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## Factors of adoption: Initiating relationships using online dating sites

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FACTORS OF ADOPTION: INITIATING RELATIONSHIPS  
USING ONLINE DATING SITES

by

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Bachelor of Arts, Journalism  
Hawaii Pacific University  
2008

A thesis submitted in partial fulfillment  
of the requirements for the

**Master of Arts Degree in Journalism and Media Studies**  
**Hank Greenspun Department of Journalism and Media Studies**  
**Greenspun College of Urban Affairs**

**Graduate College**  
**University of Nevada, Las Vegas**  
**May 2011**

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## ABSTRACT

### **Factors of Adoption: Initiating Relationships Using Online Dating Sites**

by

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The present study used the Diffusion of Innovations Model to explore the circumstances that lead graduate and professional students enrolled at the a university in southern Nevada to adopt online dating services with the intent of initiating a serious commitment with a potential partner. The diffusion model was used to frame online dating as a process that people go through in acquiring knowledge about the service, forming an opinion about it, testing the service, and finally adopting the service into their daily life. Factors such as time afforded to relationships, apprehension in social situations, safety, and opinions of online dating were tested to determine adoption. Using an online quantitative survey, 68 graduate and professional students volunteered to participate in the study, 31 having used online dating, and 37 not having used online dating. There were 14 males, and 54 females from ages 21 to 57 ( $m = 31.57$ ,  $sd = 7.076$ ). Analysis was run using t-tests and correlations to determine whether or not the hypotheses were supported.

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## CHAPTER 1

### INTRODUCTION

When the telephone was introduced those with access to it could be connected at a distance and could keep in contact with one another. Although perceived as a benefit by some, others felt the adoption of the telephone made communicating face-to-face obsolete. A similar reaction has occurred with Internet technology no longer being limited to the computer literate. These types of communication technologies often seem to have critics (Aspden & Katz, 1997; Kiesler et al., 1998) because of the way in which they have changed the nature of social interaction (Gleason, et al., 2002; Tyler, 2002).

As with the invention of the telephone, Internet technology facilitates communication between friends, acquaintances, and strangers in a way that allows communication to occur at a distance. Today the Internet has become a prime venue for social interaction (Gleason, Green & McKenna, 2002) and has become a tool for information dissemination in addition to a medium for interaction and collaboration between individuals while using computers (Cerf et al., 1997). For college students, using the Internet has had a major impact not only on education, but also on socialization, allowing social connections to be made and cultivated (Pew, 2002). Students looking to use the Internet to initiate romantic relationships, or date online, are able to use computer-mediated communication to avoid the awkward “getting to know you” phase of a new relationship. Despite being less traditional, online dating, through the use of computer-mediated communication is becoming increasingly popular.

The definition of computer-mediated communication (CMC) is the synchronous or asynchronous use of e-mail and computer conferencing by which users encode, in text,



messages that are relayed between senders and receivers (Walther, 1992).

Communicating through CMC was an unintended byproduct of scientists that led people to be able to send simple messages to one another (Walther, 1996). Relationship initiation is one of the most dramatic intersections of CMC and social contexts, and the management of those relationships is likely to increase as technology becomes more convenient, affordable, and accessible (Spitzberg, 2006).

The main argument against CMC use is the lack of non-verbal cues that may affect user perceptions of the communication context and interpretation of messages (Walther, 1992). The nature of CMC is essential to mention while discussing and examining social interaction on the Internet, specifically online dating, because communication and interaction are initially mediated through a computer, and then have the option to move offline, or face-to-face. Love and Rice (1987) posed the question of whether such media alters human communication (p. 86). Human communication is undoubtedly altered by CMC. A study done by Kraut et al. (1998) posed the question of whether or not the changes in interaction due to the Internet benefit society or not. This question has been the subject of many debates within popular and academic research especially in regards to psychosocial health issues such as depression and loneliness (Caplan, 2003; Caplan 2007). However, it was suggested that Internet technology has contributed to overall well-being by its users based on the fact that it affords more opportunity to be interdependent and self-reliant (McQuillen, 2003), and because individuals who feel apprehensive or threatened by face-to-face social interactions feel that they can be themselves on the Internet (McKenna, Green, and Gleason, 2002).

For some computer users, computer-mediated communication is very appealing because of the reduced visual and auditory cues, placing less importance on physical attractiveness (Cooper & Sportolari, 1997; Peter & Valkenburg, 2007). As a result of the reduced cues, there is also a lack of identifying information such as the individual's real name. Another appeal of CMC is the emphasis on text-based messages, which allows people to have more time to reflect about how and what they say (Walther, 1996; McKenna & Bargh, 2000). This enables people to control how they present themselves. The argument for inferiority is that that online communication technology is more impersonal and therefore not conducive to forming a meaningful relationship because of being physically absent (Kiesler, McGuire, & Siegel, 1984, McQuillen, 2003). However, Tyler (2002) suggested that using the Internet such as e-mail, chat rooms, or instant messaging to communicate with others might be the new way for people to interact.

### The Process of Online Dating

Although significantly different from traditional dating where a majority of the interaction is done in person, online dating sites provide methods of browsing and testing for compatibility that a traditional method of dating would delay for periods of time. Actively socializing online with potential romantic partners via an online matchmaking service is referred to as online dating (Houran & Lange, 2004). According to Chiou and Wu (2009), "almost every online dating Web site provides search tools with which members browse and evaluate the profiles of cyber friends" (p.315). Online dating follows a well-laid pattern of searching to find a compatible partner by means other than meeting the individual in person. Variations of courtship and mate selection through

advertising date back to the 19<sup>th</sup> century when a mail order bride system was used frequently by emigrants who left Europe and headed to the United States (Jagger, 1998).

Newspaper ads became another option for mate selection. For example, wording such as: “Tall gentleman looking for petite female to share a meaningful relationship with possibility of marriage,” might appear in a newspaper advertisement. Similar to placing an advertisement in the personals column of a newspaper allowing an individual to advertise their interests and specifications of a desired mate, online dating allows users to state what they are looking for in a relationship, in addition to revealing the traits and qualities the individual possesses. According to Pascoe (2008), “courtship norms and practices are less formal and more varied than they were in the early and mid-twentieth century” (p.1). Students at Harvard during the mid-1960’s created Operation Match, the first recognized computer-matching service, after discussing with their peers the cons of ‘mixers’ and blind dates (Harvey, Hatfield, Schwartz, & Sprecher, 2008). These patterns of finding a potential mate through means other than face-to-face interaction are continuing to evolve and expand every decade based on the resources available.

Online advertisement systems, such as those created on dating services, generally include a profile that includes one’s location, gender, age, physical attributes, race, religion, self-description and preferences for similar characteristics in a potential mate (Donath & Fiore, 2004). Online profiles are typically lengthier because unlike printed personal advertisements, there is no cost based on the length of the profile (Hatfield, Harvey, Schwartz & Sprecher, 2008). Users are advised, but not required, to add a picture to their profile as well as interests or hobbies. In 2005, about one in ten Internet users were attempting to initiate a relationship online (Pew, 2006) using an online dating

service. According to Ellison, Gibbs, and Heino (2005), “Many join online dating services with the hope that the large number of people available will increase their odds of finding a ‘match’ or the ‘right one’ for a long-term relationship” (p. 1). These dating sites suggest that with a little process of elimination, any individual will be able to find a compatible mate.

### Online Dating Communities

Internet communities share similar characteristics with social communities that aren’t formed on the Internet. The study of these communities can provide important information for increasing understanding of social networks and their appeal to Internet users (Edling, Holme, & Liljeros, 2004). Craigslist.com is one such example of a platform that promotes community, known internationally as a site for advertising jobs, apartment rentals, and items for sale at no cost to the user (Kroft & Pope, 2008). Craigslist is also becoming an outlet for soliciting social interaction as people post ads within categories such as ‘women seeking men,’ ‘men seeking women,’ and ‘casual encounters.’

Individuals who use online communities to meet potential relational partners are able to connect with similar individuals despite preexisting social groups or pre-established geographic locations (Dimitrova et al., 1996). It is suggested that people are driven by the same motives that use the Internet to initiate relationships as the people who choose face-to-face interaction (Edling, Holme, & Liljeros, 2004). According to Dimitrova et al. (1996), “members of virtual community want to link globally [or locally] with kindred souls for companionship, information, and social support from their homes

and workstations” (p. 214). In regards to online dating, those seeking companionship might experience greater success initiating romantic relationships.

Online daters are defined as Internet users who have gone to an online dating website or other site where they can meet people online (Pew, 2006). Those who use online dating services realize that an online community, comprised of single participants, is just a click away. Individuals wanting to establish a romantic relationship could have obstacles in their way that direct them to the Internet. For example, in a relationship-initiation setting such as a singles bar, physical attractiveness is an important variable, often determining whether that person will be successful in initiating communication that leads to a relationship (Christ & Scharlott, 1995). Clinical psychologist and founder of eHarmony.com, Neil Clark Warren, suggested in an interview (Mulrine, 2003), that “Americans [specifically] are just too easy, in this culture, if we like the person’s looks, if they have the ability to chatter at a cocktail party, and a little bit of status, we’re halfway to marriage” (p. 3).

A large quantity of online dating sites have been created over the past decade, however the present study chose to narrow its focus on the commercial, or paid, online dating services because of their success and popularity. There is more scholarly examination of commercial sites as opposed to the target sites. While there are many different types of online dating services that cater to specific demographics such as race ([www.blacksingles.com](http://www.blacksingles.com)) and religion ([www.christianmingle.com](http://www.christianmingle.com)); the present study will keep a more narrow focus, so emphasis can be given to the technology aspect of online dating rather than the actual dating site.

## Purpose of the Study

The purpose of the present study is to determine what external circumstances, if any, led graduate students to adopt online dating sites for initiating relationships. Many studies have previously explored online dating in the context of relationship maintenance and examined topics such as self-disclosure, impression management, and misrepresentation (Cornwell & Lundgreen, 2001; Ellison, Gibbs, & Heino, 2006; Cheever, Cummings, Felt, & Rosen, 2008). The present study did not examine online relationships that start online and move offline, the management of impressions of online initiated relationships, or the trust and disclosure aspects of online dating. Instead, the primary goal of the study was to focus on the technology known as online dating and the circumstances that lead people to adopt the technology in order to initiate a romantic relationship.

Using the Diffusion of Innovations Model (Rogers, 2003), the present study explored the adoption of online dating by single individuals wanting to initiate a romantic commitment. Learning more about the circumstances that generate adoption, the social trend of dating online can be observed and studied further to determine how successful it can be. In addition, there is limited research done concerning college students' use of the Internet to initiate relationships despite the increasing number of students that use the Internet not only to access information but also to socialize online (Pew, 2002; Flanagin, Metzger, & Zwarun, 2003).

## CHAPTER 2

### REVIEW OF THE LITERATURE

#### Diffusion of Innovations

The Diffusion of Innovations Model provides a theoretical framework by which to examine when and why people adopt the Internet as a means of initiating a romantic relationship. Previous diffusion research sought to explain trends in social change such as world economics political development, geography, and the use of Internet technology (Hamilton, Katz, & Levin, 1963; Brown, 1981; Straub, 1994; Atkin & Jeffres, 1998; Wejnert, 2002). The present study will likewise look to explain some of the social changes that occur today within personal relationships and Internet use, namely dating online.

The Diffusion of Innovations Model has come a long way in terms of processes used to explain adoption patterns. The diffusion process can trace its lineage back to the early 1900's when Tarde (1903) sought to learn why only 10 out of 100 innovations would spread despite being conceived at the same time. Tarde was responsible for identifying the adoption or rejection status of innovations as a crucial variable in diffusion research (Rogers, 2003). The present study relied on several editions of Rogers' research of diffusion and also included supplemental research as well as limitations of the framework as presented by other scholars. While the diffusion approach is specifically targeting communication technology in the present study, there are many fields in which diffusion research has proved to be beneficial.

