A COMPARISON OF THE DEFINING CHARACTERISTICS,
CONSTITUTIVE SPEECH EVENTS, AND RELATIONAL PROVISIONS
OF ONLINE AND OFFLINE FRIENDSHIPS

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ABSTRACT

Previous research on friendships has generally failed to account for the opportunities for friendship sustenance offered by new communication technologies such as computer-mediated communication. This is reflected in the lack of an empirically-derived conceptualization of online friendship. This study sought to compensate for this deficiency by formulating empirically-derived conceptualizations of online friendship based on both defining characteristics and constitutive speech events. These conceptualizations were then compared to offline friendships to determine whether or not the primary medium used to sustain a friendship affected the way it was defined. In addition, the contributions of these two types of friendships to socioemotional well-being were compared on the basis of the relational provisions met by each. This was accomplished through the administration of a questionnaire to 139 undergraduate students. General findings indicated that friendships were sustained when the primary mode of interaction was computer-mediated communication. Furthermore, both types of friendship were found to constitute similar conceptualizations of friendship and meet similar provisions. Offline friendships, however, were generally rated higher in these areas.
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CHAPTER 1

INTRODUCTION

Researchers universally acknowledge that friendships are an essential part of human existence. Friendship, however, remains one of the most under-studied human relationships. Specifically, friendship researchers have been slow to address the opportunities for sustaining friendships that are presented by new communication technologies such as computer-mediated communication. Despite increased attention recently, empirical studies of friendships that are sustained primarily through computer-mediated means (hereafter, online friendships) continue to comprise a comparatively small portion of the body of research on human relationships. Without an extensive research base on which to build, scholars interested in the study of online friendships have only minimal guidance in determining how future research should proceed. In order to begin building this base, the formation of an empirically supported conceptualization of online friendships would be beneficial.

Although a more complete understanding of friendship, specifically online friendship, is important, a more complete understanding of why friendships are important to human existence is of equal, if not greater, importance. One explanation for this importance posits that humans develop and sustain friendships because they meet certain
provisions that are essential to socioemotional well-being (Weiss, 1974). Among the provisions identified by Weiss (1974) and Carbery and Buhrmester (1998) are companionship, reassurance of worth, intimate disclosure, a sense of reliable alliance, guidance instrumental assistance, nurturance, emotional support, and affection. According to Weiss (1974), different relationships meet different provisions and the ideal life structure is one that includes a variety of relationships that, as a whole, adequately meet all the relational provisions. To date, several studies have examined the provisions met by different relationships (Carbery & Buhrmester, 1998; Furman & Buhrmester, 1985; Mendelson & Aboud, 1999). None, however, have considered the relationships that have been made possible by new communication technologies such as computer-mediated communication (CMC). Since these researchers have identified that these provisions are essential to socioemotional well-being, a full understanding of how online friendships could provide an alternate means for meeting these provisions would be beneficial.

Although a conceptualization of friendships sustained primarily through computer-mediated communication and the provisions these friendships meet would be useful. However, a more complete understanding of online friendships can be attained if these friendships are compared to friendships sustained primarily through more traditional media (face-to-face, telephone—hereafter, offline friendships). Weiss (1974) asserted that specific provisions were primarily met by specific relationships and a variety of relationships is necessary to meet all provisions. As a result of this view, the aforementioned studies sought to compare the provisions met by friendships to the provisions met by other relationships within a person’s social network. Given that these
relationships were found to meet different provisions, the possibility arises that friendships sustained through different media could provide different provisions. Comparing the provisions met by online friendships and offline friendships will aid in determining whether the media used to sustain friendships affects the provisions those friendships meet.

In order to adequately make this comparison several areas must be addressed. The general view of communication and relationships adopted in this study is first outlined. Next, evidence is provided that illustrates the existence of online friendships. This begins with a brief discussion of the origins of CMC. Following the origins is a discussion of early studies and theorizing on CMC that suggests CMC should be impersonal. These studies elucidate certain aspects of CMC that are critical to the discussion of online friendships.

These early studies are proceeded by evidence of emotional reactions to CMC that are inconsistent with early theories that CMC is inherently impersonal. This contradiction necessitates the discussion of several theories that reconcile these two conflicting positions. These theories provide the theoretical basis necessary to support the assertion that online friendships can exist. Once this theoretical basis is established, research illustrating the actual observed presence of friendships online is examined.

Since this evidence of friendships online is based on a vague, general conception of friendship, the discussion of specific ways of defining friendship is necessary. Two different methods of defining friendship are discussed. First, a more traditional method based on defining characteristics of friendship is employed. This is accomplished using a list of characteristics drawn from several different studies of friendship. The second
method involves a communication-centered approach in which the speech events that constitute friendship are examined. Using these definitions, online friendships can be compared to offline friendships to determine if both types of friendships constitute the same definition of “friendship.” For this study, best friendships are examined. Best friendships were chosen because it was logical to believe they were most likely to be representative of the defining characteristics. Following this discussion, the relational provisions met by friendships are examined.

To summarize, this examination has several purposes. First, it seeks to provide empirical evidence in support of the assertion that friendships can be sustained using primarily computer-mediated means. Second, it attempts to form a more complete conceptualization of “online friendship” using constitutive speech events, as well as traditional characterizations of friendship. Third, it compares online friendships and offline friendships to determine if friendships are the same regardless of the primary medium used to sustain them. Finally, the relational provisions met by online friendships are compared with those met by offline friendships.
CHAPTER 2

REVIEW OF LITERATURE AND RATIONALE

The Role of Communication in Relationships

Before proceeding further, the general view of communication and relationships that is adopted in this examination should first be discussed. As Delia (1987) outlines in his history of communication research, studies examining human interaction have emerged from numerous fields. Communication research did not begin as a singular, unified field of study. Rather, it had its beginnings in fields such as sociology, psychology, anthropology, and studies of persuasion theory. As a result, many differing views of communication have emerged.

The present examination adopts a meaning-centered, social approach to communication. This approach is reflected in the work of numerous authors including Blumer (1969), Duck (1995), Gergen (1990), Grice, (1975), Hymes (1972), Pearce (1976), and Philipsen (1992) among others. Although these researchers do differ in their exact approaches, all of them view communication as an inherently social accomplishment that centers on the creation of meaning between people. The idea that communication involves the creation and coordination of meaning represents one of the central principles of this approach. Furthermore, meaning does not arise within the individual. Rather, as Blumer (1969) states, meaning arises out of social interaction.
However, this interaction does not occur in a vacuum. Therefore, the creation and coordination of meaning is also situated within some particular social context. This approach has been adopted by numerous researchers and was applied directly to a relational context by Duck (1995). Duck states that the existence of a relationship can only be acknowledged in terms of the shared meanings created between partners. Gergen (1990) also adopts this approach and discusses meaning as “intersubjective,” or socially situated, rather than being “subjective,” or situated within the individual.

This social negotiation of meaning results in a sense of mutual understanding between people. This is reflected in Garfinkel’s (1967) statement that the result of communication is a sense of understanding. Sustaining a sense of mutual understanding is dependent upon the effective use of various communicative strategies and adherence to various implicit norms for communication. From this view, the focus of communication research becomes a focus on the factors that contribute to mutual understanding as people continually negotiate and construct meaning within various relationships. Communication arises between people and the resulting creation of meaning is dependent on the continual management of a sense of mutual understanding.

Several processes and factors contribute to the sustenance of mutual understanding. Grice (1975), Gergen (1990), and others have stated that mutual understanding is facilitated by people’s use of common interpretive processes. These processes include socially-recognized conversational processes such as turn-taking (Sacks, Schegloff, & Jefferson, 1974), and more abstract, cognitive activities such as perspective-taking (Blumer, 1969). Dimmick et al. (2000) identify several specific processes that various researchers have identified as important to creating senses of
understanding. They state that “coordinating attention, codifying meaning, and utilizing cooperative practices are key processes in creating senses of understanding in communication (e.g., Clark, 1996; Duck, 1994; O’Keefe & Delia, 1988; Taylor, 1992)” (Dimmick et al., 2000). In addition, mutual understanding is affected by the cultural context in which communication occurs. Hymes (1972) and Philipsen (1992) discuss the implicit norms people use to guide their interpretive processes during conversations in different cultural contexts. A sense of mutual understanding is further sustained in the joint enactment of mutually recognized communicative episodes by people according to these implicit norms.

The general view supported by these researchers is one in which communication is inherently social and cannot be divorced from the context in which it occurs. The goal of communication is the sustenance of a sense of mutual understanding that results as meaning is negotiated between people. The importance of mutual understanding is illustrated in the study of the numerous factors people use to facilitate it. Numerous researchers have emphasized the importance of mutual understanding. These researchers have examined the contribution of socially-recognized norms, cooperation, and culture to this sense. The present study examines the potential effects different media may have on mutual understanding as people negotiate and construct meanings through different communication media. Relationships are the result of the creation of meaning and the sustenance of mutual understanding between people. Therefore, the potential effects of different media on mutual understanding and the creation of meaning are reflected in the differences in relationships sustained primarily through these different media.
A Brief History of Computer-Mediated Communication

In order to understand the position that people can use CMC to sustain interpersonal relationships, some knowledge of the history of CMC is required. Several conditions led some researchers to assume that CMC messages should be impersonal. Therefore, the possibility that interpersonal messages could be exchanged through CMC was questioned. As a result, an examination of friendships sustained primarily through CMC should begin with evidence that messages exchanged through CMC are not necessarily impersonal. Once it has been established that interpersonal information can be exchanged through CMC, attention can be turned on the actual relationships that are sustained through CMC.

The first major computer network was created by the Advanced Research Projects Agency (ARPA) for the purpose of resource sharing (Quarterman, 1993). ARPA believed that linking the computers of its sponsored agencies into a network would be more cost effective than buying new large computers for each agency. The result, ARPANET, was launched in 1969 as a way for researchers to share resources across geographic distances by allowing them to access data stored on other computers. Shortly after the implementation of ARPANET, users began using the network to send messages to one another about the status of their various research projects. This led to the creation of electronic mail and thus the creation of computer-mediated communication. In 1983, a common protocol was created that allowed for the linking of various dissimilar networks into large networks of networks known as Internets. This culminated in the global interconnection that is commonly known today as simply the Internet. For the purposes
of this study a deeper examination of the technological factors involved in the creation of the Internet is unnecessary. However, this type of examination is available in Quartermann (1993).

The False Dichotomy

Even though CMC was used to exchange personal messages, these messages were generally considered to be task-oriented and the potential of CMC for the exchange of purely interpersonal messages was only minimally recognized. Gumpert and Cathcart (1986) state that no medium is intrinsically mass. Some media, however, lend themselves to a mass classification by their nature. Since CMC was a mediated form of communication, its interactive elements were undermined and it was generally considered a mass communication technology. This view is not particularly surprising when the history of CMC is considered. As previously mentioned, the infrastructure for the global Internet was not in place until 1983, and most private households did not immediately adopt CMC and integrate it into their lives. Consequently, most early studies of CMC were conducted in an organizational context in which e-mail and other forms of CMC were instituted for organizational, task-oriented purposes. In this context, the exchange of personal messages was not initially the primary goal of CMC.

Under these conditions, it is not unreasonable to expect that early studies on CMC would be operating under the expectation of impersonal findings. This expectation was further influenced by the nature of research in the field of communication. In his examination of the history of communication research, Delia (1987) highlights several points relevant to the present study. According to Delia (1987), communication research emerged from numerous different fields and did not begin to coalesce into a single field
until the 1940s. This coalescence occurred in the form of a general focus in communication research on the media of mass communication. Conversely, studies of interpersonal interaction were conducted primarily in other areas such as sociology and anthropology. As a result of this influence from mass media scholars such as Lazarsfeld and Schramm, Delia (1987) observes that effectively a “wedge” was driven between studies of interpersonal communication and mass communication (p. 72). This separation was further perpetuated by the movement of communication research into journalism schools and speech departments that were already founded on this separation.

These differing origins of mass communication and interpersonal communication resulted in the two areas being studied from very different angles. As a result, the two were rarely examined simultaneously. This began to change by the early 1980s when several researchers began attempts at overcoming this “false dichotomy” and bridging the division of mass communication and interpersonal communication. Cathcart and Gumpert (1986) argued that mediated interpersonal communication should be considered a form of communication that was related to, but distinct from, both mass and interpersonal communication. They defined interpersonal communication as “a dyadic interaction which takes the form of exchanges between two or more individuals consciously aware of each other, usually interacting in the same time and space, performing interchangeable sender-receiver roles” (p.29). Conversely, interpersonal mediated communication is defined as “any person to person interaction where a medium has been interposed to transcend the limitations of time and space” (Cathcart & Gumpert, 1986, p.30).
The situational division of the field and the organizational origins of CMC are becoming less of an influence on research in the present. Although many communication departments in academic institutions remain divided by traditional situational demarcations, researchers have recognized the artificiality of this division and conducted research that blurs traditional lines. Furthermore, as the Internet has continued to expand into people's personal lives and relationships, researchers have also begun to recognize its potential as an interpersonal medium. Studies reflective of these positions will be discussed later, but the influence of the early divisions must not be undermined. The early history of CMC research was influenced to some degree by these conditions.

The Impersonal Medium

The origins of CMC and the nature of research on communication have led some researchers to apply various theories to CMC in such a way that the assertion that CMC should be impersonal is supported. These theories include Social Presence theory, information richness theory, and the lack of social context cues hypothesis. Although the present examination views CMC as capable of transmitting the interpersonal messages necessary for friendship sustenance, several features of these theories are important to this study. Explanations for the findings in these studies center primarily on the paucity of channels available for transmission of social information in computer mediated contexts. Reduction of the number of channels available for social information transmission results in an apparent lack of relational and nonverbal cues available in CMC. This lack of cues allows for only a marginal amount of social information to be transmitted in or around messages exchanged by computer compared to messages
exchanged during face-to-face interaction. This apparent deficiency of social cues forms the foundation for a number of different theories used to explain impersonal effects in CMC.

Social Presence theory (Short, Williams, & Christie, 1976) originated in the realm of telecommunications research, and was never applied directly to CMC by its original authors. However, other researchers have applied the principles of Social Presence theory, which have been empirically tested for other media, to CMC. These principles suggest that CMC should be perceived as less personal than media such as face-to-face interaction and video. The basis for Social Presence theory is the concept of social presence. Short et al. (1976) define Social Presence as the degree of salience of the other person in an interaction offered by a given medium. In order to test Social Presence theory, Short et al. (1976) conducted a series of tests on various media to determine their Social Presence. The four scales they used to measure Social Presence included unsociable-sociable, insensitive-sensitive, impersonal-personal, and cold-warm (Short et al., 1976). Non-verbal vocal cues, facial expressions, posture, direction of looking, dress, and other factors were found to contribute to Social Presence (Short et al., 1976). These studies revealed that participants judged messages delivered through media such as a single audio channel as lower on the scales measuring Social Presence than media offering more cues such as face-to-face interaction. Therefore, the reduced number of cues in CMC should cause it to be rated low in Social Presence. Since media rated low in Social Presence are judged as impersonal, unsociable, and cold, the presence of intensely emotional personal relationships sustained through CMC would seem unlikely.
Central to social presence theory is the concept of bandwidth. Raymond (1993) defines bandwidth as "the volume of information per unit time that a computer, person, or transmission medium can handle." Media that use multiple channels have a wider bandwidth because they allow the transfer of different information through various channels simultaneously. Communication through face-to-face interaction has a wide bandwidth because interpersonal messages can be exchanged by participants through not only speech, but also through various nonverbal channels. This allows for considerable message exchange in a short period of time. Conversely, communication in computer-mediated interactions must occur exclusively through a single, textual channel. Therefore, it has a much narrower bandwidth.

Rice and Love (1987) observed that the general conclusion in the early research on CMC was that as bandwidth narrows, media allow less social presence. Furthermore, communication through media that are low in social presence is likely to be described as less personal, friendly, or emotional, and more task-oriented (Rice & Love, 1987). This is consistent with Hiemstra's (1982) observation that as bandwidth narrows perceptions of friendliness and personalness decrease while perceptions of task-orientation, terseness, and impersonalness increase. It follows, then, that computer-mediated communication should be characterized by less friendly, more impersonal messages due to its comparatively narrow bandwidth.

Information richness theory (Daft & Lengel, 1984, 1986) was developed to aid managers in choosing appropriate media for organizational tasks. According to Daft and Lengel (1984), communication media vary in the richness of information they process. They define richness as the "potential information-carrying capacity of the data" in a
given medium (Daft & Lengel, 1984, p.196). The richness of a medium is determined by the degree to which the information it carries creates understanding between the participants. The potential for creating understanding is tied to a medium’s feedback capability (synchronous features), communication channels utilized, source, and language. Media that rate higher in these areas are considered richer and are better suited for tasks that are complex and require a consensus to be reached about “difficult, unanalyzable, emotional, and conflict-laden issues” (Daft & Lengel, 1984, p.222). Lean media are considered more efficient for unequivocal tasks.

Given this framework, Daft and Lengel (1984, 1986) created a hierarchy of media based on the information richness of those media. In this hierarchy, face-to-face communication was rated the highest due to its synchronicity and the number of channels it offered for the conveyance of cues. As a result, face-to-face interaction was considered to be the most prevalent among managers because organizations often change quickly and many of a manager’s responsibilities pertain to the “social, emotional and poorly understood aspects of the organization” (Daft & Lengel, 1984, p. 201). Numeric computer output was rated as the least rich media and was considered efficient only for tasks in which managers needed to convey simple, objective data.

This theory has several implications for CMC research. Although CMC was not evaluated in the original study, most of its forms would fit into the hierarchy between telephone, which was rated as “high”, and written memos and personal letters, which were rated as “moderate.” This positioning was determined based on the asynchronous nature of most CMC forms and the reduced number of cues it offers as a single, textual medium. Based on these attributes, CMC should be less suited than face-to-face
interaction for the exchange of equivocal, emotional information. Friendships and other personal relationships require a high degree of understanding between partners and often involve complex, equivocal relational tasks. Therefore, information richness theory would seem to suggest that CMC is less suitable for complex or ambiguous relational communication activities than face-to-face interaction. According to information richness theory, however, CMC remains suitable for simple relational tasks that do not involve consensus or a high degree of equivocality.

Among the early studies that directly examine CMC is the research of Sproull and Kiesler (1986) that led to the social context cues hypothesis. This hypothesis is based on the context cues that generally help define a communication interaction. Social context cues include the nonverbal behaviors of the participants in an interaction as well as aspects of the environment in which the interaction is occurring (Walther, 1993). In situations in which less social context information is available, communicators are not forced to consciously attend to factors such as proxemic behaviors, gestures, physical appearance and other nonverbals. These items are instrumental in defining communication interactions offering larger amounts of context information. As a result, communicators in situations that are low in social context information are thought to become more self-absorbed and less other-oriented. This in turn results in more impersonal behavior.

Sproull and Kiesler (1986) found that social context cues were relatively weak in electronic mail (e-mail). In addition, they found that people focused more on themselves than others in message salutations and closings, and behaved irresponsibly more often in e-mail than they did in face-to-face conversations. However, they also described the
organization under study as a “well-established electronic community” and found that people in this organization used e-mail for nonwork communication during the workday. Furthermore, within this organizational context Sproull and Kiesler (1986) suggested that the uninhibited behavior they witnessed could allow for the flow of more new ideas through the organization. In other words, the uninhibited behavior that is generally considered negative could actually have positive consequences for the organization.

The work of Sproull and Kiesler (1986) represents the only one of these three theories that was originally formulated based on CMC research. However, the general findings of both Social Presence theory (Short et al., 1976) and information richness theory (Daft & Lengel, 1984) can be easily applied to CMC. The features of computer-mediated communication as a medium necessarily limit the number of cues that are available. Daft and Lengel (1984) state that the information transmitted through a medium with a reduced number of cues available that is asynchronous will be less rich than the information transmitted through a synchronous medium with more cues available. Furthermore, Short et al. (1976) found that media that allowed fewer cues were rated as more impersonal and unsociable. Within this framework, the assumption that messages in an asynchronous medium that uses a single textual channel would be impersonal is not unreasonable. It should also be noted that these theories apply primarily to asynchronous, textual forms of CMC. Newer forms of CMC that involve synchronous communication and the addition of cues such as live video and voice should be judged as more personal. In addition, as previously mentioned, these theories were developed during a time when CMC usage was limited to primarily organizational
contexts. It had yet to gain wide usage as a personal communication medium and was not being applied in interpersonal relationship contexts. More recent, direct studies of CMC have challenged the assumption that it should be impersonal in several ways.

