young people on the one hand, and computers and the virtual worlds they enable on the other.

ANT brings a valuable perspective to the study of adolescents who use Facebook, especially in an evaluation of the impact of this new mode of communication on their lives. Garfinkel (1967) used this approach in ethnomethodological studies that analyzed "everyday activities as members' methods for making those same activities visibly-rational-and-reportable-for-all-practical-purposes" (p. vii). Garfinkel says that sociologists involved in this type of endeavor pay attention to the activities of everyday life as valuable phenomena. One of the characteristics of the study of social phenomena from an ethnomethodological perspective is that it depends on the reflexivity of members in the situated action (p. 1).

Ethnomethodological studies focus on what is taken for granted in the reproduction of everyday life. Such studies seek to elucidate the relationship between "common understandings and social affects" (Garfinkel, 1967, p. 50). In this approach, "the seen but

unnoticed backgrounds of everyday activities are made visible and are described from a perspective in which persons live out the lives they do, have the children they do, feel the feelings, think the thoughts, enter the relationships they do" (p. 37). The multi-method approach adopted in this study includes a content analysis of Facebook profiles as a way to illustrate adolescents' use of this SNS as an integral part of their daily routines. Also central to the study is the need to assess "what's really going on" with adolescents on Facebook.

As adolescents integrate online applications such as Facebook into their practices, the use of SNSs to communicate with others and to define themselves becomes part of their routines. Initially, the interactions in these contexts seem to go against social norms. Met with condemnations of their public indiscretions, adolescents seem to shrug and ignore the possibilities that their online identity negotiations may be taken out of context and eventually harm their academic or professional progress. By analyzing adolescents' Facebook postings, this study seeks to document the participants' behaviors and provide evidence for the importance of Facebook in their daily lives.

A Model for Adolescent Identity Definition and Disclosure of Intimacy Online

Peers are very important in adolescent life. Some of today's teens employ SNSs in their interactions with peers to achieve a sense of popularity and self validation. Facebook "friends" are used as reference groups to help define norms and standards and to validate "ways of being" adolescents wrestle with prior to committing to a fixed identity. In this sense, Facebook, along with other SNSs, is bound to create a culture with an impact on identity development.

Acquisti (as cited in George, 2006) explains that the desire for popularity compels network members to provide more information because they expect that "the more information they give, the more they gain from the network" (p. 23). Moreover, his as well as Gross and Acquisti's (2005) study show that many users choose not to modify the settings that would privatize profiles (p. 26). Furthermore, Gross and Acquisti (2005) found that even though it is not mandatory, most Facebook users identify themselves by their real names because it is a social convention of this site (p. 76).

The network, rather than being just a place to "hang out" (boyd, 2007), is a place where adolescents negotiate identity uncontrived by physicality or real life social norms. The performance of the self online, the virtual "face," is an extension of the real life self that allows creative ways of testing aspects of identity. Faced with RL conditions burdening the process of identity definition, adolescents have moved to the web. Namely, they have chosen Facebook as an ideal venue for negotiating the moratorium phase that allows them to play out aspects of a yet unformed identity.

Figure 3 diagrams a model that is in line with Erikson's psychosocial development theory that proposes identity definition as the major task facing moratorium adolescents on Facebook. Through their Facebook profiles, adolescents work on defining their identity, simultaneously balancing out the need for privacy with their desire for validation and popularity. This study proposes that Facebook acts as a venue for young people who might just want some time to deal with themselves—a time to decide who they are—with their "friends" in the virtual realm.

The model in Figure 3 presents concentric circles to represent the adolescent's social world in two different contexts: real life and the virtual world of social networking sites. In the circle on the left, the disclosures are indicated by arrows flowing from and toward the individual to indicate negotiations of real life identity as theorized by Erikson (1968). In real life, the network surrounding the individual is contained, limited in number, and visible. The social networks supported by face-to-face interaction are constrained by the number of people the individual can personally reach. The arrows flowing toward the box to the right represent disclosures made by the individual when using his/her computer to access FB. The box stands for the devices (software and hardware) moderating the individual's interaction through a computer. As the literature on presence suggests, the medium has reduced capacity to convey information (compared to real life), creating a buffering effect that motivates an increase in the number of disclosures both in content and in number. Furthermore, in Facebook, although the individual's disclosures are directed to an intended audience, there are unintended audiences that add to the locus of effect of intimate disclosures.
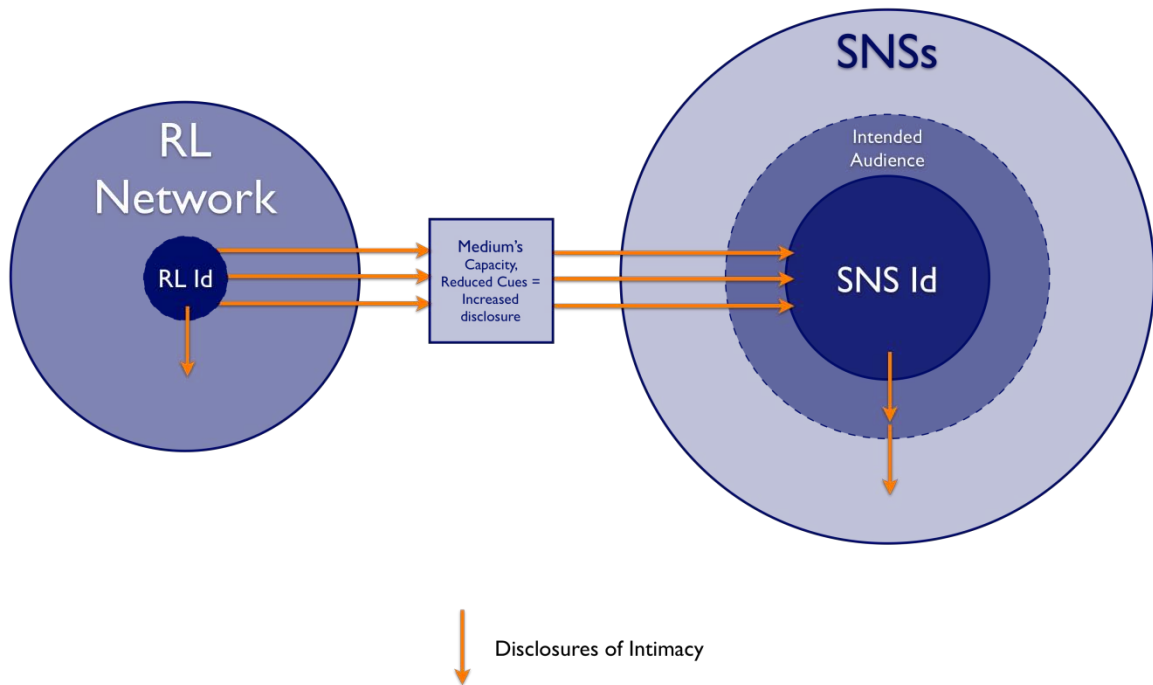
Figure 3. Model for adolescents' identity negotiations and disclosure of Intimacy on Facebook

According to Erikson's (1968) theory, and in agreement with Marcia's (1966) and Rawlins' (1992) contentions, the central hypothesis of this study is that identity status influences disclosure both online and offline. Many, it can be surmised, stretch out the period in which they try to resolve questions about their identity. Therefore, a majority of late adolescent (18-21) Facebook users should be found at identity moratorium status. Also, an individual's tendency to disclose intimate information FtF should influence their online disclosure behaviors. In line with Erikson's tenets, moratorium individuals should disclose more than those in the achievement status.

According to Marcia's definition, the moratorium stage is characterized by a lack of commitments and a struggle to identify those commitments. In this regard, the relationship

between commitments and identity status is also examined by analyzing Facebook profiles in which these commitments are stated.

The methods employed to examine the proposed relationships are explained in the following chapter.

CHAPTER 3: METHODS

In this study, various techniques were employed to inform the research question: Why do adolescents disclose intimate information on Facebook? The different techniques applied in this study heed McGrath's (1982) critique of purist methodological approaches to research. McGrath proposes the crossover of methodological boundaries as the optimal approach to scientific research. He advises researchers to consider the "three- horn dilemma," a categorization of scientific methods in terms of their commitment to one or more of three extreme camps (the three horns): pure objectivism, subjectivism, and the pure epistemological pursuit (Figure 4). McGrath submits that "all research strategies and methods are seriously flawed" (p. 70), and because different methods present different weaknesses, the combination of these in a triangulated model should present the most effective research method. In other words, the push-pull effect between reliability and closeness to actors, behaviors, and context is accounted for through the use of a variety of techniques designed to address such concerns.
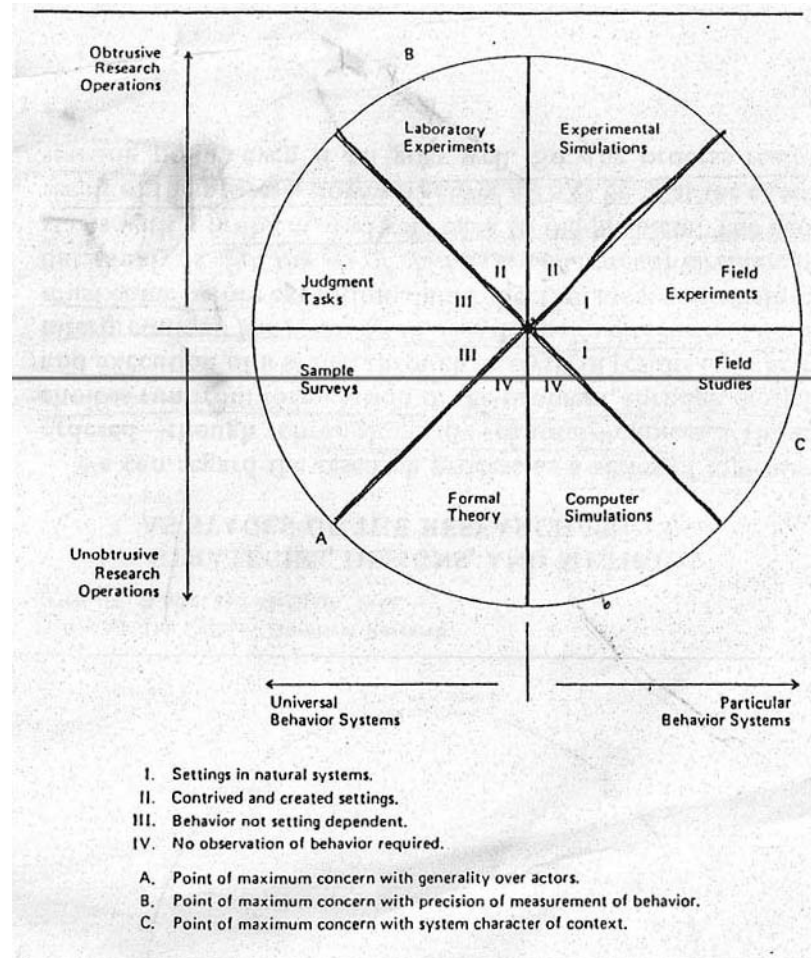
Figure 3.2 Research Strategies
SOURCE: Runkel and McGrath, 1972.

Figure 4: McGrath's (1982) "three-horn dilemma" explains the limitations of different research methods. Each quadrant represents a methodological commitment. The three research goals of generalizability, precision, and realism conflict with each other .

This study follows McGrath's advice by applying qualitative and quantitative techniques. As Martin (as cited in McGrath, Martin & Kulka, 1982) claims, triangulation "may help the researcher detect relationships that might otherwise have been unsuspected" (p. 18). In the case of adolescents on Facebook, the use of quantitative and qualitative approaches enables a more thorough account of an area of communication and human culture that, because of the recency of the technology in question, is still ripe with unanswered questions.

To gather data for this study, three research methods were employed: 1) a focus group session with adolescent participants, 2) a survey of adolescents, and 3) a content analysis of the FB profiles of young people. The goals of this triangulated approach are: 1) to obtain a general understanding of Facebook as seen by adolescents; 2) to recruit participants and determine their identity status, their willingness to disclose on face-to-face contexts, and how they view intimacy; and, 3) to compare and contrast moratorium and achievement individuals to gain an understanding of the differences on intimacy disclosure by identity status.

Through an exploratory focus group session, the general concerns and practices young college students associate with Facebook were assessed. An identity status survey (OMEIS-II) was done to identify developmental stage. The measure of willingness to disclose on face-to-face interactions aided in understanding the tendency to disclose intimate information in real life contexts which could be related to online behavior. The intimacy topic value scale used in the survey evaluated what topics participants viewed as intimate. A content analysis of Facebook profiles was conducted to determine the intimate topics frequently disclosed online and the ways by which these topics are disclosed. Changes in these two measures over time were ascertained.