The most influential diffusion study involved the diffusion of hybrid seed corn in Iowa (Gross & Ryan, 1943). That study included all the four main elements of diffusion:

an innovation, communication channels, time, and the social system. The diffusion of hybrid seed corn ushered in a new wave of dependence for Iowa farmers from chemicals, fertilizers, and pesticides (Gross & Ryan, 1943). In this example diffusion research sought to aid in resolving a limitation that Iowa farmers experienced prior to the adoption of the hybrid seed corn that resulted in a shift of labor and production. A study done by Straub (1994) examined the diffusion of information technology (IT) in Japan and the United States in regards to why culture had an influence in which information technologies were adopted by which countries. The result of the study had strong implications of cultural norms affecting diffusion.

The diffusion model has been used in all areas of study from anthropology, sociology, geography, public health, and government policy (Hamilton, Katz, & Levin, 1963; Brown, 1981; Glick & Hays, 1991; Berry & Berry, 1992). It is through the diffusion framework that researchers are able to monitor substantial trends concerning future ideas, practices, or objects to determine if they will be beneficial to society. The present study hoped to examine technological diffusion as a continuous process to provide research that will help future scholars determine the benefits, if any, online dating has or will bring to society.

Although not a common approach to examining online relationships, diffusion research is valuable because of the opportunity it allows to observe social acceptance and change (Strang & Macy, 2001; Wejnert, 2002). The emphasis on relationships initiated and maintained online is often placed on the interpersonal angles that encompass online dating (Tidwell & Walther, 2002; Ellison, Gibbs, & Heino, 2006; Whitty & Carr, 2006) and therefore have corresponding theories about the nature of dating online. The goal in



using the diffusion model to examine the technological aspect of online dating is to understand when and why students adopt Internet technology as a means of initiating relationships. Formal models of diffusion present limitations because they focus on the “boom” periods of an innovation (Strang & Macy, 2001) or fail to recognize the pro-innovation bias (Rogers, 1995) that implies that all members of a social network should adopt all innovations without concern for reinvention or rejection. In addition, according to Atkin and Jeffres (1998), “scholars have yet to account fully for the psychological dynamic driving technology adoption” (p. 476), therefore the diffusion model may not be able to predict outcomes as most “theories” tend to do which is why the term “framework” may be more appropriate and used throughout the present study.

In order to examine online dating using this theoretical context, it needs to be broken down by the four main elements: innovation, communication channel, time, and social system /network. Examining these elements individually will help understand online dating and its implementation into present day society in addition to implications for future use and study.

### Innovation

The innovation component in diffusion research is the foundation and start point in determining adoption. According to Rogers (2003), “An innovation is an idea, practice, or object that is perceived as new by an individual or other unit of adoption” (p.12). Despite the amount of popular media coverage and scholarly research about online dating, it remains an appropriate candidate for diffusion research because of the multitude of differing opinions and attitudes about the technology and its place in society. Rogers (2003) stated, “Someone may have known about the innovation for some time but

not yet developed a favorable attitude toward it” (p.12). For example, what makes one online dating service like match.com more popular than another service like eHarmony.com and how does this influence adoption? Brown (1981) discussed this concept by defining the different options as ‘firms,’ and likewise defined the type of innovation perspective for which the present study concerning online dating will adhere, namely consumer innovation. Likewise, attitudes about computer-mediated communication have changed dramatically in recent years (McQuillen, 2003; Spitzberg, 2006) in terms of how CMC and face-to-face communication are functional alternatives for one another (Flaherty, Pearce, & Rubin, 1998) and whether adoption of a technology such as online dating is compatible to face-to-face or traditional dating.

Adoption of innovations can be described in terms of an S-shaped curve with the exact curve differing depending on the rate of adoption (Mahajan and Peterson, 1985). In diffusion studies the adopter goes through several stages such as opinion or attitude formation about the innovation, acceptance of the innovation and implementation into daily life. During these stages, the adopter comes face to face with the attributes of the innovation that will help to determine if they desire to use the innovation. The attributes of any innovation are relative advantage, compatibility, complexity, trial-ability, and observability (Rogers, 1995). The degree to which an innovation is perceived as better than other alternatives is how Rogers (1995) defines relative advantage; likewise Brown (1981) contributed the idea of whether the innovation could do the task at a lesser cost. Compatibility is how consistent the adopter feels the innovation is with past experience and needs of the potential user (Rogers, 1995). If adopters feel that online dating will be similar if not compatible with existing methods, the likelihood of adoption will be higher.

However, even before adoption, they must assess the level of complexity, or the degree to which an innovation is hard to use or difficult to understand (Rogers, 1995). A majority of online dating services will offer a “free trial” period that allows the user to browse profiles online without paying to have a profile in hopes of providing incentive for those who are unsure whether they will adopt online dating services. The trying out of an innovation is a way to find out if it works under that particular’s users’ conditions (Rogers, 1995). And finally, the results or benefits of an innovation must be able to be observed so that potential adopters can decide for themselves whether or not it’s feasible to adopt that innovation.

### Communication Channels

A communication channel is the means by which a message gets from one individual to another (Rogers, 2003). The way in which a message is received can have tremendous impact on whether or not the receiver will pay any attention to the sender or the message. With online dating, what a potential user hears about the concept or practice of dating online may determine whether or not they adopt online dating services. Rogers stated (2003), “Interpersonal channels are more effective in persuading an individual to accept a new idea, especially if they are similar in socioeconomic status, education, and other important ways” (p. 18).

### *Media Exposure*

Not only are interpersonal channels of communication important contributors in adoption of an innovation, the media also can play a role in aiding the adoption process. The mainstream exposure includes commercials on television, pop-up advertisements on Internet browsers, and coverage in the press. The advertising for online dating sites can

be an effective channel of communication whereby people are exposed to concepts and ideas. Match.com launched a new television commercial February 2010 that aired during the Super Bowl. The slogan for the ad was “some things just go better together,” and featured animated pairings like a pea and carrot, rabbit and top hat, nut and bolt, and a sock and shoe. All these items are separate at first and not as happy; however towards the end of the commercial all the items get paired up and discover how “better” they are “together.”

Another television commercial for match.com features a man and woman who walk into the same music store by chance and start playing different instruments to the same tune. As the commercial continues the man and woman start singing lyrics that expose personality traits yet have their backs towards one another until the very end when they both turn and lock eyes. The title of the commercial is called “accidental duet” and it aired in the United Kingdom beginning in 2010. This commercial plays off the idea of random chance, bringing two people who have never met into the same setting and helping them learn more about each other through a simple tune and arbitrary lyrics.

In 2006, Dr. Neil Clark Warren, the founder of eHarmony.com, appeared in a television advertisement stating, “At eHarmony we know you don’t need help finding what attracts you on the outside, so we help you with areas of compatibility that you can’t see.” The tag line for this ad was “experience what happens when physical attraction meets compatibility.” An incentive was offered to viewers who logged on received their compatibility profile free, as opposed to paying the standard rate of \$50.

Headlines in the popular press are consistently showing up online and in print. One such news article interviewed Greg Blatt, chief executive of Match.com based in

Dallas, Texas. Blatt claimed that online dating was a thing “out of nowhere” that has become a significant part of human interaction (McCarthy, 2010). Another news article recently published highlighted online dating sites that target a specific user. The headline read, “Finding love online, despite health problems” (Slenske, 2010), and talked about sites such as health.com a site created for those with unique health circumstances such as sexually transmitted diseases, and other similar sites like nolongerlonely.com that looks to pair individuals with mental illness such as schizophrenia.

Blogging has become another effective tool in communicating messages about the use of online dating. A generic Google search of online dating blogs lists results such as [www.themaddater.com](http://www.themaddater.com), a blog about the author’s experiences in dating people they meet online, or [www.slinkydating.com](http://www.slinkydating.com), a blog about relationship advice and meeting people. These types of personal blogs receive the highest hits amongst the Google search, ranking first and second. Novice online daters might read some of the content and develop opinions about whether or not it would be worth it to try dating online. Some blogs contain Internet ads for companies such as plentyoffish.com and singlesnet.com exposing readers to slogans for online dating and the supposed success that one would have if they signed up for a profile.

#### Time

The element of time in the diffusion framework is most concerned with the time it takes for a user, or group of users, to adopt or start using the innovation. Adoption is the process by which individuals, or social groups, take action towards using the innovation (Bijker, 1995). The process through which an individual first learns of the innovation to the time they adopt is defined as the innovation-decision process (Rogers, 2003). There

is no stated time requirement to dictate how many minutes, hours, days, weeks, or years it will take for this process to move from knowledge to adoption. Influences such as knowledge about the existence of the innovation and attitude for or against it all play a role in the time it takes to implement the innovation into a daily or weekly routine. One such example is how the British Navy adopted eating oranges and lemons for scurvy towards the end of the 18<sup>th</sup> century despite the benefits being known since the beginning of the 17<sup>th</sup> century (Rogers, 1995).

Considering online dating, the time it takes a single individual to gain knowledge, form an opinion, and implement the innovation can be attributed to many things such as compatibility with technology, how complex it is to sign up, and perceived success if adopted. All these variables place adopters into the following categories: Innovators, early adopters, early majority, late majority, and laggards (Rogers, 1995). Innovators include those who are actively seeking new ideas or methods to solve a given problem (Rogers, 2003).

Two examples of online dating innovators include Glen Hutchinson and Mark Thompson, two former graduate students who created weAttract.com in hopes of finding themselves partners and ended up with an extensive social science study of a sample of students who had tried “web dating” as it was then called (Mulrine, 2003). As with most technological innovations such as mobile phones and iPods, Trelease (2006) claimed, “highly innovative people make quick, early decisions to use, while the majority of a population take a longer period with some persuasive communications before adopting” (p. 161).

Along with the adoption concept, Bijker (1995) introduced the concept of “closure.” According to Bijker (1995), “Closure, in the analysis of technology, mean the interpretative flexibility of an artifact diminishes,” (p. 86) which Hannemyr (2003) interpreted as being the point when a individual user or social group reaches some consensus about the meaning of the innovation, whether it be the usage, characteristics, qualities, or standards. Essentially, once an innovation is modified from its origin to meet the demand or need of the social group or individual, the former is put under a state of closure.

#### Social System/Personal Network

Persuasive communication often stems from members of an interrelated social system such as family members, friends, co-workers, or acquaintances. This component of diffusion is perhaps the most overlooked, but in the case of online dating might be the most important because, according to Valente (1996), “individuals vary in their willingness to take risks in adopting a new idea or product” (p.69) . Familiar social systems are often engaged in solving a problem or accomplishing a goal (Rogers, 2003). A social network is the pattern of friendship, advice, support, or communication that exists between members of a social system (Valente, 1996). In addition to the influences that social systems and social networks have on adoption rates, personal networks (Valente, 1996) are the greatest influence on adoption.

Having a high social status may also influence the adoption rates. If someone who has sufficient resources, such as an athlete, or access to the public view, such as a celebrity, were to adopt an innovation, it would strongly influence early adoption (Wejnert, 2002). For those who are not easily influenced by adopters with whom they

have no direct connection, people within the immediate social group who have more personal influence such as a employer or professor may have an influence on whether or not an individual chooses to adopt an innovation. In the case of online dating, the threshold for the individual looking to adopt is crucial. The number of other individuals who are undoubtedly engaged with the innovation before the individual chooses to adopt is the threshold (Rogers, 1995) that effects the S-shaped curve in regards to rate of adoption (Valente, 1996).