**Emotional Responses to CMC**

Perhaps the most compelling challenge to the assertion that CMC is impersonal can be seen in the emotional responses of CMC users to interactions that occurred in computer-mediated contexts. Rheingold (1993) describes his CMC experience as "intensely emotional" (p. 57) and says events that occur online can have concrete effects on users "in real life" (IRL). This emotional response is often most evident in accounts of negative events occurring online. For example, McRae (1997) recounts a gender-switching incident that induced real emotional anger and led the deceived participant to avoid trusting anyone online for several weeks.

In another incident, Dibbell (1994) discusses a now infamous case of "virtual rape" that occurred on LambdaMOO, one of the largest multi-user dimensions (MUDs) on the Internet. In the incident, a user representing himself as a character known as Mr. Bungle used his knowledge of programming to force several characters to perform lewd acts. In these occurrences, other users saw descriptions on their own screens of their characters performing actions over which they had no control. Although the users whose characters were violated suffered no physical injury, emotional injury was present. One of the victims describes how "posttraumatic tears were streaming down her face" (p. 242) in real life as she called for Mr. Bungle's discipline during an online meeting on
LambdaMOO (Dibbell, 1994). As a result of the incident, Dibbell (1994) concluded that “what happens inside a MUD made world is neither exactly real nor exactly make-believe, but profoundly, compellingly, and emotionally meaningful” (p. 244).

Positive instances indicative of strong emotional attachment originating online also exist. Reid (1995) presents an example of a couple who originally met on a MUD, then later were married “in real life” (IRL). Ullman (1996) describes a similar instance in which she fell in love with someone she worked with IRL after they began exchanging frequent e-mail messages. Focusing more on friendship rather than romance, one of the participants in Wilkins’ (1991) study said, “I know some of these people better than some of my oldest and best friends” (p. 56).

These observations directly contradict the early theories that suggest CMC messages should be judged as impersonal. However, they lack the theoretical basis necessary to validate their challenge. Two separate theories have been developed that reconcile past findings of impersonality and recent interpersonal discoveries by examining not only the medium, but its users as well. These theories are the social information processing perspective (Walther et al., 1994) and the social identification deindividuation model (Lea & Spears, 1995). These theories explain how the factors thought to make CMC impersonal can actually facilitate the formation of friendships and other personal relationships in CMC. Although this study is concerned with CMC as a medium for the sustenance of friendships, the tenets of these theories are critical to the understanding of the communication that occurs between two people by computer.
Bridging the Interpersonal/Impersonal Divide

The social information processing perspective asserts that communicators using any medium experience similar needs for uncertainty reduction and affinity. In order to meet those needs CMC users will adapt their linguistic and textual behaviors to the solicitation and presentation of socially revealing, relational behavior (Walther et al. 1994). Unlike other studies of interpersonal effects in CMC, this perspective acknowledges the validity of the criticisms of cues-filtered out theorists that CMC limits the number of cues available. However, CMC users still accomplish uncertainty reduction through the use of various textual behaviors. These types of behaviors that characterize the unique language of CMC include textual descriptions of physical actions, use of abbreviations, and the use of symbols and graphic representations (Werry, 1996).

In this framework, it is recognized that the textual nature of CMC allows less information to be transmitted per message than in the multichannel medium of face-to-face interaction. This leads CMC users to form simple initial impressions based on the available textual information (Walther, 1996). In early laboratory studies, interactions were observed only at this initial stage. Since less information is available in the limited number of textual messages exchanged, the result is the appearance that interpersonal relationship development is impossible because of the lack of cues. The social information processing perspective predicts normal interpersonal relationship development, only at a retarded rate. The implication, then, is that CMC users will form less developed initial impressions of others, but can reach levels of interpersonal development similar to those in F2F interaction given adequate time. Supporters of reduced cues approaches fail to recognize that linguistically-borne cues are highly
capable of conveying personality and attitude characteristics (Walther, 1993). In CMC, these linguistic cues are the only cues available. As a result, relationship development is possible, but delayed.

In a study designed to test this hypothesis, Walther (1993) found that subjects assigned to FtF groups formed more developed initial interpersonal impressions than subjects assigned to CMC groups. Measuring these impressions in both groups at later times revealed that impression development in CMC follows a generally linear trajectory. This results in a level of development similar to that of subjects in the FtF groups after adequate time for development has passed (Walther, 1993).

Besides the time factor, Walther also found that impersonal effects in CMC could also be attributed to the lack of anticipation of future interaction (1994). Research on unmediated communication has revealed that anticipation of future interaction prompts communicators to seek more information about one another, to act more friendly, and to cooperate in negotiations—in essence to enact more relationally positive communication (Kellermann & Reynolds, 1990 as cited in Walther, 1996). In a study of CMC groups and FtF groups, this was found to be the case, with CMC groups found to be more susceptible to the effects of future interaction anticipation (Walther, 1994). Once these effects were accounted for, little difference remained between the groups in terms of similarity, composure, and receptivity of group members.

Using a social information processing perspective, Walther attributes the impersonal effects found in early studies to inadequate time allocated for relationship development to occur in CMC, the "one-shot" nature of these experiments leading participants to experience no anticipation of future interaction, and the study of CMC in
groups assigned to resolve some particular, impersonal task. This conclusion not only accounts for the evidence supporting the claims that CMC is inherently impersonal, but it allows for the possibility that interpersonal relationships can form online and reach development levels similar to those of offline relationships given adequate time for participants to interact. This view has since been explored by several scholars in the form of longitudinal studies of online groups with a previous established history (Baym, 1995; Parks & Floyd, 1996; Parks & Roberts, 1998; Rice & Love, 1987). Walther’s studies are significant in the context of the present study because they examined relationships in CMC over an extended period of time. These relationships continued to develop over time, showing evidence that CMC can not only provide a suitable medium for relationship formation, but also a suitable medium for some degree of relationship sustenance. Although the study of CMC for relationship sustenance was not Walther’s primary purpose, the continuing development of these relationships over time, rather than their disintegration after a period of time, does provide evidence that CMC can sustain interpersonal relationships.

The second alternate theory is based on the social identification, deindividuation (SIDE) model of mediated communication (Lea & Spears, 1995; Postmes, Spears, & Lea, 1998; Spears & Lea, 1994). This model is built upon self-categorization theory and has its basis in the belief that the self is not a fixed unitary entity associated with the individual. Rather, the self comprises a range of categories including both personal identities (those identifying an individual as unique) and social identities that define an individual by group membership. These different identities are made more or less salient depending on the social context and therefore influence the individual to act according to
the norms and standards associated with the salient identities (Lea & Spears, 1995). With respect to CMC, personal identities are less evident due to the isolation and anonymity of the participants. As a result, CMC users rely heavily on their social self-categorizations and therefore are often identified by others in terms of their online group memberships.

Using the SIDE model, it is possible to see how the factors identified by early critics of CMC as barriers to interpersonal relationship development can actually facilitate interpersonal relationship development. In the absence of individual self-categorizations, initial impressions formed in CMC are likely to be in terms of social categories. This leads to high intragroup attraction because the self and other are seen as stereotypically identical as group membership becomes highly salient in the absence of personal information to differentiate group members (Lea & Spears, 1995). This translates into a high degree of attraction, as liking the self becomes equal to liking the other. Therefore, interpersonal relationships are established based on perceived social similarity of the self and the other. When this initial social attraction is combined with the opportunity created by the isolation and anonymity of CMC for strategic manipulation of individual descriptions following the initial attraction, it is not unreasonable to postulate that strong interpersonal bonds may form online. Furthermore, in the absence of information that contradicts these impressions, attraction should continue and the relationships that were initially formed due to perceived similarity are likely to be sustained.

Taking these theories one step further, Walther combined aspects of the SIDE model with the social information processing perspective and identified instances in which CMC has surpassed the level of emotion and affection present in parallel FtF
interaction. These instances, termed “hyperpersonal” communication (Walther, 1996), follow principles of the SIDE model in that they occur as a result of the factors thought to create impersonal effects in CMC. These factors affect the receiver, the sender, and the feedback in the interaction to result in hyperpersonal communication. The phenomenon of hyperpersonal communication illustrates that not only can CMC support the interpersonal exchanges necessary for relationship development and sustenance, in some cases it can facilitate interactions more personal than parallel FtF interactions. This further increases the probability of relationship development.

Effects on the receiver are directly drawn from the principles of the SIDE model and can be generally termed as idealized perception. In the absence of FtF cues and prior personal knowledge about the other person, subtle social context cues are attributed great weight (Walther, 1996). As Lea and Spears (1995) observed, these social cues often lead to the perception of similarity and therefore heightened attraction. This is consistent with implicit personality theory because using the limited cues available in CMC, improper generalizations are made about other unknown parts of the other person’s personality (Kolko & Reid, 1998). Therefore, the perceived similarity resulting from social cues indicating similar group membership is extended to assume similarity in other unknown areas.

Effects concerning the sender can be generally characterized as optimized self-presentation (Walther, 1996). Goffman (1959) describes self-presentation in any setting as a performance designed to achieve a particular impression. These performances accentuate some characteristics, while concealing others to achieve a socially favorable impression. In CMC, users are offered a greater degree of control over self-presentation
due to the reduction of cues discussed previously. All information regarding self-presentation in CMC must be transmitted through a single textual channel. This allows users to withhold or alter information about physical appearance, gender, race, and other cues not evident through written text. As a result, CMC users can present themselves in ways that make them more attractive to others.

Although the general tendency is to focus on the negative deception issues raised by opportunities CMC allows for altered self-presentation, this facet of CMC has several positive implications for relationship development also. Watson (1997) notes that all individuals present themselves strategically IRL and CMC could erase the immediate distrust sometimes caused by skin color and other physical markers. This allows CMC users to increase the diversity of their circle of friends (Rheingold, 1993, p. 66) and create “otherwise unlikely relationships” (Baym, 1995, p. 151).

Further effects leading to the presence of hyperpersonal interaction in CMC are present in the intensification loop created by feedback in CMC (Walther, 1996). These effects are a result of behavioral confirmation. Idealized perception and optimized self-presentation lead to more positive initial impressions. These, in turn, affect the communication between the participants. The heightened initial attraction leads participants to interact with one another as if they were more attractive, which then leads them to respond to one another as if the other were more attractive. The result is a feedback loop that operates in such a way that initial impressions are perceived as being confirmed thus leading to even stronger positive impressions (Walther, 1996). This leads to communication interactions that surpass parallel F2F interactions in terms of intimacy.
and depth. In the continued absence of other cues, this intensification loop will continue and the relationships initially formed as a result of certain features of CMC will continue to be sustained as a result of these same features.

**The Interpersonal Medium**

The SIDE model and the social information processing perspective are critical to the study of friendships in CMC for several reasons. They provide a theoretical base for the assertion that friendships can form and be sustained through CMC. This theoretical base is strengthened by the fact that both theories account for past research findings and illustrate how the characteristics these findings identified can not only allow, but in some cases enable the formation and continuance of relationships online. With this theoretical base establishing that friendships can form and be sustained online, attention should now be turned on evidence that friendships have formed and are currently being sustained online. This evidence appears in several forms, including examinations of online groups.

Before discussing these studies, one important difference must be discussed between them and the present study. Most of these studies focus on friendships that were initially formed online. The present study is concerned with the primary medium used to sustain friendships, rather than the medium used in initial friendship formation. Despite this difference in the medium used for friendship formation, however, previous studies are consistent with the present study in that all focus on CMC as the primary medium for friendship sustenance once the friendship has been established.
Multi-User Dimensions

Among studies showing the strongest interpersonal connections created and sustained through computer-mediated communication are those examining MUDs and MOOs. Although MUDs, MOOs, MUCKs, and MUSHs, among others, all differ in subtle ways, for the purposes of this examination they will all be referred to as MUDs. Before examining the presence of interpersonal content and relationships in MUDs, a brief explanation is necessary. A MUD is a text-based virtual environment that allows for synchronous discussion between geographically dispersed participants (Parks & Roberts, 1998). Participants in MUDs can “travel” throughout various virtual places by using textual commands to move their character. When entering any new area, the participant will see a textual description on his or her screen describing the new area and any other participants currently in that area. Using a variety of commands, the users can enter textual descriptions of many physical actions that will be displayed to other participants. They can also use textual commands to simulate speaking to a single other character, all characters in that area, or all users currently logged on to that particular MUD.

Many MUDs are organized as competitive role-playing games, a result of their origin as virtual, networked games of Dungeons and Dragons. This ancestry is still reflected in the name Multi-User Dungeon that has been retained by some MUD administrators in favor of the revised term Multi-User Dimension. In this virtual world, users create a unique character description that will determine how they are viewed by other participants. These descriptions can be accurate descriptions of the participants, idealized descriptions, and even descriptions of non-human creatures. In contrast to the
competitive environment of many MUDs are the socially oriented MOOs. MOOs operate in the same way as MUDs, but are generally created and maintained specifically for the purpose of social interaction. Although not pertinent for this study, a full explanation of the commands used in MUDs and MOOs is available in a variety of sources including Curtis (1997).

Several authors have examined the interpersonal relationships formed in MUDs. In a survey of 235 MOO users, Parks and Roberts (1998) found that 93.6% of the survey respondents had formed ongoing personal relationships on MOOs, with the most common types of relationships being friendships, close friendships, and romances. These relationships were found to have reached moderate to high levels of development based on seven dimensions. These include interdependence, depth, breadth, commitment, understanding and predictability, personalized communication (code change), and convergence of participants’ social networks (Parks & Roberts, 1998).

Participants rated their online relationships above the theoretical midpoint of the measurement scales for all dimensions except convergence of offline social networks (Parks & Roberts, 1998). In addition, a second survey had respondents compare their online and offline relationships in terms of these same dimensions. This survey found that offline relationships were rated higher in terms of interdependence, predictability/understanding, commitment, and offline social network convergence. Online relationships were not rated significantly different, however, in terms of breadth, depth, and personalized communication (Parks & Roberts, 1998).
The Parks and Roberts (1998) study is significant for several reasons. First, it provides empirical support for the claim that friendships do form and are sustained through CMC. Although this evidence is important, the study goes one step further by making direct comparisons to respondents’ offline relationships. If offline social network convergence is excluded from the examination on the grounds that it is unjustly biased toward offline relationships, the two types of friendships were not rated as significantly different on three of the six dimensions that were examined. This provides evidence that friendships not only exist online, but are similar to friendships formed offline. The three dimensions that showed significant differences were still rated above the scale midpoints for the online friendships, providing evidence that friendships do exist. Furthermore, offline friendships frequently differ from one another across some dimensions, so the differences could be attributed to factors other than the medium.

The Parks and Roberts (1998) study is also significant because it examined the possibility that online relationships may not be exclusively conducted online. Parks and Roberts (1998) found that 66.8% of the respondents had spoken with those they met online by telephone, and 37.7% had met face-to-face later. This is similar to the present study, in that online relationships were not constrained to only online contexts, but were also complemented by other media. Parks and Roberts (1998), however, were concerned with relationship development online. They did not measure whether or not CMC remained the primary mode of interaction once a relationship migrated to other contexts, and even reported that several of the respondents to the survey had met online and later married offline. Therefore, the Parks and Roberts (1998) study introduces the possibility of relationships sustained in multiple media. However, it does not explore the differences
that could be present between those that continue to be sustained primarily through CMC and those that are sustained primarily through other media. Whereas the Parks and Roberts (1998) study examined relationships based on the medium used for their formation regardless of the primary medium used to sustain the relationship at the time of the survey, the present study examined friendships based on the primary medium used to sustain them currently regardless of the medium used in their formation. Given that relationships are constantly changing, the present study is believed to adopt a more accurate view of online friendship.

Reid (1995) provides further evidence of MUD friendships and further insight into their characteristics. She attributes the worth of MUD friendships to their relative safety compared to offline relationships. The anonymity and isolation discussed by Lea and Spears (1995) not only leads to greater attraction, they also give CMC users a feeling of security. As a result, some people become extremely dependent on CMC relationships. Reid (1995) states that MUDs “mediate between the imaginings of the users and their realizations in a way that others can experience” (p. 182). According to Reid, this allows for a type of intimacy to occur in MUDs that does not occur offline. As evidence of the depth of interpersonal relationships in MUDs, Reid (1995) recounts a case of a couple meeting on a MUD and later getting married offline.

In another examination of MUDs, Turkle (1997) conducted interviews with users and found further evidence of friendships online. One particular subject had numerous health problems and was unable to maintain a full social life. He identified his roommate as his only offline friend. On MUDs, however, he was able to form several friendships and even engage in an online courtship with one of the female users. This example not
only provides further evidence for the existence of online friendships, but it also supports the claims that CMC allows for the sustenance of relationships that would not be possible offline. Through his use of MUDs, this reclusive user was able to form a circle of friends and experience “the only romance and intimacy he has ever known” (Turkle, 1997, p. 148).

*Newsgroups and Bulletin Boards*

Other studies have examined relationship formation and sustenance in newsgroups and on bulletin board systems. A bulletin board system is an asynchronous form of CMC that allows users to post messages that can be read by other users at their convenience. Bulletin boards are formed around a basic topic or area of interest and cover topics ranging from celebrities to complex medical information. As messages on bulletin boards are replied to by other users, “threads” begin to develop in which users reply to one another in a fashion that resembles an asynchronous conversation. Through the messages and exchanges that occur, users begin to gain a sense of the opinions and thoughts of other users. Since bulletin boards tend to be organized by topic, users are joined by at least one common interest. Through the postings, other similarities are discovered which can lead to the exchange of personal information. These general factors are the basis for many relationships that occur on bulletin boards.

Parks and Floyd (1996) explicitly sought to examine personal relationships in newsgroups and to compare these to offline relationships. The specific goal of this study was to map the prevalence of personal relationships online, as well as the levels of
development for these relationships, the demographics of the participants, and the link to offline settings. They found that 60.7% of their survey respondents were currently engaged in a personal relationship with someone that they had initially met online.

This study used the same dimensions and scales utilized by Parks and Roberts (1998) to measure development. Although scores for this study were generally lower than those reported for the study of MUDs, they still fell for the most part at or above the theoretical midpoints of the scales. The dimension of depth rated the highest of all dimensions, while only code change and network convergence returned averages below the theoretical midpoints. Using these dimensions, Parks and Floyd (1996) concluded that 40% of the respondents had no online personal relationships while 30% had formed a less developed relationship and 30% had formed what might be considered a highly developed personal relationship online (Parks and Floyd, 1996).

As with the Parks and Roberts (1996) study, the Parks and Floyd (1996) study also examined the possibility of online relationships migrating to other settings. In this study, 35.3% of the respondents had later contacted their online friend using the telephone, and 33.3% had met their online friends face-to-face. This provides further evidence of relationships sustained using CMC as well as other means, however it does not examine the effect of the primary mode of interaction on these relationships.

In an earlier study, Rice and Love (1987) examined six weeks worth of transcripts from a bulletin board for people in the medical field. Their purpose was to measure the amount of socioemotional content exchanged on the board as opposed to task-dimensional content. Socioemotional content is defined as interactions that show solidarity, tension relief, agreement, antagonism, tension, and disagreement, while task-
dimensional content is defined as interactions that ask for or give information or opinion (Rice & Love, 1987). They found that nearly 30% of the total message content was socioemotional.

Although Rice and Love’s (1987) study does not specifically examine personal relationships, their findings are significant in that they show the capability of CMC as a means for transmission for socioemotional messages, a traditionally “interpersonal” function. This is even more significant because it occurred during a time when CMC was still new and much of the research being conducted was arguing that CMC was inherently impersonal. Further evidence of the use of CMC for interpersonal purposes was found by Stafford, Kline, and Dimmick (1999) in a study of the reasons people use home e-mail. They found that the main reason people reported using e-mail in their homes was for sustaining interpersonal relationships.

Recently, Dimmick, Kline, and Stafford (2000) conducted a study that compared the sociability gratifications and gratification opportunities met by e-mail and the telephone. Although this study did not explicitly examine relationships, several findings are significant for the present examination. Dimmick et al. (2000) found that e-mail was rated as superior to the telephone on several items that focused on the use of e-mail to maintain contact between geographically separated people. Furthermore, they found that e-mail also exhibited superiority on items related to the asynchronous nature of e-mail. E-mail was rated as superior for items centered on the convenience of being able to respond at any time, and to stay in touch with those in different time zones. They concluded that participants in the study could use e-mail to stay in touch with friends and
family from which they were geographically separated. Although this is not a direct measure of relationship sustenance, these results do suggest that e-mail is used as at least one medium for sustaining friendships.

