International students' reliance on home-country related internet use

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INTERNATIONAL STUDENTS’ RELIANCE ON HOME-COUNTRY RELATED INTERNET USES

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ABSTRACT

There are two purposes on this research study. First, this research will examine usage patterns of Internet resources especially related to the home country among international students. The second purpose is to determine how subjects' gender, age, permanence of intended stay in the U.S., perceived cultural disparity, intercultural communication anxiety, perceived host receptivity, whiteness perception, English competence, Internet involvement, Internet utility perception, and Internet motives affect their home country related Internet uses.

The present study draws on uses and gratifications and media system dependency perspectives for examining factors related to Internet usage behaviors of international students and their motives to use their home-country Internet resources.

Participants were undergraduate and graduate students of California States University, San Bernardino and were randomly selected. A total of 230 questionnaires were administered and 206 of them were returned. The sample consisted of 131 males and 75 females from 10 different countries. The age of subjects ranged from 19 to 32.
The results indicated that only few factors affected the reliance on home-country Internet usage of international students. The first major finding dealt with the relationship between international students' gender and their home-country related Internet uses. The results showed that males use their home-country chat rooms and instant messaging services more than females. The second finding dealt with the relationship between international students' age and their home-country related Internet uses. The result showed that the older the students, the greater the usage of their home-country e-mail. The third finding showed that as students' English competency improved, they relied less heavily on their home-country bulletin boards and web sites. The final finding indicated that as international students' involvement with the Internet increased, the greater their overall usage of home-country Internet resources.
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CHAPTER ONE

INTRODUCTION

International Students’ Reliance on Home-Country Related Internet Uses

The Internet offers millions of users the opportunity to exchange electronic mails, photographs, and send clips. Internet also allows the ability to search data for books, CDs, new cars, and information about term papers. Cummings and Kraut (2002) indicated that in recent years, the fastest growing Internet application was the World Wide Web, which engages users in a rich environment of text, graphics, animation and sounds. Moreover, the Pew Internet and American Life Project (2002) showed that college students are using the Internet more than any other groups. This usage is primarily focused on students using the Internet for a variety of school projects.

Moreover, for the international students who study abroad and wish to obtain a higher education and expand their social knowledge through new experiences, the Internet provides a bridge between the home country and their new living conditions. For many international students, the stress related with studying, working, and
living in a completely new culture could be alleviated by using the Internet as a life line to home. Thus, as Internet usage increases, so does the eventual transition to the new culture. Therefore, students use the Internet to adapt themselves to survive in the new society.

Beside classrooms, textbooks, and friends, international students use the Internet as a source of searching for information, and to conduct one on one communication with professors via e-mail instead of being present in class. Moreover, they use the chat room on the Internet to communicate with their American friends concerning various group projects, and talk to their friends or family via a web camera.

Statement of the Problems

International students encounter problems both in school and out of school life due to culture and language differences. The Internet has created many opportunities to help international students to develop and adjust themselves to their new environment.

Regarding school, the Internet is an almost unlimited source for data searching. Also, the Internet provides other utilities for students particularly for Asian
students. Students who were raised within the myriad traditional Asian cultures have difficulty in expressing themselves in front of other students. The Internet plays a major role in allowing these shy students to communicate with their professors and classmates through e-mail or chat room.

Furthermore, due to limited English competence, many international students tend to use their home-country’s web resources to find information, to contact their friends and family, and as a source of entertainment. However, English competence is not the only factor that effects Internet usage. Gender, age, length of stay in the U.S., perceived cultural disparity, intercultural communication anxiety, host receptivity, and whiteness perception can also be the factors in home-country Internet usage.

Purpose of the Study

The purpose of this research is to analyze international students’ reliance on their home-country related Internet usage. In different cultures and surroundings, international students may have different motivations and gratifications for their Internet use. This study expands the study of Zizi Papacharissi and Alan M.
Rubin (2000). The concept entitled the predictor of the Internet usage, examined the uses and resulting gratifications that Internet users experience. Moreover, the research determines the amount of media dependent behavior that the users exhibit. Uses and gratifications theory and media system dependency theory will be applied to this present research.