The internal-influence model (Mahajan and Peterson, 1985) argued that diffusion occurs only through interpersonal contacts such as a social network as opposed to the external-influence model that argued influence coming from sources other than a social network. Under the right circumstances, along with direct interaction between individuals of a social group, there is significance in adoption of a variety of innovations (Wejnert, 2002).

#### College students Adopting the Internet

A majority of college campuses and universities have adopted the use of the Internet for educational purposes (D'Esposito & Gargner, 1999; Pew, 2002; Flanagin, Metzger, and Zwarun, 2003; Peng, Tsai, and Wu, 2006). Although students are turning to the Internet, most have no formal training in which to rely on; instead they rely on their own understanding and expertise to navigate through the Web (Flanagin, Metzger, and Zwarun, 2003). In addition to using the Internet for educational purposes, students increasingly use the Internet as a tool of communication and socialization and feel it to be a positive contributor to their relationships new and old (Pew, 2002; Pew, 2010). College students also agreed that the Internet has changed social life on campus (Pew, 2002).



According to McMillan and Morrison (2006), “young people’s online social life mirrors offline relationships, computer activities provide support for offline friendships [and] are mainly devoted to ordinary yet intimate topics” (p. 75).

Students use the Internet for education and for socialization, and given the accessibility of Internet; whether in a school library or personal computer, the present study goes a step further to predict that college students might be inclined to use the Internet to create new relationships. Using an online survey, a study by Espinoza, Reich, Subrahmanyam, and Waechter (2008) examined the motives of young adults’ use of the Internet. The results were shown in two separate categories, offline activities and online activities. Amongst the most frequented offline activities were studying and doing schoolwork and the most frequented online activities were email and web browsing. With regards to online dating and young adults specifically, Donn and Sherman (2002) conducted two studies in which they surveyed undergraduate and PhD students to examine attitudes about online dating specifically. The results of the first study showed that students had negative opinions of online dating because they felt online dating would cause others to lie about themselves. However, the second study showed that with greater exposure to the service, the higher the opinion of online dating overall. The Diffusion of Innovations Model provides a theoretical framework by which to examine when and why people adopt the Internet as a means of initiating a romantic relationship. Previous diffusion research sought to explain trends in social change such as world economics political development, geography, and the use of Internet technology (Hamilton, Katz, & Levin, 1963; Brown, 1981; Straub, 1994; Atkin & Jeffres, 1998; Wejnert, 2002). The

present study will likewise look to explain some of the social changes that occur today within personal relationships and Internet use, namely dating online.

### Diffusion of Innovations and Online Dating

The Diffusion of Innovations Model helps to separate those who have adopted online dating from those who have not. If a student has adopted online dating, he or she might have experienced one or more of the components generally present in adoption patterns. Positive knowledge of online dating features, an opinion or attitude about online dating and its usefulness, and exposure to media that advertises online dating all contributes to the adoption process. There is also a period of time it takes users to adopt, thereby placing them in the adopter categories. The social group that an individual belongs to may have an impact on adoption such as whether or not an adopter is embarrassed to admit they want to try online dating or acknowledging they use online dating.

The present study builds upon previous research done concerning online dating, and shifts its focus to the factors that lead to adoption of the Internet. Interaction in online contexts may affect interaction in offline contexts as people are beginning to embrace technology as a means of initiating and developing relationships (Carr & Whitty, 2006). As a study conducted by Pew (2006) noted, “while people have been finding love online since the earliest days of the internet, through newsgroups, chat rooms, games and other online communities, the meteoric development of the commercial dating industry has brought millions of paying users and mainstream exposure to the activity” (p. 11).

## Online Dating Sites

If a user were to search for “dating sites” on the Internet, he or she would come across pages of links to websites that claim to be online dating services. A novice online dater might be overwhelmed to find so many choices and not have a clear idea of where to begin or which site to use. Some of the catch phrases of the less commercial sites say things such as, “100% free online dating ([www.mingle2.com](http://www.mingle2.com)), “Free online dating site where you can find a soul mate” ([www.luvfree.com](http://www.luvfree.com)), and “Online dating sites and dating services for picky singles” ([www.cupidsonlinedating.com](http://www.cupidsonlinedating.com)). The most obvious difference between the pay and free sites is their level of software sophistication (Lasky & Silverstein, 2004). In addition to software, searches for potential partners based on geographic location can be limited because certain free sites are sponsored locally (Lasky & Silverstein, 2004).

## Commercial Dating Sites

### *Match*

According to match.com (2010), “We create romantic opportunities so singles are more likely to find someone special.” On match.com, individuals wanting to pursue an online relationship begin by filling out a short questionnaire on the homepage of basic demographic information such as the user’s sex, age preference in the potential partner, and geographic search location by zip code. Users may browse, for free, through the profiles of individuals matching the given search criteria by creating a username, password, and providing a working email address. In order to proceed with emailing or chatting with profile owner, you must subscribe to the service for a monthly fee.

### *eHarmony*

The homepage of another popular online dating site, eHarmony.com (2010) suggests, “traditional dating can be a challenge for those looking for a love that lasts.” Users wanting an account on eHarmony.com must also begin by filling out preliminary demographic information that includes first name, zip code, email, and gender. The user is required to take a demographic survey or questionnaire that asks for information about the user such as birth date, marital status, and level of education, income, height, and ethnicity while simultaneously asking the user to rank preference about the potential partner in all the corresponding categories. The homepage of eHarmony.com (2010) claims, “Now it’s FREE to receive and review your single matches!” The detailed questionnaire that a user is required to fill out helps the “matchmaking” system to pair you with someone with whom you would be most compatible.

### *Yahoo! Personals*

The slogan for Yahoo! Personals (2010) claims, “Happiness on your own terms can happen: Discover people who share your interests.” It is free to create a profile on Yahoo! Personals, and search results are given instantly based on a short list of required demographics from the user that include the gender preference of the potential partner, age of the user, and zip code or city location. On Yahoo! Personals, users can also view potential matches for free and read their full profile for free. In order to email the owner of the profile, a user must subscribe to a payment plan (Yahoo! Personals, 2010).

### *Plenty of Fish*

Users who opt to become a member of a “free” site run the risk of geographic limitations and a poor selection of potential dates. However the dating site

plentyoffish.com (2010), despite being completely free, claims, “Our members will go on over 18,000,000 dates with other users this year.” Similar to other sites in this arena, plentyoffish.com was created with the intent of providing singles an option to create a profile and email potential relational partners. Members who sign up have use of a free service that “wasn’t created to mine user’s pocketbooks” (Plentyoffish.com, 2010). Although lacking in visually stimulating graphics and design and void of commercial advertising and publicity, the praise for plentyoffish.com comes from happy users who, through word of mouth, tell their peers.

### Framing of Online Dating

Despite being more accepted as a social medium, online dating still carries a stigma that alters public perception of how successful it can be and therefore can influence adoption. For example, some view online dating sites as an overload of information. The data collected by the websites in order to make recommendations come from questionnaires and surveys posted by the host site in order to be able to pair the user with a potential mate. Such a large amount of information proves to be irrelevant to the user (Brozovsky & Petricek, 2007). According to Pew (2006), “most Internet users agree that online dating is dangerous activity because it puts personal information on the Internet” (p.32).

In addition to having too much information about one’s self on the Internet, there is always the possibility that the information is misleading. Participants reported deception, or misrepresentation, as the main disadvantage to online dating (Brym & Lenton, 2001). If a user feels that the person they are corresponding with online is being untruthful or intentionally deceiving, they might feel inclined to do the same (Donath &

Fiore, 2004). As is presumably the case in offline settings, assessing the honesty of others' claims about identity is crucial in the early stages of decision-making about potential partners (Ellison, Gibbs, & Heino, 2005). According to Pew (2006), "57% of Internet users agree that a lot of people who use online dating lie about their marital status" (p. 2).

Although misrepresentation can also be present in face-to-face interaction, especially in intimate relationships (Cornwell & Lundgren, 2001), those who use the Internet are able to conceal their deception because a computer screen shields them. Due to these concerns, more and more "match" sites are using technology and psychology to administer tests that will detect lies (Mulrine, 2003). The online dating site eHarmony.com poses true or false questions in the initial survey that all users must take in order to be matched up with a potential relational partner (eHarmony.com, 2010).

Lasky and Silverstein (2004) reported that "online dating can be dangerous, but, online dating isn't any more dangerous than dating someone in person that you don't know well" (p. 56). The Internet affords its user anonymity, and depending on the user, can be a help or a hindrance. The tips provided by Match.com suggest that users remain anonymous until they feel safe and ready to explore other options (match.com, 2010). One common way to maintain anonymity is to use an anonymous email. All professional and trusted dating sites allow for a double-blind protection of the users identity (Lasky & Silverstein, 2004; Match.com, 2010). A study by Jerin and Dolinsky (2001) provided analysis on how women who use Internet dating perceived the risk of being stalked or victimized. After randomly selecting female customers from three unspecified dating sites, the results showed that women who reported more positive experience with the

dating service also employed more safe practices such as meeting in a public place and telling a friend of the meeting (Jerin & Dolinsky, 2001).

The way online dating is perceived by the public is important to recognize because it affects how and when individuals adopt. Pew (2006) reported the contrast between those who had positive experiences with those who had negative experiences dating online. Out of 16 million people, 52% had positive experiences, 29% reported negative experiences, 7% reported mixed experience, and the remaining 12% declined to state whether their experience was positive or negative (p. 6).

#### Using Online Dating

The image of an individual who uses the Internet to initiate a relationship has changed since the mid 1990's when dating sites were first introduced as a way to be introduced to a group of singles from your private computer. Peter and Valkenburg (2007) reported 37% of Internet users in the U.S. who are looking for a romantic relationship have gone to an online dating service. Once seen as an act of desperation, online dating has rapidly become more accepted because of higher levels of Internet penetration and changing demographic trends (Ellison, Gibbs, & Heino, 2006). Higher Internet and CMC use has led to research about the nature of online relationships and their development over time (Baker, 2002; Gleason, Green, & McKenna, 2002; Spitzberg, 2006). A study done in Canada reported findings from a telephone survey of 1,200 Canadians who used online dating (Brym & Lenton, 2001). Some of the main findings concluded that there are more pressures on time from careers, forcing people to look for other ways to initiate romantic relationships, in addition, the demands of the job

market continue to make single people more mobile and therefore making conditions more difficult to try to date (Brym & Lenton, 2001).

The introduction of online dating with sites such as match.com and eHarmony.com, launched in 1995 and 2000 respectively, in addition to other sites such as plentyoffish.com and Yahoo Personals have become a more accepted means of finding a partner (Hitsch, Hortacsu, & Ariely, 2004). As communication continues to become more mediated by mobile phone, personal computer, or similar electronic devices, certain social barriers can be reduced such as shyness and apprehension. This union of social and economic trends can hinder single people from being able to interact with other singles in the more traditional dating venues like a college campus (Mulrine, 2003). Despite a student investing more time initially to making new friends once arriving on a college campus, that investment diminishes slowly as goals are met and networks of friends are established (Carstensen, Charles, & Issacowitz, 1999). In addition, changes in modern society have created more policies aimed at preventing sexual harassment and stalking that are stricter in the workplace, thereby creating a stronger incentive to meet people outside of the workplace (Brym & Lenton, 2001).

There are several advantages to using online dating services for unmarried individuals wanting to be in an intimate relationship. Singles with full-time responsibilities such as work or school may not have sufficient opportunities to meet other singles, making dating or relationship initiation more challenging. According to Moen (2003), “people do not always allocate their time in the ways that they desire” (p.6). For students this might include taking classes, assignments to be done at home, and working to be paid. All these activities take up time that most students would rather



spend in pursuit of leisure activities such as parties, clubs, movies, or other such occasions where any amount of work does not have to be done. Students are facing circumstances today similar to those of working married couples; the existing work-hour and career practices are constantly being updated in response to changing trends in the economy (Moen, 2003). Busy singles are turning to the Web to look for what social institutions no longer provide (Mulrine, 2003).