Although the Stafford et al. (1999) study and the Dimmick et al. (2000) study begin with the established relationship and illustrate that CMC can be used to sustain relationships, the majority of the research on CMC has focused on relationship formation. This study seeks to bridge this gap by examining the primary medium of sustenance, rather than the medium used for formation. Since most theorists acknowledge that relationships are perpetually changing, this view is believed to provide a more accurate view of friendships in progress than a view based solely on the medium used in formation of the relationship. These previous studies show evidence that, in accordance with theory, friendships are established and sustained through CMC. In addition, they show the first comparisons of online friendships and their offline counterparts. These comparisons suggest that both types of friendships are similar in some areas, although further research in this area is needed. In addition to these studies of online groups, evidence for the formation of online friendships and observations regarding the characteristics of these friendships can also be seen in the unique language of CMC users and the research examining online communities.

*The Language of CMC*

Several researchers have examined the unique language created by CMC users and have concluded that the language of CMC is a unique hybrid of oral and written discourse (Werry, 1996; Ferrara, Brunner, & Whittemore, 1991). Although a full examination of these studies would not be pertinent to this study, some general
conclusions should be summarized. The findings of these studies indicate that CMC users use textual descriptions, creative punctuation, abbreviations, and other methods to compensate for the lack of nonverbal cues and physical presence in CMC. Besides addressing the specific goal of compensating for the lack of nonverbal cues, these techniques serve the general goal of creating a language that emulates oral discourse.

One study conducted by Wilkins (1991) draws a direct correlation between the language of CMC and the sustenance of friendships online. After studying transcripts of interaction on a bulletin board system for three months, Wilkins concluded that the similarity between CMC and oral discourse led participants to experience the computer “conversations” as exchanges within interpersonal relationships (1991). Furthermore, Wilkins (1991) found that:

In the computer communication examined here, participants did not begin their conversation with the explicit purpose of establishing and maintaining personal relationships. This emerged, however, as a major element in the experience, finding expression both in the discourse itself and in the participants’ comments about it. (p. 74).

*Virtual Community*

As early as 1968 Licklider and Taylor indicated that life would be happier for the online individual because the people with whom one interacts most strongly would be selected more by common interests and goals rather than accidents of proximity. Online communities, labeled “virtual communities” by some researchers, have been described as “social aggregations that emerge from the Internet when enough people carry on public discussions long enough with sufficient human feeling to form webs of personal
relationships in cyberspace” (Rheingold, 1993, p.57). Some have argued that virtual communities lack the genuine personal commitments to one another that form the bedrock of genuine community (Peck, 1987 as cited in Rheingold, 1993), and that virtual communities are not communities in almost any sense of the word (Snyder, 1996, as cited in Mitra, 1997).

Strong support for the claim that these online groups constitute communities and often involve the sustenance of numerous interpersonal relationships is found in the growing body of research on computer-based telecommunications among communities of chronically ill people and their caregivers. Although the goal of the present examination is not to provide an exhaustive review of this research, a brief treatment is beneficial. The potential of computer networks to join communities of chronically ill people and their caregivers has been examined in several studies (Scheckhorn, Warisse, & McNeilis, 1995; Ripich, Moore, & Brennan, 1992; Brennan, Moore, & Smyth, 1991). Within communities of chronically ill people and their caregivers, factors such as the time constraints imposed by constant caregiving and physical and psychological trauma caused by the disease often prevent community members from making physical contact with each other. Under these conditions, computer networks can be an important means through which community members can draw support and assistance from others.

Although these studies have been primarily concerned with the implications of these computer networks for the health care industry, researchers have also discovered evidence of cohesive community and interpersonal relationships. Ripich, et al. (1992) conducted a study of the Cleveland-based Computer-Link network and found that several of the people living with AIDS in their study felt that the network was the only place they
could self-disclose. Furthermore, these people identified group cohesiveness as the prime mode of help to them. Brennan, et al. (1991) also found that frequent exchanges of encouragement and support occurred among caregivers on Computer-Link.

Scheerhorn, et al. (1995) studied the community that was present on HIGHnet (a text-based computer network among Ohio's hemophilia community). They found that nearly all postings to the HIGHnet bulletin board functioned to contribute to relationship development (Scheerhorn, et al., 1995). In addition, they observed that the postings on HIGHnet were functioning to create new relationships and aid in the development of a stronger community.

The general findings of the studies on computer networks designed to aid chronically ill individuals and their caregivers show strong evidence of communities existing online. Due to constraints imposed upon these individuals by the illness, the computer network offered a way for those joined by a common illness to sustain a community without being forced to come together in face-to-face settings. Furthermore, within these communities, people formed bonds with other network members and interpersonal activities such as emotional support and self-disclosure occurred in an online setting.

Weise describes her experience with online community as "like being given an extended family" (1996, p. xii). She says she used Women on the WELL (a discussion group for women on the San Francisco-based WELL Internet service) for support and the cultivation of relationships that would otherwise have been impossible. Rheingold (1993) explains the formation of virtual communities as a result of the fact that people
online are often not looking for information, but rather, instant access to ongoing relationships with a large number of people. It is this network of relationships that forms the basis for the concept of virtual community.

Baym (1995, 1998) has conducted one of the longest running studies of CMC interactions through her participation in a newsgroup for discussion of television soap operas. She observes that community exists online due to a stable pattern of social interaction. This interaction occurs in the form of the unique language in CMC as well as generally adopted behavioral norms. For example, messages containing information that gives away plot details of future episodes are always prefaced by the word “spoiler.” These behavioral norms accompany the formation of unlikely relationships and the use of new forms of expressive communication online in facilitating the formation of new online communities (Baym, 1995).

After organizing around a common topic, online communities expand and eventually become a social network similar to a circle of friends. Therefore, the existence of an online community signals the existence of numerous friendships between members of the community. This comparison to a circle of friends does not seem unreasonable, given that Weise (1996) describes this network as an “extended family” (p. xii). In addition, online communities reflect the SIDE model of mediated communication (Lea & Spears, 1995). The relationships predicted by this model begin with common membership in a particular group. Since online communities are organized around common interests, the tenets of the SIDE model predict that their existence predetermines that relationships will exist among group members.
The above review shows how research in the field has progressed. Although early research suggests that the reduced number of cues available in CMC would make its messages inherently impersonal, other research found contradictory results. These contradictions have been reconciled by the social information processing perspective (Walther et al., 1994) and the SiDE model of mediated communication (Lea & Spears, 1995). Besides reconciling contradictory findings, these theories have explained how the factors thought to hinder interpersonal content in CMC may actually facilitate interpersonal relationship development in CMC.

The theoretical framework created by these theories explains how friendships can exist. Evidence that they do exist is provided by studies involving various types of CMC such as MUDs and bulletin boards (Parks & Floyd, 1996; Parks & Roberts, 1998; Rice & Love, 1987). When these studies are combined with observations about online community, language in CMC, and emotional responses to CMC, strong evidence is provided for the assertion that friendships are sustained online. Although most of these studies do focus on relationships that are sustained primarily through CMC, they also constrain themselves to relationships formed through CMC. The Parks and Roberts (1998) study examines the possibility that friendships can be sustained using multiple means including CMC. It, however, does not limit respondents to reporting only on those relationships that are sustained primarily online once they have migrated to other contexts.

In addition, Stafford et al. (1999) found that people used home e-mail to sustain personal relationships, with no limitations on the medium used to form them. Wilkins (1991) also found evidence in her three-month study that relationships were being
sustained through CMC. The present study builds on these findings by examining the assertion that friendships are sustained when the primary mode of interaction is CMC, but respondents are not limited to reporting on only those friendships that were initially formed online. Despite this limitation in previous research, these studies still provide evidence that friendships can be sustained when the primary mode of interaction is CMC. Furthermore, it is reasonable to expect that this will remain true even when the friendships are not initially formed online. As a result, the following hypothesis has been formulated:

\[ H_1 \text{ Friendship can be sustained when the primary mode of interaction is computer-mediated communication.} \]

**Friendship**

Before attempting to define friendship, its importance should be briefly reiterated. Theorists have argued that maintaining relationships constitutes an essential human need, in that being cared for and belonging to a social group enhances the likelihood of survival (Voss, Markiewicz, & Doyle, 1999). Davis and Todd (1985) contend that "not to have friends is to miss something vital for full-fledged human development" (p. 21). Klinger (1977) found that when asked what makes their lives meaningful, nearly all respondents to his survey identified friends and relationships. Conversely, less than half identified religion or occupational success. Campbell, Converse, and Rodgers (1976) found that most people consider it very important to have "good friends." Larson and Bradney (1988) found that people reported higher levels of enjoyment when in the presence of
friends. Furthermore, epidemiological studies have shown that socially integrated individuals have lower age-adjusted death rates than socially isolated individuals (Fehr, 1996).

*Defining Friendship*

Prior research on CMC indicates that friendships do exist online, but the question still remains as to whether or not these friendships exhibit the same characteristics as offline friendships. In order to address this issue, the definition of the concept of friendship must be discussed and a general set of friendship characteristics must be developed. Although improvement has been made recently, compared to the research on other human relationships the body of literature examining friendship specifically is comparatively small and lacking in unity. One explanation for this phenomenon involves the numerous attempts by researchers to define the concept of friendship. As Fehr (1996) summarizes, “there are virtually as many definitions of friendship as there are social scientists studying the topic” (p. 5).

This lack of consensus among researchers is a result of several characteristics of the friendship relationship. Unlike other relationships, friendship in this culture is not an institutionalized relationship (Blieszner & Adams, 1992); therefore, it is difficult to define. This characteristic of friendship represents one of the few points of consensus among friendship researchers. Friendship has been described as a voluntary relationship (Auhagen, 1996; Blieszner & Adams, 1992; Duck, 1991; Wood, 1996; Wright, 1978) that makes few explicit demands on those involved and possesses few truly clear, unequivocal characteristics (Auhagen, 1996). Since friendship is voluntary rather than defined by external social structures, the burden of defining the friendship rests primarily with the
participants in each friendship. This characteristic has made defining friendship difficult for scholars and has contributed to its avoidance in favor of more easily defined human relationships. Nonetheless, several scholars have examined friendships and formulated characterizations to describe them that are consistent across studies.

It would be impractical to dissect each definition of friendship in search of differences in individual theories. However, a broad examination of the definitions in general reveals a number of noteworthy similarities. Wright (1978) defined friendship as “a relationship involving voluntary interdependence in which the individuals respond to one another personalistically” (p.199). Hays (1988) expanded this to define friendship as “voluntary interdependence between two persons over time, that is intended to facilitate socioemotional goals of the participants, and may involve varying types and degrees of companionship, intimacy, affection, and mutual assistance” (p. 395). Auhagen (1996) takes a somewhat different approach and defines friendship as “a dyadic, personal, informal social relationship” (p. 231).

These definitions are by no means exhaustive in their examination of friendship. However, they do elucidate several important characteristics. Auhagen’s (1996) seemingly simple definition provides a general framework useful for any study of friendship. Friendship is a relationship between two people (dyadic) with no official requirements in which participants view themselves mainly as unique individuals. Auhagen (1996) also expands this definition to reflect that friendships must be sustained by both people (mutuality), voluntary, characterized by positive emotion, and valued by the friends. This definition is important because it provides a structural definition that establishes a framework for friendship composed of elements that can be easily observed.
Other definitions of friendship assume a structure similar to Auhagen’s, and proceed to focus on characteristics within the individual participants. Auhagen (1996) identifies two elements requiring an internal focus, value and positive emotion, but generally identifies elements that can be identified by outside observation. Wright (1978) identifies the internal elements of interdependence and the “person-qua-person” element that involves participants responding to one another as unique individuals rather than “packages of discrete attributes” (p. 199). These elements have been since adopted and expanded upon by a number of researchers. The definition provided by Hays (1988) reflects this expansion by beginning with the basic element of voluntary interdependence and expanding to include the facilitation of socioemotional goals.

*Characteristics of Friendship*

Other scholars have been reluctant to form specific definitions of friendship, but rather have chosen to examine it based on the elements that comprise it. By identifying these elements, instruments for assessing friendships could be developed. Davis and Todd (1985) sought to examine the research on friendships in order to identify the characteristics that would constitute an archetypal, or paradigm, case of friendship. This led to the identification of nine characteristics of friendships. These include equal eligibilities, enjoyment, trust, mutual assistance, acceptance, respect, spontaneity, understanding, and intimacy (p. 19).

To avoid confusion, each of these characteristics should be briefly explained. Equal eligibilities refer to the participation of both individuals as equals in the friendship; what one person is eligible to do, the other person is eligible to do also. Both individuals should also generally enjoy each other’s company (enjoyment). Mutual trust is a sense
that each individual believes the other person will act in light of the friend’s best interests. Mutual assistance refers to the provision of support and assistance in times of need, trouble, or personal distress. Acceptance involves the acceptance of each individual as he or she is, without the inclination to change or make the other into a new, different person. Respect refers to the belief that the other exercises good judgment in his or her life choices. Spontaneity is reflected in the individuals feeling free to be themselves in their relationship, rather than feeling required to play a role or inhibit expressions of their personal characteristics. Understanding refers to the participants understanding the rationale behind each other’s behavior. Finally, intimacy is achieved in the sharing of experiences by virtue of doing things together and confiding in each other (Davis & Todd, 1985).

Bukowski, Hoza, and Boivin (1994) adopted a similar approach in their research of early adolescent boys and girls. Their primary goal was to develop a scale with multiple dimensions that represented the basic features of friendship. Although the age group in question differed from that studied by Davis and Todd, a high degree of similarity is seen in the instruments developed by both groups. Research conducted by Bukowski, Hoza, and Boivin (1994) culminated in the development of the Friendship Qualities Scale. This scale was developed to provide a valid and reliable assessment of theoretically meaningful dimensions of friendship. The five dimensions identified as being central to friendship were companionship, conflict, help, closeness, and security (Bukowski, et al., 1994).
Wright (1985) developed an instrument for assessing friendship known as the Acquaintance Description Form (ADF). The ADF was originally based on voluntary interdependence, or the degree to which two individuals commit free time to one another in the absence of external pressures or constraints, as the defining criterion for friendship strength. This criterion was later supplemented by the addition of the person-qua-person factor, or the degree to which participants react to each other on an individualized basis, rather than as mere role occupants or packages of discrete attributes (Wright, 1985). The voluntary interdependence criterion is stressed in many definitions of friendship and is explicitly reflected in the companionship dimension identified by Bukowski, et al. (1994). Companionship in the Friendship Qualities Scale is represented by a set of items focused on the amount of voluntary time spent together. Although not explicitly stated, this voluntary interdependence is also implicitly assumed throughout the characteristics identified by Davis and Todd.

Further consistency among researchers in identifying the defining characteristics of friendship is seen in La Gaipa’s (1987) Friendship Expectancy Inventory (FEI). The FEI consists of eight scales measuring characteristics identified during qualitative interviews as being essential to defining friendship. These scales include mutual positive regard, authenticity, helping and support, self-disclosure, acceptance, similarity, strength of character, and empathic understanding. These scales directly mirror characteristics identified by Davis and Todd (1985) with respect to the support, self-disclosure, and understanding items, while authenticity is similar to spontaneity in the Paradigm Case Formulation (PCF).
Recently Fraley and Davis (1997) created a short form of the original Relationship Rating Form (RRF) used by Davis and Todd (1985) to assess the PCF. This new version of the RRF contains 16 relationship descriptions that represent characteristics of friendship. Among these characteristics are the items originally included in the paradigm case with the exception of equal eligibilities, however several items have been added to create a more comprehensive list. With these additions, the new form of the RRF also measures the similarity and mutual positive regard characteristics identified by La Gaipa (1987) that were originally excluded from the PCF.

These scales provide a comprehensive set of characteristics (or dimensions) that can be used to describe the relationship known as friendship. Although the labels may differ, the concepts identified by these various scales are very similar. The person-quarperson variable identified by Wright (1985) is evident in the spontaneity and acceptance characteristics identified by Davis and Todd (1985). In the Friendship Qualities Scale, help, security, and closeness all reflect characteristics identified by Davis and Todd. The added variable of conflict was later included by Davis and Todd in their model, and the importance of companionship through shared activities was also recognized (Davis & Todd, 1985). In the newest version of the RRF, Fraley and Davis (1997) represent nearly all the characteristics identified by La Gaipa (1987), Davis and Todd (1985), and Bukowski, et al. (1994). Although these characteristics can be used to define friendship, Davis and Todd (1985) make the critical clarification that this list of characteristics is an idealized paradigm case of friendship. Not all characteristics need be present for a friendship to exist.
Synthesizing the lists of characteristics identified by researchers, a comprehensive set of defining characteristics of friendship can be compiled based on similarities among the lists. These characteristics include enjoyment, mutual confiding (intimacy), authenticity, mutual trust, mutual support and assistance, similarity, understanding, mutual respect, mutual acceptance, mutual advocacy, and mutual rewardingness. This list of characteristics has been chosen because the items encompass the characteristics identified in numerous different studies. All the characteristics identified by Fraley and Davis (1997) are included in this comprehensive list. Only a single characteristic was omitted from each of the lists compiled by Davis and Todd (1985), La Gaipa (1987), and Bukowski, et al. (1994). These characteristics were omitted from the final list due to lack of support in other studies.

Although the existence of friendships that are sustained primarily through computer-mediated means is well supported, little consensus has emerged regarding the nature of these friendships and how they compare to similar offline friendships. In addition, several studies have yielded similar descriptions of friendship, but these descriptions have yet to be applied to friendships sustained primarily online. The present study seeks to integrate these two areas by applying a description based on defining characteristics of offline friendships to the friendships that have been found to exist in online settings.

Since research on friendships sustained primarily through CMC has yielded mixed results, hypothesis formation is difficult. Parks and Floyd (1996) and Parks and Roberts (1998) found that online friendships and offline friendships were not rated as significantly different on dimensions such as breadth, depth, and personalized
communication, but were rated as significantly different on understanding, commitment, and interdependence. Stafford et al. (1999) found that e-mail was used to sustain interpersonal relationships. In addition, Walther (1993, 1996; Walther et al., 1994) offers a social information processing perspective that posits that online relationships can reach levels of development similar to their offline counterparts when adequate time is offered for the development. Conversely, theories such as Social Presence theory (Short et al., 1976) and Information Richness theory (Daft and Lengel, 1984, 1986) suggest that online friendships should differ from offline friendships due to differences in the attributes of the media.

In addition to the inconsistent findings of current research, the formation of hypotheses regarding online friendships is further hindered by a lack of studies designed to form a more complete definition of online friendship. Researchers have failed to reach consensus regarding even a definition of friendship, and the addition of new media such as CMC to the equation has only served to hinder agreement even more. The Parks and Floyd (1996) and Parks and Roberts (1998) studies of online friendship concern themselves primarily with examining levels of development rather than formulating a definition of online friendship. Hypothesis formation for this study is further complicated by the focus in most previous studies on those relationships that were not only sustained primarily online, but were also formed online. This discrepancy between the present study and previous research introduces the possibility that differences in the medium used for formation of the friendship could affect current attributes of friendships.
The paucity of research and inconsistency of past findings have prohibited the formation of hypotheses. However, an examination of this research has led to the formulation of two research questions addressing the defining characteristics of online friendships. These are:

RQ₁    What are the defining characteristics of online friendships?

RQ₁ₐ    Based on these defining characteristics, are online friendships different from offline friendships?

*Constitutive Speech Events*

Although definitions of personal relationships drawn from prototype cases and lists of common characteristics are useful, these perspectives fail to acknowledge the link between communication and relationships. Researchers adopting these perspectives tend to view relationships as existing independent of the patterns of communication that occur within them. From this perspective, communicative acts occur within the context of a given relationship and are reflective of the type of relationship in question. However, if the perspective that relationships are defined and differentiated by patterns of communicative activity is to be adopted, a communication-based method of defining relationships must be formulated.

This deficiency has been addressed by Goldsmith and Baxter (1996) in the form of a descriptive taxonomy of speech events that constitute the various relationships sustained by young adults. This characterization of relationships using speech events is not meant to replace more traditional sociological and psychological characterizations of relationships. Rather, it is meant to complement these existing characterizations. Goldsmith and Baxter (1996) state that “joint communicative enactments no doubt occur
in systematic ways with relationship types differentiated on sociological and psychological grounds” (p. 90). Within this framework, defining friendship in terms of defining characteristics provides a useful starting point for analysis, but a definition of friendship must also be based on the joint communicative activities that comprise it. Following this alternative view, friendships can be defined by a set of constitutive speech events, with the more traditional characteristics being descriptive of the relationship that this set of events defines. In this framework, a more complete conceptualization of friendship will include a set of constitutive speech events and an accompanying set of descriptive characteristics.