Focus Group

A group of six males and three females aged 18-21 were recruited from the student population at a Midwestern university. Because all were taking an advanced computer course, these students were assumed to be knowledgeable about computers and their many uses. A moderator helped guide the conversation. Using a semi-structured questionnaire, students were asked about how they see Facebook, in what ways do they use this SNS, their perceptions of the impact of Facebook on everyday life, what they disclose about themselves in their profiles, and their expectations for the future of Facebook. Appendix A outlines the interview schedule.

The focus group session was video taped and audio recorded. Copious notes were taken during the session. The transcripts of the proceedings were analyzed for emerging themes.

The purpose of this preliminary research was to better inform the data collection and to obtain an understanding of the trends, practices, and interests related to disclosure of intimate information on the site.

Survey

In Spring 2008, flyers were posted in public spaces and e-mail messages were sent to more than 300 freshmen and sophomores in the College of Design to solicit their participation in a survey. First and second year students from this college were targeted because they have just recently undergone the first round of screening to be a design major. In their profiles, they are expected to discuss their experience and whether they were

admitted to or rejected from the program university, a topic many consider to be of an intimate nature.

An opportunity to win an Ipod Touch was offered to motivate participation. Those who indicated an interest were instructed to complete an online questionnaire. They were also asked to accept the researcher as a Facebook friend. The respondents were asked to sign a consent form as stipulated by Institutional Review Board requirements, indicating they understood and agreed to sharing their FB profiles.

The variables of interest were measured using existing multi-dimensional scales. Specifically, *ego identity status* was measured using Bennion and Adams' (1986) EOMEIS-2 scale. Following Marcia's (1966) findings, two dimensions of identity were measured: ideological identity and interpersonal identity. *Ideological identity* includes "occupational, religious, political and philosophical life-style values, goals, and standards" while social or *interpersonal identity* involves "aspects of friendship, dating, sex roles, and recreational choices" (Adams, 1998. p. **??)** (Appendix B).

The EOMEIS-2 was developed through an iterative process based on Marcia's identity statuses. According to Bennion and Adams (1986), the self-report scale was developed in order to offer a practical (easy to administer) and quantifiable measure for identity status. This scale has been repeatedly tested to ratify its validity in reflecting Marcia's identity status constructs. As recently as 2005, Bergh and Erling found that the scale still held and was useful in determining identity status among Swedish adolescents (p. 388).

The EOMEIS-2 has been tested for internal consistency and reliability in at least 20 studies. Using samples from the University of Texas at Austin (n=317) and Utah State University (n=274) in two parallel studies, Adams (1998) found moderate to strong scale consistency:

Internal consistency of the subscales for the Texas and Utah samples ranged between .67 and .77. Split-half reliabilities ranged from .37 to .64. Test-retest reliabilities ranged over a four-week period from .63 to .83 (p. 14).

Identity status was calculated by coding the answers to the 64-items and determining a score that indicated one of four statuses. Adams explains:

This 64-item scale utilizes 32 items to assess ideological identity in the domains of occupation, politics, religion, and philosophical life-style; and 32 items to assess interpersonal identity in the domains of sex roles, friendship, recreation, and dating. The extended version (EOMEIS) allows for the assessment of two identity frameworks that may be more appropriately representative of potential gender differences in identity formation. Clearly, the extended version recognizes the ego-identity and self-identity distinction suggested by Erikson (1968) (p. 26).

Each item in the scale is related to a dimension and identity status as shown in Table 2.

Ideology Subscales	**Achievement**	**Moratorium**	**Diffusion**	**Foreclosure**
Occupation	33, 49	9, 57	1, 25	17, 41
Religion	18, 42	26, 34	2, 10	50, 58
Politics	8, 40	32, 48	16,56	24, 64
Philosophy	20, 60	12, 36	4, 52	28, 44
Interpersonal Subscales	**Achievement**	**Moratorium**	**Diffusion**	**Foreclosure**
Friendship	13, 45	5, 61	29, 53	21, 37
Dating	15, 55	31, 47	7, 23	39, 63
Sex Roles	35, 51	11, 43	19, 59	3, 27
Recreation	22, 46	14, 54	6, 30	38, 62

Table 2. EOMEIS-2 distribution of items according to dimension and status

The reliability test of the identity status scale resulted in a Cronbach's alpha of .81.

The second variable measured through the survey was *disclosiveness*. The metric employed was Wheeless' (1978) General Disclosiveness Scale (GDS) (Appendix C). The 31-item GDS measures disclosiveness as a multidimensional construct consisting of: depth, amount, honesty, intent, and positiveness. This instrument was originally created to allow the researcher to define the interlocutor considered by the respondent in his/her answers: "Persons filling out these scales must be instructed to 'mark the following statements to reflect how you communicate with (target person)'" (Wheeless and Grotz, 1976). The instructions read: "Please mark the following statements to reflect how *you* communicate with other people in general in the real world (face-to-face interactions)." Disclosiveness, in this study, is specifically related to the willingness to disclose to another person on a face-to-

face context. Such willingness is expected to be carried over to the treatment FB disclosure practices.

Wheeless (1977) reported the following reliability coefficients for the five dimensions of disclosiveness: intent=.65, amount=.82, positiveness=.90, depth=.78, honesty/accuracy=.84 (p. 152). Upon review of the five components proposed in the metric, we found the following reliabilities measured in Cronbach's alpha: depth (.75), positiveness (.86), amount (.82), intent (.76), and honesty (.87) with an overall reliability of .88.

Moon's (2000) study of intimate exchanges during CMC interactions was used as the basis for the items included in the intimacy rankings. Moon's questionnaire (pp. 335-336).includes the following items:

1. What are your favorite things to do in your free time?
2. What characteristics of yourself are you most proud of?
3. What are some of the things that make you furious?
4. What are your feelings and attitudes about death?
5. What are some of the things you hate about yourself?
6. What has been the biggest disappointment in your life?
7. What do you dislike about your physical appearance?
8. What is your most common sexual fantasy?
9. What have you done in your life that you feel most guilty about?
10. What are some of the things that really hurt your feelings?
11. What characteristics of your best friend really bother you?
12. Can you describe the last time you were sexually aroused?

The topics in these questions were assessed using a Likert scale (0 to 5 where 0 meant "not intimate at all" and 5 meant "extremely intimate"). The results identified the following topics considered as intimate: 1) favorite pastimes/hobbies, 2) self-pride, 3) anger management, 4) feelings and attitudes about death, 5) self-discontent (personality), 6) self-discontent (physical), 7) frustrations, 8) sexual behaviors, 9) guilt, 10) emotional aspects of self, and 11) dislikes about others. The scale produced a Cronbach's alpha of .75, suggesting that the items were internally consistent.

The three top-rated items (feelings and attitudes toward death, sexual behaviors, and emotional aspects of self) accounted for 48% of the highest intimacy rankings and were thus searched for and coded in the content analysis of the captured FB profiles as an indicator of intimacy disclosure behaviors.

Testing the reliability of indices

Exploratory factor analysis (EFA) provides information about how many factors are needed to best represent the data (Hair et al., 1992). With EFA, all measured variables are related to every factor by a factor loading estimate. Simple structure results when each measured variable loads highly on only one factor and has a smaller loading on other factors. The distinctive feature of EFA is that the factors are derived from statistical results, not from theory, so they can only be identified after the factor analysis is performed. EFA can be conducted without knowing how many factors really exist or which variables belong with which constructs.

With confirmatory factor analysis (CFA), on the other hand, the researcher must specify both the number of factors that exist within a set of variables and which factors each variable

will load highly on before the operation is conducted. The technique does not assign variables to factors. Instead, the researcher must be able to make this assignment before any result can be obtained. Thus, instead of allowing the statistical method to determine the number of factors and loadings as in EFA, CFA statistics indicate how well the specification of factors matches reality (the actual data) (pp. 773-774). However, the small sample size in this study precludes the conduct of CFA.

Identity status. An exploratory factor analysis of items believed to be involved in identity formation found 11 factors at or above 2, another six had eigenvalues less than 2 and more than 1. The factors seemed to be at least mildly "confused," and did not show a clean simple structure, The small sample size could have affected these results. (See Appendix H for eigenvalues and loadings by factor).

Disclosiveness. Five factors were expected to be strong indicators of disclosiveness, but the exploratory analysis revealed seven factors. There were four very strong factors (eigenvalues greater than or equal to 2) and another three factors with eigenvalues greater than 1. The strongest four factors explain the majority of the variance in the analysis. The factors did not rotate cleanly to a simple structure because there were items that loaded strongly on more than one factor. Some of those were positive loadings on one factor and negative on the other. (See Appendix H for eigenvalues and loadings by factor).

Intimacy. Four factors were found for the intimacy scale. One was very strong (eigenvalue of about 3) and three had eigenvalues greater than 1 but less than 2. This analysis seemed the "cleanest" of them all; the variables tended to load strongly on only one factor. (See Appendix H for eigenvalues and loadings by factor).

Content Analysis

A content analysis of some of the survey respondents' FB profiles was conducted to determine young people's disclosure practices with a minimum of interference. Those who completed the survey questionnaire and provided access to their FB profiles constituted the source sample for this part of the study.

Twenty-five profiles (14 females, 11 males) were captured twice a week for a period of four weeks. After data collection, images and fields that were not pertinent to the current study were deleted. A text file was created for each participant that includes information retrieved from the various fields analyzed. The fields analyzed were as follows:

Basic Information Section

1. *Status update*: A text string that is often used to inform friends of a mood, change, or special event in the profile owner's life.

2. *Relationship status*: This field asks the profile owner to indicate whether he/she is "single, in a relationship, engaged, married, it's complicated, or in an open relationship."

3. *Looking for*: This field asks the profile owner to indicate whether he/she is looking for "friendship, dates, a relationship, or networks."

4. *Birthday*: The user's options to control the visibility of this field include: showing the full date, month and day only, or not show.

5. *Political views*: Open text

6. *Religious views*: Open text

7. *Favorite quotes*: Open text

8. *About me*: Open text

Education and Work Section

9. *College/University*: Open text

10. *Concentration*: Open text

11. *Second concentration*: Open text

12. *Third concentration*: Open text

13. *Degree*: Open text

All the fields were coded. Also coded was the number of changes made to these fields during the period of this study. That is, if any of these fields changed after initial capture in the subsequent seven instances, the coders noted each change. The "status update," "favorite quotes," and "about me" fields were included in the count of intimacy topics. That is, coders searched for the occurrence of the three topics identified by survey respondents as highly intimate: feelings and attitudes toward death, sexual behaviors, and emotional aspects of self.

Another section of the FB page was captured and analyzed to determine the number of disclosures of intimate topics: the Wall. *The Wall* is a bulletin board that allows Facebook users to publish messages directed to a profile owner that can be seen by others. These are popularly known as postings. The visible (public) postings on friends' walls[5] were also captured. These postings were analyzed to identify the number of discrete mentions of any of the three high intimacy topics of interest. Postings related to emotional aspects of the self were considered only if they were related to the basic emotions identified by Parrott (2001): love, joy, surprise, anger, sadness, and fear.

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[5] Only friends who had privacy settings allowing the researcher access to their "public" profiles were included.

The objective of this phase of the study was to have a first-hand view of the disclosure of highly intimate topics participants engaged in on Facebook.

Content Analysis Reliability

A pilot test was carried out to test intercoder reliability. Two female coders (aged over 25) with a general understanding of the study were trained to code. They were provided instructions for coding and in an orientation and question/answer session to discuss each of the fields to be coded as well as the definitions of each of the intimacy items to be coded. The coders in this pre-test brought up important clarifications and their suggestions to strengthen validity were integrated were integrated into the final coding protocols.

After the initial test, a female and a male coder over the age of 18 who were blind to the purpose of the study were trained using the codebook, instructions, and definitions refined during the pre-test to review text files of the Facebook profile captures. (See Appendix E for a detailed codebook). The number of changes through time were tracked for the 13 fields. The "status update," "favorite quotes," "about me" and Wall fields were analyzed to determine the presence of the three topics with highest intimacy scores in the survey (feelings and attitudes toward death, sexual behaviors, and emotional aspects of self). Coders identified and reported the number of discrete disclosures made by the participant in each of these fields.

To determine intercoder reliability for changes over time, agreements and disagreements were registered for all 13 fields in each of the eight captures of 25 FB profiles. The overall intercoder reliability coefficient for this part of the analysis was 98% (Table 3).