### *Time Orientation*

People are constantly keeping track of time by looking at the hands a clock, the days on a calendar, or measuring the achievements of a lifetime (Carstensen, Charles, & Issacowitz, 1999). Having time or making time is a motivation for a multitude of human activities such as earning a degree, working, and interpersonal relationships. Godbey and Robinson (1997) classified time into four categories based on qualitative research that asked participants to keep diaries of how they spend their time: paid work (contracted time), household/family care (committed time), personal time, and free time (p. 11). Personal time is time spent sleeping, eating, or grooming (Godbey & Robinson, 1997), while free (leisure) time implies periods during which individuals have choice over their activities (Robinson, 1977). Arguably, all the categories could overlap with one another, as is evident by combining contracted time with free time, an example being using the computer to type a paper while another window on the screen is open allowing the use of Instant Messenger (IM).

Online dating lies in the category of leisure time and is an appropriate method for students facing time constraints, yet who desire to be in a serious relationship. After creating a profile on a dating website, singles can have access to other singles with the

click of the mouse. According to Lasky and Silverstein (2004), “the whole concept of [online] dating is that the community of single prospects is available to you whenever you want to meet them” (p. 12). Mobile communication technologies that have Internet capabilities allow users to view and respond to email inquiries, making stages of initiation more or less rapid depending on the user.

### *Communication Apprehension and Shyness*

There are a number of reasons why a student in college might adopt online dating rather than trying to meet a potential partner face-to-face. In order to make a connection between these difficulties and the causes that lead students, who want a romantic relationship to adopt online dating practices, it is crucial to understand how these things affect communication and interaction. Students might prefer online initiation due to communication apprehension or shyness. A study done by Calvert, Jensen, and Moore (1987), had university students, male and female, answer questions using the Dating Anxiety Scale (DAS). They found based on their results that there were numerous reasons why students experienced dating anxiety such as fear of rejection, making a first impression, conversation skills, and attractiveness. These social blocks could cause a student to feel apprehensive in dating situations and communicating in general.

Communication apprehension is any anxiety experienced about real or anticipated communication and is generally believed to have a negative impact on people’s social lives and their dating patterns (McCroskey, 1977). Shyness is defined as a discomfort when confronted with others in a give and take social situation (Buss, 1997). Paired together, these two obstacles can hinder single students from being able to approach other single students in a social context.

An individual's willingness to communicate is a predisposition to initiate communication with others (McCroskey, 1997). Willingness to communicate can be halted due to communication apprehension or shyness. In regards to a traditional dating method, the way a person looks when first introductions are made is the most important variable in determining whether there will be a second encounter (Christ & Scharlott, 1995). In CMC, having to see someone face-to-face is postponed and therefore allows those who feel apprehensive to present more of their personality like humor.

Clarke (1991) sought to determine whether the same apprehension existed in CMC as it did in face-to-face and developed a scale to test feelings about communication while using a computer. The results of that study reported that those who experience communication apprehension and computer anxiety, or experienced anxiety while using the computer to communicate and interact, simultaneously had higher levels of computer-mediated communication apprehension (CMCA). Although communication apprehension is most often associated with face-to-face communication, CMCA has similar properties that apply to Internet interaction such as email (Flaherty, Pearce, & Rubin, 1998). Those who experience CMCA spend as little time as possible on the computer and would not benefit from online dating services. However, it is proposed that individuals who experience communication apprehension in face-to-face interaction are more likely to adopt online dating.

In regards to shyness, Carducci and Clark (1999) performed a retest of a previously administered survey (Carducci, 1996), asking undergraduate students at Stanford University to personally rank their levels of shyness. Crozier (2001) reported, "The Stanford survey found that shyness varies according to the situation: shy people are

not shy everywhere” (p.13). The activities from the survey that elicited the highest levels of shyness included: being asked personal questions in public, at a party with strangers, and talking to a professor (Carducci & Clark, 1999). Shyness doesn’t stem from fear, but rather unfamiliarity (Buss, 1997).

That unfamiliarity is lessened because of the anonymity of the Internet, as those who experience shyness and communication apprehension turn to the online dating services that utilize computer mediated communication. Due to the perceived levels of control allotted by CMC features, people with social inhibitions may turn to the Internet to meet their social and intimacy needs (Birchmeier & Skeeks, 2007). Preference for online interaction is a cognitive individual difference characterized by beliefs that an individual is safer, more confident, and more comfortable with online interpersonal interaction and relationships than the traditional face-to-face activities (Caplan, 2003). According to Wellman (2001), “for many people in contemporary western societies, interaction on the Internet is as real as any other interaction” (p.2031). In their discussion, Birchmeier and Sheeks (2007) reported their results as showing those who indicated higher levels of shyness seemed to report more satisfying online relationships than those with lower levels of shyness.

### The Matching Systems

Choosing a romantic partner does not happen at random because most individuals are looking for a partner similar in characteristics such as age and educational attainment (Ariely, Hitsch, and Hortacsu, 2010). Sites like match.com, eHarmony.com, or chemistry.com require subscribers to complete a lengthy questionnaire, and based on the responses the site can “match” individuals together. To accommodate individuals looking

to be “matched” with the most appropriate partner, most commercial dating sites utilize a means of “matching” or “linking” individuals together known as a recommender system. These types of systems are most often used with sites like Amazon.com that suggest items for purchase based on previously purchased items. According to Resnick and Varian (1997), “In a typical recommender system people provide recommendations as inputs, which the system then aggregates and directs to appropriate recipients” (p. 56). The input provided in online dating services is what a single individual is looking for in another single individual.

There are several types of personal matching systems that are common to online dating sites. Donath and Fiore (2004) identified three as “search/sort/match systems, personality-matching systems, and social network systems” (p.1397). Another construct of sorting within a matching system is one of filtering, or a process in which to qualify other online daters, which is a component of online dating which participants in a study done in Australia reported to be extremely significant (Couch & Liamputtong, 2008). The study went on to report that participants varied in their assessment of their matches (Couch & Liamputtong, 2008). The dating websites also rely on “love or matching algorithms,” or formulas based on scientific principles that are translated into computer programs, but little is known about these algorithms because the dating sites don’t publish information about the formulas (Hatfield, Harvey, Schwartz, & Sprecher, 2008).

While search tools on online dating websites can have their benefits in regards to matching, they can also be detrimental to the user as was indicated in a study conducted by Chiou and Wu (2009). The more options a user had to choose from, the more their choice quality decreased. Another concern with providing a specific site with substantial

personal information is privacy. The more successful matches are based on the amount of information given by the individual users. Resnick and Varian (1997) suggested that users don't necessarily want information about their habits to be visible. The matching function involves selecting from all those available only those that are most likely to be compatible (Christ & Scharlott, 1995). However, in the discussion of their findings, Chiou and Wu (2009) solidified their hypothesis by reaffirming that the initial criterion for a user's potential match might in fact get overlooked due to the multitude of options that thereby negates the sort and match process because original preferences were overlooked.

Despite these drawbacks, the mission of online dating sites is to make the "searching" process for a partner as easy as possible (Ariely, Hitsch, and Hortacsu, 2010). The recommender systems in online matchmaking, made possible through online dating services such as match and eHarmony, allow users to filter through a wealth of potential candidates by being paired only with those with the most appropriate compatibility (Houran and Lange, 2004). The goal of most individuals using online dating services is to find a match that could lead to an offline commitment; however some relationships never have the chance to move offline, despite the matching system and therefore remain as an online friendship (Hatfield, Harvey, Scwartz, & Sprecher, 2008).

## CHAPTER 3

### METHODS

This study examined the factors of adoption of online dating by graduate and professional students at the University of Nevada, Las Vegas. I sent an invitation to participate in the survey via the graduate and professional student campus email list during the fall 2010 semester. Participants were not asked to give names; however, the option of including a first name and an email address was given for those who wished to enter a drawing for a \$20 gift card to Amazon.com or to receive study results.

#### Participants

Graduate and professional students were the target sample because I assumed that graduate and professional students spend more time on campus due to classes, assistantships or other related involvements. College students use the Internet not only for educational purposes but also for social communication (Pew, 2002; a Pew, 2010). I expected that graduate students would be more likely to respond to a survey about online dating because of the unique stage that they are at in their personal lives and because of the high emphasis that graduate studies place on technology aptitude and use (Flanagin, Matzger, & Zwarun, 2003; Tsai & Wu, 2006). Online daters are typically younger and employed, although not necessarily earning large salaries (Pew, 2006), therefore dating websites are presumably a more reasonable venue for initiating relationships for the graduate population. I anticipated that because this was a survey produced by a graduate student in pursuit of a master's degree, fellow graduate students would be inclined to participate.

## Sampling

A convenience sample of graduate and professional students was used for the present study. A notice was sent out to the list of graduate and professional students using a newsletter system that sends emails to students. The first email was sent on September 4, 2010 and resulted in 74 responses collected; six were incomplete and therefore deleted. I solicited additional responses using a flyer passed out in the Graduate student lounge of the library. Additional responses were received during this period, although I could not determine how many of them were due to the flyer. A second wave email was sent out, but because of a campus-wide error in filtering spam, students did not receive notification emails during this period.

## Measures

The survey contained 28 items and was designed to assess the relationship between (a) apprehension levels involving social face-to-face situations (b) time afforded to meet potential relational partners on the Internet (c) use of online dating sites and (d) opinions about online dating (see Appendix B). The survey was divided into two parts, those who had used online dating and those who did not based on the response to the question, *have you ever used online dating?* (Section 5) Those who responded “yes” continued on with the survey and were given the opportunity to complete section six of the survey, *use of online dating sites*. Those who responded “no” skipped section six of the survey and went to section seven, *opinions of online dating*. In addition, demographic questions were asked about current age, the age that the respondent was when he/she first created a profile on a dating website, how many credits the student is taking, employment



status, and major. At the end of the survey, an option to enter the name and email of the respondent for a chance to win a gift certificate was given.

#### Pilot test

Before asking participants to take the final survey online, several offline and online pilot tests were performed during the spring of 2010. First, a draft document was created to allow for revisions before constructing questions in Survey Monkey. Four participants previewed the draft survey. Only one of the four had experience with online dating, however, they suggested minor changes and edits. The questions were then added to Survey Monkey and an online pilot test was given in a graduate methods class to help determine validity and functionality of the survey. Revisions were made based on the suggestions given by several graduate students who took the pilot test. The following question was added to the survey to account for those taking the surveys that were not single: Are you currently in a romantic relationship? (Section 5)

After several rounds of editing and formatting, the survey and protocol proposal were submitted to the Institutional Review Board (IRB) on campus for approval. (See *Appendix A.*) The informed consent was then added to the beginning of the survey outlining the purpose of the study, the procedures, benefits of participation, risk or participation, cost/compensation, contact information for the researcher's, confidentiality, and participant consent.

A problem encountered while collecting survey responses included test cases not being removed from the overall collection. Test cases performed by the researchers prior to student participation ended up being included in the responses. They were identified by

the email of the respondent and IP address and deleted because they were not relevant for the study. The remaining responses were then rechecked for errors.

### Final Instrument

An online survey was the most appropriate method to collect data because the study involved using online dating and students could respond at their convenience. Data were collected by Survey Monkey, exported into Excel for data cleaning and separating the optional contact information for gift certificates and study results, and then into SPSS for analysis. Before the survey was sent out using the RAVE system, questions were revised based on a pilot test to a class of graduate students in the spring of 2010.