The speech event construct was created by Hymes (1972) as one of the primary units of analysis in a framework developed to guide communication research from an ethnographic perspective. According to Hymes (1972), speech events are activities or aspects of activities that are directly governed by rules or norms for the use of speech. These events do not occur in a vacuum, but rather are activities that occur between members of a speech community. A speech community is defined by Hymes (1972) as a “community sharing rules for the conduct and interpretation of speech” (p. 54).

The primary concern of Hymes and other ethnographic researchers in communication was the study of the interplay between culture and speech. Much of the research conducted in this tradition involved the observation of interaction patterns within different speech communities and the identification of the mutually recognized rules that governed these interactions. Philipsen (1992) conducted one of the largest studies of this type through a three-year field study of the place of speech in the low-income Chicago neighborhood known as Teamsterville. During this period, Philipsen
(1992) analyzed the uses and patterns of speech within the Teamsterville culture by observing the everyday interactions of community members. Following this study, he concluded that every speech community possesses a unique cultural ideology and some pattern of speech activity that occurs within it. Together, these constitute a distinct social reality for any member of the community.

Several aspects of this ethnographic work are important for the present examination. The construct of the speech event emerged from research that focused on the everyday interaction that occurred among members of a given speech community and how this interaction served to influence social reality. In a given speech community, people sustain a sense of mutual understanding through the enactment of mutually recognized speech events that are governed by a set of mutually understood rules and norms. Within this basic framework, social relationships in any given speech community will differ in the speech events that are considered appropriate within them. Therefore, different relationships can be identified based on the mutually enacted speech events that constitute them within the norms of that specific community.

Adopting this view, Duck (1994) states that relationships are formed, developed, and dissolved largely through talk. Rather than existing as a natural phenomenon, a relationship is in part socially constructed, and can best be described as a process in which the relationship is created and re-created through jointly enacted communication episodes that occur between people (Duck, 1995). Following this theory, the everyday talk that occurs between people does not occur within a relationship, but rather functions to create the relationship as it occurs. Relationships are viewed as “stable” only because participants enact communication episodes that mirror past episodes, thus replicating the
relationship in a form that closely resembles its past form. Therefore, examining any
given relationship should involve an examination of the everyday conversations that
constitute that relationship.

Following this general theory, Goldsmith and Baxter conducted four studies
aimed at developing a descriptive taxonomy of the types of speech events that occur in
everyday conversations among young adults. According to Goldsmith and Baxter (1996),
mutual recognition of various types of speech events allows parties to jointly enact
various kinds of relationships and interpret the significance of those enactments.
Furthermore, from a research perspective, examining the types of speech events reported
most frequently in different relationship types will illustrate how broad differences
between relationship types are “embodied in different profiles of communicative activity”
(Goldsmith & Baxter, 1996, p. 91). At a more precise level, Goldsmith and Baxter
(1996) also state that differences in patterns of enacted speech events can be used to
differentiate between subtypes of a particular relationship type—for example, different
types of friendship.

In order to develop a taxonomy of interpersonal speech events Goldsmith and
Baxter (1996) conducted diary studies with young adults to determine what speech events
occurred between relational partners. The diary data was then sorted and used to develop
a taxonomy of 29 speech events that reflect the range of interactions that were observed.
This taxonomy was then tested in another diary study, and was found to represent all but
55 of the 7,499 observed dyadic events for the particular speech community in the study.
Therefore, the viability of the taxonomy was well supported, as only .7% of the observed
events could not be categorized. Given the apparent viability of this taxonomy for the
description of various dyadic relationships among young adults, its use allows for an alternate, communication-based conceptualization of online friendship as well as a communication-based comparison of online friendships and their offline counterparts.

In addition to creating this taxonomy, Goldsmith and Baxter (1996) also examined the frequency with which different events occurred in different relationships to determine if different relationships within the speech community of young adults were constituted by different events. They found that generally, relationships differed in the events that constituted them. This lends support for the use of the taxonomy to differentiate relationship types. With respect to close friendship, “gossip,” “making plans,” “catching up,” and “joking around” occurred with the greatest frequency. In a similar study, Donaghy (1997) found “catching up” to be the most frequently occurring event among close, young adult friends. “Gossip” occurred with the second greatest frequency and “serious conversation” with the third.

In addition to examining specific events, these studies also grouped the events into six different clusters. Generally, 54.1% of the observed speech events between close friends in the Goldsmith and Baxter (1996) study were informal events with “perceived importance, depth, and involvement” (Goldsmith & Baxter, 1996, p. 105). Donaghy (1997) found that 50.8% of the events that occurred between close friends in his study were of this type. These results indicate that close friendships are largely constituted by informal speech events. Among these are “gossip” and “catching up.”
Since the creation of this taxonomy, it has yet to be applied to relationships sustained primarily through online means. The present study seeks to explore the speech events that constitute online friendship and how these events may differ from those constituting offline friendships. As with the defining characteristics, a lack of past research on speech events and online friendships prohibits the formation of hypotheses. As a result, two research questions regarding the constitutive speech events of online and offline friendships in young adulthood have been formulated. They are:

\[ \text{RQ}_2 \] What speech events constitute online friendships for young adults?
\[ \text{RQ}_2A \] Based on these constitutive speech events, are the online friendships of young adults different from their offline friendships?

**Provisions of Friendship**

While some have chosen to study what defining characteristics comprise a specific conception of friendship, others have begun with a general conception of friendship and sought to identify the provisions this generally defined relationship meets. Although these two approaches to the study of friendship differ significantly in their purposes, they do exhibit some similarity in their labeling of concepts. Differences exist, however, in how these similarly labeled concepts are used. Defining characteristics are used to identify a relationship as a friendship and provisions identify the areas in which the relationship defined as friendship contributes to overall socioemotional well-being.

This overlap is most evident in Wright's (1985) ADF. The ADF identifies voluntary interdependence as the primary criterion for friendship, but also identifies three classes of direct rewards believed to be present in friendship (Wright, 1985). These rewards, labeled “friendship values,” could be placed into three separate categories.
Utility value referred to "the degree to which a subject regards an acquaintance as willing
to use his or her time and personal resources to help the subject meet needs or reach
personal goals" (p.44). Ego support value was "the degree to which a subject regards an
acquaintance as supportive, non-threatening and, in general, as behaving to help the
subject maintain an impression of herself or himself as a competent, worthwhile person"
(p.44). This value was later amended and security value was added to account for the
degree to which an acquaintance is seen as nonthreatening (comfort value), with the
support value represented in ego support value. Finally, stimulation value referred to
"the degree to which a subject regards an acquaintance as interesting and stimulating, and
as capable of fostering an expansion or elaboration of the subject's knowledge,
perspectives, or repertoire of favored activities" (p.44). Self-affirmation value, or "the
degree to which a subject regards an acquaintance as behaving in ways that facilitate the
subject's recognition and expression of his or her more important and highly valued self-
attributes" (p. 46), was also added as part of the ADF-F (ADF, Final).

The ADF is one measure that uses these values as descriptive characteristics of
friendships. The descriptions provided by Wright (1985) for these values reveal their
similarity to the characteristics identified in the paradigm case. Utility value is similar to
mutual assistance, stimulation value is similar to enjoyment, and ego support value is
related to several characteristics. Although these characteristics are labeled as rewards, a
term closely related to provisions, Wright uses their presence in a relationship as
evidence that a friendship exists.
Other researchers have begun with the assumption that a friendship exists and sought to identify the contribution of friendship to socioemotional well-being by identifying the relational provisions friendships meet. The belief that friends serve to fulfill certain needs can be traced back as far as Plato. He said that true friendship derived from basic human needs and desires, such as to strive toward goodness, to be affiliated with others, to seek self-understanding, and to love and be loved (Blieszner & Adams, 1992). Recently, researchers have identified specific needs (or, provisions) fulfilled by relationships in general and friends in particular.

Weiss (1974) identified six categories of relational provisions, each ordinarily associated with a different type of relationship. These provisions include attachment (affection, security, and intimate disclosure), social integration (companionship and the sharing of experience), opportunity for nurturance (taking care of another), reassurance of worth (affirmation of one’s competence or value), a sense of reliable alliance (a lasting, dependable bond), and the obtaining of guidance (aid and advice). These provisions, as well as the assertion that each was associated with a different type of relationship, were identified following a study in which Weiss discovered that members of the group Parents Without Partners still experienced feelings of loneliness after joining the group. Interviews with group members revealed that the group provided friends that offered support, but feelings of loneliness still existed. This led Weiss to conclude that different types of relationships make different provisions, all of which may be required by individuals, at least under some conditions (p.21). Therefore socioemotional well-being requires individuals to create a social network that includes numerous and diverse relationships that together provide all these relational provisions.
The list of provisions created by Weiss as well as the hypothesis that relationships provide different provisions have served as catalysts for much of the current research on provisions and functions of friendship. Furman and Buhrmester (1985) used the provisions identified by Weiss as the basis for their Network of Relationships Inventory (NRI). The NRI assesses the six provisions with affection and intimacy being separated into different categories, and measures of satisfaction, conflict, importance, and power (status) difference, being added. This instrument was used to study the hypothesis that children receive different provisions from different relationships within their social network.

The results of the study support Weiss by showing that different relationships meet different provisions, however it also revealed that different relationships provide multiple provisions at differing levels. These findings have since been utilized to study provisions of friendship in young adulthood by Carbery and Buhrmester (1998) in the form of the Social Provisions Questionnaire (SPQ). The goal of this study was to examine how different provisions might be met by different people as young adults move from being single, to being married, to finally becoming parents. Changes in provision levels for the subject’s closest friend were studied across the phases of single, married, and parenthood. The findings suggest that the subjects relied less on friends to meet certain provisions as other people entered their social network who provided those provisions instead.

Mendelson and Aboud (1999) sought to study the functions served by friends and developed the McGill Friendship Questionnaire-Friend’s Functions (MFQ-FF). This questionnaire assesses the degree to which a friend fulfills six friendship functions.
Consistent with earlier studies, these include stimulating companionship, help, intimacy, reliable alliance, self-validation, and emotional security (Mendelson & Aboud, 1999). These functions exhibit a high degree of similarity with the provisions identified by Weiss, as well as the revised list utilized by Furman and Buhrmester (1985), suggesting a common list of provisions fulfilled in friendships.

By examining these studies, it is possible to compile a list of provisions for this study. The provisions chosen include companionship, reassurance of worth, intimate disclosure, reliable alliance, guidance, instrumental assistance, nurturance of the other, emotional support, and affection. These provisions reflect all the provisions originally identified by Weiss (1974), with the support items being divided into instrumental assistance and emotional support. Furthermore, they include all the provisions identified by both Carbery and Buhrmester (1998) and Mendelson and Aboud (1999). The six primary provisions of the NRI are also represented.

As with the defining characteristics and speech events, hypothesis formulation regarding the provisions met by online friendships is hindered by a lack of research. In order to explore the provisions met by friendships sustained primarily through these two differing media, two research questions have been formulated. They are:

RQ$_3$. What relational provisions are met by online friendships?

RQ$_{3A}$. Based on these relational provisions, do online friendships meet different provisions at different levels than offline friendships do?
CHAPTER 3

METHODOLOGY

Participants

The sample for the study consisted of 139 (67.2% female, 32.8% male) undergraduate students enrolled in basic communication courses. They ranged in age from 19 to 42 years old. Eighty-one percent of the respondents were between the ages of 19 and 23. The mean age of respondents was 22.77 (SD = 3.2). Most of the respondents (84.8%) identified themselves as Caucasian. Of the remaining respondents, 8.0% identified themselves as African American, 3.6% identified themselves as Hispanic, and 3.5% identified themselves as members of other racial groups. The students in the study were also primarily college seniors, with 83% of the sample in this group. Conversely, 13% of the sample identified themselves as juniors, 3% were graduate students, and 1% were sophomores.

Procedures and Instrumentation (See Appendix A)

A questionnaire was distributed to the participants in their classes. After the questionnaires were distributed, students were given oral instructions regarding potentially confusing sections of the questionnaire. Written instructions were also contained in the questionnaire itself. Each participant was asked to identify both a “best
online friend” as well as a “best offline friend”. The term “online” was defined in the instructions as “any communication by e-mail, through chat rooms, on bulletin boards or newsgroups, through computer role-playing games, and through any other means in which the computer is necessary for communication.” The term “best online friend” was defined in the questionnaire as the participant’s “best friend with whom 51% or more of his or her communication in the last month occurred online.” The term “best offline friend” was defined as the participant’s “best friend with whom 50% or more of his or her communication in the last month occurred in all settings that would not be considered “online” (face to face, telephone, letters, etc.).” These different percentages were chosen so that each friend would fall into only one of the two mutually exclusive categories of “best online friend” or “best offline friend.” Thus, each participant, could complete the questionnaire with respect to one or two friends--offline only, one of each, or online only. This method was chosen after 93% of the participants in a pilot study of 72 people identified that their best online friends were not their best friends overall. This indicated that asking participants to report on only a best friend overall and dividing the study into two independent comparison groups later was impractical. Therefore, participants in the present study were asked to report on two different friends.

The questionnaire consisted of nine sections. Sections one and five involved general questions about each friend. Section nine included background questions designed to gather demographic information. The remaining sections were presented in differing orders to mitigate order effects, resulting in three versions of the questionnaire. In each version, section one was always presented first, section five was presented fifth, and section nine was always presented last. Sections two, three, and four were presented
in differing orders and asked the participants to report on their best online friends. Sections six, seven, and eight utilized the same instruments as sections two, three, and four. However, in these sections participants were asked to complete the instruments with respect to their best offline friends. The first section was designed to determine whether or not each participant had a "best online friend," as well as revealing general information regarding this friendship. In addition, the percentage of communication with the participant's best online friend that occurred in four modes, (face to face, online, by telephone, and by other means) was also determined for classification purposes. Section five consisted of similar questions regarding the participant's best offline friend.

If participants indicated that they did not have a best online friend, they were instructed to skip sections 2-4. The second section assessed the defining relational characteristics of best online friendships. These were assessed using a slightly modified version of the 16 item Davis and Fraley (1997) Short Form of the Relationship Rating Form (RRF-SF). This questionnaire was designed to assess both friendships and romantic relationships. Therefore, the four items relating only to romantic relationships were deleted, leaving 12 items for this study. Participants were instructed to read a description representative of each characteristic and rate the description based on how characteristic it was of their relationship with their best online friend. Although the original form used a 9-point likert scale, in order to consistently utilize the same point system for all the instruments throughout this study, a 7-point likert scale was used. For each description, one was labeled as "not at all characteristic" and seven was labeled as "completely characteristic" of the description.
The third section concerned the relational provisions met by best online friends. It utilized a modified version of the Carbery (1993) Social Provisions Questionnaire (SPQ). This 48 item scale assesses nine provisions, as well as relational satisfaction. Since the SPQ had an obvious face-to-face bias, some items were slightly reworded to remove this bias. For consistency, the original 5-point likert scale was modified to a 7-point likert scale. One item measuring closeness was taken from Miller and Lefcourt (1982) and added at the end of this section as a global measure of closeness. It was inserted at this point because it conveniently fit with the question format for this section. Internal consistency reliability coefficients were calculated for the questions that comprised each of the relational provision items and the satisfaction item. All coefficients were adequate with alphas ranging from .75 to .97, p < .05. A complete list of the reliability levels of the scales for the two friendship types on the provisions and satisfaction is provided in Table 1.

The fourth section concerned the speech events (types of communication episodes) which occurred in best online friendships. A 26 item scale was developed based upon Goldsmith and Baxter’s (1996) taxonomy of speech events. For each speech event, the participant was asked to rate that event based on how frequently it had occurred in the last month between the participant and his or her best online friend. A 7-point likert scale was applied to each type of speech event. One was labeled as “never occurred” and seven was labeled as “frequently occurred.” Three speech events from the Goldsmith and Baxter (1996) taxonomy were deleted for this study. The deleted categories were “asking out,” “group discussion” and “get acquainted.”
<table>
<thead>
<tr>
<th>Relational Provision</th>
<th>Best Online Friend</th>
<th>Best Offline Friend</th>
</tr>
</thead>
<tbody>
<tr>
<td>Companionship</td>
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<td>.80</td>
</tr>
<tr>
<td>Reassurance of Worth</td>
<td>.92</td>
<td>.87</td>
</tr>
<tr>
<td>Intimate Disclosure</td>
<td>.91</td>
<td>.89</td>
</tr>
<tr>
<td>Reliable Alliance</td>
<td>.97</td>
<td>.95</td>
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<tr>
<td>Guidance</td>
<td>.92</td>
<td>.92</td>
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<tr>
<td>Instrumental Assistance</td>
<td>.88</td>
<td>.87</td>
</tr>
<tr>
<td>Nurturance of the Other</td>
<td>.91</td>
<td>.85</td>
</tr>
<tr>
<td>Emotional Support</td>
<td>.94</td>
<td>.91</td>
</tr>
<tr>
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<td>.86</td>
</tr>
<tr>
<td>Relationship Satisfaction</td>
<td>.87</td>
<td>.90</td>
</tr>
</tbody>
</table>

Table 1: Internal consistency reliability coefficients of the scales comprising satisfaction and the relational provisions.

The next three sections were the same three instruments delineated above, however, they were designed to be completed for the participant’s best offline friend. Participants were instructed to skip these sections if they did not have a best offline friend. The final section of the questionnaire was designed to collect basic demographic information. This information included age, race, sex, class rank, home Internet access, and hours spent online.
CHAPTER 4

RESULTS

Preliminary Analyses

Before testing the hypothesis and research questions, several preliminary analyses were undertaken. This study differentiates between online and offline friendships using percentages of interaction in different modes, but not between offline friendships that are sustained primarily through different modes (face-to-face or telephone). Therefore, the possibility existed that differences could be present in participants’ ratings of their best offline friends based on the primary mode of offline interaction. In order to test for this possibility, independent samples t-tests were calculated comparing the ratings of the closeness item and the satisfaction scale for offline friendships sustained primarily by telephone and face-to-face means. No significant differences were found between the two groups on satisfaction (M = 6.24 for face-to-face, M = 6.22 for telephone, t(137) = .11, NS) or closeness (M = 6.32 for face-to-face, M = 6.35 for telephone, t(137) = -.23, NS). Therefore, best offline friendships sustained primarily through face-to-face interaction and those sustained primarily through telephone interaction were considered as one group, “best offline friendships,” for subsequent analyses. In addition, paired t-tests were calculated for the length of the two relationships and no significant difference
was found in the mean relationship lengths for the two friendship types (M = 7.80 years for offline friendships, M = 6.54 years for online friendships, t(67) = 1.27, NS). As a result, significant differences that were found were not attributable to a difference in the length of the friendship.

Hypothesis 1

In order to examine the hypothesis that friendships can be sustained when the primary mode of interaction is computer-mediated communication, several measures were used. First of all, the number of participants in the sample who reported having a best online friend was examined. Of the 139 total participants who completed the questionnaire, 48.9% reported having a best online friend. In addition, of the 111 participants who reported that they had Internet access in their home or dorm room, 55% reported having a best online friend. Conversely, 73% of the participants who reported that they did not have Internet access in their homes or dorms reported that they did not have a best online friend. Furthermore, respondents were asked to identify their best friend overall, regardless of mode. In response to this question, 5.8% of the total sample identified their best online friend as their best friend overall. Among those participants who identified both a best online friend and a best offline friend, 13.1% reported that their best offline friend was their best online friend.

Although this illustrates the existence of online friendships in the sample, to further test the hypothesis, the mean rating on the closeness item was examined. Among those subjects reporting that they had best online friends, the mean rating on the
closeness item was 5.16 (SD = 1.53). This was significantly higher than the scale midpoint of four with a t-value of 6.25, p < .001. Considered as a whole, these results support hypothesis 1.

Research Questions 1 & 1A

In order to examine question 1 concerning the defining characteristics of online friendships, the mean ratings for each of the 12 defining characteristics were examined. All means were found to be above the theoretical midpoint for the scales with mutual acceptance rated the highest, and mutual advocacy rated the lowest. A complete listing of the means and standard deviations for all defining characteristics of best online friendships is displayed in Table 2. These data indicate that a model for friendships composed of the 12 characteristics identified by Fraley and Davis (1997) can be used to define best online friendships.