	Percent Agree-ment	Scott's Pi	Cohen's Kappa	Krippendorff's Alpha
Status Update	100	1	1	1
Favorite Quotes	96	0.90	0.90	0.90
About Me	100	1	1	1
Birthday	100	1	1	1
Relationship Status	96	0.92	0.92	0.92
Looking for	100	1	1	1
Political Views	96	0.92	0.920128	0.92
Religious Views	96	0.92	0.92	0.92
College/University	100	1	1	1
First Concentration	96	0.92	0.92	0.92
Second Concentration	100	1	1	1
Third Concentration	100	1	1	1
Degree	96	0.92	0.92	0.92

Table 3. Intercoder reliability for changes over time

Intercoder percent agreement for intimacy topic content was calculated by registering

decisions made for each of the four fields in the eight captures of each of 25 profiles. The

overall intercoder reliability for intimacy content was 84% (Table 4).

In the case of this analysis, the indices (Scott's, Cohen's, and Krippendorff's) are lower due

to the number of disagreements on the topic of emotional content which can be explained by

the coders' alternative perceptions in relation to such content.

	Percent Agreement	Scott's Pi	Cohen's Kappa	Krippendorff's Alpha
Status Update	80	0.60	0.610	0.60
Favorite Quotes	88	0.65	0.664	0.66
About Me	84	0.60	0.61	0.61
Wall	84	0.68	0.68	0.68

Table 4. Intercoder reliability for intimacy topic content

The data obtained through the analysis of the content of the profiles provided a first-hand view of the actual expression of intimacy on Facebook. This information, together with the data obtained through the surveys on identity status and willingness to disclose FtF, was examined to understand the interaction between these factors. The following chapter discusses the findings.

CHAPTER 4: RESULTS AND DISCUSSION

Focus Group Results

Computer and Internet Use

All participants indicated they used the internet daily mainly to check e-mail accounts, the weather, and Facebook updates. All of them said they had multiple e-mail accounts (i.e., at school, gmail, and hotmail). These were being managed to control spam messages.

Changes to the Internet

When asked about their perceptions about the changes in the internet in the last ten years, a participant thought internet applications are now more personalized; one contrasted today's online networks with the message boards Compuserve provided in the past. Others made reference to Messenger and AOL, indicating that Facebook provides a way to directly talk to people. These comments suggest that the student-participants see Facebook as a central place for interactions, where they post their daily musings, chat with friends, and engage in various types of exchanges.

Facebook and MySpace

All participants had a Facebook profile. The majority said they also had an account in MySpace. Asked if they had perceived any changes in the use of MySpace with the advent of Facebook, they agreed that MySpace had become more of a tool for learning about the latest in music; some indicated they retained it because they could play around with coding to portray a unique profile that affirms them as techno-savvy. All of them agreed that Facebook is "more organized," "standardized," and "usable."

One participant contrasted the two: "Facebook is a social utility while MySpace is a social playground." This comment suggests that Facebook has earned a standing as a serious and safe space while MySpace's likability has declined possibly as a result of extensive negative media coverage.

One of the hassles they mentioned as a consequence of Facebook growth is having to deal with spamming videos and applications. That is, with the opening of the site to the general public and the growth of their network of "friends," they receive viral-type videos and applications from friends with whom they might not have a close relationship. They hinted at a Facebook etiquette: a participant said, "Friends [are] constantly sending you applications you have no interest in." A female participant complained, "I haven't talked to this person since we had a class together fall semester of freshman year [so] why is she sending me this application?"

Facebook Registration

All of them said their Facebook registration coincided with their entrance to college. They agreed that Facebook had not been available to high school students. Also, all confirmed they use Facebook more often than MySpace now. They agreed that information management was made more easy in Facebook because of the controls the site offers.

In general, they seemed to perceive Facebook as a safer space than MySpace and argued that Facebook's friending approval feature fends off cyberpredators. For them, MySpace was more associated with music, sexual connotations, spam, and random people.

Facebook seems to be associated with a sense of security. For example. one participant said: "One of the nice things about Facebook is that you have to approve friends so [you] know who they are." Still, there was some recognition that there might be some "phishing schemas and hackers" but those were generally perceived as more prevalent in MySpace.

Social Advertising

The students were asked about their perceptions of recently-launched FB feature : social advertising. By mining data from users' profiles, the site is now able to market, through small advertisements, to users' tastes and needs. One participant said he found it "creepy," "I deleted all my personal information but I can tell [they - Facebook developers] still know my info." Others said: "[Facebook is] advertising things [to me]" and it is like they are "forcing me." A participant said it was "annoying and puzzling"— "Why is Facebook marketing weight loss products to me?" Others said they found it interesting they had been offered "dating sites." One of the users was glad to receive promotional information for a topic that interested her—gaming. Another said he did not mind Facebook advertising at all.

Interestingly, this group of users considered the new feature to be a trade off they have to bear to enjoy the perceived benefits: "I don't have a choice." Others noted they do not pay attention to ads anyway.

They all agreed they would not stop using Facebook because of the new advertising schema; they thought it was acceptable and were glad that there were "no pop-ups like in Amazon." For them, this was "no big deal," "another thing I'm being marketed." Tt was considered the "price to pay." The only complaint was about "the ones that talk... they are too intrusive."

Friends, Privacy, and the Future

The main topic participants were concerned about was the publication of photos in which they were "tagged[6]." Most of them said they would "de-tag"[7] photos because they did not want to be perceived negatively and out of context. A female participant claimed she had photos in her profile, "but anything that I'm tagged I make sure it's not [compromising]. I don't want to be associated with the alcoholic who always has a drink in pictures." There was also some understanding of an etiquette related to tagging practices. Some pointed out that they had agreed with their friends not to tag each other.

There seemed to be a clash between the concept of privacy and the definition of friendship on Facebook. For instance, a participant said she had her settings tuned so that only "friends" could see her, but when asked about the number of friends she has, she replied around 500. Another participant admitted he had not changed his privacy settings and has around 300 friends. Most of them had network friends that stood in the hundreds. The number of friends ranged from 72 to over 500.

The notion of friends in Facebook has been discussed by boyd (2006) and Ellison, Seinfeld, and Lampe (2007). The dichotomous friend/not friend selection the site affords is a hindrance to the expression of the nuances of RL networks. That is, on some occasions, users' limited understanding of or lack of time or disposition, result in the release of

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6 The practice of tagging creates a link that identifies the person in the photo with the photo. Notifications to friends of the person tagged are sent to the person's friends.

7 Users are allowed to "de-tag" or remove the link from a photo where they have been identified.

information to audiences for which the message was not intended. A participant was concerned that in Walls, "people can write anything."

In general, the group reveals a certain naiveté that legitimizes the privacy worries others have expressed about Facebook and other SNSs. Some said, "My Facebook represents me when I'm being extremely social," and "I don't know how to separate my digital life from my real life." Others complain that some photos were "outlandish...I hope I could meet someone in person before they see this."

Even though some were concerned about employers getting "the wrong picture," the majority seemed to have a careless attitude toward these postings. One said that "unless you are being hired by the CIA or the NSA, you should not have to worry." For them, Facebook is a "creative environment," a place where they can express themselves, a place where others (including adults and employers) should not be allowed or, if they were, they should not expect to impose RL social expectations over Facebook expressions. One participant opposed the notion that profile pictures could harm job search: "It doesn't seem as if they're looking at that kind of stuff (profiles photos) and saying, 'Oh, you're drinking beer [so] I'm not going to hire you."

Participants seemed reassured about making so many friends through Facebook because, as one said, "I make sure I know people. These are people in my classes." A female said she had an "initial high school boost but now I barely add anyone." She also said it was nice for her friends to know that even if she relocated, she would know they are there, "like for the ten-year high school reunion."

The idea of a Facebook *challenge* was brought up by one of the participants who said he struggled with the question about whom to accept as a friend because he wanted to show his popularity. His question stands as the best expression of the battle between popularity and privacy, "Do I friend everybody? People I live with? People I talk to?" The pressure to accept people you barely know as friends was also experienced by a participant who stated, "If I know someone, I'm not gonna say no to them." This claim was met with acceptance: "No one declines people." Still, some participants argued they would check people's profiles before "friending" them.

Some have specific privacy settings for family members. Asked if their parents were friends, one said he had been "creeped out by having grandma join." Another one said his father's job demanded he signed up in order for the firm to research young people's social and buying habits. As a result, he had to accept his father as a friend. Others said they had included their mothers in the network. Moreover, many nodded in agreement when a participant claimed that privacy settings were mostly used to fend off parents and older people.

Facebook Culture

Participants seemed to agree with the notion that they had grown up on Facebook, and that they model Facebook culture. A general practice seems to be that they meet someone briefly in RL and then go to Facebook to learn more about the person. Some even admitted to having checked the profiles of some of the participants.

Judging by their answers, young people tend to see FB as a form of social capital. Facebook seems to act as a relationship maintenance tool that allows them to keep contact,

allowing the formation and easy maintenance of broad networks that remain open for the possibility of resorting to them in the future.[6]

Profile Content

The majority said their profiles contain many photos. One female participant said she had "a ton of pics some people shouldn't see probably—sports related, schools I went to, e-mail, website, town but not complete address, religious views..." Admitting that employers and people in general may be using Facebook as a tool to research who they meet or are about to hire, one of them felt that "a lot of political careers are going to be ended before they even start because of Facebook."

Safety-Related Incidents

One offered that "a friend got denied a job... [because] she has pretty nasty pictures and Disney told her 'we can't hire somebody with your Facebook profile.'"

All of them agreed that they will keep using Facebook even when they have joined the workforce after graduation.

Facebook as Self Reflection

The responses as to how their profile reflect them were varied. To one participant, "you can't put someone down on paper" while another suggested one "projects a certain image on Facebook." An instance showing how RL changes are portrayed on their profiles was brought up by a participant: "My brother deleted the old one [Facebook profile] and got a

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[6] For a complete discussion of interaction in networks, see Granovetter's (1973) work on the strength of weak ties.

new one." Another agreed that a new page can be created and gave an example of a friend who had replaced her college Facebook with a "leaner" profile.

They seemed to interpret Facebook profiles as expressions of themselves and resisted the idea that they could be pigeonholed as a result of what is shown there: "It [the profile] doesn't say who you are." "It's not accurate about who you are all the time; it doesn't show the whole picture. "There is no picture that describes you [completely]." "A picture is worth a thousand words, but a personality is a lot more than that." They agreed that they should not be considered "a partier [just] because those are the kind of pictures people put there." Still, someone conceded that "it shapes you in a way. I'm not going to censor or detag; still it is not representing me in all my whole." Another thought that "sometimes I get the feeling it does influence people's ideas." A female participant said her sorority sisters checked each other's profiles. She said about this practice: "It keeps me in check, makes me realize it's not only me that is affected [when unsavory pictures are posted]."

There was a contradiction between the claim that "I don't portray someone that is not me on my Facebook" when asked directly as opposed to their response to the possibility that their parents or family members are checking up their profiles: "Since they know me, they know I'm not like that."

Will they clean their profile towards the end of their college career? Many will make sure they save all the pictures, because those are "things to remember from college." On the other hand, professional network sites did not seem to present an attractive alternative. They

said they did not know the culture or what was appropriate to do in that context as opposed to Facebook because "our generation shaped Facebook culture."

Most of the participants' parents were not knowledgeable about computers, internet, or specifically Facebook, at least according to them. This seemingly helped these users control their parents' understanding and audit of their profiles. The one participant who had his dad in his network said he had considered giving him limited access, but concluded "it's not worth it," further hinting that changing privacy settings is viewed as a time consuming and frustrating endeavor.

They said they had "no idea how the internet will look like in the future." Because of their exposure to avatars in 3D worlds such as Second Life and World of Warcraft, they surmise that "our kids may use avatars."

Summary

Participants have made communications through computers part of their daily routines. Facebook was one of the first channels to be mentioned when talking about communicating with others, especially those within their age range.

Overall, participants in the focus group enjoyed the benefits provided by Facebook as the site facilitates their relationship maintenance tasks. They appreciate Facebook as a medium that makes it easier for them to manage the way they present themselves to their friends. Facebook also allows them to establish connections and find out more about people they meet offline.

Participants indicated they actively manage their profile settings. However, they did not have in-depth knowledge of the privacy controls available in Facebook. They also indicated disdain about the complicated maneuverings to control the visibility of their profiles. Furthermore, these Facebook users expect that, in the future, Facebook will be a communication medium integrating various types of services, i.e., e-mail and voice chat.