Seven items were used in the first section of the survey that addressed apprehension with interacting in social situations. Although a series of scales were considered based on communication apprehension, few addressed apprehension in social settings such as bars or parties except for the social communication apprehension scale (Brogan, Jowi, McCroskey, & Wrench, 2008), that was consequent of previous research that examined communicative interactions amongst people in social situations. The original scale consisted of 18 items, but only seven were used for the present study to reduce its length. The researchers added one additional question about shyness (“*I consider myself a shy person*”) in order to have the respondent think about whether they were shy in general without adding social situations to the scenario. The responses were measured using a Likert scales ranging from *strongly disagree* to *strongly agree*. Section five in the survey asked questions about the use of the Internet to communicate with others and the importance of being in a romantic relationship with a Likert scale ranging

from *not important* to *extremely important*. Additional questions asked respondents to self-report how many hours they spent working, at school, and socializing with others.

The last question in section five asked whether or not the respondent had ever used online dating, if the respondents answered ‘yes’ they were asked to self-report on items such as the length of their use in months, which services they used to create a profile (match.com, eHarmony.com, Chemistry.com, LDSsingles.com, other). The reasons for recommending or not recommending online dating were initially coded into categories by the researcher based on the qualitative content reported by participants. To help ensure validity, a separate coder was also asked to code the themes within the responses. The following categories were decided upon by both the researcher and the coder after reading through the responses four times (time, positive resource/tool, negative resource/tool, positive experience, negative experience, safety, behavior, other, missing). Questions about the factors that encouraged adoption expectations of using the service, and opinion of online dating were also asked in this section of the survey.

If the respondent reported ‘no’ to the use of online dating they were directed to questions in section seven of the survey about opinions of online dating services. Questions were asked to determine agreement with popular statements made towards online dating such as, “online dating is normal in this day and age.” The remaining questions asked to self-report reasons why a respondent would or would not recommend online dating services to someone else.

The last section of the survey asked respondents to self-report demographics such as age, credit hours they are currently taking, major, and gender. If a respondent wished to enter the drawing for one of two gift certificates to Amazon.com or wished for the

results to the study they were asked to provide their first name and email. The names and email addresses were saved to a Word file and put aside until after the study was completed. Additional diagnostic categories such as participant IP address, start and end dates, and collector ID that were present based on the generated data from Survey Monkey were removed in Excel. After cleaning the Excel spreadsheet it was then imported into SPSS for data analysis.

### Research Questions and Hypotheses

Using previous academic literature concerning online dating and relying on Diffusion of Innovations Model, the following hypotheses were made based on the research questions proposed about why students adopt online dating services to initiate relationships in attempt to generate more data about this subject:

**RQ1:** What are the circumstances that cause students to adopt online dating websites with the intent of initiating a romantic relationship?

**H1:** The more time a student reports working or studying, the more likely they are to adopt online dating services.

I predicted that a majority of UNLV graduate students have a job in addition to having to attend classes. Therefore, my assumption was that because students are working and studying they would not have as much time to initiate relationships because their schedules would not allow time to meet other individuals in social settings. For this reason I also assumed that online dating would provide a more convenient means of dating because most students have Internet access whether at work or school.

**H2:** Students who report higher levels of apprehension are more likely to adopt online dating services.

I predicted that students who are more socially apprehensive will be more likely to use online dating. My assumption was that students would be active in online dating services because they wanted to meet a romantic partner but felt less confident about initially meeting face-to-face in a setting such as a bar, club or party. Computer-mediated communication, although seen as a hindrance on meaningful communication between two individuals, could in fact be appropriate for those who experience anxiety or apprehension when having to meet another individual for the first time. Online dating uses CMC to help people correspond at their own pace.

**RQ2:** Among which groups is online dating becoming socially acceptable?

**H3:** Those who adopted online dating services earlier than their social group will have more positive opinions towards online dating.

I predicted that those who adopted online dating earlier than their social network would have felt more positively about it because they had more opportunity to test and try all the functions that online dating provides its users. My assumption was that if an individual chose to adopt earlier than their social network it must mean that they had positive knowledge about the service before signing up and that the positivity would continue.

**H4:** People who use online dating services are more likely to know others who have used online dating services.

I predicted that knowing others who used online dating would have influenced an individual's decision to use it as well. I assumed the "strength in numbers" approach and believed that if an individual used the service it was due to others they knew using it as well. Despite positive or negative experiences had by others, the adopter would "try" out the service because they believe they could be the exception to the rule of online dating, which is to say that they might in fact find true love.

**H5:** Female students will be more likely to adopt online dating than male students because they will feel it is safer than traditional dating and because being in a romantic committed relationship is more a priority for female students.

I predicted that females would choose online dating as opposed to traditional methods of dating because the Internet provides a more secure arena for meeting and corresponding with others. The anonymity of the Internet in addition to the psychical safety the Internet provides would be more appealing to a female who is interested in dating but doesn't feel safe meeting a partner in a bar or club. I assumed female students would be more inclined to be in a romantic committed relationship.

## CHAPTER 4

### RESULTS

The results of the study were divided between two time periods or “waves” in which the responses were collected. After the campus email was sent out, 74 total surveys were collected, however four were deleted for being incomplete and two test cases were deleted. For eight surveys, responses had to be reinterpreted numerically based on a question asking how many *HOURS* a respondent studied or worked; respondents in these cases had give a range that was misinterpreted by SPSS. Results were taken directly from Survey Monkey in a numeric condensed format and imported into Excel for basic cleaning and then imported into SPSS. I added labels in SPSS and ran frequency analyses based on all the measures of the survey to check the data. This chapter will present the findings of the study in terms of the data collected and analyzed.

#### Demographics

Of the 68 surveys that were included in the analysis, there were 14 males and 54 females, ranging in age from 21 to 57 with a mean age of 31.57 (SD= 7.076). Gender and college of study are reported in the tables below and include total overall population at UNLV and the total for the responses collected in the survey all reported in percentages.

**Table 4.1-Student characteristics, 2009**

<b>Gender</b>	<b>Total pop. %*</b>	<b>Survey response%</b>
Female	58.1	79.4

Male	41.9	20.6
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*\*Source: 2009, UNLV graduate profiles.*

**Table 4.2-Enrollment by college of major, 2009**

College	Total pop. %*	Survey response %
Liberal Arts	7.8	26.5
Urban Affairs	9.6	23.5
Education	28.8	16.25
Health Science	3.0	11.8
Sciences	5.0	5.9
Hotel Administration	3.3	4.4
Fine Arts	4.0	2.9
Law	9.6	1.5
Engineering	5.1	1.5

*\*Source: 2009, UNLV graduate profiles.*

The number of average credits taken based on the 2009 graduate profiles and the number of credits taken based on the findings of the survey is recorded in the table below. Full-time and part-time status was determined in the survey with the question



*How many credit hours are you currently taking at UNLV? Six or more credits was considered full-time, less than six credits was considered part-time.*

**Table 4.3-Average Credits taken at UNLV**

	<b>Total pop.*</b>	<b>Survey response</b>
Full-time	10.8	11
Part-time	4.7	4.3

*\*Source: 2009, UNLV graduate profiles.*

### *Hypothesis tests*

I used two separate calculations to run analysis for two different hypotheses tests. First, a calculation to measure each respondent's self-reported level of communication apprehension based on social settings and a second calculation to measure the reported time a respondent spent working and studying. Borrowing from the social communication apprehension scale to test the first calculation (Brogan, Jowi, McCroskey, & Wrench, 2008, Questions 1-7 section 4, see Appendix A), respondents who scored higher on a scale of 1 to 25 on the questions within the first section of the survey regarding social communication apprehension reported being more confident in social settings and therefore less apprehensive. The second calculation combined the numbers in response to

the questions *How many hours a day do you spend working?* and *How many hours a day do you spend studying?* so as to be able to evaluate the relevant hypotheses.

Of the 68 completed surveys, 31 (45.6%) were from students who had used online dating services (these people completed all seven sections in the survey). The remaining 37 students (54.4%) reported not using online dating services (these skipped section six, which was about the use of online dating services). Out of 68 respondents, 40 (58.8%) reported “yes” to recommending online dating, and 28 students (41.2%) said they would not recommend online dating.

Under **RQ1**, *What are the circumstances that cause students to adopt online dating websites with the intent of initiating a romantic relationship*, the following hypotheses were examined.

**H1:** The more time a student reports working or studying, the more likely they are to adopt online dating services.

The first hypothesis predicted that the more time a student reported working and studying the more likely they were to have adopted online dating. I used a t-test to compare the numbers of *hours* spent working for the groups of users and non-users of online dating based on the item *Have you ever used online dating?* Using the calculation made in SPSS for work/study, there was no significant difference between the hours spent working and studying and whether or not a respondent used online dating services (see Table 4.4). There was however significance in the opposite direction as predicted by H1, showing that those who reported spending less hours working or studying, or those who had more “leisure time,” used online dating services. This suggests that online dating is not used by those wanting to be more time efficient but used more by those with

time to spend on creating a dating profile, searching for a potential match, and corresponding with potential matches via dating service messaging systems.

**Table 4.4: Results for H1 (T-test)**

	<b>N</b>	<b>Mean HOURS of leisure time a day</b>
<b>Users</b>	31	10.3
<b>Non-users</b>	37	11.49

**T = 2.168, p. < 0.05\***

\*significant in the opposite direction as hypothesized.

As a post hoc analysis for this hypothesis I looked at how many students reported to be full-time (6 or more credits) and how many reported to be part-time (1-5 credits) in correlation to users and non-users of online dating. I ran a t-test to determine if there was any significant difference between these items. Because the ratio between the average number of credits taken for the total graduate population at UNLV and the average credits taken by survey respondents was proportionate (see Table 4.3), I expected to see a significant result, however there was no significance between credit hours taken and the use of online dating ( $t = -.027, p > .05$ ).

**H2:** Students who report higher levels of apprehension are more likely to adopt online dating services.

The second hypothesis predicted that a student with higher levels of apprehension were more likely to adopt online dating. The higher the score on the modified Brogan, Jowi, McCroskey, and Wrench social apprehension scale, the less anxiety a student reported experiencing during social interaction. To examine this hypothesis a t-test was run based on the items in the first section of the survey that were used to acquire levels of apprehension and the item *Have you ever used online dating?* Frequency analysis was run on all items used from the modified social apprehension scale in the first section of the survey involving apprehension in social settings. All 68 respondents answered all the items except for the item *I get nervous when I have to interact with people at a party* where one response was missing. There was no significant interaction between apprehension levels and the use of online dating.

**Table 4.5: Results for H2 (T-test)**

	<b>N</b>	<b>Mean apprehension</b>
<b>Users</b>	31	15.29
<b>Non-users</b>	37	13.78
<b>t =9.81 , p. &gt; 0.05*</b>		

\*not significant.

As a post hoc analysis to this hypothesis, I ran several t-tests using items about social apprehension with the item *I consider communication on the Internet to be similar to talking in person* and *have you ever used online dating?* If a respondent considered the use of the Internet to be similar to talking in person, they might also be feeling more apprehensive about socializing or getting to know someone over the Internet as well as in

person. I used the users and non-users of online dating as the grouping variable. There was no significance ( $t=.987, p >.05$ ) between variables *I consider communication on the Internet to be similar...* and *Have you ever used online dating?* After running frequency analysis on the item *I consider communication...* the results showed that out of 68 responses, 20.6% strongly disagreed, 36.8% slightly disagreed, 11.8% were neutral, 20.6% slightly agreed, and 10.3% strongly agreed. This suggests that apprehension doesn't determine whether or not a student would adopt online dating but the opinion of online interaction against face-to-face interaction does.

I ran another post hoc analysis using all items from the modified social apprehension scale used for the survey with *how important is it to be in a romantic relationship?* but the results were not significant.