In order to examine question 1A, which asks about potential differences in defining characteristics of offline and online friendships, a repeated measures MANOVA with relationship type as the within-subjects factor and the 12 characteristics as dependent measures was conducted. The multivariate contrast was significant (F(12,51) = 2.99, p < .01. Wilks Λ = .59. Accompanying univariate contrast revealed a significant effect (p < .01) for relationship type on all of the dependent variables; Fs(1,62) and effect sizes η² were enjoyment, 17.90, .22; mutual confiding 20.84, .25; authenticity 15.86, .20; mutual trust, 15.65, .20; emotional support, 16.82, .21; mutual rewardingness, 14.96, .19; mutual acceptance, 18.45, .23; mutual advocacy, 19.33, .24; similarity, 30.03, .33; mutual respect, 20.00, .24; understanding, 25.74, .29; complementarity, 9.80,
<table>
<thead>
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<th>Characteristic</th>
<th>Online M</th>
<th>Online SD</th>
<th>Offline M</th>
<th>Offline SD</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mutual Acceptance</td>
<td>6.01</td>
<td>1.04</td>
<td>6.42</td>
<td>1.03</td>
</tr>
<tr>
<td>Authenticity</td>
<td>5.87</td>
<td>1.23</td>
<td>6.35</td>
<td>1.06</td>
</tr>
<tr>
<td>Mutual Respect</td>
<td>5.84</td>
<td>1.20</td>
<td>6.36</td>
<td>.81</td>
</tr>
<tr>
<td>Mutual Support</td>
<td>5.79</td>
<td>1.34</td>
<td>6.40</td>
<td>.93</td>
</tr>
<tr>
<td>Mutual Trust</td>
<td>5.74</td>
<td>1.23</td>
<td>6.26</td>
<td>1.08</td>
</tr>
<tr>
<td>Enjoyment</td>
<td>5.69</td>
<td>1.21</td>
<td>6.24</td>
<td>.92</td>
</tr>
<tr>
<td>Mutual Rewardingness</td>
<td>5.60</td>
<td>1.28</td>
<td>6.23</td>
<td>1.10</td>
</tr>
<tr>
<td>Complementarity</td>
<td>5.40</td>
<td>1.29</td>
<td>5.80</td>
<td>1.33</td>
</tr>
<tr>
<td>Mutual Confiding</td>
<td>5.40</td>
<td>1.47</td>
<td>6.29</td>
<td>1.02</td>
</tr>
<tr>
<td>Understanding</td>
<td>5.39</td>
<td>1.31</td>
<td>6.15</td>
<td>.99</td>
</tr>
<tr>
<td>Similarity</td>
<td>5.30</td>
<td>1.21</td>
<td>6.02</td>
<td>1.09</td>
</tr>
<tr>
<td>Mutual Advocacy</td>
<td>5.27</td>
<td>1.51</td>
<td>6.17</td>
<td>1.10</td>
</tr>
</tbody>
</table>

Table 2: Mean ratings of the defining characteristics for best online and best offline friendships.

.14. This analysis reveals significant differences for all characteristics between the two friendship types, and a comparison of the means shows that all 12 characteristics are rated higher for best offline friendships. A complete list of the means and standard deviations of the 12 characteristics for both friendship types is displayed in Table 2.

In order to further explore this, the characteristics for each friendship type were rank-ordered in descending order of means. A Spearman-rho correlation was then calculated to determine if a significant rank-order correlation existed between the two lists. This analysis yielded a strong positive correlation of $r_s = .82$, $p < .01$ ($z = 2.71$) between the two lists. Therefore, although offline friendships displayed mean ratings that were significantly higher for all characteristics, both friendship types displayed
statistically similar orders for the lists of defining characteristics. This indicates that the
two are similar in the order of the characteristics, but different in the degree to which
each fits a model of friendship comprised of the 12 characteristics.

Research Questions 2 and 2A

In order to address the research questions regarding constitutive speech events,
two techniques were used. First, in order to determine the speech events that constitute
online relationships, a rank-order list of the mean ratings for the 26 speech events was
compiled. Of the 26 different speech events, nine had means that exceeded the
theoretical midpoint. “Catching up” received the highest mean. In descending order of
means, the other eight that were rated above the theoretical midpoint were “joking
around,” “reminiscing talk,” “talking about problems,” “recapping the days events,”
“serious conversation,” “gossip,” “making plans,” and “complaining.” A complete listing
of the speech events including the mean and standard deviation for each is shown in
Table 3.

In order to explore question 2A, regarding possible differences in speech events
of online and offline friendships, paired t-tests were run between the two friendship types
for each speech event. Due to the large number of events under analysis, alpha levels
were set at p < .002 for the 95% confidence interval to adjust for the possibility of Type I
error. Using this criterion, 19 speech events were rated significantly different for best
offline friends and best online friends. All 19 were rated significantly higher for best
offline friendships. The seven events that were not rated as significantly different at the
<table>
<thead>
<tr>
<th>Speech Event</th>
<th>Online M</th>
<th>Online SD</th>
<th>Offline M</th>
<th>Offline SD</th>
<th>t</th>
</tr>
</thead>
<tbody>
<tr>
<td>Catching Up</td>
<td>5.94</td>
<td>1.31</td>
<td>5.43</td>
<td>1.75</td>
<td>3.02</td>
</tr>
<tr>
<td>Joking Around</td>
<td>5.71</td>
<td>1.31</td>
<td>6.03</td>
<td>1.15</td>
<td>2.13</td>
</tr>
<tr>
<td>Reminiscing Talk</td>
<td>5.37</td>
<td>1.59</td>
<td>5.73</td>
<td>1.46</td>
<td>1.21</td>
</tr>
<tr>
<td>Talking About Problems</td>
<td>5.16</td>
<td>1.48</td>
<td>5.78</td>
<td>1.45</td>
<td>3.63*</td>
</tr>
<tr>
<td>Recapping the Day’s Events</td>
<td>5.15</td>
<td>1.55</td>
<td>5.82</td>
<td>1.51</td>
<td>3.49*</td>
</tr>
<tr>
<td>Serious Conversation</td>
<td>4.78</td>
<td>1.76</td>
<td>5.49</td>
<td>1.58</td>
<td>3.43*</td>
</tr>
<tr>
<td>Gossip</td>
<td>4.66</td>
<td>1.59</td>
<td>5.59</td>
<td>1.35</td>
<td>4.84*</td>
</tr>
<tr>
<td>Making Plans</td>
<td>4.50</td>
<td>1.78</td>
<td>5.83</td>
<td>1.35</td>
<td>7.08*</td>
</tr>
<tr>
<td>Complaining</td>
<td>4.46</td>
<td>1.46</td>
<td>5.26</td>
<td>1.57</td>
<td>4.27*</td>
</tr>
<tr>
<td>Relationship Talk</td>
<td>3.91</td>
<td>1.91</td>
<td>4.16</td>
<td>2.10</td>
<td>1.35</td>
</tr>
<tr>
<td>Decision-Making Conversation</td>
<td>3.84</td>
<td>1.67</td>
<td>4.83</td>
<td>1.59</td>
<td>6.93*</td>
</tr>
<tr>
<td>Small Talk</td>
<td>3.50</td>
<td>1.64</td>
<td>4.00</td>
<td>1.91</td>
<td>2.56</td>
</tr>
<tr>
<td>Asking a Favor</td>
<td>3.26</td>
<td>1.67</td>
<td>4.42</td>
<td>1.70</td>
<td>6.02*</td>
</tr>
<tr>
<td>Persuading</td>
<td>3.21</td>
<td>1.53</td>
<td>4.21</td>
<td>1.83</td>
<td>4.64*</td>
</tr>
<tr>
<td>Love Talk</td>
<td>3.16</td>
<td>1.98</td>
<td>3.05</td>
<td>1.99</td>
<td>.38</td>
</tr>
<tr>
<td>Giving and Getting Instructions</td>
<td>3.13</td>
<td>1.73</td>
<td>4.10</td>
<td>1.63</td>
<td>4.90*</td>
</tr>
<tr>
<td>Current Events Talk</td>
<td>3.10</td>
<td>1.54</td>
<td>3.99</td>
<td>1.56</td>
<td>4.55*</td>
</tr>
<tr>
<td>Breaking Bad News</td>
<td>2.81</td>
<td>1.41</td>
<td>3.22</td>
<td>1.74</td>
<td>3.95*</td>
</tr>
<tr>
<td>Bedtime Talk</td>
<td>2.74</td>
<td>1.97</td>
<td>3.96</td>
<td>2.19</td>
<td>5.68*</td>
</tr>
<tr>
<td>Conflict</td>
<td>2.50</td>
<td>1.49</td>
<td>3.08</td>
<td>1.62</td>
<td>3.07</td>
</tr>
<tr>
<td>Making Up</td>
<td>2.34</td>
<td>1.41</td>
<td>2.94</td>
<td>1.86</td>
<td>3.74*</td>
</tr>
<tr>
<td>Sports Talk</td>
<td>2.32</td>
<td>1.78</td>
<td>3.83</td>
<td>2.11</td>
<td>6.21*</td>
</tr>
<tr>
<td>Lecture</td>
<td>2.25</td>
<td>1.55</td>
<td>2.72</td>
<td>1.84</td>
<td>3.30*</td>
</tr>
<tr>
<td>Class Information Talk</td>
<td>2.15</td>
<td>1.68</td>
<td>3.19</td>
<td>2.10</td>
<td>4.54*</td>
</tr>
<tr>
<td>Interrogation</td>
<td>2.13</td>
<td>1.36</td>
<td>2.55</td>
<td>1.78</td>
<td>3.27*</td>
</tr>
<tr>
<td>Morning Talk</td>
<td>1.91</td>
<td>1.32</td>
<td>3.19</td>
<td>2.10</td>
<td>5.99*</td>
</tr>
</tbody>
</table>

* p <= .002.

Table 3: Mean ratings of the constitutive speech events for best online and best offline friendships and t-values for the differences between speech events by friendship type.

p < .002 level included love talk, relationship talk, reminiscing talk, conflict, small talk, joking around, and catching up. A complete listing of the t-values and significance levels for the speech events in the two friendship types can be seen in Table 2.
In order to further explore this question, the means for all 26 speech events were rank-ordered in descending order and a Spearman-rho correlation was run to determine if the orders were significantly correlated. Although the events were generally rated higher in offline friendships, a strong positive rank-order correlation of $r_s = 0.91$ ($N = 26$, $p < .001$, $z = 4.53$) was found between the two lists. This indicates that, while the two friendship types differed on the frequency with which all events occurred, the order of the events was statistically similar for each type. A complete list of the means and standard deviations of all speech events for both types of friendship is displayed in Table 3.

Research Questions 3 and 3A

In order to explore the third research question concerning relational provisions, the mean ratings of the nine relational provisions for best online friendships were examined. Seven of the nine provisions were rated above the theoretical midpoint of four, with affection rated the highest and companionship rated the lowest of this group. Based on the mean ratings for the provisions and their relations to the scale midpoints, these data indicate that best online friendships meet seven of the nine provisions, but meet some of the provisions at a higher level than others. A complete listing of the means and standard deviations of all relational provisions is displayed in Table 4.

In order to examine question 3A, a repeated measures MANOVA with relationship type as the within-subjects factor and the nine provisions as the dependent measures was conducted. The multivariate contrast was significant [$F(9,59) = 13.03$, $p < .01$, Wilks $\Lambda = .33$]. Accompanying univariate contrast revealed a significant effect.
<table>
<thead>
<tr>
<th>Provision</th>
<th>Online M</th>
<th>Online SD</th>
<th>Offline M</th>
<th>Offline SD</th>
</tr>
</thead>
<tbody>
<tr>
<td>Affection</td>
<td>5.40</td>
<td>1.38</td>
<td>5.98</td>
<td>.95</td>
</tr>
<tr>
<td>Reliable Alliance</td>
<td>5.37</td>
<td>1.68</td>
<td>6.41</td>
<td>.86</td>
</tr>
<tr>
<td>Reassurance of Worth</td>
<td>5.25</td>
<td>1.25</td>
<td>5.84</td>
<td>.89</td>
</tr>
<tr>
<td>Emotional Support</td>
<td>5.00</td>
<td>1.43</td>
<td>5.87</td>
<td>1.06</td>
</tr>
<tr>
<td>Intimate Disclosure</td>
<td>4.86</td>
<td>1.47</td>
<td>5.92</td>
<td>1.04</td>
</tr>
<tr>
<td>Guidance</td>
<td>4.73</td>
<td>1.37</td>
<td>5.89</td>
<td>1.01</td>
</tr>
<tr>
<td>Companionship</td>
<td>4.54</td>
<td>1.11</td>
<td>5.83</td>
<td>.93</td>
</tr>
<tr>
<td>Instrumental Assistance</td>
<td>3.78</td>
<td>1.46</td>
<td>5.28</td>
<td>1.20</td>
</tr>
<tr>
<td>Nurturance</td>
<td>3.51</td>
<td>1.48</td>
<td>4.95</td>
<td>1.23</td>
</tr>
</tbody>
</table>

Table 4: Mean ratings of the relational provisions for best online and best offline friendships.

(p < .01) for relationship type on all of the dependent variables; Fs(1,67) and effect sizes \( \eta^2 \) were reliable alliance, 23.04, .26; affection, 18.44, .22; intimate disclosure; 34.75, .34; guidance, 50.53, .43; emotional support, 29.87, .31; reassurance of worth, 21.24, .24; companionship, 95.27, .58; instrumental assistance, 61.51, .48; nurturance 78.07, .54. This analysis reveals significant differences for all provisions between the two friendship types, and a comparison of the means shows that all nine provisions were rated higher for best offline friendships. A complete list of the means and standard deviations of the nine provisions for both friendship types is displayed in Table 4.

These results indicate that best offline friendships and best online friendships differ in the relational provisions they meet. To provide further comparison, the provisions for the two types of friendship were ranked in descending order of means. A Spearman-rho correlation was then calculated for the two orders to determine if a significant rank-order correlation was present. This analysis resulted in a strong positive
correlation of $r_s = .83, p < .01 (z = 2.36)$ between the two lists. Therefore, the order of the provisions based on their mean rating was statistically similar for the two friendship types. This indicates that the two types of friendship meet similar provisions, but meet them at differing levels. A complete listing of the means and standard deviations of all relational provisions for best offline friendships is displayed in Table 4.
CHAPTER 5

DISCUSSION

The present study sought to accomplish four main goals. First, further support was sought for the previous research that indicates the existence of online friendships. Second, an empirically supported conceptualization of online friendships was to be created using defining characteristics drawn from the literature on friendships and constitutive speech events drawn from the taxonomy created by Goldsmith and Baxter (1996). Third, online friendships were to be compared to offline friendships to determine whether or not the primary communication medium used to sustain friendships affected the characteristics and speech events that define and constitute these potentially different friendships. Finally, the relational provisions met by each type of friendship were to be examined to determine whether or not the primary communication medium used to sustain a friendship affected the way the friendship contributed to an individual’s socioemotional well-being.

The study accomplished these goals by providing a clearer picture of the relatively mysterious relationship of online friendship. In addition, new light was shed on the comparatively under-studied relationship of friendship in general. The analyses
that were performed revealed that online friendships and their offline counterparts are simultaneously similar and different in the ways they are defined and the relational provisions they meet.

In order to elaborate on this observation, the first segment of this discussion section will be organized according to the four main goals delineated above. The hypothesis that online friendships do exist will first be discussed. The conceptualization of online friendship that emerged from this study will then be discussed in terms of the defining characteristics and constitutive speech events. This conceptualization will be accompanied by a comparison of the definitions of online and offline friendship that were garnered from the study. This comparison will continue with a discussion of the relational provisions met by the two types of friendship. In the next segment, possible explanations for the findings will be examined. Finally, the limitations of the study and future research directions will be discussed.

The Existence of Online Friendships

The existence of friendships that are sustained primarily using computer-mediated communication has been examined by numerous authors including Parks and Roberts (1998), Parks and Floyd (1996), and Baym (1995, 1998). This present study provides further support for these studies, as nearly half (48.9%) of the participants in the study reported having a best online friend. Although this percentage is comparatively low when examined next to the percentage of 93.6% of the respondents in the Parks and Roberts (1998) study who identified that they had formed at least one close relationship online, several differences between these studies deserve attention. The studies
conducted by Parks and Roberts (1998) and most other CMC researchers have focused on relationships that were formed and sustained almost exclusively online. The samples for these various studies were drawn from newsgroups and MUDs.

The present study differs significantly from these in that the sample was drawn from a population that did not necessarily participate in online groups and did not even necessarily have home Internet access. It defined best online friends as best friends with whom 51% or more of a participant’s interaction in the last month occurred online. Without restricting the sample to those who participate in various online groups, a lower percentage should be expected. This general explanation is supported by the statistic that 55% of those respondents who had home Internet access reported having a best online friend.

Perhaps the most compelling support for the first hypothesis is found in the percentage of respondents who indicated that their best online friend was also their best friend overall. Among those participants who reported on both a best online friend and a best offline friend, 13.1% indicated their best online friend was their best friend overall. This percentage is relatively high; especially when it is considered in the context of cues-filtered out theories such as Social Presence theory (Short, Williams, & Christie, 1976) that predict that media that allow fewer social context cues should be rated as less personal. Computer-mediated communication conveys less social context cues than media such as face-to-face and telephone. Therefore, in a direct comparison of friendships sustained primarily online and friendships sustained primarily offline, the possibility that an individual’s best friend overall would be his or her best online friend is unlikely, if not impossible. This study shows, however, that this is not the case.
Similarly, this study revealed that, overall, best online friendships were rated above the scale midpoint in terms of closeness. This further defies the expectations implicit in theories such as Social Presence theory (Short et al., 1976).

In general, this study not only provides support for the existence of online friendships, but it also reveals several other findings of interest. As the Internet becomes more pervasive, people seem to be relying more heavily on computer-mediated means for the sustenance of their friendships. In a sample that was not drawn from an online group, numerous friendships were discovered that were sustained primarily online. Furthermore, these friendships were rated relatively high in terms of closeness, and several respondents even reported that their best friendships overall are sustained primarily online. Since the percentage of respondents who reported having a best online friend was higher among those with home Internet access, it is reasonable to suspect that online friendships will continue to become more pervasive as Internet access becomes available to a greater number of individuals.

Conceptualizing Online Friendships

Past research on friendship has displayed a wide variance regarding the manner in which different researchers have chosen to define friendship. The present study sought to empirically measure several characteristics that have been identified by different researchers in an attempt to formulate a definition of friendship that reflects various views of friendship from the literature. This method has allowed for support to be garnered for the various models of friendship based on defining characteristics that different researchers have formulated. In addition, it has also enabled a comparison of friendships sustained primarily through different communication media. Furthermore,
the measurement of the frequency with which various speech events occur in these
different friendships has provided a way of viewing friendships that considers the
constitutive function of communication in friendship enactment. Although these two
methods of defining friendship vary significantly in their approaches, this study
uncovered several general trends that are consistent across both models with respect to
comparisons of friendship sustained primarily through different media. This section will
outline those trends, as well as presenting the conceptualizations of friendship that
emerged from the analyses.

**Defining Characteristics of Friendship**

In their original discussion of the Paradigm Case Formulation of Friendship
(PCF), Davis and Todd (1985) had stated that not all of the characteristics they identified
as comprising the PCF need be present for a friendship to exist. They proceeded to
explain that the PCF was an idealized conceptualization of friendship, and that the
presence of all characteristics in a given friendship was an unlikely possibility. Given
these qualifiers, the expectation at the onset of this study was that some characteristics
might not be present in one or both of the friendship types. This, however, was not the
case.

Regardless of friendship type, this study found that all 12 of the characteristics
measured were rated significantly above the scale midpoint of four, with mutual
advocacy for best online friends being rated the lowest. Therefore, friendships in this
study generally fit the model created by these 12 characteristics regardless of what the
primary mode of communication was in that friendship. Given the high degree of
consistency between the characteristics used in this study that were identified by Fraley
and Davis (1997) and the characteristics identified by La Gaipa (1987), Davis and Todd (1985), and Bukowski, et al. (1994), this study provides strong support for a general list of defining characteristics compiled from previous research that can be used to define friendships. A complete list of the means and standard deviations of all 12 characteristics is displayed in Table 2.