Participants' use of SNSs seem to have evolved over time. They had abandoned their MySpace representations, deeming it childish in contrast to the more secure, organized and formal representation offered by the FB interface. This may be due to the prestige of the site as originally an Ivy League and college network that can better express the stage of life they are in. It may also be a reflection of a cycle in the evolution of SNSs already discussed by boyd (2007) in her work on Twitter. Certainly, the clash between the mass adoption of the site and the demand of its original users for maintaining the status quo poses an interesting dilemma for its owners. At the time of this study, more ease of use and profile manipulation capabilities have been observed.

Facebook portrayal, for students, was a matter of concern only because of the potential that photos posted by friends may be seen by others in a different light. Participants were not concerned about the possibility that future employers may access their information. Mainly, they considered FB a place they had constructed that should remain safe from the intervention of adults and the requirements of adult life. This seems to confirm the contention that FB could function as a place for discerning identity issues associated with adolescence. It may also help explain college-aged users' willingness to disclose intimate information.

Survey Results

Forty-five students (15% response rate) completed the three-part online questionnaire that includes the EOMEIS-2, Wheeless' GDS, and the intimacy scale. Survey fatigue could have accounted for the low number of completed questionnaires (n=41, 20 females and 21 males). Those who completed the questionnaire were probably motivated by the opportunity to win a prize by the survey's accessibility through the web (ease of access and flexibility of time).

The results of the EOMEIS-2 questionnaire on identity status (Table 5) showed that the majority of the respondents were at moratorium on both their ideological identity status (49%) and interpersonal identity status (46%).

	Frequency	**Percent**
Ideological Status		
Diffusion	12	29.3
Foreclosure	4	9.8
Moratorium	17	41.5
Achievement	8	19.5
Total	41	100.0
Interpersonal Status		
Diffusion	12	29.3
Foreclosure	5	12.2
Moratorium	16	39.0
Achievement	8	19.5
Total	41	100.0

Table 5. Ideological and interpersonal identity statuses

A histogram and goodness of fit Shapiro-Wilk test for normality revealed that the

disclosiveness factor had a normal distribution (p=.16). Normal distributions were also

found for the components measured in the disclosiveness (GDS) scale: intent (p=.35), depth

(p=.46), honesty/accuracy (p=.71), amount (p=.39) and positiveness (p=.48) (Figures on

distributions are shown in Appendix H). The descriptive statistics for each of the five

dimensions of disclosiveness are shown on Table 6.

Disclosiveness dimensions	Means	Std. Dev.
Intent	21.49	3.74
Amount	24.66	7.32
Positiveness	33.95	6.63
Depth	16.49	5.65
Honesty	38.78	8.13
Total Disclosiveness	135.21	20.14

Table 6. Descriptive statistics for disclosiveness and its dimensions (N=41)

A one-way ANOVA was used to test for differences in disclosiveness among the four

ideological identity statuses. The results suggest that disclosiveness as a whole did not differ

significantly across the four statuses, F=.328, p=.805, df=3, 37. Neither did the components

of the construct differed by status: intent, F=2.83, p=.052, df=3, 37; amount, F =1.82, p=.160,

df =3, 37; positiveness, F= 966, p=.419, df=3, 37; depth, F=.252, p=.860, df=3, 37; and,

honesty, F=2.01, p=.129, df=3, 37.

A one-way ANOVA was also used to test for disclosiveness differences among the four

interpersonal identity statuses. Disclosiveness as a whole did not differ significantly across

the four statuses, F=1.27, p=.298, df=3, 37. Neither did the components of the construct

differed by status: intent, F=1.31, p=.285, df=3, 37; amount, F=1.39, p=.261, df=3, 37;

positiveness, F=.839, p= 481, df=3, 37; depth, F=.041, p=.989, df=3, 37; and, honesty,

F=1.34, p=.276, df=3, 37.

The results show a total of 25 participants were either in moratorium or achievement

status on the ideological dimension. Ten of the participants were either at foreclosure or

diffusion status. These were not included in a second analysis because the goal was to

measure the differences between the two statuses relevant to Erickson's theory. Two

components of the disclosiveness construct were significantly different between these two

groups (Figures 5 and 6). The disclosiveness component amount was significantly higher on

ideological moratorium individuals in a two-sample or matched t-test: t(23)=2.17, p=.041,

@=.05. In contrast, the honesty component was significantly higher among ideological

achievement individuals [t(23)=-2.69, p=.013, @=.05] (Table 7).

		Sig. (2-tailed)	Mean Difference
Intent	Equal variances assumed	.071	-2.654
	Equal variances not assumed	.107	-2.654
Amount	Equal variances assumed	**.041**	7.081
	Equal variances not assumed	.106	7.081
Posit	Equal variances assumed	.519	-1.824
	Equal variances not assumed	.632	-1.824
Depth	Equal variances assumed	.647	1.199
	Equal variances not assumed	.690	1.199
Honest	Equal variances assumed	**.013**	-8.103
	Equal variances not assumed	.016	-8.103

Table 7. Results of t-tests for disclosiveness by moratorium and achievement status
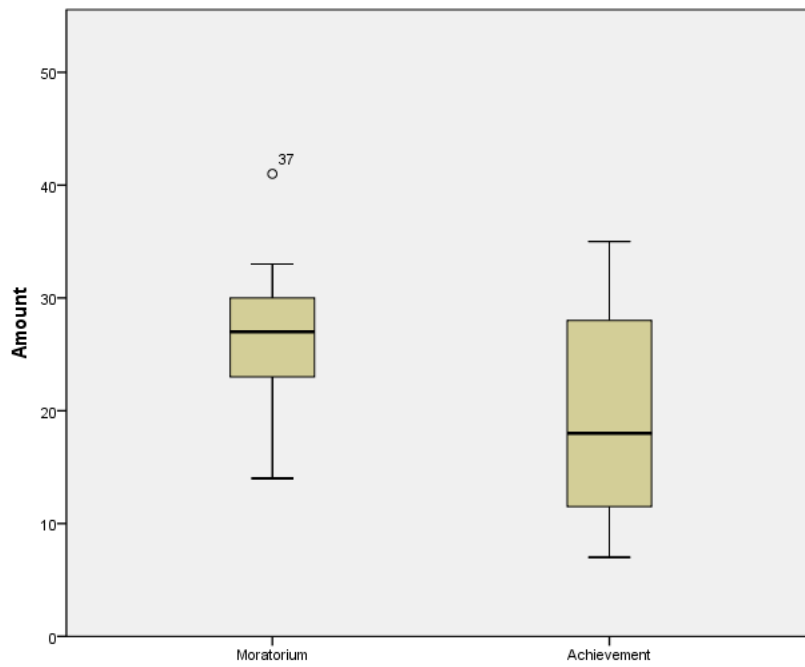
Figure 5. Disclosiveness component amount by ideological moratorium and achievement status
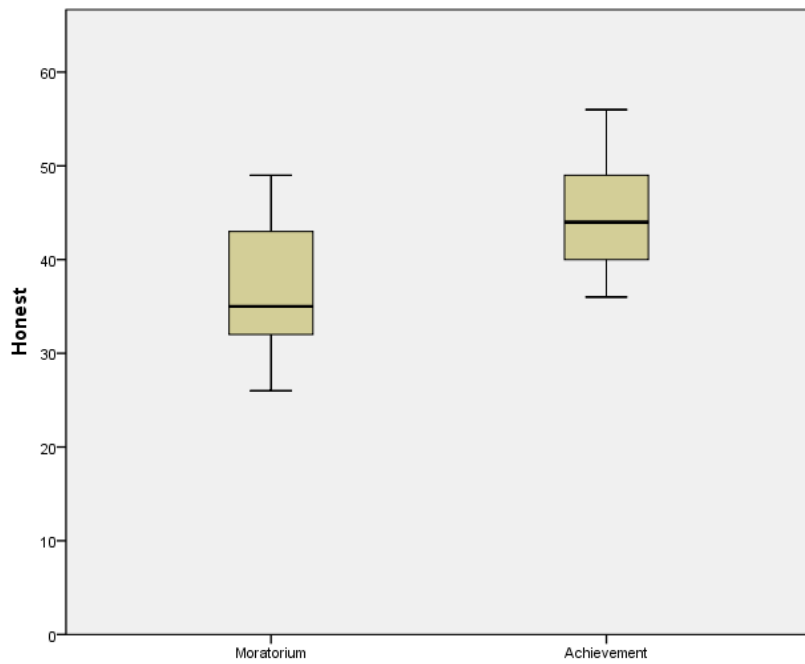
Figure 6. Disclosiveness component honesty by ideological moratorium and achievement status

In the content analysis part of this study, a total of 116 changes were made to the 13 FB profile fields over time. Only six of those were in fields reflecting ideological status information (political and religious views) and two were in fields dealing with interpersonal status (relationship status and looking for).

In four weeks, there were 224 intimacy mentions 24 profiles. The majority of the intimate mentions (162 mentions, 87%) were related to emotional aspects of self. There were 14 that alluded to feelings and attitudes toward death, and 10 mentions of sexual behavior.

An ANOVA test showed no significant difference in intimacy mentions between the four ideological or interpersonal identity statuses Table 8 shows the descriptive statistics for intimacy mentions by identity status.

	N	Mean	Std. Error	Std. Dev.
Interpersonal identity				
Diffusion	7	9.14	3.97	10.51
Foreclosure	3	5	3.60	6.24
Moratorium	9	4.66	1.29	3.87
Achievement	6	3.83	0.95	2.32
Entire sample	25	5.76	1.29	6.46
Ideological identity				
Diffusion	6	9.83	4.26	10.44
Foreclosure	2	2	1	1.41
Moratorium	13	4.84	1.16	4.20
Achievement	4	4.50	2.87	5.74
Entire sample	25	5.76	1.29	6.46

Table 9. Descriptive statistics for total intimacy mentions by interpersonal and ideological identity status

Due to the non-normality of the distribution of FB intimacy mentions (see Appendix G),

a Mann-Whitney test was used to test this factor by moratorium and achievement status in

both interpersonal (n=15) and ideological (n=17) identity. No statistically significant

differences were found between the two groups in either the ideological (p=.79, @=.05) or

interpersonal (p=.86, @=.05) dimension.

Content Analysis – Emerging Themes

The content analysis involved a total of 25 FB profiles. The low number of participants

who agreed to their profiles being the subject of content analysis could be due to privacy

concerns. Agreeing to participate also involved delivering a signed consent document to the

researcher, a step they may have found to be very inconvenient.

A contextual review of the Facebook profiles revealed that there are areas beyond the

scope of this project that may inform practices related to disclosure of intimacy. An example

of this is the application called Bumper Stickers, which is composed of images resembling

the stickers used on car bumpers. Facebook users give each other bumper stickers to

communicate feelings and attitudes; the messages are metaphorical. Bumper stickers, as well

as other interactional strategies using images, offer an enriched perspective into Facebook

interaction practices. This group's Facebook postings demonstrated an underlying humor

and lingo that reflected mood, attitudes and feelings toward a friend that could be used to

express proximity with the other or a certain "fun" way of being.

There were also many noticeable practices related to the adaptation of the English

language in Facebook interactions. Some expressions and lexicon used in these profiles

affirm membership in an artistic group because the profile owners are students in the College

of Design. This includes the use of such terms as "izzle" added to a verb or the term "chillaxing," communicating relaxation by combining the coloquial words "chill" and "relaxing." Many purposely employed typos. For example, one wrote, "so whats are you doings on yer birfday?" This sentence illustrates the practice of phonetically substituting letters for humorous effect. Students also used words that have been appropriated by celebrities to indicate their identification with hip-hop culture.

The "relationship status" field often contains real life romantic relationships but also information that tends to hint at the "closeness" between two individuals who have common interests and wish to announce their alliance. Through this field, users even demonstrate levels of commitment and relationships outside the social norm. For example, a girl could be married to a girlfriend although they are not in a homosexual relationship, or a girl could marry her boyfriend's brother to indicate a certain temporary alliance.

There were also a number of references that may illustrate the transgression of proper social conduct, including the use of sexual innuendoes, health problems, excessive alcohol consumption, name-calling, and even racial slurs.

Facebook users updated information about their whereabouts often, many doing so a few times during the day. This could be related to the time when the data gathering was conducted (during the summer) and the fact that participants were away from their college community. Thus, they were communicating with college friends through their profile walls. Public announcing one's whereabouts is a risky practice. In Mexico, where kidnappings are

a daily occurrence, it is said that criminals have obtained information about their victims'

whereabouts through Facebook.