Research Questions

The study seeks to answer the following research questions:

RQ1: Are there gender differences in home-country related Internet use among international students?

RQ2: Is the age of international students related to their home-country Internet usage?

RQ3: Is the length of stay in the U.S. of international students related to their home-country Internet usage?

RQ4: Are international students’ perceptions of cultural disparity related to their home-country Internet usage?
RQ5: Are international students' anxiety in intercultural communication related to their home-country Internet usage?

RQ6: Is perceived host receptivity of international students related to their home-country Internet usage?

RQ7: Is whiteness perception of international students related to their home-country Internet usage?

RQ8: Is international students' English competence related to their home-country Internet usage?

RQ9: Is the Internet involvement of international students related to their home-country Internet usage?

RQ10: Is perceived Internet utility usage related to the home-country Internet uses among international students?

RQ11: Are the motives for the Internet usage of international students related to their home-country Internet usage?

The proposed study assumes that international students acknowledge the informative and interactive capabilities of the Internet. Hence, the study is designed to explore how subject's gender, age, length of stay in U.S., perceived
cultural disparity, intercultural communication anxiety, host receptivity, whiteness perception, English competence, perceived Internet utility, Internet involvement, and Internet motives are related to the home-country Internet uses by international students.

Organization of the study
This thesis portion was divided into six chapters. Chapter One provides the background for the research, statement of problems, the purpose of the study, research questions, and organization of study. Chapter Two consists the literature review containing the theory’s concepts and the articles that have been published on the relating subjects. These subjects involved Internet history, Internet use of college students, demographic information, intercultural communication anxiety, perceived cultural disparity, host receptivity, whiteness perception, English competence, perceived Internet utility, Internet involvement, and Internet motives. Chapter Three describes the methodology used in this study, questionnaire design, sample and data collection, data entry and statistical analysis. Chapter Four presents the results and describes the analysis of the data. Chapter Five provides the discussion of the research
results. Chapter Six presents the conclusions, limitations, direction and recommendations for future research. The Appendices of this thesis consists of: Appendices A Informed consent and Appendices B Questionnaire. Finally, the thesis references.
CHAPTER TWO

LITERATURE REVIEW

History of the Internet

The Internet expanded out of a series of developments in academic, governmental, and information technology communications. The World Almanac and Book of Facts (2004) gives information regarding the history of the Internet. It indicated that in 1969, the U.S. Department of Defense began funding the U.S. Advanced Research Projects Agency (ARPANET) to develop technologies to permit remote research and develop sites to exchange information. During the 1970s, scientists and engineers devised ways to build networks that connected multiple computers across large geographic distances called Wide Area Networks (WANs), also called long-haul networks. In 1973, Bob Metcalfe invented the Ethernet, the network design that allows computers to talk to each other over a local area network (LAN). LANs were a major improvement in technology as they would replace a previously used time sharing system with one that would allowed more than one person at one location to access the same files and printers. In 1975, Bill Gates and Paul Allen wrote a programming system for the Altair 8800,
the first microcomputer, in BASIC. They founded Microsoft and set to work on programs to interpret BASIC for more new personal computers (PCs). After that, in 1979, three college students, Tom Truscott of Duke and Jim Ellis and Steve Belovin of the University of North Carolina, developed Usenet, a computer network of news and discussion group. In early 1980s, Usenet connections to Europe and Australia are established. People had a chance to talk to each other, exchange information, and freely state their opinion in an uncensored space without meeting face to face (World Almanac and Book of Facts, 2004).