Following this general finding that all characteristics were rated significantly above the scale midpoint, one answer to the first research question is that the defining characteristics of online friendships are the same defining characteristics identified by Fraley and Davis (1997). This, however, would be a simplistic approach. A more complete conceptualization can be formed if the mean ratings for the different characteristics are examined and discussed in terms of their relationship to one another.

Examining the means for the various characteristics reveals several interesting findings. The highest means for online friendships were reported for mutual acceptance, authenticity, and mutual respect. Although these characteristics are different, they all involve participants feeling free to be themselves around one another and feeling as though each partner is accepting and supportive of this “true” representation of the other. In contrast, more active characteristics such as enjoyment were rated comparatively low. This general trend indicates that a major component of any conceptualization of online friendship must be a feeling of freedom in which both friends do not feel as though they need to put up a false front for the other. Furthermore, in this conceptualization both friends will be accepting of whatever conception of self the other presents. This trend receives further support from the comparatively low rating of similarity among the characteristics. Participants in this study placed more value on their friends “being
themselves” than on having similar interests or values. Although these characteristics were rated as more characteristic of best online friendships than other characteristics were, the importance of the other characteristics should not be undermined. A complete model conceptualizing best online friendship should include all 12 characteristics.

Another interesting result of this study is seen in a comparison of the present findings to previous research on online relationships. The SIDE model developed by Lea and Spears (1995) as well as the numerous discussions of virtual communities place a high value on the similarity of the participants. Conversely, the present study found that friendships were currently being sustained through CMC, however similarity was of less relative importance to these friendships than other characteristics. This is likely a result of the friendships in this study being unconstrained with respect to the medium used for their formation. In the SIDE model, participants must rely on similarity to gain access to online groups and initially form online relationships. When friendships are allowed to form through more traditional media, it seems as though similarity becomes less of a necessity. This, however, requires further research.

In comparing the two types of friendship in this study, two general guidelines were used. First, the mean ratings of all 12 characteristics for both types of friendship were compared to determine if the ratings were significantly different from one another. Second, the rank-order of the characteristics was examined for each type of friendship to determine if the characteristics varied in importance by friendship type. These two analyses provided very different results, but have culminated in a relatively clear picture of friendship.
With respect to how closely each friendship type fits a model defined by the 12 characteristics, best offline friendships were found to be significantly more characteristic of this model than online friendships in all areas. Every characteristic for best offline friendships received a mean rating over six except complementarity, whereas every characteristic for best online friendships was rated below six except mutual acceptance. Table 2 provides a complete comparison of the mean ratings of all 12 characteristics for each type of friendship. Examining these results alone, one might conclude that the two friendship types differ significantly in the characteristics that define them. The examination of the rank-orders of means, however, showed a different result.

The Spearman-rho correlation between the two orders revealed that they were highly similar in the order in which the characteristics appeared for each friendship type. Therefore, although all characteristics were rated significantly lower for best online friendships, the order of the characteristics for each was similar. Like their online counterparts, best offline friendships were rated highest on mutual acceptance and were rated comparatively lower on characteristics such as understanding and similarity. When considered together, these two analyses indicate that the two friendship types illustrate a similar representation of friendship in general. Offline friendships are different, however, in that they are rated as more characteristic of this representation than online friendships.

Although this is the general trend, several important differences appear in the individual lists. Both types of best friendship place a high value on mutual acceptance and authenticity, and a lower value on similarity. However, complementarity is much higher in the ordering for best online friendships. This indicates that best online friendships are more likely to be sustained between those with differing interests and
values than best offline friendships. Conversely, however, mutual confiding received a much higher relative rating for best offline friendships. This indicates that participants rely more on their best offline friends as people to “open up to” than their best online friends.

These results fail to provide a simple answer to research question 1A. Due to the strong positive correlation between the two rank-ordered lists, the general conclusion is that best friendships, regardless of the primary mode of communication used to sustain them, can be described using the list of defining characteristics compiled by Fraley and Davis (1997). However, the conclusion can also be drawn that, although both friendship types can be described by these characteristics, best offline friendships are generally more characteristic of this model. Furthermore, some differences exist between the two types of friendships in the relative importance of the different characteristics to one another in the model.

One other observation regarding the high ratings for all 12 characteristics is noteworthy. Davis and Todd (1985) state that not all characteristics need be present for a friendship to exist, and that the complete list of characteristics represents only an idealized case unconstrained by personal limitations or social structure. However, the friendships in this study were rated above the scale midpoints for all 12 characteristics regardless of the primary medium of sustenance. One explanation for these high ratings could be that participants in the present study were asked to report only on individuals identified as best friends. The possibility exists that other friendships besides best
friendships could return lower ratings. It is also possible that the influence of social desirability led participants to rate the characteristics higher due to the belief that they would be expected to rate their best friends high. This area deserves future research.

Constitutive Speech Events

In contrast to defining friendship using a set of defining characteristics, the use of constitutive speech events to define friendships possesses only a small research base on which to build. As a result, the findings of this study that relate to constitutive speech events provide comparisons between media and new research regarding the constitutive speech events of friendship in general. As a whole, the results of analyses on speech events in this study mirror the general trends discussed in the section on defining characteristics. The speech events in general were found to occur more frequently in offline friendships, however the rank-orders of the mean frequencies of the speech events for each type were similar. Before discussing these similarities, however, the second research question will be addressed in a discussion of the speech events found to constitute online friendships. It should also be noted that, although these speech events are discussed as generally constitutive of friendship, they can only be viewed as constitutive of friendships in the speech community comprised of young adults. As Hymes (1972) and Philipsen (1992) state, different speech events are present in different speech communities. The present study acknowledges this fact and does not imply that these speech events are constitutive of friendship for all speech communities.

Of the 26 speech events tested in this study, nine were rated above the theoretical midpoint of the scales. These events included “catching up,” “joking around,” “reminiscing talk,” “talking about problems,” “recapping the days events,” “serious
“conversation,” “gossip,” “making plans,” and “complaining.” As with the defining characteristics, this list can be used as a simplistic answer to the second question, however additional discussion is beneficial.

The results of this study show that speech events that involve friends recounting the current and past events in their lives are most prevalent, with “catching up,” “reminiscing talk,” “talking about problems,” “recapping the days events,” and “gossip” comprising five of the nine events that rated above the theoretical midpoints. Furthermore, “serious conversation” could include similar topics. A complete list of the mean rating of all 26 speech events is displayed in Table 2. Considered together, these speech events indicate that best online friendships are constituted by communication episodes that focus on friends updating each other on the important events in their lives and episodes that focus on things the friends did together in the past (“reminiscing talk”). Although it was not explicitly measured in this study, this effect could be a result of the geographic distance separating best online friends. This is an area that deserves further study.

Although a general trend is seen among the aforementioned events, the importance of joking around must not be ignored. In addition to consisting of speech events focused on the discussion of current and past incidences in the lives of the friends, a complete conceptualization of best online friendship using speech events must also include “joking around.” “Making plans” was also rated above the scale midpoint and should be included as well.
Comparisons of the speech events that constitute the two types of friendships were conducted in two ways. First, each speech event was compared to determine if significant differences were present across the two types of friendship, and second the mean ratings of the speech events for each friendship type were rank-ordered to enable comparison of the orders. As with the comparisons of the defining characteristics, these two comparisons yielded very different results.

The comparison of the mean ratings of each speech event revealed that 19 of the 26 speech events were rated as occurring significantly more frequently in best offline friendships (see Table 2 for a complete comparison of the mean ratings, as well as the t-values for the comparisons). Furthermore, 15 speech events were rated above the theoretical midpoint of the scales for best offline friendships, compared to nine for best online friendships. These results indicate that most speech events occur more frequently in best offline friendships and that best offline friendships exhibit greater breadth in the number of speech events that constitute them. They also indicate that the two types of friendship are constituted by different speech events.

In contrast, however, a strong positive Spearman-rho correlation existed between the rank-orders of the speech events for the two friendship types. This indicates that, consistent with the findings on defining characteristics, the two friendship types are generally constituted by similar speech events. These speech events, however, generally occur more frequently in best offline friendships.

Although this general trend exists, as with the defining characteristics, several important differences must be discussed. Several speech events characterized by Goldsmith and Baxter (1996) as “goal-directed” events were rated above the midpoints
for offline friendships but not online friendships. These speech events generally involve future action to be taken by one party or consensus to be reached. “Decision-making conversation,” “asking a favor,” “persuading conversation,” and “giving and getting instructions” were all rated above the theoretical midpoint for best offline friendships only. In addition, “making plans” was rated above the theoretical midpoint for best online friendships, but had a much higher relative position in the rank-order for best offline friendships, rated second in frequency behind “joking around.” This indicates that best offline friendships are also composed by a set of four goal-directed events, whereas online friendships are not.

These results provide further support for the consensus-reaching aspect of information richness theory by showing that the items requiring a consensus to be reached or resulting in one party agreeing to perform some future action or adopt a particular view were only rated above the midpoint for offline friendships. Furthermore, these goal-directed events represented all the items but two of the events (“relationship talk” and “small talk”) that were rated above the theoretical midpoint for best offline friendships, but not for best online friendships. This is significant because Daft and Lengel (1984, 1986) never explicitly studied computer-mediated communication. This study was not designed to examine information richness. However, these findings suggest that the theory is applicable in part to CMC by illustrating that participants in this study seemed to prefer media that provided more rich information when engaging in types of communication that required consensus. To use Goldsmith and Baxter’s (1996)
terminology, rich media were preferred for goal-directed events. While these findings provide support for information richness theory, they do not show that interpersonal relationships cannot be sustained through CMC.

Another important difference between the two types of friendship is seen in the mean ratings for the speech event of “catching up.” Although the general trend was for speech events to be rated higher for best offline friendships, “catching up” was the only speech event that received a higher rating for best online friendships. The t-value for this difference failed to exceed the necessary p < .002, yielding a t-value of -3.02, however the difference is still noteworthy.

As was the case with research question 1A, these results also fail to provide a simple answer to research question 2A. However, they follow the same trend as the defining characteristics, with friendship being generally constituted by a group of nine speech events, and offline friendships generally displaying these speech events with a higher frequency. In contrast to the defining characteristics, however, these results show that in addition to these nine speech events, best offline friendships are also constituted by “relationship talk,” “small talk”, and a set of four goal-directed speech events. In addition, “making plans” occurs with greater frequency relative to the other speech events for best offline friendship and “catching up” occurs with greater relative frequency to the other speech events for best online friendships.

General Observations on Characteristics and Speech Events

With respect to the general goals of conceptualizing online friendships and comparing this conceptualization to a conceptualization of offline friendships, two basic trends were observed. Friendships can be defined, regardless of the primary
communication medium used to sustain them, by a set of 12 characteristics and nine speech events. However, offline friendships generally fit the models created by these sets more closely than their online counterparts. The set of 12 characteristics is taken directly from Fraley and Davis (1997), and has been shown to represent similar lists compiled by Davis and Todd (1985), La Gaipa (1987), and Bukowski, et al. (1994).

The speech events represent nine of the 26 speech events identified in Goldsmith and Baxter' (1996) taxonomy, and generally center on those events in which friends discuss personal experiences with one another, as well as “joke around” and “gossip.” In addition, a more complete conceptualization of offline friendships includes four goal-directed speech events as well as the addition of “relationship talk” and “small talk.” Beyond these general trends, several specific differences exist in the relative importance of the characteristics and speech events to one another for each relationship type, however the general sets remain similar.

Relational Provisions

To complement these conceptualizations of friendships, the present study also explored how friendships contribute to socioemotional well-being by examining the relational provisions met by the two different types of friendship. In general, the analyses of relational provisions revealed trends similar to those reported for the defining characteristics and constitutive speech events. In order to examine these trends, this section will first discuss what provisions are met by online friendships (research question 3) and proceed to compare these provisions to those met by offline friendships.
Weiss (1974) originally hypothesized that relationships in general meet certain provisions, and specific relationships meet specific provisions. This view was later amended by Carbery and Buhrmester (1998), Furman and Buhrmester (1985), and others to state that relationships often meet multiple relational provisions, but meet those provisions at differing levels. From this perspective, certain relationships are often associated with certain specific provisions, but these relationships can also meet other provisions at lower levels as well. The results of this study are consistent with this updated view of relational provisions.

Of the nine relational provisions that were examined in this study, seven received mean ratings above the theoretical midpoint of the scales for best online friendships. These included affection, reliable alliance, reassurance of worth, emotional support, intimate disclosure, guidance, and companionship. A complete list of the means and standard deviations of all nine provisions is displayed in Table 3. Instrumental assistance and nurturance were rated below the scale midpoints. With respect to previous findings, these results indicate the importance of emotional support to online friendships. As mentioned previously, these results contradict information richness theory (Daft & Lengel, 1984), but remain consistent with the observations of Rheingold (1993) and others regarding the strong emotional component of CMC. Although the low ratings for nurturance and high ratings for emotional support may initially seem contradictory, they are consistent with the findings of Carbery and Buhrmester (1998). Both Furman and Buhrmester (1985) and Carbery and Buhrmester (1998) found the provision of nurturance to be primarily associated with the parent-child relationship.
This list of seven provisions provides a simplistic answer to question three, however several other important observations should be discussed. An examination of a rank-ordered list of the means for the provisions reveals several noteworthy observations. Affection, reliable alliance, reassurance of worth, and emotional support had the highest means among the nine provisions. Although each of these contributes to socioemotional well-being differently, all are provisions that focus on supporting the other person and conveying a sense that one will be there for the other person at all times. Provisions that are traditionally met through physical means such as nurturance, instrumental assistance, and companionship were all rated comparatively lower.

This trend is consistent with the findings regarding the defining characteristics of online friendships, and suggests that best online friendships are characterized primarily by more "abstract" characteristics focused on supporting and accepting one another. This general feature is reflected in the provisions that are met the most by best online friendships. Based on these findings and observations, question three can be answered simplistically with a list of seven relational provisions. Of these seven, those focused on support and acceptance of the other are met more frequently with affection and reliable alliance being met the most.

Although this trend is present for best online friendships, a comparison of these provisions to those met by best offline friendships revealed that it is more likely a characteristic of best friendships in general rather than being attributable to the primary mode of interaction. As with the defining characteristics, all nine relational provisions were rated significantly higher for best offline friendships, however a strong positive Spearman-rho rank-order correlation was found between rank-order lists of the means for
the provisions. Therefore, although all provisions were met significantly more by best offline friendships, the order of the provisions within the lists for both relationship types was again very similar. This is reflected in the fact that reliable alliance and affection were also the two highest rated provisions for best offline friendships and companionship, instrumental assistance, and nurturance were the three receiving the lowest ratings.

One major difference between the provisions met by the two types of friendships is that best offline friendships received ratings above the theoretical midpoint for all nine provisions. This framework shows that best offline friendships meet similar provisions to best online friendships, however meet them to a higher degree and also meet two relational provisions that are not met by best online friendships.

An examination of the rank-order for the provisions found to be met by closest friendships in the Carbery and Buhrmester (1998) study reveals a high degree of similarity to the rank-orders discovered in this study. As with both best online and best offline friendships in the present study, Carbery and Buhrmester (1998) found that reliable alliance was the highest rated of the nine provisions for the closest friends of the young adults in their study. Similarly, companionship, instrumental assistance, and nurturance were the lowest rated provisions for all three groups. Considered together, the similarity of the findings in both studies indicates that best friendships in general meet a common list of provisions. Based on the findings of this study, seven of these provisions are met by best friendships regardless of the primary communication medium used to sustain them.
These results suggest that the general trend discussed previously is most likely a function of the relationship of friendship rather than a function of the primary communication medium used to sustain a friendship. Strong correlations were found between the rank-order lists of means for both characteristics and provisions for the two friendship types. Therefore, the conclusion can be reached that friendships in general are typified more by characteristics and provisions that focus on mutual support and acceptance than other, more physical characteristics and provisions.

Despite these similarities, one primary difference between the provisions met by the two types of friendships should be noted. Although the orders are similar for the two friendship types, the provision of intimate disclosure was met more, relative to the other provisions, for best offline friendships than for best online friendships. This finding is consistent with findings for the characteristic of mutual confiding, which was also rated relatively higher for best offline friendships. In addition, reassurance of worth was rated relatively higher for best online friendships.

In response to question 3A, these findings indicate that best offline friendships meet all nine relational provisions and meet them at significantly higher levels than best online friendships. Conversely, best online friendships meet only seven of the relational provisions. In general, these seven relational provisions appear to be met by all friendships, with the level at which they are met differing depending upon the primary mode of communication used to sustain the friendship.
Further Interpretations

The general trend of higher ratings in all areas for offline friendships can be explained in several ways. One possible explanation for this general trend is that the higher ratings were a statistical artifact of the study. In this sample, 13.1% of those who reported on a best friend for each medium identified their best online friend was their best friend overall. However, when those participants without a best online friend are included, those whose best friend overall was their best online friend composed only 5.8% of the total sample. As a result, the majority of the best overall friendships in the study were best offline friendships. This opens the possibility that higher ratings for best offline friendships were a result of higher ratings for best friendships overall, rather than being attributable to the medium. Further research should explore this possibility by comparing equal samples of best online and best offline friends who are all identified as best friends overall.

An examination of the constitutive speech events for each friendship type provides insight into this possibility. Researchers such as Goldsmith and Baxter (1996) and Gergen (1990) indicate that changes in relationships are signified by changes in the patterns of interaction between relational partners. Goldsmith and Baxter (1996) found that as people move from acquaintances to friends, they add events such as “talking about problems” and “gossip” to their speech event repertoire. Since best offline friendships were found to be constituted by a greater number of speech events, it is possible that the added speech events are indicative of best friendship overall, rather than being
attributable to the primary medium of sustenance. Furthermore, the two provisions that were not found to be rated above the scale midpoint for best online friendships could be met by best friendships overall, regardless of the primary medium of sustenance.

Although this is one possible explanation for the differences, it assumes that there is no "real" difference between the two types of friendship. If the differences are recognized as "real," an alternate explanation is necessary. One explanation that considers the past findings on CMC involves the relationship between the attributes of the different media and the perpetual sustenance of a sense of mutual understanding between relational partners. A similar explanation based on media attributes considers the efficiency of different media for the implementation of the numerous strategies involved in the sustenance of mutual understanding for complex relational tasks.

These possibilities were examined by Dimmick et al. (2000) in their explanation of their findings regarding differences in the sociability gratifications and gratification opportunities of e-mail and the telephone. Dimmick et al. (2000) found that the areas in which e-mail exhibited superiority to the telephone could be directly linked to the asynchronous nature of e-mail. Similarly, those areas in which the telephone was found to be superior could be tied to the synchronous nature of the telephone, as well as the additional social-context cues it provided.

Dimmick et al. (2000) suggested that the complex number of subtasks involved with sociability gratifications such as "companionship" and the communicative strategies involved with these gratifications, privilege media that offer synchronicity and additional cues. This perspective recognizes that many relational tasks are not simple. Rather, a single task such as the provision of companionship actually involves a number of
subtasks. Furthermore, these subtasks involve certain communicative strategies that may be better enacted using a synchronous medium that allows for the use of a greater number of cues. As an example, the provision of "companionship" in their study probably involves a number of subtasks. The strategies associated with the provision of companionship are likely facilitated by the synchronicity and greater number of cues offered by the telephone. Conversely, gratifications and opportunities that involved keeping in touch with people from which one is geographically separated privileged e-mail. These gratifications and opportunities require different strategies to be enacted and do not rely as heavily on the cues offered by the telephone. Furthermore, they are facilitated by asynchronicity because the synchronous nature of the telephone requires both partners to be available simultaneously. This is problematic when both participants live in different time zones and have different schedules.

Similarly, Dimmick et al. (2000) suggested that some gratifications require a higher degree of mutual understanding. Feeling understood may be achieved more effectively or efficiently using one medium over another. Sustenance of a sense of mutual understanding is likely achieved more effectively when synchronicity and additional cues are present. In support of this position, Dimmick et al. (2000) identify coordinating attention, codifying meaning, and utilizing cooperative processes as key processes in creating senses of understanding (Clark, 1996; Duck, 1994; O'Keefe & Delia, 1988; Taylor, 1992 as cited in Dimmick et al., 2000). Coordinating attention is easier through synchronous media, and codifying meaning is aided by additional cues.
These processes can be illustrated by specific examples. Expressing caring, for example, may require continual monitoring of each other's conversational focus and attention (Dimmick et al., 2000). These tasks are likely facilitated by the additional cues offered by the telephone. Furthermore, the immediacy of synchronicity aids in the employment of coordination cues. This allows partners to continually coordinate attention and ensure they are attending to the same topic. In addition, this continual monitoring of the other facilitates the formation of other-centered messages because reactions are received immediately.