It is clear that young people connect with offline acquaintances online. Facebook seems

to be a medium for social assessment and, with the depth and breadth of information the

profile fields offer, these youngsters seem to feel safe enough to add someone they just met

as a friend. The artificial process for the construction of "friendship" on FB, already

problematized by boyd (2007), is an awkward transformation from the traditional (RL)

concept of friendship. Due to the constraints of the interface at the time of fieldwork,

whatever messages were meant for those in high intimacy networks could often be relayed to

low and medium intimacy networks. Some disclose "intimate" information in a cavalier

fashion;

> *haha...danielle doesn't care if i tell her about my peeing problem...lol...*
>
> *bitch, where you at? not returning phone calls and such. Slut.*
>
> *YA FUCKIN RIGHT! ... what's right? Oh!!! that malename1 has majorly big pecks and he's going to get nipple peircings.. and malename2 is going to get a Prince Albert so he can have fun and pee in 2 directions and you malename3 are gunna get your scrotum tattooed with eye balls so you can always keep more than one eye on the ladies... damn im a sick bastard...love me :)*

This Facebook community had ongoing conversations about common topics and asserted

their belonging to a certain RL community. There were 21 references to the admission

process to their academic programs of interest: "congrats!!!! i made it too!!!!" Some

participants bragged about having been admitted to higher ranking programs. In this respect,

users employed the site to announce the members' rank in their academic program.

In Facebook, one can create reminders of events such as birthdays. By using specific applications, or by merely reviewing profiles, the user can keep track of important celebrations. An extensive list of postings congratulating participants on their birthdays is an indication that the profile owner has achieved Facebook popularity. Ten of these postings were noted during fieldwork.

There were numerous comments about RL events and up-to-the-minute news, such as flooding in some places. Thus, Facebook postings help orient users to places like their hometowns.

In summary, there are certain characteristics associated with the culture of the site that seem to foster disclosure. First, college students feel a sense of ownership of the site, which has been designed to enhance academic networking. Perhaps because of this, they feel free to express themselves on Facebook (i.e., "this is our space… we should not be bothered by 'grown-ups' here"). Second, adolescents are fast expanding their networks, even "friending" people they have met in RL just once. The network then increases the reach of the information they publish. Because the center of the network is the owner and all links are directly tied to him/her, any information published reaches all the links unless the owner modifies the privacy settings of his/her profile. At the time this study is being conducted, the privacy regulation features in FB were in their infancy, and the amount of control offered to users was limited. Moreover, confirming Gross and Acquisti's (2005) findings, the participants showed they had either no knowledge or no interest in adjusting their privacy settings. As a result, the humor and innuendo, the updates about relationships and their

whereabouts, the playful intimacy (Erikson,1968, p. 135) intended for their close peers, is

shared with "friends" whom the user just met.

CHAPTER 5: CONCLUSIONS, FUTURE DIRECTIONS AND LIMITATIONS OF THE STUDY

Erickson's proposition about the moratorium status of adolescence as a time for "pseudo-intimacy" is confirmed in this study the majority of whose sample was composed of college students at moratorium. These individuals report a significantly higher tendency to disclose information FtF than those with committed identities. That is, moratorium participants seemed moved to share more information with others in face-to-face contexts. On the other hand, those at achievement were more willing to offer honest information than those in moratorium. That is, while moratorium status could be related to a higher amount of disclosure, the honesty component is significantly higher among those in the achievement status. In other words, the majority of young adults in this study had not settled on commitments for adult life and were willing to provide a higher amount of information than their counterparts with fixed identities while the latter were more willing to be honest on their disclosures.

The majority of FB users were in moratorium status both in the ideological and interpersonal dimensions. Facebook has historically attracted adolescents perhaps because of its origins as a college campus directory. However, these findings suggest that Facebook has become a venue for identity experimentation, attracting adolescents in moratorium who see the site as a safe space for the negotiations of identity.

The prevalence of moratorium individuals could be related to the lengthening of this critical period among adolescents in our society. Longer schooling and the great possibilities for defining adult commitments offered by the online media and elsewhere could be

contributing to a prolonged stage of adolescence. That is, adolescence may have come to include ages that had historically been considered part of young adulthood.

The results of the analysis of intimacy topics mentions showed no significant difference between groups; neither did a test for specific differences between moratorium and achievement participants. However, the high number of intimate disclosures found on participants' profiles suggest there is a culture of disclosure on Facebook that drives interaction independently of the psychosocial status of the individual. It is also feasible that the mere construction of the concept of intimacy has changed, and the depth and value of the information provided online constitutes the norm for this generation. Nevertheless, the intimacy disclosure adolescents engage in, coupled with the ease of access to the information they provide online, increases the likelihood of a generational clash between the net generation's take on what is acceptable and that of older and stricter social values.

The small number of changes found on FB's ideological and interpersonal fields may be related to FB's rigidity in those fields. That is, these fields are part of the Basic Information section required to be filled out when the user signs up for the site. There may also be resistance to make changes because these fields can only be edited after various operations. In comparison, fields like *Status Update,* often changed by participants, were easily editable (i.e., the user only has to type and click submit).

The Exploratory Factor Analysis (EFA) showed confusion in the factors which could be grounds for further refinement of the metrics. There may be a drift toward loser boundaries of privacy in younger generations not reflected in the existing disclosiveness metric. Also,

further exploration and testing of the identity status scale could help document a shift in the moratorium stage toward a later age in young adults during present times. However, the results of the EFA could have been affected by the small sample size. Furthermore, a CFA is warranted on these metrics in future studies with a larger sample size because these factors have been repeatedly tested and streamlined in previous studies.

A refined model better reflecting the relationships hinted at in this study should limit its scope by considering face-to-face and online interactions as separate phenomena. The model should also include considerations for reflecting on the components of the disclosiveness component both offline and online. The self-report metric of disclosiveness could be administered to assess both scenarios to compare disclosiveness online and offline to address the possibility of differences between the two contexts.

This study addresses questions related to Facebook use by adolescents and their intimacy disclosure online. It suggests consideration of the intimacy construct in the era of computer-mediated communication. Society's continued exposure to mass media messages for the past century may have displaced people's understanding of intimacy, allowing for looser boundaries. Furthermore, although presence was not analyzed in this study, its use could have helped assess mediated communication behaviors by accounting for a factor that could have possibly influenced such behavior.

The qualitative findings of this study provide valuable insights into the practices and emerging norms in young people's Facebook culture. They could serve as a frame of reference for further investigation of the evolving dynamics of Facebook interactions among

young people. This study shows that adolescents feel confident about the safety of the information they publish on FB. They reject the notion that the information they publish on the site has the potential to be taken out of context and may affect their future prospects. They have adapted to FB's limitations (the friend-not friend dichotomy) and have taken advantage of the site's ability to facilitate interpersonal connections. The threats to their privacy are outweighed by the satisfaction they obtain from the services offered by the site.

Independent of a critique of Facebook's construction of friendship and the possibility of a shift in the understanding of intimacy, Facebook remains an important addition to this generation's daily lives. Why is Facebook important to adolescents today? According to this study's respondents, it is because Facebook facilitates relationship maintenance. In the era of digital technology, young people have devised a way of communicating what they want to their peers in a more manageable way. They make public announcements and through the medium, buffer their involvement in uncomfortable situations. In any case, they employ what they have been provided with to achieve their immediate goals, relational and otherwise.

Many fields of study have demonstrated an interest in discerning the future of online social networks. Marketers and advertisers have identified their potential for revenue, computer scientists are intrigued by the challenge they pose in programming, sociologists see an incomparable source of data, and gender and cultural studies' scholars are mesmerized at the revolutionary constructions of virtual space. The various perspectives that can be applied in the analysis of the future of virtual worlds illustrate the immense scope of the effects of this technology in society. Carey (2007) proposes that "by 2010, virtual world applications

should be mature" (p. 84). The findings of this study suggests a cultivation analysis to determine if a "stable base of social conventions" arises (p. 84).

Perhaps, FB has already taken the first steps toward more reliable online networks by addressing privacy concerns. However, Heer and boyd's (2005) Vizster, a tool to visualize networks for end users via "node-link depictions of social relations" could represent a move in the right direction for users to control their information more tightly (p. 1). The inclusion of network visualization and data control access features would result in functionality that enables the user to better control his/her online presentation to different audiences. On the other hand, there could be tools that proactively make recommendations for establishing and maintaining effective connections that result in increased social capital.

Granovetter (1973) argues that social networks are formed by ties that can be strong or weak. He relates the strength of a tie to a variety of factors, including "amount of time, the emotional intensity, the intimacy (mutual confiding), and the reciprocal services which characterize the tie" (p. 1361). The strength of weak ties, in this case, is derived from the SNS's capacity to act as a bridge that is "indispensable to individuals' opportunities and to their integration into communities" (p. 1378). The way in which the participants interact and express themselves through FB seems to corroborate this tenet. This is seen in the number of intimate expressions participants make through their profiles and, also, in their willingness to cope with the limitations of a system that does not reflect the way they deal with real life social networks.

Facebook users take an active role in adapting to the strengths and limitations of an SNS. This implies that future SNSs could better serve their clients by carefully assessing their needs. Ethnographic studies of stakeholders should be common practice in the design of technologies that are likely to affect the way people interact. Cyberanthropologist Hakken (1993) has pointed at the need to make design a participatory process (p. 117). Social network designers should be listening to the advice of users as they become more informed about the ways in which technology can serve them.

Limitations

The small sample sizes in each of the three methods applied in this study limit the generalizability of the results. Only 25 survey respondents were willing to permit monitoring online. A small sample size is particularly problematic for the quantitative analysis because of the potential for Type I and Type II errors, necessitating non-parametric tests. It is important to note that the statistical tests employed here tend to afford higher error than would be the case with a larger randomized sample.

All three methods also employed a convenience sample that are not representative even of the population of students in the College of Design. Also, Facebook users in this study may be already conditioned to accept the disruption of privacy as an inevitable product of their engagement in an SNS.

Because the students were aware that they are being studied, the results may have been prone to the Hawthorne effect instantiating affected conducts. The difficulty of collecting data on FB includes the limitation imposed by participants' communication with non-participants and the inability of the study to include those interactions in the analysis.

Furthermore, time is an important factor in gathering data from a social network such as Facebook. Facebook is a work in progress and has evolved even withn the duration of this study in ways that could have affected data collection. Also, the time of the year (summer break) chosen for fieldwork and data collection for the content analysis may have affected interaction because participants were away from their college peers and involved in activities that were different from what they do the rest of the year.

The limitations inherent to the observation and unobtrusive data gathering in online communities are parallel to those of ethnographic work in RL. These have been extensively discussed in the literature on anthropology by prominent figures of this field such as Clifford Geertz and Margaret Mead. The methodological limitations are linked to the specific pursuit of the discipline itself, and the argument has been made that human behavior is contextual and responds to an infinite number of factors that cannot ever be simulated or controlled. The specifics of online ethnographic work were originally documented by Escobar (1994) and, later, by Budka and Kremser (2004) in their work on the anthropology of cyberculture. Such limitations have also been discussed and dealt with on most cyberanthropological work such as Nakamura's (2002) study on race and gender online and Turkle's (year) research on children and computers. In an attempt to deal with these limitations, this study has employed a mixed-method approach to balance the goals of gaining an in-depth understanding of behavior as well as a quantified measure of the factors involved in the phenomenon under study.

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APPENDIX A: Focus Group Questions

1. Tell us about your internet use in general.

2. What gratifications do you derive from the internet in general and from Facebook in particular?

3. How would you describe your Facebook experiences and the experiences of other students you know?

4. Would you say that Facebook has had a profound influence in your life? What might this influence be?

5. Do you think you have established meaningful relationships with others through Facebook? How would you characterize these relationships?

6. Tell us about your Facebook profile. What do you tell others about yourself in that profile? Is there information in that profile you would consider intimate? What are these intimate information you reveal about yourself in your profile?

APPENDIX B: Identity Status EOMEIS-2 (Revision), Bennion & Adams (1986)

Response Scale: 1 = strongly agree, 2 = moderately agree, 3 = agree, 4 = disagree, 5 = moderately disagree, 6 = strongly disagree.