Moreover, Cerf (2004) gives more details on the history of the Internet. He indicated that by 1982, an Internet protocol was developed and tested. A few dozen academic and industrial research sites had been using TCP/IP regularly. In 1983 the ARPANET and all networks that used TCP/IP became collectively known as the Internet. The facilitated network of the Internet and this evolution in language was made official. In 1984, Computer manufacturer Apple introduced the Macintosh, the first personal computer to feature a graphical user interface (GUI). GUI is a system of operating a computer by manipulating windows, menus, and icons with a mouse. The Macintosh revolutionized
the way people interact with their computer. In 1989, Ohio State University established a relay between CompuServe and the Internet. This relay allowed the Internet and its users, which had previously been primarily the domain of researchers, to be linked. The relay opened the Internet so that researchers and other users could meet (Cerf, 2004).

In 1990, Tim Berners-Lee, the computer consultant at CERN (the European Laboratory for Particle Physics), devised the program to resolve the problem of the absence of a network to link the massive amounts of data. The program, called Enquire-Within-Upon-Everything, enabled him to create links among bits of information. He chose the name World Wide Web as a name of the hypertext system that he developed to facilitate information storage and retrieval. Therefore, in 1992, CERN released the WWW (World Wide Web) graphics-based software that later led to browsers such as Netscape and Microsoft Explorer. This graphic-based software allowed users to access web sites with the help of the graphical browser. The advanced development of this graphic based software provided the possibility to view products, pictures, and heretofore unimagined ability to listen to sound bites online. In 1994, two college students at Stanford University, David
Filo and Jerry Yang, invented the Mosaic browser and the search engine to allow easier access to the web. They established their home pages and links to their favorite sites. Filo and Yang have turned a passion for web surfing into a fast-track career with their Yahoo! Search engine. Within a few years, Yahoo! became not only one of the most popular search engines on the web, but also one of its most successful businesses (Cerf, 2004).

During the decade of the 1990s, the Internet has changed from a small, experimental research project into the world’s largest computer network. When the decade began, the Internet connected a few hundred computers. Ten years later, the Internet connected over a million computers. In 1994, Netscape Communications released the Netscape Navigator browser. Microsoft also released the Internet Explorer browser in the following year. At the beginning of the 21st century, there is a new generation of Internet computing evolving. The new generation, utilizing rapidly advancing technologies, is being led by a project called Internet2 (I2). This project is collaboration among universities, government agencies, and corporations to create high speed Internet and to implement advanced networking applications for research and education.
However, some experts argue that Internet2 is crucial to endeavors for the progress of networking technology, the technology that is intended to be the benefit for everyone, not just for researchers and education (Cerf, 2004).

Internet Use of College Students

A survey by the Pew Internet and American Life Project (2002) reported that the Internet has been growing exponentially in the last 10 years. There were only 10 million Internet users in 1992 but today more than 700 million individuals are users of the Internet. College students were the first group of people in the U.S. to use the Internet for communication, recreation and file sharing, and the first to have regular broadband Internet access. In 1990s, the Internet first became widespread on college campuses and in many ways the Internet is an outcome of university-based research. College students also created yahoo!, Napster and many other Internet tools, but most of them are simply Internet users (Pew Internet and American Life Project’s Survey, 2002).

The Chronicle of Higher Education’s survey (2001) showed that there are nearly 14,500,000 students enrolled in colleges and universities across the country. This
figure comprised up to 5% of the U.S. population. 68% were white and there were more women (56%) than men (44%) enrolled in college. The majority (59%) were full-time students and 71% of all students attended their first choice of college, and 79% attended college in their home state (Chronicle of Higher Education, 2001).

The degree of familiarity with the Internet is one characteristic that sets the current generation of college students apart from past generations of college students. The Chronicle of Higher Education (2002) reported that 20% of the college students began using computers between the ages of 5 and 8. By the time they were 16 to 18 years old, most of them had begun using computers. About half of them (49%) first began using the Internet in college, and another half (47%) first began using it before entering college. Most of the college students (85%) owned their own computer, and 66% used at least two e-mail addresses. Moreover, the survey indicated that 74% of college students used the Internet 4 or more hours per week, while about 19% used it around 12 or more hours per week. Nearly two-thirds, or 62%, reported studying for classes no more than 7 hours per week, while only 14% reported studying 12 or more hours per week (Chronicle of Higher Education, 2002).
College students also used file sharing more than other Internet users. Nearly 45% of Internet users reported sharing files from their own computers while 26% of the overall population of Internet users has shared files. File sharing, other than music, was conducted more often among the college students. About 52% of the college students from the overall population reported doing so (Chronicle of Higher Education, 2002).