The findings of the present study are generally consistent with these views. In addition, this view is consistent with the finding of Parks and Roberts (1998) that offline relationships were rated significantly higher than online relationships in terms of understanding. One facet of the present study must be mentioned before proceeding. The present study did not differentiate between asynchronous and synchronous forms of CMC. Furthermore, participants were not limited to exclusively interacting with best online friends through CMC. As a result, interpretations regarding the asynchronous features of CMC are offered with this disclaimer. However, the high degree of consistency between the present findings and those of Dimmick et al. (2000) warrant a general discussion within the framework posed therein.

The most direct application of this view can be made with respect to the constitutive speech events. The research tradition from which the speech event construct is primarily derived, focuses on communication as the sustenance of a sense of mutual understanding between relational partners. Therefore, all speech events require some degree of mutual understanding to be sustained. Using the framework outlined above, it
is possible that sustaining a sense of mutual understanding in general is accomplished more easily through media that afford more cues and synchronicity. Computer-mediated communication hinders the coordination of attention and the continual monitoring of the other. In addition, the lack of cues may make the codification of meaning between people and the effective use of cooperative practices difficult. Since all speech events are mutual, this hindrance likely makes the enactment of all speech events more difficult. However, these less interactive events that focus primarily on one partner providing the other with information are affected to a smaller degree because they do not rely as heavily on other-centered messages and coordination. “Catching-up,” for example, may be enacted by partners through CMC in the form of messages in which each person informs the other about what has been happening in his or her life. Although this event is still mutual, it likely requires a sense of mutual understanding to be sustained to a lesser degree than the goal-directed events. Participants may feel that they are understood during “catching-up” if they simply e-mail each other details of their lives. Conversely, a sense of understanding in the goal-directed events such as “asking a favor” may require immediate cues that indicate the other person understands what is expected and agrees to what is being asked.

The addition of goal-directed speech to the set of events that constitutes offline friendships can also be effectively explained by the strategies associated with their enactment. The goal-directed speech events were found to be unique to offline friendships and generally require a consensus to be reached between partners. The strategies associated with reaching a consensus are likely facilitated to a greater extent by immediate responses and additional cues. “Persuading conversation,” for example, likely
involves strategies that are aided by the use of nonverbal cues and continual monitoring of the other person's reactions. This general view is reflected by Gergen (1990) in his observation that body movements and other cues all contribute to the coordination of action between two people. Therefore, coordination of action will be more difficult when a medium offers fewer cues. Using these same basic ideas, the differences in the ratings for the defining characteristics can also be explained.

A similar interpretation can be made for the findings on the relational provisions. In general, the provisions are likely made with greater ease if additional cues and immediate responses are present. The provision of more "physical" needs such as instrumental assistance, companionship, and nurturance is likely facilitated by a greater number of cues made available to both parties and likely requires a higher degree of cooperation. Dimmick et al. (2000) suggest that the provision of companionship likely involves strategies that are more easily enacted through media offering synchronicity and additional cues. The number of subtasks and the strategies associated with more physical provisions likely make CMC less effective for them.

It is also logical to believe that meeting provisions in general requires partners to sustain a high degree of mutual understanding. The partner that is meeting the provision will be aided by additional cues and the wider array of communicative strategies offered by synchronous media as the constant coordination of attention and monitoring of the other partner's reactions is necessary. It is also likely that more "affective" provisions such as affection and emotional support require a high degree of mutual understanding to be perceived, especially by the partner for whom the provision is being met. This view of
provisions also remains consistent with the observations of Gergen (1990). Gergen (1990) states that an individual’s well-being and needs are inextricably tied to the relationships one sustains. Since relationship sustenance is dependent upon the constant coordination of understanding, those media that enhance this coordination will be more effective for the provision of various needs.

This general interpretation for the higher ratings of offline friendships in all areas effectively emphasizes the importance of mutual understanding in friendships and supports a social view of communication. It also illustrates how the asynchronicity and reduced cues in CMC can make the enactment of certain communicative strategies more difficult. In addition to supporting a social view of communication, this perspective is bolstered by its ability to unite past research. The reduced number of cues underlying theories such as information richness theory (Daft & Lengel, 1984, 1986) is recognized. However, this reduction in cues does not prevent CMC from functioning as a primary medium for the sustenance of friendships. This results in a view of CMC that acknowledges the reduction of cues present in computer-mediated communication, but also acknowledges that this reduction does not make relationship sustenance in CMC an impossibility. This view is also consistent with that of Walther (1993, 1996) in that it illustrates that the features of CMC affect relationship sustenance, but CMC is still viable as a primary medium for this sustenance. “Hyperpersonal” effects, however were not observed. This is likely a result of the negation of factors associated with idealized perception that occurred as a result of not limiting participants to reporting on those they initially met online.
Furthermore, although the ratings were generally higher for offline friendships, it should be reiterated that the rank-orders were very similar in all three areas. This suggests that there are certain characteristics, speech events, and provisions that are generally associated with friendship regardless of the primary medium of sustenance. Due to the hindrance of mutual understanding caused by asynchronicity and reduced cues, these items are generally rated lower in online friendships. Despite these lower ratings, however, the general sets still remain the same. Therefore the conclusion can be made that friendship is associated with common sets of events, characteristics, and provisions; however, friendships sustained primarily online will be rated lower in these areas due to certain features of CMC as a medium.

This evidence of similar friendships sustained through different media combined with generally lower ratings online brings to light a major question. Since the findings suggest that the friendships are similar and the reduction in cues hinders the sustenance of mutual understanding and enactment of communicative strategies necessary for relationship sustenance, the question arises as to why participants chose CMC as the primary medium for sustaining friendships at all. Although this analysis did not explicitly examine this question, one likely possibility involves the gratification opportunities discussed by Dimmick et al. (2000) that CMC offers.

Jones (1998) describes CMC as an efficient form of social contact. Computer-mediated communication offers a cost-effective way for relational partners to sustain a friendship despite geographic distances. In addition, CMC in its asynchronous forms offers a form of social contact that can overcome the time constraints imposed upon
members of an increasingly mobile society. Dimmick et al. (2000) found that people generally use e-mail because of these opportunities it offers for relational partners to overcome time and distance constraints. It is likely that the online friendships in the present study are sustained online for similar reasons, however this was not explicitly analyzed.

On a broader scale, the present study is important because it illustrates how people can utilize new communication technologies to sustain a larger network of social relationships. Online friendships are rated lower than offline friendships with respect to relational provisions. However, these friendships still contribute to socioemotional well-being in significant ways. Computer-mediated communication is not likely to replace face-to-face interaction as the primary medium for relationship sustenance in the near future. However, CMC offers yet another “tool” that people can use to sustain relationships that contribute to socioemotional well-being in the face of time and distance constraints.

Limitations and Future Research

One of the primary limitations of this study involved the use of a questionnaire format. The instruments used in this study were developed for more traditional, face-to-face relationships. Since no research has been conducted on the speech events and provisions of online friendships, the possibility exists that online friendships meet provisions or are constituted by speech events that are not existent in offline friendships. Furthermore, this particular questionnaire format essentially defined what attributes should be present in a friendship, and this definition emerged based on instruments that were not developed for online friendships.
In the future, it would be beneficial to conduct a qualitative study of the characteristics, speech events, and provisions of online friendships. Rather than defining the sets for participants, a qualitative study would allow participants to define the sets themselves. This will allow for the identification of different provisions or new categories of speech events unique to CMC that were not previously recognized. This would yield potentially different sets of characteristics, speech events, and provisions that could be compared to the sets used in this study. In addition, the lists compiled from the qualitative study could then be organized into a questionnaire format and administered to a similar sample. This would allow for a more complete analysis of online friendships based on attributes that may be “native” to CMC.

As previously discussed, the possibility also exists that differences found in this study were a result of the disproportionate number of offline friendships that were also best friendships overall. Another beneficial future study would involve the administration of the same questionnaire to an equal sample of participants identifying their best online friends as their best friends overall and a sample of participants identifying their best offline friends as their best friends overall. This will allow for the testing of the possibility that differences discovered in this study were actually the result of a statistical artifact, rather than existing as “real” differences.

Another interesting future study would involve the administration of the same questionnaire to a similar sample, but instruction for the participants to complete it with respect to someone other than a best friend. Although differences existed in this particular study, these differences could disappear if different relationships were
analyzed. In addition, since different relationships are constituted by different speech events, this type of study could provide insight into the possibility that unique relationships exist in online contexts that are constituted by speech events unique to CMC. Furthermore, it is possible that provisions that are met at lower levels online for best friendships could be met at higher levels online than their offline counterparts for other relationships.

Summary

The primary goals of this study were to further illustrate the existence of online friendships, form a more complete conceptualization of online friendship, and determine whether or not the primary mode of communication used to sustain a friendship affected the way the friendship was conceptualized and the provisions that friendship met. These goals have been accomplished. The number of best online friends identified in this study illustrates the existence of online friendships. Some differences were discovered between the two types of friendship, however they were generally found to be conceptualized in similar ways. In addition, they were found to meet similar provisions. Although these conceptualizations consisted of similar items with similar orders of importance, results generally indicated that best offline friendships were rated significantly higher on nearly all characteristics, speech events, and provisions. These results created an overarching pattern in the study in which the two types of friendship were found to be very similar in their general definitions and the general provisions they met, however best offline friendships were consistently rated higher. This pattern supports a general model for friendship that all friendships fit regardless of the primary mode used to sustain them, however, offline friendships will fit this model more closely in nearly all areas. These
higher ratings may be a result of the hindrance to mutual understanding and enactment of certain complex communicative strategies created by the reduced cues in CMC and the asynchronous nature of many forms of CMC. The sustenance of these relationships, however, illustrates their importance and could represent a choice of CMC for the sustenance of relationships across geographic distances. These higher ratings could also be a statistical artifact related to the design of the study.

Findings also indicated that within this model of friendship, greater emphasis is placed on qualities that are more abstract and less emphasis is placed on qualities that are more physical. Patterns in the defining characteristics and relational provisions indicated that friendships were characterized more by mutual acceptance and support of one another and met provisions centered on affection and reliable alliance. In addition, the speech events that constituted both types of friendship were primarily a combination of "joking around" and various events centered on discussing personal events that were happening in the lives of the friends. Considered together, these findings indicate that friendships are generally not centered on participation in physical activities together. Rather, friendships are relationships in which both participants have a sense that the other will always be available, will show them affection, and will accept and respect them regardless of the circumstances.

Finally, like any study this examination was subject to several limitations. Future research should serve to overcome these limitations and test these findings in the context of different relationships. Qualitative studies with similar goals could be beneficial in determining whether these findings are truly representative of online friendships. Despite these limitations, however, the present study still provides new insight into the role of
new communication technologies in the sustenance of relationships that are vital to human existence. This provides guidance for future endeavors as computer-mediated communication becomes more pervasive and continues to play an active role in the social existence of human beings.
ENDNOTES

1 A total of 171 questionnaires were administered. Seventy-seven questionnaires were administered at one point and 94 were administered later. In the first administration, 30 questionnaires were received that could not be used. In order to address this problem, the same questionnaire was administered a second time to different students. In the second administration, participants also received oral instructions prior to their completion of the questionnaires. This resulted in only two questionnaires from the second administration that could not be used.
LIST OF REFERENCES


APPENDIX A

QUESTIONNAIRE GIVEN TO STUDENTS
Friendship Questionnaire:

This questionnaire is concerned with your friendships and the communication that occurs in them. Your responses will be used for research purposes only. All responses will be kept confidential. Participation is voluntary and you will not be penalized if you choose not to complete the questionnaire. If at any point you feel uncomfortable with the questions, please do not complete the questionnaire. Although the questionnaire is rather lengthy, much of it requires only short answers. It should take around 30 minutes to complete. There are no right or wrong answers to these questions, so try to answer them as honestly as possible. Although some of the questions might seem to be asking the same thing, please answer each question. Give each question a moment's thought and then answer it. If you start to feel tired and as if you are not honestly answering each question, please take a break and then go back to filling out the questionnaire when you are ready to do so. Also, please note that each page has questions on both sides.

Before you continue, several terms used throughout the questionnaire will be defined.

The term "online" in the questions refers to any communication by e-mail, through chat rooms, on bulletin boards or newsgroups, through computer role-playing games, and through any other means in which the computer is necessary for communication.

The term "face to face" refers to communication that occurs directly with the other person when they are physically present.

The term "by telephone" refers to communication that occurs with the other person using the telephone.

Section 1:

Think of your “best online friend.” The term “best online friend” refers to your best friend with whom 51% or more of your communication in the last month occurred online. Please do not rate you romantic partner as your best online friend. If you do not have a best online friend, please skip to Question 6.

1. If you do have a best online friend, please write his or her initials below.

   Initials

2. How did you first meet your best online friend? (Please circle one)
   
   Online  Face to Face  By Other Means

3. What is the sex of your best online friend? Please circle one.
   
   Male  Female  Don’t Know

4. How long have you known your best online friend? ________ (please indicate years or months also)

5. Of the total time you have spent communicating with your best online friend in the last month, what percentage of your communication occurred online, face to face, by telephone, and by other means (letters, etc.)? The percentages should add up to 100%.

   Online (must be 51% or more)_________

   Face to Face_________

   Telephone_________

   Other_________
6. This question asks you to write a few sentences about online friendships. This is the only question of this type. The rest of the questionnaire only asks you to circle your choices. Regardless of whether you have a “best online friend” or not, if you help sustain any of your friendships online, why do you use online means to sustain them? If you do not use online means to sustain any of your friendships, please skip to Section 5.

Sections 2-4 concern your relationship with your best online friend. If you do not have a best online friend, please skip to Section 5.

Section 2: The following are relationship descriptions. Please respond to these with respect to how characteristic each description is of your best online friend. After each description please rate the description according to how characteristic it is of your relationship with your best online friend. Use a seven point scale where 1 means the description is “not at all characteristic” of your best online friend and 7 means the description is “completely characteristic” of your best online friend.

1. In some relationships, partners enjoy each other. That is they enjoy interacting with each other. Even though there may be times of conflict, of boredom, or of tension in the relationship, for the most part, the experience of being in the relationship is an enjoyable one.

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3. In some relationships, we feel free to be ourselves with our partners. We do not feel we have to play a role, wear a mask, or hold back from being the way we really are. We feel like we can just relax and be the person that we really are when we are with them.

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4. In some relationships, we have a basic sense that we can trust each other—that we can count on each other not to betray or violate the relationship we have. We confidently believe, for example, that neither of us will lie about important matters, reveal secrets or other personal information that we may have shared, or use or take advantage of each other.

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6. In some relationships, partners are rewarding of each other. That is, they respond to things that the other does, or ways that they are, in rewarding ways. For example, if one of them were to accomplish something, the other is likely to praise or positively acknowledge the accomplishment. Or, if one of them were to do something to the other, the other would be likely to thank him or her sincerely for what he or she has done.

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7. In some relationships, we have a sense that we are accepted by the other just as we are. Even though our partners may at times object to certain actions of ours (e.g., to our smoking, driving too fast, or being late), we do not get the sense that they want us to be different persons. Rather, our sense in the relationship is that we are basically accepted as we are.

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8. In some relationships, we have a sense that each of us has a strong personal investment in the well-being of the other. We have a sense that we are “on each other’s side”, that we are “in each other’s corner” in the sense that we are really interested in, and willing to do things to further each other’s career or other personal goals. We are willing to make efforts on each other’s behalf in order to help each other to achieve our personal goals or desires.

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9. In some relationships, we find that we are like or similar to our partners in a lot of ways. For example, we might find that we want similar things out of life, that we have similar values, that we tend to enjoy the same things, that we often have the same reaction to other people and events, or that we have many common interests.

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10. In some relationships, we have a sense that each of us respects the other. We consider each other worthy of esteem and high regard. This respect might be based on a variety of factors. We might, for example, respect each other’s judgment—consider each other to be persons who make sound decisions. Or we might respect each other as moral persons who will be honest, who will usually do the right thing even when there are pressures to do otherwise, and who will do things for the right reasons. Whatever the particular reasons might be, we find that each of us has a basic respect for each other.

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11. In some relationships, we understand each other. In other words, we know things about the other such as what is important to the other, and why the other does the things that he or she does. We understand the reasoning and the feelings that are behind the other’s actions, and are not puzzled or confused by each other. If the other is troubled or moody, we are likely to be able to make a good guess as to what is bothering him or her. We know what “makes each other tick.”

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In some relationships, we find that our partners have personal characteristics which, while they are different from our own, help them to balance us off in certain ways (while we in turn balance them off). For example, where we may be more logical, they may be more emotional (or vice versa). Or where we might be more careful (or vice versa). Or, where we might be more outgoing, they might be more reserved with other people (or vice versa). In these or other ways, we might find that our partners complement or provide a balance for us.

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Section 3: The questions below ask you to rate how much your social needs are met by your best online friend. For each of the questions, please rate how much your best online friend has met that need in the past month. Again, use a seven point scale. The endpoints for the scale will be different on different questions. Please read each question carefully and circle a number that represents how much the need in that question is met by your best online friend based on the endpoints for that question.

1. **How much free time do you spend interacting?**
   - none
   - a great deal
   1  2  3  4  5  6  7

2. **How much does this person make you feel admired and respected?**
   - none
   - a great deal
   1  2  3  4  5  6  7

3. **How much do you share secrets and private feelings with this person?**
   - none
   - a great deal
   1  2  3  4  5  6  7

4. **How sure are you that this person will always be there through thick and thin?**
   - not at all sure
   - very sure
   1  2  3  4  5  6  7

5. **How much do you turn to this person for guidance in times of stress?**
   - none
   - a great deal
   1  2  3  4  5  6  7

6. **How often do you turn to this person for practical help when you need to get something done?**
   - rarely
   - frequently
   1  2  3  4  5  6  7

7. **How much does this person need you to do things for him or her?**
   - none
   - a great deal
   1  2  3  4  5  6  7

8. **How much does this person empathize and understand your feelings?**
   - none
   - a great deal
   1  2  3  4  5  6  7

9. **How much does this person like or love you?**
   - none
   - a great deal
   1  2  3  4  5  6  7
16. How satisfied are you with your relationship with this person? 
   not at all satisfied  
   | 1 | 2 | 3 | 4 | 5 | 6 | 7 | very satisfied  

11. How much do you and this person have fun with each other? 
   none  
   | 1 | 2 | 3 | 4 | 5 | 6 | 7 | a great deal  

12. How much does this person like or approve of the things you do? 
   none  
   | 1 | 2 | 3 | 4 | 5 | 6 | 7 | a great deal  

13. How much do you tell this person everything? 
   none  
   | 1 | 2 | 3 | 4 | 5 | 6 | 7 | a great deal  

14. How sure are you that your relationship with this person will last in spite of quarrels and fights? 
   not at all sure  
   | 1 | 2 | 3 | 4 | 5 | 6 | 7 | very sure  

15. How much do you talk to this person about important decisions in your life? 
   none  
   | 1 | 2 | 3 | 4 | 5 | 6 | 7 | a great deal  

16. How often does this person do favors for you, like loaning or giving you something? 
   rarely  
   | 1 | 2 | 3 | 4 | 5 | 6 | 7 | frequently  

17. How much do you take care of this person? 
   none  
   | 1 | 2 | 3 | 4 | 5 | 6 | 7 | a great deal  

18. How much does this person provide comfort, or support you in dealing with a specific situation? 
   none  
   | 1 | 2 | 3 | 4 | 5 | 6 | 7 | a great deal  

19. How much does this person really care for you? 
   none  
   | 1 | 2 | 3 | 4 | 5 | 6 | 7 | a great deal  

20. How happy are you with the way things are between you and this person? 
   not at all happy  
   | 1 | 2 | 3 | 4 | 5 | 6 | 7 | very happy  

21. How much time do you spend communicating about common interests? 
   none  
   | 1 | 2 | 3 | 4 | 5 | 6 | 7 | a great deal  

22. How worthwhile and special does this person make you feel? 
   none  
   | 1 | 2 | 3 | 4 | 5 | 6 | 7 | a great deal  

23. How much do you talk to this person about things you don’t want others to know? 
   none  
   | 1 | 2 | 3 | 4 | 5 | 6 | 7 | a great deal  

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24. How permanent and reliable is your relationship with this person?
   not at all    1  2  3  4  5  6  very 7
25. How often do you turn to this person for advice when you have a problem?
   rarely        1  2  3  4  5  6  frequently 7
26. How much does this person help you with things you are working on?
   none          1  2  3  4  5  6  a great deal 7
27. How much do you help this person with things he or she can't do by himself or herself?
   none          1  2  3  4  5  6  a great deal 7
28. How much does this person console you when you are upset?
   none          1  2  3  4  5  6  a great deal 7
29. How strong a feeling of affection does this person have toward you?
   not at all    1  2  3  4  5  6  very strong 7
30. How often do you have enjoyable interactions with this person?
    rarely       1  2  3  4  5  6  frequently 7
31. How much does this person make you feel like you are good at many things?
    none         1  2  3  4  5  6  a great deal 7
32. How often do you let this person see your softer, more sensitive side?
    rarely       1  2  3  4  5  6  frequently 7
33. How sure are you that your relationship with this person will last no matter what?
    not at all   1  2  3  4  5  6  very sure 7
34. How much does this person help you to figure out your problems?
    none         1  2  3  4  5  6  a great deal 7
35. How much does this person do minor things for you?
    none         1  2  3  4  5  6  a great deal 7
36. How much do you feel personally responsible for the well-being of this person?
    none         1  2  3  4  5  6  a great deal 7
37. How much does this person provide emotional support to you?
    none         1  2  3  4  5  6  a great deal 7

   119
38. How much does this person convey a feeling of warmth and fondness toward you?  
none 1 2 3 4 5 6 7  
a great deal  

39. How often do you spend recreational time interacting with this person?  
rarely 1 2 3 4 5 6 7  
frequently  

40. How proud of yourself does this person make you feel?  
not at all proud 1 2 3 4 5 6 7  
very proud  

41. How much does this person know and understand your thoughts and feelings?  
none 1 2 3 4 5 6 7  
a great deal  

42. How sure are you that your relationship will continue in the years to come?  
not at all sure 1 2 3 4 5 6 7  
very sure  

43. How often does this person provide you with helpful information on how to solve a problem?  
rarely 1 2 3 4 5 6 7  
frequently  

44. How much does this person assist you with major tasks when you really need it?  
none 1 2 3 4 5 6 7  
a great deal  

45. How much do you protect and look out for this person?  
none 1 2 3 4 5 6 7  
a great deal  

46. How much does this person listen to you when you are under stress?  
none 1 2 3 4 5 6 7  
a great deal  

47. How emotionally attached is this person to you?  
not at all attached 1 2 3 4 5 6 7  
very attached  

48. How good is your relationship with this person?  
not at all good 1 2 3 4 5 6 7  
very good  

49. How close do you feel to this person most of the time?  
not at all close 1 2 3 4 5 6 7  
very close  

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Section 4: The following are descriptions of various types of communication that may occur between you and your best online friend. For each description, please rate how often that type of communication has occurred between your best online friend and you in the past month. Use a seven point scale where “1” means that type of communication “never occurred” and “7” means that type of communication “frequently occurred”. The terms “spoke,” “conversations,” and “talk” in the questions can also refer to communicating online, and should not be thought of as only verbal communication.