1. I haven't chosen the occupation I really want to get into, and I'm just working at what is available until something better comes along.
2. When it comes to religion I just haven't found anything that appeals and I don't really feel the need to look.
3. My ideas about men's and women's roles are identical to my parents'. What has worked for them will obviously work for me.
4. There's no single "life style" which appeals to me more than another.
5. There are a lot of different kinds of people. I'm still exploring the many possibilities to find the right kind of friends for me.
6. I sometimes join in recreational activities when asked, but I rarely try anything on my own.
7. I haven't really thought about a "dating style." I'm not too concerned whether I date or not.
8. Politics is something that I can never be too sure about because things change so fast. But I do think it's important to know what I can politically stand for and believe in.
9. I'm still trying to decide how capable I am as a person and what work will be right for me.
10. I don't give religion much thought and it doesn't bother me one way or the other.
11. There's so many ways to divide responsibilities in marriage, I'm trying to decide what will work for me.
12. I'm looking for an acceptable perspective for my own "life style", but haven't really found it yet.
13. There are many reasons for friendship, but I choose my close friends on the basis of certain values and similarities that I've personally decided on.
14. While I don't have one recreational activity I'm really committed to, I'm experiencing numerous leisure outlets to identify one I can truly enjoy.
15. Based on past experiences, I've chosen the type of dating relationship I want now.
16. I haven't really considered politics. It just doesn't excite me much.
17. I might have thought about a lot of different jobs, but there's never really been any question since my parents said what they wanted.
18. A person's faith is unique to each individual. I've considered and reconsidered it myself and know what I can believe.
19. I've never really seriously considered men's and women's roles in marriage. It just doesn't seem to concern me.
20. After considerable thought I've developed my own individual viewpoint of what is for me an ideal "life style" and don't believe anyone will be likely to change my perspective.
21. My parents know what's best for me in terms of how to choose my friends.
22. I've chosen one or more recreational activities to engage in regularly from lots of things and I'm satisfied with those choices.

23. I don't think about dating much. I just kind of take it as it comes.
24. I guess I'm pretty much like my folks when it comes to politics. I follow what they do in terms of voting and such.
25. I'm not really interested in finding the right job, any job will do. I just seem to flow with what is available.
26. I'm not sure what religion means to me. I'd like to make up my mind but I'm not done looking yet.
27. My ideas about men's and women's roles have come right for my parents and family. I haven't seen any need to look further.
28. My own views on a desirable life style were taught to me by my parents and I don't see any need to question what they taught me.
29. I don't have any real close friends, and I don't think I'm looking for one right now.
30. Sometimes I join in leisure activities, but I really don't see a need to look for a particular activity to do regularly.
31. I'm trying out different types of dating relationships. I just haven't decided what is best for me.
32. There are so many different political parties and ideals. I can't decide which to follow until I figure it all out.
33. It took me a while to figure it out, but now I really know what I want for a career.
34. Religion is confusing to me right now. I keep changing my views on what is right and wrong for me.
35. I've spent some time thinking about men's and women's roles in marriage and I've decided what will work best for me.
36. In finding an acceptable viewpoint to life itself, I find myself engaging in a lot of discussions with others and some self exploration.
37. I only pick friends my parent would approve of.
38. I've always liked doing the same recreational activities my parents do and haven't ever seriously considered anything else.
39. I only go out with the type of people my parents expect me to date.
40. I've thought my political beliefs through and realize I can agree with some and not other aspects of what my parents believe.
41. My parents decided a long time ago what I should go into for employment and I'm following through their plans.
42. I've gone through a period of serious questions about faith and can now say I understand what I believe in as an individual.
43. I've been thinking about the roles that husbands and wives play a lot these days, and I'm trying to make a final decision.
44. My parents' views on life are good enough for me, I don't need anything else.
45. I've had many different friendships and now I have a clear idea of what I look for in a friend.
46. After trying a lot of different recreational activities I've found one or more I really enjoy doing by myself or with friends.
47. My preferences about dating are still in the process of developing. I haven't fully decided yet.

48. I'm not sure about my political beliefs, but I'm trying to figure out what I can truly believe in.
49. It took me a long time to decide but now I know for sure what direction to move in for a career.
50. I attend the same church as my family has always attended. I've never really questioned why.
51. There are many ways that married couples can divide up family responsibilities. I've thought about lots of ways, and not I know exactly how I want it to happen for me.
52. I guess I just kind of enjoy life in general, and I don't see myself living by any particular viewpoint to life.
53. I don't have any close friends. I just like to hang around with the crowd.
54. I've been experiencing a variety of recreational activities in hope of finding one or more I can really enjoy for some time to come.
55. I've dated different types of people and know exactly what my own "unwritten rules" for dating are and who I will date.
56. I really have never been involved in politics enough to have made a firm stand one way or the other.
57. I just can't decide what to do for an occupation. There are so many possibilities.
58. I've never really questioned my religion. If it's right for my parents it must be right for me.
59. Opinions on men's and women's roles seem so varied that I don't think much about it.
60. After a lot of self-examination I have established a very definite view on what my own life style will be.
61. I really don't know what kind of friend is best for me. I'm trying to figure out exactly what friendship means to me.
62. All of my recreational preferences I got from my parents and I haven't really tried anything else.
63. I date only people my parents would approve of.
64. My folks have always had their own political and moral beliefs about issues like abortion and mercy killing and I've always gone along accepting what they have.

APPENDIX C: General Disclosiveness Scale, Adapted from Wheeless (1978)

Instructions for use:

Please mark the following statements to reflect how *you* communicate with other people in general in the real world (face-to-face interactions). Indicate the degree to which the following statements reflect how you communicate with people by marking whether you (7) strongly agree; (6) agree; (5) moderately agree; (4) are undecided; (3) moderately disagree; (2) disagree; (1) strongly disagree. Record the number of your response in the space provided. Work quickly; just record your first impressions.

Intent
1. When I wish, my self-disclosures are always accurate reflections of who I really am.
2. When I express my personal feelings, I am always aware of what I am doing and saying.
3. When I reveal my feelings about myself, I consciously intend to do so.
4. When I am self-disclosing, I am consciously aware of what I am revealing.

Amount
5. I do not often talk about myself.
6. My statements of my feelings are usually brief.
7. I usually talk about myself for fairly long periods at a time.
8. My conversation lasts the least time when I am discussing myself.
9. I often talk about myself.
10. I often discuss my feelings about myself.
11. Only infrequently do I express my personal beliefs and opinions.

Positiveness
12. I usually disclose positive things about myself.
13. On the whole, my disclosures about myself are more negative than positive.
14. I normally reveal "bad" feelings I have about myself.
15. I normally express my "good" feelings about myself.
16. I often reveal more undesirable things about myself than desirable things.
17. I usually disclose negative things about myself.
18. On the whole, my disclosures about myself are more positive than negative.

Depth
19. I intimately disclose who I really am, openly and fully in my conversation.
20. Once I get started, my self-disclosures last a long time.
21. I often disclose intimate, personal things about myself without hesitation.
22. I feel that I sometimes do not control my self-disclosure of personal or intimate things I tell about myself.
23. Once I get started, I intimately and fully reveal myself in my self-disclosures.

Honesty/Accuracy

24. I cannot reveal myself when I want to because I do not know myself thoroughly enough.
25. I am often not confident that my expressions of my own feelings, emotions, and experiences are true reflections of myself.
26. I always feel completely sincere when I reveal my own feelings and experiences.
27. My self-disclosures are completely accurate reflections of who I really am.
28. I am not always honest in my self-disclosure.
29. My statements about my own feelings, emotions, and experiences are always accurate self-perceptions.
30. I am always honest in my self-disclosures.
31. I do not always feel completely sincere when I reveal my own feelings, emotion, behaviors or experiences.

APPENDIX D: Intimacy Ratings

Please rate the following items in a scale from 0-5 where 0 is not intimate at all and five is extremely intimate.

1. Favorite pastimes/hobbies

2. Self-pride

3. Anger management

4. Feelings and attitudes about death

5. Self-discontent - personality

6. Self-discontent - physical

7. Frustrations

8. Sexual behaviors

9. Guilt

10. Emotional aspects of self

11. Dislikes about others

APPENDIX E: Codebooks

Coding Sheet A: Changes in Fields

Number	Variable name	Variable label	Values and coding instructions	Capture1-Value (Enter words as string)	Length1 (Number of Words)	Capture2-Change (Enter 1=Yes, 2=No)	Capture2-Value (Enter words as string)	Length2 (Number of Words)	Capture3-Change (Enter 1=Yes, 2=No)	Capture3-Value (Enter words as string)	Length3 (Number of Words)	Capture4-Change (Enter 1=Yes, 2=No)	Capture4-Value (Enter words as string)	Length4 (Number of Words)
1	id	Id number of the profile	Numeric value 1-50											
2	Basic2	Birthday	String											
3	Basic4	Relationship Status	1=Single, 2=In a relationship, 3=Engaged, 4=Married, 5=It's complicated, 6=In											
4	Basic6	Looking for	1=Friendship, 2=Dating, 3=A Relationship, 4=Networking.											
5	Basic7	Political Views	String											
6	Basic8	Religious Views	String											
7	Update	Status Update	String											
8	Personal7	Favorite Quotes	String											
9	Personal8	About Me:	String											
10	EduWork1	College/University	String											
11	EduWork3	Concentration	String											
12	EduWork4	Second Concentration	String											
13	EduWork5	Third Concentration	String											
14	EduWork6	Degree	String											

Number	Variable name	Variable label	Values and coding instructions	Capture5-Change (Enter 1=Yes, 2=No)	Capture5-Value (Enter words as string)	Length5 (Number of Words)	Capture6-Change (Enter 1=Yes, 2=No)	Capture6-Value (Enter words as string)	Length6 (Number of Words)	Capture7-Change (Enter 1=Yes, 2=No)	Capture7-Value (Enter words as string)	Length7 (Number of Words)	Capture8-Change (Enter 1=Yes, 2=No)	Capture8-Value (Enter words as string)	Length8 (Number of Words)
1	id	Id number of the profile	Numeric value 1-50												
2	Basic2	Birthday	String												
3	Basic4	Relationship Status	1=Single, 2=In a relationship, 3=Engaged, 4=Married, 5=It's complicated, 6=In an open relationship.												
4	Basic6	Looking for	1=Friendship, 2=Dating, 3=A Relationship, 4=Networking.												
5	Basic7	Political Views	String												
6	Basic8	Religious Views	String												
7	Update	Status Update	String												
8	Personal7	Favorite Quotes	String												
9	Personal8	About Me:	String												
10	EduWork1	College/University	String												
11	EduWork3	Concentration	String												
12	EduWork4	Second Concentration	String												
13	EduWork5	Third Concentration	String												
14	EduWork6	Degree	String												

Coding Sheet B: Intimacy Topics

Variable name	Variable label	Values and coding instructions	Capture1-Intimacy	Capture1-IntimacyValue	Length1-Intimacy	Capture1-NumMentions	Capture2-Intimacy	Capture2-IntimacyValue	Length2-Intimacy	Capture2-NumMentions	Capture3-Intimacy	Capture3-IntimacyValue	Length3-Intimacy	Capture3-NumMentions	Capture4-Intimacy	Capture4-IntimacyValue	Length4-Intimacy	Capture4-NumMentions
		Indicate if instances of the intimacy topics mentioned below are present in the following fields : Status Update, Activities, Interests, About Me, and the Wall	0= absent 1= present	(Enter words as string)	(Number of Words)	Number of mentions	0= absent 1= present	(Enter words as string)	(Number of Words)	Number of mentions	0= absent 1= present	(Enter words as string)	(Number of Words)	Number of mentions	0= absent 1= present	(Enter words as string)	(Number of Words)	Number of mentions
death	Feelings and attitudes about death	Feelings and attitudes about death																
sexbeh	Sexual behaviors	Sexual behavior or thoughts																
selfemo	Emotional aspects of self	Negative or positive references to anger, sadness, disgust, surprise, joy, or fear																

Variable name	Variable label	Values and coding instructions	Capture5-Intimacy	Capture5-IntimacyValue	Length5-Intimacy	Capture5-NumMentions	Capture6-Intimacy	Capture6-IntimacyValue	Length6-Intimacy	Capture6-NumMentions	Capture7-Intimacy	Capture7-IntimacyValue	Length7-Intimacy	Capture7-NumMentions	Capture8-Intimacy	Capture8-IntimacyValue	Length8-Intimacy	Capture8-NumMentions
			0= absent 1= present	(Enter words as string)	(Number of Words)	Number of mentions	0= absent 1= present	(Enter words as string)	(Number of Words)	Number of mentions	0= absent 1= present	(Enter words as string)	(Number of Words)	Number of mentions	0= absent 1= present	(Enter words as string)	(Number of Words)	Number of mentions
death	Feelings and attitudes about death	Feelings and attitudes about death																
sexbeh	Sexual behaviors	Sexual behavior or thoughts																
selfemo	Emotional aspects of self	Negative or positive references to anger, sadness, disgust, surprise, joy, or fear																

APPENDIX F: Personal Communication with Dr. Gerald Adams Re: EOMEIS-2 Identity Status Scale Coding and Calculation