Furthermore, Pew Internet and American Life Project’s survey (2002) found that college students have mitigating circumstances that directly affect how they use the Internet to communicate with others. College students are expected to interact with professors and other students at varying levels. They must learn to integrate the Internet into new forms and patterns of communication (Pew Internet and American Life Project, 2002).

Based on race and ethnicity differences, Novak and Hoffmann (1998) found some gap in Internet usage between black and white college students who had computers in their home. However, they found that white students are more likely than black students to use the Internet (58.9% versus 31.1%) (Novak & Hoffman, 1998).
Theoretical Background

Uses and Gratifications Theory

Uses and gratifications perspective examines media behaviors from the audience's view and acknowledges that media users control their own decisions. Katz, Blumler, and Gurevitch (1974) pointed out that uses and gratifications theory is founded on three basic tenets. First, viewers are goal directed in their behavior. Second, they are active media users, and they are aware of their needs. Third, the viewers select media to gratify those needs. Moreover, Katz, Gurevitch, and Haas (1973) indicated that there are five different needs related to media uses and gratifications. The first need is identified as cognitive, which is the need to understand. The second need is integrative, which is the need to strengthen one's confidence. The third need is affective, which is the need to strengthen emotional experience. The fourth need is related to strengthening contact with family and friends. The last need is related to escape or tension release (Katz, Gurevitch & Haas, 1973).

Motives are also associated with media use choices. Dobos and Dimmick (1988) found that two dimensions of motivations for media use were the cognitive and affective
dimensions. The cognitive dimension deals with the types of gratification that one seeks from initiating media use. The Affective dimension deals with the emotional predisposition created by accessing media. Once media is accessed, a certain amount of gratification is expected from all subsequent media activity (Dobos & Dimnick, 1988).

There are some research studies that support the distinction between cognitive and affective gratifications of media uses. Levy and Windhal (1984) stated that the real world activity caused by the accessing of media by the viewer can be either cognitive, affective or behavioral in nature. Activity associated with media usage has three processes, which are pre-exposure activity, during-exposure activity, and post-exposure activity. Pre-exposure activity explains an individual’s preparation process for media activity such as pre-selected channels or checking TV Guide. During-exposure activity reflects the degree of the audience’s involvement with media content such as eating or talking while watching TV. Post-exposure activity describes the media exposure experience such as talking to someone about the tragic news story or phoning in a donation to support the needy family after viewing the story (Levy & Windhal, 1984).
According to Lin (1999), the type of media choice by the audience is the stimulus that helps drive the degree of media exposure and audience involvement with during-exposure activity, such as channel switching or the lack of destructive activity during viewing. Moreover, she indicated that the gratification obtained from exposures that fulfill the original needs initiating the entire media use process have a direct relation to the degree to which an individual is satisfied with the gratification obtained from the media use experience which, in turn, effects future media use motives or gratification expectations (Lin, 1999).

Newer media, such as computers and the Internet, requires more involvement of the media users than television and radio. Garramone, Harris, and Anderson (1986) suggested that computer-mediated communication contributed to the need for surveillance and diversion. James and Forrest (1995) stated that the psychological motives for using bulletin boards were informational learning and socialization. The degree to which a viewer has surveillance needs strongly predicts the adoption of news information services via a video text system by said viewer (James & Forrest, 1995). Furthermore, Lin’s research
(1999) found that, regarding Internet use, the on-line audience seeks gratification in escape, entertainment, interaction and surveillance. Both entertainment value and personal identity lead to commercial web site adoption by the viewer (Lin, 1999).