1. Small talk: talk to pass the time and avoid being rude.  
   never occurred 1 2 3 4 5 6 frequently occurred 7

2. Sports talk: talk that occurs while playing or watching a sporting event.  
   never occurred 1 2 3 4 5 6 frequently occurred 7

3. Current events talk: talk in which the topic is limited to news and current events.  
   never occurred 1 2 3 4 5 6 frequently occurred 7

4. Gossip: exchanging opinions or information about someone else when that person isn’t present.  
   never occurred 1 2 3 4 5 6 frequently occurred 7

5. Joking around: a playful kind of communication to have fun or release tension.  
   never occurred 1 2 3 4 5 6 frequently occurred 7

6. Catching up: occurs when you haven’t talked to someone recently and you talk about the events in your lives that have occurred since you last spoke.  
   never occurred 1 2 3 4 5 6 frequently occurred 7

7. Recapping the day’s events: telling about what’s up and what happened to each person during the day.  
   never occurred 1 2 3 4 5 6 frequently occurred 7

8. Morning talk: the kind of routine talk you have when you first wake up.  
   never occurred 1 2 3 4 5 6 frequently occurred 7

9. Bedtime talk: the kind of routine talk you have right before you go to bed.  
   never occurred 1 2 3 4 5 6 frequently occurred 7

10. Reminiscing talk: talking with someone about shared events you experienced together in the past.  
    never occurred 1 2 3 4 5 6 frequently occurred 7

11. Making up: conversations in which one or both people apologize for violating some expectations.  
    never occurred 1 2 3 4 5 6 frequently occurred 7

12. Love talk: communication that has little content but expresses love and gives attention and affection.  
    never occurred 1 2 3 4 5 6 frequently occurred 7

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13. Relationship talk: communication about the nature and state of a relationship.
   never occurred 1 2 3 4 5 6 7
   frequently occurred

14. Conflict: conversations in which the two people disagree.
   never occurred 1 2 3 4 5 6 7
   frequently occurred

15. Serious conversation: a two-way, in-depth discussion or exchange of feelings, opinions, or ideas about some personal and important topic.
   never occurred 1 2 3 4 5 6 7
   frequently occurred

16. Talking about problems: conversations in which one person tells about some problem he or she is having and the other person tries to help.
   never occurred 1 2 3 4 5 6 7
   frequently occurred

17. Breaking bad news: a conversation in which one person doesn’t know about something bad that has happened and another person tells him or her the bad news.
   never occurred 1 2 3 4 5 6 7
   frequently occurred

18. Complaining: Expressing negative feelings, frustrations, gripes or complaints about some common experience where negative feelings are directed toward the topic but not toward the other people in the conversation.
   never occurred 1 2 3 4 5 6 7
   frequently occurred

19. Persuading conversation: conversation in which one person has the goal of convincing the other person to do something.
   never occurred 1 2 3 4 5 6 7
   frequently occurred

20. Decision-making conversation: conversation in which people have the goal of making a decision about some task.
   never occurred 1 2 3 4 5 6 7
   frequently occurred

21. Giving and getting instructions: a conversation in which one person gives another person information or directions about how to do some task.
   never occurred 1 2 3 4 5 6 7
   frequently occurred

22. Class information talk: informal conversations in which you find out about class assignments, exams, or course material.
   never occurred 1 2 3 4 5 6 7
   frequently occurred

23. Lecture: a one-way kind of conversation in which one person tells another person how to act or what to do.
   never occurred 1 2 3 4 5 6 7
   frequently occurred

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24. Interrogation: a one-way kind of conversation in which one person grills the other person with questions.

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25. Making plans: Talking to arrange a meeting or arrange to do something with someone.

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26. Asking a favor: Talk with the specific purpose of getting someone to do something for you.

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Sections 5-8 concern your relationship with your best offline friend. The term “best offline friend” refers to your best friend with whom 50% or more of your communication in the last month occurred in all settings that would not be considered “online” (face to face, telephone, letters, etc.). If you do not have a best offline friend, please skip to Section 9.

Section 5:

1. Now, think of the person that you consider your “best offline friend.” Please do not rate your romantic partner as your best offline friend. This cannot be the same person you identified as your best online friend. Please write his or her initials below. Again, if you do not have a best offline friend please skip to Section 9.

   Initials __________

2. What is the sex of your best offline friend? Please circle one.
   Male    Female

3. How long have you known your best offline friend? __________ (please indicate years or months also)

4. Of the total time you have spent communicating with your best offline friend in the last month, what percentage of your communication occurred online, face to face, by telephone, and by other means (letters, etc.)? The percentages should add up to 100%.

   Online __________
   Face to Face __________
   Telephone __________
   Other __________

123
Section 6: The following are relationship descriptions. Please respond to these with respect to how characteristic each description is of your best offline friend. After each description please rate the description according to how characteristic it is of your relationship with your best offline friend. Use a seven point scale where 1 means the description is “not at all characteristic” of your best offline friend and 7 means the description is “completely characteristic” of your best offline friend.

1. In some relationships, partners enjoy each other. That is they enjoy interacting with each other. Even though there may be times of conflict, of boredom, or of tension in the relationship, for the most part, the experience of being in the relationship is an enjoyable one.

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2. In some relationships, we feel free to confide openly in each other. We are able to disclose intimate and personal experiences and feelings to each other. We feel we can “really talk to each other,” really “open up to each other” about deeply personal matters.

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3. In some relationships, we feel free to be ourselves with our partners. We do not feel we have to play a role, wear a mask, or hold back from being the way we really are. We feel like we can just relax and be the person that we really are when we are with them.

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7. In some relationships, we have a sense that we are accepted by the other just as we are. Even though our partners may at times object to certain actions of ours (e.g., to our smoking, driving too fast, or being late), we do not get the sense that they want us to be different persons. Rather, our sense in the relationship is that we are basically accepted as we are.

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8. In some relationships, we have a sense that each of us has a strong personal investment in the well-being of the other. We have a sense that we are “on each other’s side”, that we are “in each other’s corner” in the sense that we are really interested in, and willing to do things to further each other’s career or other personal goals. We are willing to make efforts on each other’s behalf in order to help each other to achieve our personal goals or desires.

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9. In some relationships, we find that we are like or similar to our partners in a lot of ways. For example, we might find that we want similar things out of life, that we have similar values, that we tend to enjoy the same things, that we often have the same reaction to other people and events, or that we have many common interests.

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10. In some relationships, we have a sense that each of us respects the other. We consider each other worthy of esteem and high regard. This respect might be based on a variety of factors. We might, for example, respect each other’s judgment—consider each other to be persons who make sound decisions. Or we might respect each other as moral persons who will be honest, who will usually do the right thing even when there are pressures to do otherwise, and who will do things for the right reasons. Whatever the particular reasons might be, we find that each of us has a basic respect for each other.

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11. In some relationships, we understand each other. In other words, we know things about the other such as what is important to the other, and why the other does the things that he or she does. We understand the reasoning and the feelings that are behind the other’s actions, and are not puzzled or confused by each other. If the other is troubled or moody, we are likely to be able to make a good guess as to what is bothering him or her. We know what “makes each other tick.”

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12. In some relationships, we find that our partners have personal characteristics which, while they are different from our own, help them to balance us off in certain ways (while we in turn balance them off). For example, where we may be more logical, they may be more emotional (or vice versa). Or where we might be more adventurous, they might be more careful (or vice versa). Or, where we might be more outgoing, they might be more reserved with other people (or vice versa). In these or other ways, we might find that our partners complement or provide a balance for us.

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Section 7: The questions below ask you to rate how much your social needs are met by your best offline friend. For each of the questions, please rate how much your best offline friend has met that need in the past month. Again, use a seven point scale. The endpoints for the scale will be different on different questions. Please read each question carefully and circle a number that represents how much the need in that question is met by your best offline friend based on the endpoints for that question.

1. How much free time do you spend interacting?
   none
   1  2  3  4  5  6  7
   a great deal

2. How much does this person make you feel admired and respected?
   none
   1  2  3  4  5  6  7
   a great deal

3. How much do you share secrets and private feelings with this person?
   none
   1  2  3  4  5  6  7
   a great deal

4. How sure are you that this person will always be there through thick and thin?
   not at all sure
   1  2  3  4  5  6  7
   very sure

5. How much do you turn to this person for guidance in times of stress?
   none
   1  2  3  4  5  6  7
   a great deal

6. How often do you turn to this person for practical help when you need to get something done?
   rarely
   1  2  3  4  5  6  7
   frequently

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7. How much does this person need you to do things for him or her?  
   none 1  2  3  4  5  6  a great deal 7

8. How much does this person empathize and understand your feelings?  
   none 1  2  3  4  5  6  a great deal 7

9. How much does this person like or love you?  
   none 1  2  3  4  5  6  a great deal 7

10. How satisfied are you with your relationship with this person?  
    not at all satisfied 1  2  3  4  5  6  very satisfied 7

11. How much do you and this person have fun with each other?  
    none 1  2  3  4  5  6  a great deal 7

12. How much does this person like or approve of the things you do?  
    none 1  2  3  4  5  6  a great deal 7

13. How much do you tell this person everything?  
    none 1  2  3  4  5  6  a great deal 7

14. How sure are you that your relationship with this person will last in spite of quarrels and fights?  
    not at all sure 1  2  3  4  5  6  very sure 7

15. How much do you talk to this person about important decisions in your life?  
    none 1  2  3  4  5  6  a great deal 7

16. How often does this person do favors for you, like loaning or giving you something?  
    rarely 1  2  3  4  5  6  frequently 7

17. How much do you take care of this person?  
    none 1  2  3  4  5  6  a great deal 7

18. How much does this person provide comfort, or support you in dealing with a specific situation?  
    none 1  2  3  4  5  6  a great deal 7

19. How much does this person really care for you?  
    none 1  2  3  4  5  6  a great deal 7

20. How happy are you with the way things are between you and this person?  
    not at all happy 1  2  3  4  5  6  very happy 7
21. How much time do you spend communicating about common interests?
   none 1 2 3 4 5 6 7 a great deal

22. How worthwhile and special does this person make you feel?
   none 1 2 3 4 5 6 7 a great deal

23. How much do you talk to this person about things you don't want others to know?
   none 1 2 3 4 5 6 7 a great deal

24. How permanent and reliable is your relationship with this person?
   not at all 1 2 3 4 5 6 7 very

25. How often do you turn to this person for advice when you have a problem?
   rarely 1 2 3 4 5 6 7 frequently

26. How much does this person help you with things you are working on?
   none 1 2 3 4 5 6 7 a great deal

27. How much do you help this person with things he or she can't do by himself or herself?
   none 1 2 3 4 5 6 7 a great deal

28. How much does this person console you when you are upset?
   none 1 2 3 4 5 6 7 a great deal

29. How strong a feeling of affection does this person have toward you?
   not at all strong 1 2 3 4 5 6 7 very strong

30. How often do you have enjoyable interactions with this person?
   rarely 1 2 3 4 5 6 7 frequently

31. How much does this person make you feel like you are good at many things?
   none 1 2 3 4 5 6 7 a great deal

32. How often do you let this person see your softer, more sensitive side?
   rarely 1 2 3 4 5 6 7 frequently

33. How sure are you that your relationship with this person will last no matter what?
   not at all sure 1 2 3 4 5 6 7 very sure

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34. How much does this person help you to figure out your problems?
   none 1 2 3 4 5 6 a great deal 7
35. How much does this person do minor things for you?
   none 1 2 3 4 5 6 a great deal 7
36. How much do you feel personally responsible for the well-being of this person?
   none 1 2 3 4 5 6 a great deal 7
37. How much does this person provide emotional support to you?
   none 1 2 3 4 5 6 a great deal 7
38. How much does this person convey a feeling of warmth and fondness toward you?
   none 1 2 3 4 5 6 a great deal 7
39. How often do you spend recreational time interacting with this person?
   rarely 1 2 3 4 5 6 frequently 7
40. How proud of yourself does this person make you feel?
   not at all proud 1 2 3 4 5 6 very proud 7
41. How much does this person know and understand your thoughts and feelings?
   none 1 2 3 4 5 6 a great deal 7
42. How sure are you that your relationship will continue in the years to come?
   not at all sure 1 2 3 4 5 6 very sure 7
43. How often does this person provide you with helpful information on how to solve a problem?
   rarely 1 2 3 4 5 6 frequently 7
44. How much does this person assist you with major tasks when you really need it?
   none 1 2 3 4 5 6 a great deal 7
45. How much do you protect and look out for this person?
   none 1 2 3 4 5 6 a great deal 7
46. How much does this person listen to you when you are under stress?
   none 1 2 3 4 5 6 a great deal 7
47. How emotionally attached is this person to you?
   not at all attached 1 2 3 4 5 6 very attached 7
48. How good is your relationship with this person?  
   not at all good  
   1  2  3  4  5  6  7  
   very good  

49. How close do you feel to this person most of the time?  
   not at all close  
   1  2  3  4  5  6  7  
   very close  

Section 8: The following are descriptions of various types of communication that may occur between you and your best offline friend. For each description, please rate how often that type of communication has occurred between your best offline friend and you in the past month. Use a seven point scale where “1” means that type of communication “never occurred” and “7” means that type of communication “frequently occurred”. The terms “spoke,” “conversations,” and “talk” in the questions can also refer to communicating online, and should not be thought of as only verbal communication.

1. Small talk: talk to pass the time and avoid being rude.  
   never occurred  
   1  2  3  4  5  6  7  
   frequently occurred  

2. Sports talk: talk that occurs while playing or watching a sporting event.  
   never occurred  
   1  2  3  4  5  6  7  
   frequently occurred  

3. Current events talk: talk in which the topic is limited to news and current events.  
   never occurred  
   1  2  3  4  5  6  7  
   frequently occurred  

4. Gossip: exchanging opinions or information about someone else when that person isn’t present.  
   never occurred  
   1  2  3  4  5  6  7  
   frequently occurred  

5. Joking around: a playful kind of communication to have fun or release tension.  
   never occurred  
   1  2  3  4  5  6  7  
   frequently occurred  

6. Catching up: occurs when you haven’t talked to someone recently and you talk about the events in your lives that have occurred since you last spoke.  
   never occurred  
   1  2  3  4  5  6  7  
   frequently occurred  

7. Recapping the day’s events: telling about what’s up and what happened to each person during the day.  
   never occurred  
   1  2  3  4  5  6  7  
   frequently occurred  

8. Morning talk: the kind of routine talk you have when you first wake up.  
   never occurred  
   1  2  3  4  5  6  7  
   frequently occurred  

9. Bedtime talk: the kind of routine talk you have right before you go to bed.  
   never occurred  
   1  2  3  4  5  6  7  
   frequently occurred
10. Reminiscing talk: talking with someone about shared events you experienced together in the past.
never occurred
1 2 3 4 5 6 7
frequently occurred
11. Making up: conversations in which one or both people apologize for violating some expectations.
never occurred
1 2 3 4 5 6 7
frequently occurred
12. Love talk: communication that has little content but expresses love and gives attention and affection.
never occurred
1 2 3 4 5 6 7
frequently occurred
13. Relationship talk: communication about the nature and state of a relationship.
never occurred
1 2 3 4 5 6 7
frequently occurred
14. Conflict: conversations in which the two people disagree.
never occurred
1 2 3 4 5 6 7
frequently occurred
15. Serious conversation: a two-way, in-depth discussion or exchange of feelings, opinions, or ideas about
some personal and important topic.
never occurred
1 2 3 4 5 6 7
frequently occurred
16. Talking about problems: conversations in which one person tells about some problem he or she is
having and the other person tries to help.
never occurred
1 2 3 4 5 6 7
frequently occurred
17. Breaking bad news: a conversation in which one person doesn’t know about something bad that has
happened and another person tells him or her the bad news.
never occurred
1 2 3 4 5 6 7
frequently occurred
18. Complaining: Expressing negative feelings, frustrations, gripes or complaints about some common
experience where negative feelings are directed toward the topic but not toward the other people in the
conversation.
never occurred
1 2 3 4 5 6 7
frequently occurred
19. Persuading conversation: conversation in which one person has the goal of convincing the other person
to do something.
never occurred
1 2 3 4 5 6 7
frequently occurred
20. Decision-making conversation: conversation in which people have the goal of making a decision about
some task.
never occurred
1 2 5 4 5 6 7
frequently occurred
21. Giving and getting instructions: a conversation in which one person gives another person information or directions about how to do some task.

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22. Class information talk: informal conversations in which you find out about class assignments, exams, or course material.

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23. Lecture: a one-way kind of conversation in which one person tells another person how to act or what to do.

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24. Interrogation: a one-way kind of conversation in which one person grills the other person with questions.

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25. Making plans: Talking to arrange a meeting or arrange to do something with someone.

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26. Asking a favor: Talk with the specific purpose of getting someone to do something for you.

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Section 9: The following questions are background questions.

1. Now, think of your best friend overall. Please do not think of your romantic partner as your best friend overall. Based on the definitions discussed earlier, your best friend overall should be either the person you identified as your best online friend or the person you identified as your best offline friend. Please circle the choice below that describes who your best friend overall is.

   - best online friend
   - best offline friend

2. Your sex is (please circle one): male female

3. Your age is _________

4. Your race is (please circle one):
   - African American
   - Asian
   - Caucasian
   - Hispanic
   - Native American
   - Other (please describe) __________________________

5. What is your class standing at OSU? Please circle one.
   - Freshman
   - Sophomore
   - Junior
   - Senior
   - Graduate Student

6. Do you have Internet access in your home or dorm room? Yes No

7. Approximately how many hours do you spend online each week? _______