From the desk of...
zjordan@iastate.edu

From: Gerald Adams <gadams@uoguelph.ca>
Thu, 5 Feb 2009 19:45:48 -0500 (EST)
Re: Coding OMEIS II - 64 Items

```
Hi
GE means Greater or Equal to and LT means Less Than
Gerald
----- Original Message -----
From: zjordan@iastate.edu
To: GAdams@uoguelph.ca
Sent: Thu, 5 Feb 2009 09:31:11 -0500 (EST)
Subject: Coding OMEIS II - 64 Items

Dear Dr. Adams,

I wrote to you some time ago about my interest in using your survey to measure
identity status among Facebook users.  I have been able to gather data but am
now confronting some difficulty with the coding.  In your manual you have a list
of commands for SPSS but I cannot translate them to my own data analysis package
(JMP).  Could you please help me understand?

SPSS Scoring Commands for 64 Item Version:

I can understand this part.

RECODE EOM1 to EOM64 (6=1) (5=2) (4=3) (3=4) (2=5) (1=6)
COMPUTE IdDIF=EOM1 + EOM2 + EOM4 + EOM10 + EOM16 + EOM25 + EOM52 + EOM56
COMPUTE IdFOR=EOM17 + EOM24 + EOM28 + EOM41 + EOM44 + EOM50 + EOM58 + EOM64
COMPUTE IdMOR=EOM9 + EOM12 + EOM26 + EOM32 + EOM34 + EOM36 + EOM48 + EOM57
COMPUTE IdACH=EOM8 + EOM18 + EOM20 + EOM33 + EOM40 + EOM42 + EOM49 + EOM60
COMPUTE InDIF=EOM6 + EOM7 + EOM19 + EOM23 + EOM29 + EOM30 + EOM53 + EOM59
COMPUTE InFOR=EOM3 + EOM21 + EOM27 + EOM37 + EOM38 + EOM39 + EOM62 + EOM63
COMPUTE InMOR=EOM5 + EOM11 + EOM14 + EOM31 + EOM43 + EOM47 + EOM54 + EOM61
COMPUTE InACH=EOM13 + EOM15 + EOM22 + EOM35 + EOM45 + EOM46 + EOM51 + EOM55
VARIABLE LABELS
IdDIF 'Ideological Diffusion'
IdFOR 'Ideological Foreclosure'
IdMOR 'Ideological Moratorium'
IdACH 'Ideological Achievement'
InDIF 'Interpersonal Diffusion'
InFOR 'Interpersonal Foreclosure'
InMOR 'Interpersonal Moratorium'
InACH 'Interpersonal Achievement'

This is the section I am not sure of.  I think if I knew what GE and LT stand
for, I could pull it off but I've tried looking around for translations of these
spss commands to no avail.

IF (IDDIF GE 28 AND IDFOR LT 26 AND IDMOR LT 33 AND IDACH LT 38) IDISC = 1
IF (IDDIF LT 28 AND IDFOR GE 26 AND IDMOR LT 33 AND IDACH LT 38) IDISC = 2
IF (IDDIF LT 28 AND IDFOR LT 26 AND IDMOR GE 33 AND IDACH LT 38) IDISC = 3
IF (IDDIF LT 28 AND IDFOR LT 26 AND IDMOR LT 33 AND IDACH GE 38) IDISC = 4
IF (IDDIF GE 28 AND IDFOR GE 26 AND IDMOR LT 33 AND IDACH LT 38) IDISC = 5
```

APPENDIX G: Distribution Graphics and Descriptive Statistics
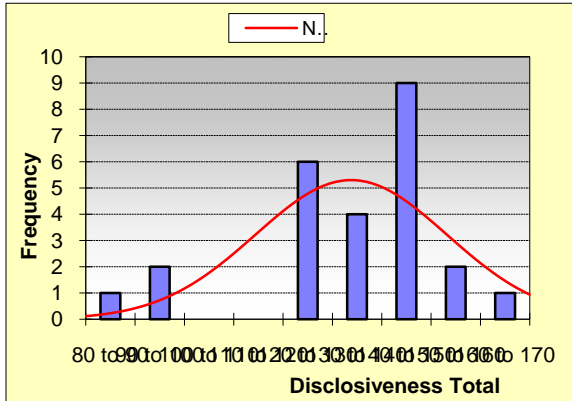
Figure G-1: Normal Distribution and Descriptive Statistics for Face-to-face Disclosiveness.
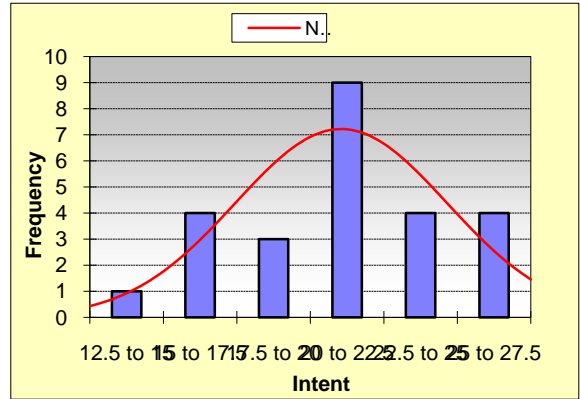
Figure G-2: Normal Distribution and Descriptive Statistics for Disclosiveness Component Intent
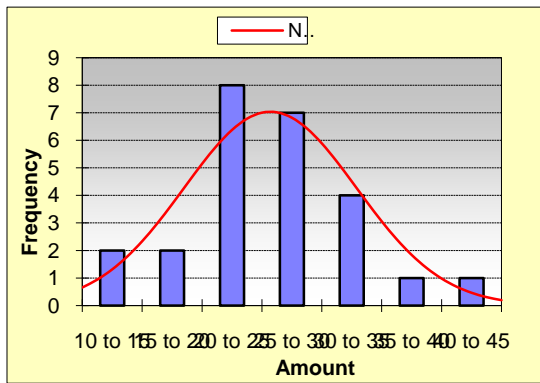
Figure G-3: Normal Distribution and Descriptive Statistics for Disclosiveness Component Amount.
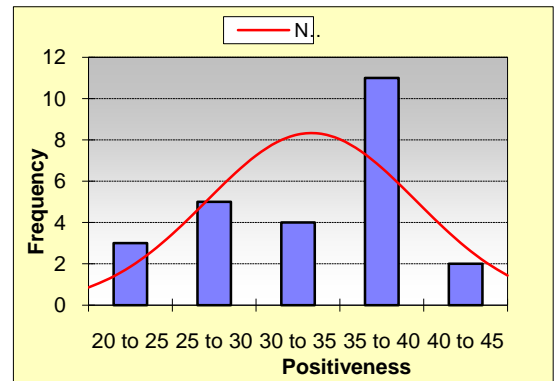
Figure G-4: Normal Distribution and Descriptive Statistics for Disclosiveness Component Positiveness.
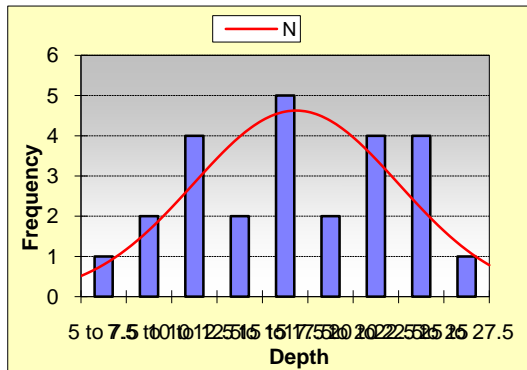
Figure G-5: Normal Distribution and Descriptive Statistics for Disclosiveness Component Depth.
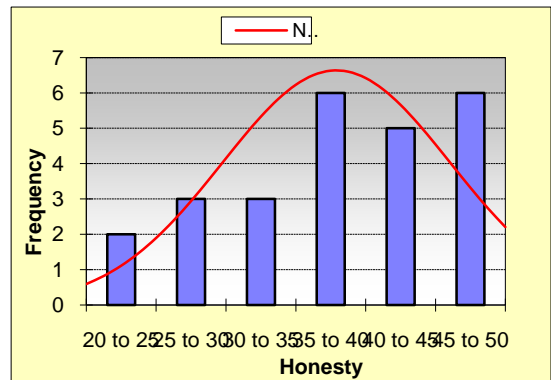
Figure G-6: Normal Distribution and Descriptive Statistics for Disclosiveness Component Honesty/Accuracy.
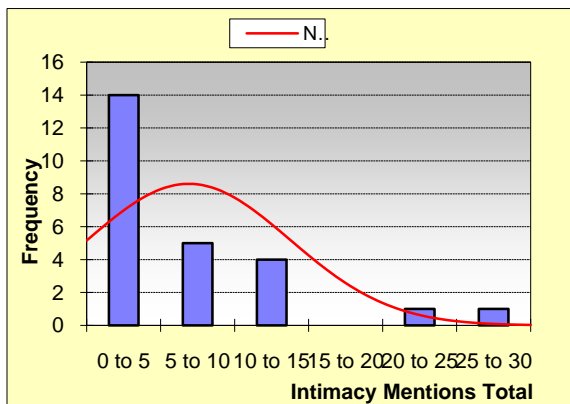
Figure G-7: Non-normal Distribution and Descriptive Statistics for Facebook Intimacy Topic Mentions
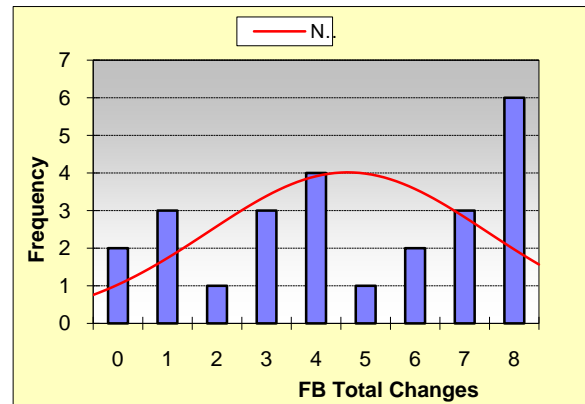
Figure G-8: NonDistribution Changes Throughout Time

APPENDIX H: Factor Analyses Results

Identity Scale Factor Analysis			
Factor	**Eigenvalue**	**% of Variance**	**Cumulative % of Variance**
1	10.812	16.894	16.894
2	5.990	9.360	26.253
3	5.771	9.018	35.271
4	4.464	6.976	42.247
5	3.351	5.236	47.483
6	2.969	4.639	52.122
7	2.749	4.296	56.418
8	2.588	4.044	60.462
9	2.305	3.601	64.063
10	2.027	3.168	67.231
11	1.953	3.052	70.283
12	1.796	2.807	73.090
13	1.583	2.473	75.563
14	1.488	2.324	77.887
15	1.345	2.101	79.988
16	1.266	1.978	81.966
17	1.172	1.832	83.798
18	1.010	1.578	85.376
19	.885	1.383	86.759
20	.865	1.351	88.110
21	.762	1.191	89.301
22	.707	1.105	90.407
23	.664	1.038	91.444
24	.609	.952	92.396
25	.582	.909	93.305
26	.560	.875	94.181
27	.468	.732	94.913
28	.431	.674	95.586
29	.393	.613	96.200
30	.339	.530	96.729
31	.330	.515	97.245
32	.250	.391	97.636
33	.231	.360	97.996
34	.204	.318	98.314
35	.187	.292	98.606
36	.163	.255	98.861
37	.142	.222	99.083

Identity Scale Factor Analysis			
Factor	**Eigenvalue**	**% of Variance**	**Cumulative % of Variance**
38	.137	.214	99.297
39	.112	.175	99.472
40	.082	.128	99.600
41	.079	.123	99.724
42	.058	.091	99.815
43	.050	.079	99.893
44	.043	.067	99.961
45	.025	.039	100.000
46	1.236E-15	1.932E-15	100.000
47	8.609E-16	1.345E-15	100.000
48	6.497E-16	1.015E-15	100.000
49	6.205E-16	9.695E-16	100.000
50	4.147E-16	6.480E-16	100.000
51	3.743E-16	5.849E-16	100.000
52	2.142E-16	3.346E-16	100.000
53	1.684E-16	2.631E-16	100.000
54	4.293E-18	6.708E-18	100.000
55	-3.985E-17	-6.226E-17	100.000
56	-7.388E-17	-1.154E-16	100.000
57	-2.770E-16	-4.328E-16	100.000
58	-3.136E-16	-4.900E-16	100.000
59	-3.908E-16	-6.106E-16	100.000
60	-5.281E-16	-8.252E-16	100.000
61	-6.793E-16	-1.061E-15	100.000
62	-8.268E-16	-1.292E-15	100.000
63	-9.255E-16	-1.446E-15	100.000
64	-1.098E-15	-1.716E-15	100.000