Under **RQ2**, *among which groups is online dating becoming socially acceptable?*, the following hypotheses were examined.

**H3:** Those who adopted online dating services earlier than their social group will have more positive opinions towards online dating.

The third hypothesis predicted that those who adopted online dating earlier than their social group would have more positive opinions towards online dating. A correlation was tested using the items *When did you start using online dating?* and *What is your opinion of online dating?* The Pearson's correlation was  $-.326$ , with significance (2-tailed) =  $0.074$ ; one-tailed (predicted direction) is  $0.074/2 = .037$ . The results were significant despite the small sample size in that the direction of the hypothesis: Those who adopted online dating services earlier than their social group reported more positive opinions of online dating.

As post hoc analysis to this hypothesis, I decided to run a correlation with variables of opinion of online dating with some variables of what the participant was expecting when they joined the dating service. I expected to see significance between these variables because I anticipated those who were using online dating sites to “start a serious commitment in hopes of becoming long-term or married” rather than “a casual relationship without wanting to be seriously attached” to have more positive attitudes towards online dating. There was significance between items “start a serious commitment” and “a casual relationship” ( $t = -.512, p < .05$ ) however no significance between either or those measures with opinions of online dating ( $t = -.326, p > .05$ ). A larger sample size might have led to significance.

**H4:** People who use online dating services are likely to know more people who have used online dating services than those who do not use online dating services.

The fourth hypothesis predicted that those who use online dating services are more likely to know others that have also used online dating services. I ran a t-test using the item *Have you ever used online dating?* as the grouping variable with *How many people do you know who currently use online dating?* as the test variable. The higher the mean, the more people are known to use online dating.

**Table 4.6: Results for H4 (T-test)**

	<b>N</b>	<b>Mean Others who use online dating.</b>
<b>Users</b>	31	3.42
<b>Non-users</b>	37	2.59

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**t = 722 , p. > 0.05\***

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\*not significant.

Although in the predicted direction, the results were not significant. A larger sample size might have shown significance. Despite the mean showing that users know others that use online dating (m =3.42), results were still not significant at the .05 level.

**H5a:** Female students will be more likely to adopt online dating than male students because they will feel it is safer than traditional dating.

**H5b:** Female students will be more likely to adopt online dating than male students because they will feel it is more time efficient than traditional dating.

The fifth hypothesis had two components that I divided into parts A and B. Using the item of male (N=6) and female (N=25) as the grouping variable and using the factors of cost, safety, time efficiency and ease of use as the test variables, I ran t-tests to determine significance, if any, amongst time and safety for female and male users of online dating. Pew (2006) reported safety concerns amongst females and discovered significant results. The tables below show the results of the present study. The higher the mean, the more important the factor was to the participant. Part A about safety was significant at the 0.01 level, while part B about time efficient was not significant. It is not clear whether a larger sample size might have made a difference in the time efficiency results.

**Table 4.7: Results for H5a (T-test)**

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<b>Safety</b>	<b>N</b>	<b>Mean of safety factor</b>
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<b>Males</b>	6	2.33
<b>Females</b>	25	3.60
<b>t = 3.54 , p. &lt; 0.01*</b>		

\*significant.

**Table 4.8: Results for H5b (T-test)**

<b>Time efficiency</b>	<b>N</b>	<b>Mean of time efficiency factor</b>
<b>Males</b>	6	2.50
<b>Females</b>	25	3.00
<b>t = 1.85 , p. &gt; 0.05*</b>		

\*not significant.

These results were somewhat expected in that females participants reported safety as an important factor of adoption and male participants reported it being not an important factor (Pew, 2006). Once again the time efficiency prediction proved to be not significant as was similar to H1 (Table 4.4). A more balanced sample size might have made a difference in the results of H5b.

#### Open-ended responses

I asked participants several open-ended questions in the survey, *Which online dating service have you used?*, *What are your main reasons for the above opinion?* in section six of the survey, and *What is your reasoning for the recommendation?* (recommending online dating to someone else) in section seven of the survey. These responses were organized into categories in order to analyze the content and were excluded from the SPSS data set. Although there were a limited number of participants



who responded to using online dating, the responses are worth reporting to determine how they affect the hypotheses.

#### *Dating services used*

Of the 68 total participants of the survey, 31 used online dating services, of those respondents, 16 participants used more than one dating sites, and eight respondents used more than two dating sites. The analysis for this data was taken from Survey Monkey and counted by hand by the researcher. The most frequently used sites included: Match (14), eHarmony (11) LDS Singles (4), and Chemistry.com (3). There were only four participants who reported using targeted online dating sites (veggiedate.com, fitness-singles.com, interracialdatingcentral.com, BBpeoplemeet.com, Iranian Singles, American Singles, and Black Planet). The LDS Singles dating service would also be considered a target site, however due to the fact that it was listed numerous times by participants and the fact that it is a paid site I included it as part of the commercial sites.

#### *Reasons for opinion of online dating*

Following the question *What is your opinion of online dating?* came the question *What are your main reasons for the above opinion?* Of 31 responses, 10 participants had a “somewhat negative” opinion of online dating (32.3%) and 10 participants had a “neutral” opinion of online dating (32.3%), only two participants had a “very positive” opinion of online dating (6.5%) and three participants had a “very negative” opinion of online dating (9.7%).

A neutral response given by survey participants included, *“I don’t feel that the pros/cons of online dating vary greatly enough from traditional dating. Both take time, honesty, willingness to invest, etc.”* A very negative opinion given stated *“Did not have a*

*good experience with it.*” While a very positive opinion of online dating reported, *“I met my husband of seven years on Yahoo. The other people I met were normal people, not ‘freaks’ or ‘weirdo’s.”* A somewhat negative opinion given by a respondent stated, *“These sites matched me with creepy men.”* It is possible those who reported as having “dated weirdoes,” were using a commercial site where a partner could not be met because interests and similarities were too broad in which case target sites might be more suitable for those individuals looking to narrow their options even more. The type of sites people use may determine if they meet compatible matches, for example if someone is paying for a subscription on a site, they might be more serious about wanting to initiate a relationship.

#### *Reasons for recommending online dating*

Participants were asked in section seven of the survey whether or not they would recommend online dating and then asked why they would or why they would not recommend it. Out of 68 participants, 40 participants said they would recommend online dating (58.8%) and 28 said they would not recommend it (41.2%). The responses for the recommendations were put into the following categories: 1) time, 2) positive resource, 3) negative resource, 4) positive experience, 5) negative experience, 6) safety, 7) behavior, and 8) other. Comments about time were made by respondents in regards to online dating being a good tool for those with limited time. *“It can be a helpful tool for people to meet potential partners with similar interests and goals, especially if they are too busy to meet people through other means.”* Despite H1 being significant in the opposite direction that it was predicted, the following comment suggests there is something to be

said about time and online dating. *“It worked for me. It’s very difficult to balance work and school and dating.”*

Comments made concerning online dating being a positive experience included, *“I had a good experience and met my husband through the service,”* and *“I had a good experience and met my husband through the service.”* Participants with negative experiences stated, *“I didn’t get a benefit from it so I don’t have a reason to recommend it to someone else,”* and *“Low chance of success. My experience was disappointing.”* A neutral experience comment made by a participant stated, *“Just because it didn’t work for me for me doesn’t mean it won’t work for others. One of my best friends married a girl he found online and they have a very happy marriage.”* A participant made a comment about online dating being a positive resource, it stated, *“Online dating lets you find a match quicker and more effervescently. It is easier to find a person who shares your likes and dislikes. Also there is the advantage of meeting people you know are single.”*

There were comments made by participants about safety. Hypothesis 5a predicted that safety would be more important to females who used online dating rather than males and the results were significant, despite there being only six males who completed this section of the survey about online dating and 25 females. Comments about safety stated, *“I just don’t think it is very safe. If a person is a private person putting their information over the internet tends not to be a good idea,”* *“It is unsafe,”* *“I would encourage anybody to use reputable dating sites.”*

### Conclusion of Results

Out of five hypotheses, two were supported. A larger and more diverse (equal amount of male and female) sample size might have made a difference in the overall

results. Hypothesis one predicted that more time spent at work or studying at school (not leisure time) would cause individuals to adopt online dating because it was more time efficient than dating traditionally. This hypothesis was not supported; however there was significance in the opposite direction, those with more leisure time adopted online dating. Hypothesis two predicted that those with high social apprehension would adopt online dating. There was no significant difference between social apprehension and adoption of online dating. Hypothesis three predicted that those who adopted online dating earlier than their social group would have more positive opinions towards online dating services. This hypothesis was supported. The fourth hypothesis predicted that people who used online dating services are likely to know more people who have used online dating services than those who do not use online dating services and was not supported. And lastly, hypothesis five, which was split into two parts, part A predicted that safety would be a more important factor for females and the results were significant. Part B of hypothesis five predicted that time efficiency would also be a more important factor to females. Part B was not significant however a larger sample size might have led to a significant difference.

## CHAPTER 5

### DISCUSSION

The purpose of the present study was to examine the circumstances that lead individuals to use online dating with the intent of initiating a romantic relationship. This chapter elaborates upon the results presented in Chapter Four. In addition, this chapter explains the results of the hypotheses, discusses limitations of the study, and presents ideas for future research.

Through the use of computer-mediated communication, individuals can initiate a relationship on the Internet via online dating sites and gratify the same needs that drive face-to-face communication such as companionship, affection, and control (Flaherty, Pearce, & Rubin, 1998). Though not a substitute for more traditional means of initiating a romantic relationship, online dating provides a functional alternative for face-to-face interaction. Despite the skeptics of online interaction (Bargh & McKenna, 2000; 2004) who claim that the Internet and online interaction caused depression because it isolated people from human interaction, recent studies have reported that individuals see the Internet as a tool for improving social relations (Pew, 2010), offering advantages over traditional interaction (Birchmeier & Sheeks, 2007). Studying the technology, namely the Internet, that allows online interaction through CMC, namely online dating, was the overall goal.

With the present study I focused on the technological aspect of online dating rather than relationship maintenance or impression management as previous studies have emphasized (Cheever, Cummings, Felt, & Rosen, 2008; Ellison, Gibbs, & Heino, 2006; Cornwell & Lundgreen, 2001). I looked at some of the key circumstances that would

cause a graduate student to adopt online dating services based on the literature concerning the model of how an innovation is diffused amongst a target group. According to Wejnert (2002), “A broad array of variables can significantly influence the probability of whether an [individual] will adopt an innovation” (p. 318). After a review of the online dating literature, I considered some of those variables to be time, social apprehension, social network acceptance, opinion of adopting online dating, and safety. By understanding the causes of adoption, potential adopters might be able to better determine if such an innovation, online dating, would be of benefit to them.

### Discussion of the Results

#### *Hypothesis one: Time pressure and online dating*

Hypothesis one predicted that those who spent more time at work and at school would have less time to be able to date and therefore would adopt online dating services. This hypothesis was a result of wanting to determine if time was a circumstance in adoption. The results showed that those who reported to have more leisure time, meaning that they spent less time at work or school, were the actual adopters of online dating with a mean of 11.5 hours available. Despite comments made by some participants about online dating being a helpful resource for those who didn't have much time to devote to traditional dating, the results showed the opposite.

These mixed results could suggest a few things about the adopter. I chose graduate and professional students as my sample because at the graduate level, a high expectation on technology competence is emphasized. Those with more leisure time might adopt online dating because they feel they are capable of creating a profile, viewing the profiles of others, socializing and interacting with potential partners online in

less time and in a way that is more meaningful to them. Questions in section five of the survey asked about how competent the participant was with the Internet and email in order to determine whether or not that had any effect on adoption of an Internet service. If a graduate student is more competent in their use of the Internet, they might need less time to date online than they would for traditional dating. However the inverse could suggest that those with more time choose to date online because it is a timely process like traditional dating, and they have time to devote to searching for potential matches and are thereby being more selective about their choices. While people still continue to meet and initiate relationships traditionally several studies confirm that time is a factor in the adoption of online dating (Brym & Lenton, 2001; Pew 2006).