Disclosiveness Scale Factor Analysis: Eigenvalues			
Factor	Eigenvalue	% of Variance	Cumulative % of Variance
1	*8.182*	26.392	26.392
2	5.205	16.789	43.181
3	3.438	11.090	54.271
4	2.039	6.579	60.850
5	1.441	4.649	65.499
6	1.236	3.986	69.485
7	1.179	3.804	73.289
8	.933	3.009	76.298
9	.913	2.946	79.244
10	.810	2.612	81.857
11	.707	2.281	84.138
12	.652	2.103	86.240
13	.561	1.811	88.052
14	.541	1.746	89.798
15	.480	1.549	91.347
16	.412	1.328	92.674
17	.400	1.289	93.963
18	.339	1.094	95.057
19	.282	.909	95.966
20	.237	.763	96.729
21	.199	.642	97.372
22	.173	.559	97.931
23	.135	.436	98.367
24	.121	.392	98.759
25	.108	.348	99.107
26	.087	.279	99.386
27	.058	.188	99.574
28	.052	.168	99.742
29	.040	.129	99.871
30	.022	.073	99.944
31	.018	.056	100.000

Intimacy Scale Factor Analysis: Eigenvalues			
Factor	**Eigenvalues**	**% of Variance**	**Cumulative % of Variance**
1	3.273	29.759	29.759
2	1.693	15.388	45.146
3	1.401	12.738	57.884
4	1.108	10.074	67.958
5	.918	8.345	76.302
6	.768	6.979	83.281
7	.634	5.763	89.044
8	.421	3.830	92.874
9	.369	3.352	96.226
10	.263	2.394	98.620
11	.152	1.380	100.000

Identity Scale Factor Analysis: Factor Loadings															
	Component														
	1	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	**13**	**14**	**15**
	.262	-.219	.456	-.040	.268	-.013	.154	-.236	-.276	.052	.168	-.003	.123	.392	-.018
	-.062	-.326	.095	.469	.387	.258	-.137	.275	-.008	-.048	.040	.269	-.298	-.057	-.193
	.145	.405	.268	.125	-.004	.432	.105	-.189	-.186	-.083	.149	.035	.296	.267	-.163
	.058	-.455	.340	-.170	-.181	.128	.046	.302	-.147	.018	-.372	-.046	-.233	.175	-.113
	.287	-.243	.311	.240	.165	.125	-.001	.335	.002	.351	-.028	.147	.140	.037	-.203
	.049	-.067	.470	-.365	.181	.307	-.003	.072	.357	.268	-.009	.200	.059	.121	-.088
	.051	.043	.423	.324	-.297	.310	.059	-.284	.376	-.081	-.139	-.052	.047	-.056	.028
	-.025	-.016	-.161	.497	-.043	-.456	.360	-.180	.048	.077	-.340	-.012	.090	.210	-.075
	.108	.251	.362	.025	.328	.287	.119	-.059	-.095	.339	-.085	.035	.272	.220	-.088
0	.007	.113	.387	.332	.353	.499	-.086	.361	.176	-.125	.138	.054	.041	.057	.115
1	.002	.121	.672	-.016	-.022	.141	.305	-.123	-.038	-.130	.262	.014	.043	-.179	.012

	Identity Scale Factor Analysis: Factor Loadings Continued														
	Component														
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
2	133	-.314	554	353	184	.234	123	.059	-.007	169	338	.023	-.075	.100	-.073
3	031	415	023	274	140	.170	437	264	060	.024	271	.139	306	023	-.075
4	079	-.175	497	122	-.274	.051	233	-.327	-.005	050	-.134	401	226	.034	-.012
5	.142	.049	.045	093	481	.442	331	.018	.182	108	.374	256	.015	.170	-.013
6	163	.282	364	.554	145	.037	296	205	100	.061	050	.246	.178	.140	.022
7	021	151	449	050	477	240	.166	.016	122	.020	.028	.038	.057	170	098
8	031	087	.244	.070	.178	166	160	188	276	448	033	168	230	.160	.197
9	114	159	299	070	.367	.124	.462	355	117	118	.173	.114	347	014	-.235
0	.018	140	.445	253	.067	027	084	439	.080	.033	-.175	.289	282	212	259
1	007	428	043	.165	423	.187	.266	.101	.044	205	.125	.185	320	.421	002
2	101	175	.250	460	.191	342	.005	075	.214	359	084	198	.250	063	.025
3	176	.077	126	489	.291	260	099	.229	098	.220	.271	.186	.068	.133	261
4	.010	585	236	.100	245	279	.290	.123	.044	.044	.025	.088	.032	170	169
5	125	183	465	164	033	.062	.243	005	324	416	.001	.219	.037	.024	228
6	023	.571	315	204	134	.091	.266	303	.207	.130	.137	.052	209	.096	059
7	.100	708	288	043	091	301	188	161	175	.075	057	.121	.094	.080	231
8	.047	581	454	.012	120	.177	157	240	051	.104	.124	.287	.049	.029	063
9	.082	045	298	100	062	.424	.065	189	405	.302	.035	162	064	.095	204
0	-.121	.054	-.095	.517	075	082	.180	.045	539	.168	.108	184	080	.075	-.298
1	303	373	077	368	.053	.144	.328	.146	269	023	324	.049	052	028	167
2	051	.402	057	.307	.175	.161	158	507	106	267	348	.043	.022	183	143
3	.023	346	.302	244	.160	157	321	324	131	.149	080	488	193	086	176
4	038	.170	275	451	047	.368	.181	290	260	.273	155	054	243	104	.156
5	.231	.201	.176	.457	449	120	119	082	.039	.271	180	205	017	039	177
6	000	073	.513	269	208	.189	029	.097	.006	329	295	227	.072	.097	.268

Identity Scale Factor Analysis: Factor Loadings Continued

	Component														
	1	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	**13**	**14**	**15**
7	.213	-.579	.178	.139	-.090	.095	-.159	.122	.431	-.272	.028	.205	.130	-.228	-.062
8	.132	-.516	.298	-.036	.131	.153	.235	-.017	.257	.224	-.195	-.088	-.151	.275	.259
9	.300	-.598	.121	.364	-.123	.065	-.115	.230	.311	.090	-.013	.217	-.034	.059	.176
0	.003	-.020	-.244	.096	.272	.049	.645	.259	.060	.066	.199	.218	.017	.311	.039
1	.518	.213	.024	.090	.300	-.295	.126	.326	.278	-.186	.026	.165	.280	.081	-.108
2	.562	.079	-.503	.416	.033	.057	.098	.015	.154	.008	-.006	.165	.182	.074	.020
3	.688	.223	.126	-.154	.042	.085	.290	.287	.092	.034	.125	.080	.087	.122	.106
4	.546	.357	.133	-.034	.206	.119	.029	.171	.072	-.413	.081	-.115	.078	.198	-.217
5	.742	-.032	-.425	.042	.183	.205	.107	.042	.075	.041	.062	-.204	.038	.067	-.103
6	.635	.084	-.470	.306	.233	.148	.029	.002	.034	.077	.137	.082	-.008	.054	.019
7	.723	.022	.095	.312	-.173	.203	.008	.134	.052	.024	.163	.029	-.107	.249	.025
8	.645	.515	.034	-.083	-.092	.011	.004	.018	.018	.002	.188	.041	.180	.022	.127
9	.715	.104	-.315	.125	.060	.118	.239	.236	.190	.198	-.077	.053	.172	.033	.184
0	.636	.210	.219	-.268	-.454	.081	.047	.108	-.151	-.101	.060	.113	.072	.073	.019
1	.818	.097	.016	.187	.288	.112	.145	.027	.023	.033	.111	-.093	.022	.111	.072
2	.728	.164	.093	.120	.004	.134	.276	.008	.077	.021	-.292	.076	.158	.074	.039
3	.641	.003	.216	.028	.090	.149	.095	.015	.039	.106	.356	.036	.288	.190	.008
4	.790	.017	.056	.202	.001	.334	.008	.167	.178	.013	.157	.121	.063	.025	.147
5	.536	.032	-.263	.221	.389	.037	.246	.063	-.007	.058	.235	.011	.228	.010	.105
6	.662	.431	.164	.393	.084	.006	.164	.098	.015	.025	.224	.151	-.030	.020	-.014
7	.546	.386	.010	.345	.205	.070	.245	.045	.079	.216	.016	.197	.021	.124	.165
8	.589	.325	.202	.299	.187	.039	.000	.128	.254	.030	.072	.167	.117	.202	.154
9	.667	.169	.102	.120	.352	.019	.029	.246	.032	.112	.009	.042	.110	.103	.235
0	.630	.143	.474	.077	.284	.217	.065	.077	.069	.070	.048	.160	.028	.088	.076
1	.687	.051	.188	.175	-.132	.351	.230	.007	.092	.003	.188	.063	-.034	.093	.039

Identity Scale Factor Analysis: Factor Loadings Continued

	Component
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
2	.641	.043	-.227	.075	-.208	.194	-.156	.136	-.234	.024	.024	.295	.025	.228	.068
3	.533	.531	.003	-.325	-.051	.010	.069	.073	.346	.098	-.057	.183	-.039	-.176	.039
4	.599	.511	.084	-.091	-.188	.132	-.094	.035	-.040	-.085	-.059	.011	.057	.085	-.257

Disclosiveness Scale Factor Analysis: Factor Loadings

	Component
	1	2	3	4	5	6	7
INTENT1	.496	.158	.407	.085	.127	-.407	.386
INTENT2	.582	-.044	.358	.020	.260	-.136	.364
INTENT3	.462	-.437	.329	.136	-.303	.197	.262
INTENT4	.639	-.307	.313	-.002	-.138	.219	-.022
AMOUNT1	.135	.710	-.262	-.234	.054	-.238	.052
AMOUNT2	.090	.719	-.338	-.109	-.252	-.112	.098
AMOUNT3	.235	.498	.374	-.195	-.353	-.102	.140
AMOUNT4	.155	.588	-.186	-.148	-.062	.288	.399
AMOUNT5	.436	.679	-.162	-.153	.123	-.029	-.022
AMOUNT6	.111	.695	-.241	.021	-.019	-.177	.017
AMOUNT7	-.209	.527	-.418	.030	.207	.404	-.207
POSIT1	.578	.202	.004	.443	-.352	-.021	-.241
POSIT2	.598	.032	-.463	.483	-.055	.036	-.119
POSIT3	.438	-.106	-.603	.371	.110	.032	.272
POSIT4	.714	.213	.010	.475	.076	.174	-.059
POSIT5	.486	-.374	-.371	-.102	.340	-.084	.133
POSIT6	.679	-.333	-.421	.027	.302	.032	.031
POSIT7	.737	.066	-.070	.384	-.232	-.102	-.097
DEPTH1	.462	.604	.024	-.020	.206	.074	-.047
DEPTH2	.296	.751	-.049	-.093	-.112	.309	.140
DEPTH3	.154	.544	.583	-.086	.244	.087	-.221
DEPTH4	-.216	.429	.523	.183	.420	-.200	-.239
DEPTH5	.152	.318	.667	.403	.132	.141	-.102
HONEST1	.608	-.261	-.358	-.190	.153	-.128	-.232
HONEST2	.682	-.065	-.134	.018	.073	-.412	-.174

Disclosiveness Scale Factor Analysis: Factor Loadings Continued

	Component						
	1	**2**	**3**	**4**	**5**	**6**	**7**
HONEST3	.648	-.062	.119	-.152	-.345	-.012	-.152
HONEST4	.814	-.099	.331	-.103	-.077	-.126	-.048
HONEST5	.607	-.101	.006	-.537	-.104	-.016	-.042
HONEST6	.531	-.230	.294	-.029	.334	.362	.218
HONEST7	.638	-.164	.074	-.449	.027	.199	-.343
HONEST8	.787	-.125	-.021	-.371	.039	.115	-.044

Intimacy Scale Factor Analysis: Factor Loadings

	Component			
	1	**2**	**3**	**4**
Favorite passtimes/hobbies	.171	.687	.504	.237
Self-pride	.499	.100	.499	-.410
Anger management	.598	.048	.325	-.374
Feelings and attitudes about death	.527	-.413	.164	-.350
Self-discontent - personality	.630	.346	-.512	-.133
Self-discontent - physical	.610	.097	-.644	-.252
Frustrations	.663	.316	.016	.072
Sexual behaviors	.483	-.580	-.111	.270
Guilt	.546	-.496	.169	.367
Emotional aspects of self	.631	-.190	.176	.337
Dislikes about others	.472	.436	-.128	.463