A more representative sample size might have aided in the attempt to learn if time pressures play a role in the decision to adopt online dating. The numbers show significance in the opposite direction than predicted, however self-reports by participants alluded to the fact that online dating is seen as a tool to help those with limited time. The rate of adoption or the time it takes an individual to adopt might also be dependent on whether or not the individual feels that having time to commit to starting a serious relationship is high on their priority list. For example, even if the individual knows about online dating, develops a somewhat positive attitude towards it, observes how it works in terms of matching or pairing a potential partner, these factors will not cause immediate adoption if that individual is not actively seeking a romantic partner.

*Hypothesis two: Social apprehension about online dating*

The prediction for hypothesis two was that those who experience social apprehension, experienced shyness or unwillingness to communicate in social settings,

would adopt online dating. This hypothesis tests whether social apprehension was a variable that led to adoption. This prediction was not supported suggesting that online dating is not a suitable alternative for those who experience social apprehension.

However, those who responded in the affirmative when asked if being in a relationship was important and who felt social apprehensive might still turn to the Internet to initiate relationships. Through the CMC use, individuals are able to interact with others in a manner that makes them feel comfortable and less apprehensive.

To determine if online interaction could be a reasonable alternative to face-to-face interaction, I did a post hoc analysis. The item in the survey asking if the participant felt that communicating on the Internet was similar to communicating face-to-face was tested as post hoc analysis however there was again no significance. The frequency analysis did however bring forth interesting results. Participants were able to share how they viewed online communication as opposed to in-person communication.

*Hypothesis three: Positive opinions about online dating*

The third hypothesis predicted those who adopted online dating services earlier than their social group would have more positive opinions towards online dating. This hypothesis also looked to determine if an individual's social group had any impact on adoption thereby causing it to be a circumstance in adoption. This prediction was made while relying on the Diffusion of Innovations Model. There was a significant difference despite the small sample size. The Diffusion Model explains that there are several characteristics that affect the rate of adoption: relative advantage, compatibility, complexity, trial-ability, and observability (Rogers, 1995; Rogers, 2003). Hypothesis three was made based on the assumption that those who adopted online dating as the



innovation earlier than their social group would have the advantage of being more familiar with all the features and thereby allowing for the adopter to test all the characteristics helping their opinion become more positive.

*Hypothesis four: Online daters know more people who have used online dating services than those who do not use online dating services.*

Relying once again on the Diffusion Model, hypothesis predicted that people who use online dating services are likely to know more people who have used online dating services than those who do not use online dating services. The priority of this hypothesis was directed to the individual's external circumstances. The Diffusion Model affirms that a social system/ network are one of the four main elements of diffusion and that the nature of the social system can affect the diffusion of an innovation (Rogers, 1995; Rogers, 2003).

For example, the social system can encourage or discourage acceptance of the innovation and furthermore the diffusion of that innovation (Rogers, 2003), causing an individual to become an early adopter or a late adopter. The results of this hypothesis showed no significant difference.

This lack of difference suggests that one's social network does not persuade or dissuade people from using online dating services. However, the internal-influence model indicated this concept (Mahajan and Peterson, 1985). A larger sample is necessary to further test this hypothesis.

*Hypothesis five: Safety and time factors amongst male and female participants.*

Hypothesis five was divided into two parts and instead of using the user, non-user category as the grouping variable to run a t-test, the sex variable was used. Part A of

hypothesis five predicted that female students would be more likely to adopt online dating than male students because they would feel it was safer than traditional dating. The Pew Report (2006) stated that safety was a major consideration for females, and the results of the present study showed a significant difference for part A of the hypothesis. Safety online can include things like guarding personal information such as address, phone number, work place, or deciding to meet, each person arriving separately, someplace public with lots of people around if and when a face-to-face meeting is arranged. Dolinsky and Jerin (2001) concluded from the results of their study that upon becoming familiar with online dating services women do recognize safety issues.

Part B of hypothesis five predicted that female students would be more likely to adopt online dating than male students because they would feel that it is more time efficient than traditional dating. Part B of hypothesis five showed no significant difference, however it was added as a sub-part to the hypothesis to try to once again determine if time was a factor but on a targeted level. The lack of male participants might have impacted these results as there were fewer males than females ( $m = 6$ ,  $f = 25$ ) which will be discussed later in this chapter.

#### Limitations

Using an online survey was the most appropriate and viable means of conducting research for this type of study however future research would benefit from more qualitative data such as face-to-face interviews. Although online dating carries less of a stigma than in years prior, some might be reluctant to share their experiences because they might feel embarrassed or ashamed or because they prefer to keep their personal lives private and not want to participate in a survey about their online dating habits. The

anonymity of the online survey is a consolation to those who might feel apprehensive about their relationship status or experience with using online dating services. The participants and their responses were kept confidential allowing respondents to feel at ease about the responses they gave.

The method I chose for my study doesn't allow for the possibility of follow up questions. It is possible that a participant who took the survey might have just encountered someone "odd" or "weird" on the dating service they were using and used that experience to frame the responses. If the inverse was true, and a participant had just had a positive experience on the same or a different dating site, the responses change entirely. Without wanting to alter the purpose of the study or filter any responses based on positive or negative experiences, it would be insightful to learn more about those experiences that rendered participants to respond in the way they did and therefore would be beneficial to ask follow up questions.

### *Survey Monkey*

While Survey Monkey was an efficient means of collecting data to run analysis for my study, transferring the data into SPSS proved to be more problematic than anticipated. There was no direct import from Survey Monkey into SPSS, therefore the data had to first be aggregated into an Excel file, and then imported into SPSS. In addition, a function error occurred while using Survey Monkey. Prior to opening the survey to the public, my advisor and I ran test cases to determine if the survey flowed appropriately which I then deleted before the survey was available via RAVE. However, the two test cases remained in the data set and therefore had to be deleted again later. This problem, although solved, raises reliability concerns about using Survey Monkey.

### *Question type*

Despite the anonymity of the online survey, I felt apprehensive about how many questions I should ask. It was brought to my attention that a lengthy survey might not appeal to my audience, especially if the topic is something they are not familiar with. Keeping this in mind, the majority of the questions were directed at those who had adopted online dating. A section was included (see Appendix A, section 7) specifically for those who had not adopted online dating, or who answered “no” to the question in section 5 asking, *Have you ever used online dating?* Those individuals bypassed section 6 and answered questions about opinions of online dating use. There are still more questions that I felt could be asked if given the opportunity to create another survey.

The additional questions I would ask online dating adopters include: their preferred dating site (name, paid or free, useful features, non-useful features), how often they updated their profile, and how many times a day they would search possible matches. I would also ask more questions about the individual’s adoption experience and allow for open-ended responses. A majority of the questions used the Likert scale structure. This was effective for gathering quantitative data; however it limits the types of responses that a participant would be able to give if it was an open-ended question.

### *Sample*

In regards to the sample size, I was limited in how many participants I had overall and the sample was not an equal balance of men and women suggesting to me that women have more experience with using online dating or are more willing to talk about it. Two email notifications went out to graduate and professional students via campus RAVE. Due to the RAVE announcements being temporarily marked as SPAM, the

second notification was not received, therefore lowering the chances of recruiting more participants in time. A more diverse sample by college major might have impacted the results illustrating how students based on departments use or don't use the Internet to interact online.

In a study by Peter and Valkenburgh (2007b), the goal was to examine the characteristics on those who date online. The results indicated a positive result favoring women to visit a dating site over men ( $p < .001$ ) revealing that online dating is not as highly adopted by men as by women. A study by Pew (2011) confirmed that women are more likely to participate in online communities such as support groups for illness or personal situations. It is this reason that the balance of men and women who participated in my survey was not proportionate. However, there are numerous studies that examine homosexual males who participate in online dating to meet and have relationships with other homosexual males (Bolding, Davis, Elford, Hart, & Sherr, 2005; Liau, Marks, & Millet, 2006).

The last concern with the sample was that it was not the most appropriate population to consider. Students at a university are typically surrounded by other students with whom they could initiate relationships and therefore would not need such services as online dating. The study by Pew (2011) gathered data about social groups' use of the Internet to be involved in various aspects of their communities. A large percent of the Pew sample said that the Internet has had a major impact on the ability to connect with groups. With regards to online dating, we will consider the single participants a group, where new members are joining everyday via online dating services.

Pew (2011) also concluded from their findings that the age category of people using the Internet for more socializing within a particular group was that of 18-29 year olds. Another important factor to consider is the issue of trust and privacy. Trust and privacy concerns have been associated with the Internet and in specific online dating (Dolinsky & Jerin, 2001; Ellison, Gibbs, & Heino, 2006), yet the Internet continues to be a place where students go to socialize and discuss issues that are important to them.

#### Future Research

There were several issues not addressed or examined by the present study. However, I attempt now to address those issues and note that these items should be looked at in the future.

Despite ethnicity and religion not being asked in the survey, it is an insightful and useful demographic variable to account for especially when considering online dating. Some ethnic cultures are more apt to use traditional methods of dating (Indian, Chinese), where parents or guardians select a mate without the two joining individuals ever meeting in person. Similar, according to Bredow, Cate, and Huston (2008), is the concept of closed-field partnering in which parents select a mate from a pool of familiar acquaintances. Ethnicity is a useful item to include in the survey in the future to determine if there are any trends amongst dating and cultures. Whether or not certain ethnicities have the option to chose and browse their own romantic partners might alter results of a study about an online service where an individual is able to choose for themselves based on a list of predefined qualities and characteristics. According to the Graduate Student Profiles (2009), the UNLV graduate population is a mix of Caucasian (58.8%), Asian (8.0%), Hispanic (7.5%), and African American (5.9%) students with

India as the leading country sending students to study at UNLV, followed by China, and South Korea.

Another demographic not accounted for is residency status. According to the Graduate Student Profiles (2009), graduate and professional student residents account for 79% of the total graduate student body. What this means for single adults living in Las Vegas are that they might need another alternative to bars or nightclubs. A participant reported that, “it’s [online dating] a good way to meet people in Las Vegas especially if you don’t want to find a mate in a bar/casino, at work, or someplace else that does not suit your personality.” If participants are residents of Las Vegas, they might be more inclined to use online dating services because they live in a town where people typically are more transient and come for a short period of time whether to vacation or for some type of business.

In a city that boasts the infamous motto, “What happens in Vegas, stays in Vegas,” a meaning relationship might be difficult to come by for those who live and work in the Las Vegas community. On most commercial dating sites there is a feature that asks the user for the “search radius”, or how many miles from where that individual lives should the site search for potential matches. Future research should ask for residency status of the participant given the fact that there is a geographic search feature for most online dating services to examine the impact that geographic boundaries have on relationships initiated online.

Another question that should be included for future research is whether or not those who participate in online dating services feel that by paying a fee to use the service, the chances of meeting a potential partner is increased. Those who pay to use online

dating services spend less time sifting through online advertisements and more time browsing for potential matches (Lasky & Silverstein, 2004). By asking future study participants their preference, there will be more to learn about why commercial dating sites are adopted more or less than free dating sites. Lasky & Silverstein claimed that people in general are serious about dating, and they want to be amongst others who are also serious about dating therefore free sites distract those who are serious by allowing those who aren't to be in their midst. Harvey, Hatfield, Schwartz, and Sprecher (2008) did a comparison of online dating and other types of commercial dating. Their claim was that in commercial means of dating other than the Internet, the focus is on the interaction, leaving less effort to devote to determining whether there is compatibility. Likewise, the same premise can be applied towards opting to use paid online dating services as opposed to free online dating services.

In addition to more relevant demographic information, a different hypothetical approach could be taken in the future. While Diffusion is acceptable for examining the adoption of the technology, other theories could explain what Diffusion cannot. The Uses and Gratifications Theory whose objectives include examining why people use media, understanding motives for media use, and identify needs and behaviors could be used to examine the affects the technology has on the individual (Katz, 1959; Schkade, Stafford, & Stafford, 2004). In addition, the Media Substitution Theory could be used to frame online dating, which states that people will substitute traditional media such as television or print newspapers with a newer media such as the Internet and blogs (Kaye & Johnson, 2003).



Online dating is a curious subject because commercial advertisements boast success in finding a potential romantic partner yet many people have negative experiences. Many studies have examined online dating through interpersonal constructs (Cheever, Cummings, Felt, & Rosen, 2008; Ellison, Gibbs, & Heino, 2006; Cornwell & Lundgreen, 2001), technological constructs (Dimitrova, Garton, Gulia, Haythornthwaite, Salaff, & Wellman, 1996; Hatfield, Harvey, Schwartz, Sprecher, 2008; Chiou, & Wu, 2009) and psychological constructs (Baker, 2002; Ariel, Hitsch, & Hortacsu, 2004; Houran, & Lange, 2004). These studies are evidence that online dating continues to fascinate researchers in addition to popular culture with movies like “You’ve Got Mail”, and “Must Love Dogs.” This topic, although curious, continues to be relevant as the Internet continues to permeate in our lives as a society. While relationships are still more likely to be formed offline, there are an increasing number of people who are turning to online dating services to help them find a romantic partner (Pew, 2006).

Now is the time to examine the role of the Internet in human relationships specifically romantic relationships because of the emphasis placed on the Internet by society as a whole (Pew, 2010). While the diffusion approach as a theoretical approach does not examine the impact and affects that a technology such as the Internet has on society, it is nevertheless the most appropriate time to use the diffusion approach to examine why Internet technology plays such a large role in society and in dating.



**Social/Behavioral IRB – Expedited Review**

**Approval Notice**

***NOTICE TO ALL RESEARCHERS:***

*Please be aware that a protocol violation (e.g., failure to submit a modification for any change) of an IRB approved protocol may result in mandatory remedial education, additional audits, re-consenting subjects, researcher probation suspension of any research protocol at issue, suspension of additional existing research protocols, invalidation of all research conducted under the research protocol at issue, and further appropriate consequences as determined by the IRB and the Institutional Officer.*

**DATE:**                   , 2010

**TO:**               **Dr.**           ,

**FROM:**           Office of Research Integrity - Human Subjects

**RE:**               Notification of IRB Action by Dr. Charles Rasmussen, Co-Chair

                          Protocol Title:

                          Protocol #:

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This memorandum is notification that the project referenced above has been reviewed by the UNLV Social/Behavioral Institutional Review Board (IRB) as indicated in Federal regulatory statutes 45 CFR 46. The protocol has been reviewed and approved.

The protocol is approved for a period of one year from the date of IRB approval. The expiration date of this protocol is \_\_\_\_\_, 2011. Work on the project may begin as soon as you receive written notification from the Office of Research Integrity - Human Subjects (ORI Human Subjects).

**PLEASE NOTE:**

Attached to this approval notice is the **official Informed Consent/Assent (IC/A) Form** for this study. The IC/A contains an official approval stamp. Only copies of this official IC/A form may be used when obtaining consent. Please keep the original for your records.

Should there be *any* change to the protocol, it will be necessary to submit a **Modification Form** through ORI Human Subjects. No changes may be made to the existing protocol until modifications have been approved by the IRB.

Should the use of human subjects described in this protocol continue beyond \_\_\_\_\_, 2011, it would be necessary to submit a **Continuing Review Request Form** *60 days* before the expiration date.

If you have questions or require any assistance, please contact the Office of Research Integrity - Human Subjects at [IRB@unlv.edu](mailto:IRB@unlv.edu) or call 895-2794.

## **SURVEY**

### **1. Introduction**

This survey, which is for a graduate thesis project, explores the circumstances that lead graduate or professional students to use online dating sites.

Your responses are anonymous and confidential. This survey is completely voluntary and takes approximately 15-20

minutes to complete. You are not required to complete the survey if you feel uncomfortable answering any of the questions.

As a courtesy, a dark red line will appear at the top of a question that does not get answered.

If you have any questions or comments, please contact me at [toyerr@unlv.nevada.edu](mailto:toyerr@unlv.nevada.edu) or my thesis advisor Dr. Kilker at

[kilker@unlv.nevada.edu](mailto:kilker@unlv.nevada.edu).

I appreciate your time! Thank you -Rachel Toyer

### **2. Informed Consent**

#### **Purpose of the Study**

You are invited to participate in a research study. The purpose of this study is to understand the circumstances that lead Internet users to adopt online dating sites as a way to begin a romantic relationship.

#### **Participants**

You are being asked to participate in this study because you are a graduate or professional student enrolled in graduate courses at UNLV between the ages of 25 to 50 years old.

#### **Procedures**

If you volunteer to participate in this study, you will be asked to do the following: Fill out an online survey based on your experiences with using online dating or your opinion of online dating services.

#### Benefits of Participation

There may not be direct benefits to you as a participant in this study. However, we hope to learn more about why individuals chose to date online as opposed to face-to-face dating and if online dating can be successful under the right circumstances.

#### Risks of Participation

There are risks involved in all research studies. This study may include only minimal risks. For example you may feel slight discomfort while answering some of the questions in the survey.

#### Cost /Compensation

There will not be financial cost to you to participate in this study. The study will take 15-20 minutes of your time. You will not be compensated for your time, however participants have the option of entering their email for a drawing for one of two gift cards in the amount of \$20 to Amazon.com

#### Contact Information

If you have any questions or concerns about the study, you may contact Dr. Julian Kilker at 702-895-3729. For questions regarding the rights of research subjects, any complaints or comments regarding the manner in which the study is being conducted you may contact the UNLV Office of Research Integrity – Human Subjects at 702-895-2794 or toll free at 877895-2794 or via email at [IRB@unlv.edu](mailto:IRB@unlv.edu).

### **3. Informed Consent continued**

#### Voluntary Participation

Your participation in this study is voluntary. You may refuse to participate in this study or in any part of this study. You may withdraw at any time without prejudice to your relations with the university. You are encouraged to ask questions about this study at the beginning or any time during the research study.

#### Confidentiality

All information gathered in this study will be kept completely confidential. No reference will be made in written or oral materials that could link you to this study. All records will be stored in a locked facility at UNLV for one year after completion of the study. After the storage time the information gathered will be deleted.

#### Participant Consent:

I have read the above information and agree to participate in this study. I am at least 18 years of age. A copy of this form has been given to me.

#### **4. Interacting in social situations**

1. I consider myself a shy person.

Strongly disagree, Slightly disagree, Neutral, Slightly agree , Strongly agree

2. I can communicate with people in a social setting without experiencing anxiety.

Strongly disagree, Slightly disagree, Neutral, Slightly agree , Strongly agree

3. I get nervous when I have to interact with people at a party.

Strongly disagree, Slightly disagree, Neutral, Slightly agree , Strongly agree

4. I am usually at ease when talking to people at a bar.

Strongly disagree, Slightly disagree, Neutral, Slightly agree , Strongly agree

5. Even small get-togethers make me apprehensive.

Strongly disagree, Slightly disagree, Neutral, Slightly agree , Strongly agree

6. I am less shy than most people in social situations.

Strongly disagree, Slightly disagree, Neutral, Slightly agree , Strongly agree

7. I am usually very outgoing at a dinner party.

Strongly disagree, Slightly disagree, Neutral, Slightly agree , Strongly agree

## **5. Internet and relationships**

1. In using the Internet to communicate with others, how much do you agree or disagree with the following statements? (Strongly disagree, Slightly disagree, Neutral, Slightly agree, Strongly agree)

I am technically competent using the Internet.

I am technically competent using email.

I feel socially comfortable using the Internet.

I feel socially comfortable using email.

2. In using the Internet to communicate with others, how much do you disagree or agree with the following statements? (Strongly disagree, Slightly disagree, Neutral, Slightly agree, Strongly agree)

"I consider the Internet a great tool for communicating with others."

"The Internet allows me to communicate with people I would not have talked to otherwise."

"The Internet is an easy way to communicate with others."

"I consider communication on the Internet to be similar to talking in person."

3. Are you currently in a romantic relationship? (Yes, No)

4. How important is it to you to...

(Not important Somewhat important Neutral Very important Extremely important )

...be in a romantic relationship?

...have time to commit to a romantic relationship?

...have time to meet a potential dating partner?

5. How many HOURS A DAY do you typically spend communicating with others using the Internet?

6. How many HOURS do you spend working in A DAY?

7. How many HOURS do you spend studying in A DAY?

8. How many HOURS of leisure time do you have during A DAY?

\*9. Have you ever used online dating? (Yes, No)



## **6. Use of online dating sites**

1. Approximately how many MONTHS have you used dating services?

2. In comparison to others that you know, when did you start using online dating?

(Much earlier, Somewhat earlier, About the same, Somewhat later, Much later)

3. When you joined an online dating service, were you expecting to...

(Strongly agree, Agree, Disagree, Strongly disagree)

...have a casual relationship without wanting to be seriously attached?

...start a serious commitment in hopes of becoming ...long-term or married?

...make a new friend, someone to hang out with occasionally?

...check out the service to see if it was something you wanted to do in the future?

4. In considering whether or not to use online dating, how important were the following reasons?

(Not important, Somewhat important, Important, Extremely important)

Cost of the service

Time efficiency

Safety

Ease of use

5. Did the following factors encourage the use online dating?

(Strongly disagree, Slightly disagree, Neutral, Slightly agree, Strongly agree)

I knew others who used online dating.

I wasn't able to meet someone otherwise.

I was able to explore dating without others around me knowing.

I found a more compatible selection of people to date online.

I was aware of the risks of online dating.

6. Which online dating services have you used? (Please list all)

\*7. What is your opinion of online dating?

(Very negative, Somewhat negative, Neutral, Somewhat positive, Very positive)

8. What are your main reasons for the above opinion?

## **7. Opinions about online dating**

1. How do you feel about the following statements?

(Strongly disagree Slightly disagree Neutral Slightly agree Strongly agree)

"Online dating is normal in this day and age."

"I would feel comfortable acknowledging using online dating with friends."

"I would feel comfortable acknowledging using online dating with colleagues."

"Use of online dating is a sign of desperation."

"Online dating helps people who are shy."

\*2. How many people do you know who currently use online dating?

\*3. Would you recommend online dating to someone else?

4. What is your reasoning for this recommendation?

## **8. Demographics**

The last set of questions is about your demographics. The following information is anonymous and will only be used to aggregate the survey data.

\*1. What is your age?

\*2. Are you male or female?

\*3. How many credit hours are you currently taking at UNLV?

4. Please select your college of study.

College of Business

College of Education

School of Dental Medicine

Howard R. Hughes College of Engineering

College of Fine Arts

Division of Health Sciences

William F. Harrah College of Hotel Administration

College of Liberal Arts

College of Sciences

Greenspun College of Urban Affairs

William S. Boyd School of Law

**9. Thank you!**

1. Thank you for your participation! (Optional)

If you would like a chance to win one of two \$20 gift cards to Amazon.com as a "thank you" for participating in this topic, please enter your first name and email address here. Your name will not be associated with the rest of your responses.

2. (Optional)

If you would like a summary of this project's results, please also include your email address here. Your address will not be associated with the rest of your responses.

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