In summary, uses and gratifications theory examines the audience's behavior and acknowledges that media users control their own decisions. The theory explains the psychological needs of the viewer and why and how people use the media and the gratification they derive from it.

The uses and gratifications theory may apply to the international students' reliance on home-country Internet resources. Far away from family and friends and experiencing the difficulty of living in an unfamiliar cultural environment, international students might use their home-country Internet resources to relieve their stress and anxiety. International student's needs concerning their home-country Internet usage may vary depending on motivations and satisfactions. Some Internet uses such as e-mail or chat rooms may provide the students more gratification than other Internet uses. Thus, it assumes that the students will select their home-country Internet uses that gratify their needs to help adjust
themselves to the new culture. However, international students’ motivations for Internet use and Internet involvement associated with home-country Internet resources are the main focus of the present study. The uses and gratifications approach can help explain why and how international students use their home-country Internet resources in the host country.

Media System Dependency Theory

Today individuals have to rely on media information resources in order to attain their various goals. The intensity of media dependency depends on the perceived helpfulness of media in meeting goals.

Media system dependency theory stresses integral relationships between audiences and the larger social system and media institutions. This theory predicts that the audience depends on media information to meet certain needs and achieve certain goals. Sandra Ball-Rokeach and Melvin DeFleur (1976) proposed the media dependency theory in 1976. They indicated that media dependency relations are a function of both goals and resources. The power of social systems lies in the control over scarce information resources on which individuals, groups, organizations, and
other social system come to rely to attain their goals. The equation involves two types of dependency. First, the individual or social system is dependent on the resource of media to achieve goals, and secondly, media is dependent on resources controlled by others (Ball-Rokeach & DeFleur, 1976).

According to Skumanich and Kintsfather's research (1998), the type and intensity of dependency may vary by medium such as television or magazine. One medium may fulfill more than one dependency. Alternatively, individuals may seek out the same medium to fulfill different dependencies such as a televised sporting event serving social play needs for a small cluster of avid fans while facilitating social understanding for a sports neophyte (Skumanich & Kinsfather, 1998).

Moreover, Rubin and Windahl (1986) indicated that the dependency model emphasizes the social conditions that often determine the shape and size of media effects, ignoring the audience as active and selective in the mass communication process. In their interactions with society and communication systems, people vary their needs and motives from context to context. The societal members should become more dependent on available communication
channels if access to functional alternatives is limited. The more functional alternatives there are for an individual, the lesser the dependency on and influence of a specific medium (Rubin & Windahl, 1986).

In 1989, Ball-Rokeach and DeFleur (1989) created the conceptual model of the dependency theory. This model was more elaborate and showed more specific effects of the dependency theory. The model showed that there are two functions that influencing the degree of media dependency. First, the audience became more dependent on media that meet a number of their needs than on media that provide just a few. Second, the source of dependency was social stability. When social changes and conflict are high, established institutions, belief, and practices are challenged. Forcing the audience to reevaluate and make new choices, their reliance on média for information will increase. Furthermore, the more alternatives an individual had for gratifying needs, the less dependent he or she will become on any single medium (Ball-Rokeach & DeFleur, 1989).

Besides television, the Internet is a new important medium that affects peoples’ daily lives. The Internet has improved the connection to family and friends, the way people pursue hobbies, and their ability to gain new
information. From the media dependency perspective, individual goals and the Internet's ability to meet these goals may exert some influence on consumer activities in an online environment.

According to Patwardhan and Yang's research (2003), they found a connection between individual goals and dependency on Internet resources. Also, they indicated that Internet users did display moderately intense Internet Dependency Relations (IDR). The Internet became an integral part of the individuals' media environment.

Regarding home-country Internet uses, international students may seek one from those uses to fulfill their needs. Since that use gratifies their needs, they become more dependent on that channel. For example, the homesick students use e-mail more than chat room to communicate with their family because of e-mail provides more convenience. This theory may apply to international students' home-country Internet uses in order to estimate their online activity and to determine the effects of media dependence on their behavior.

However, the research concerning the effectiveness of media system dependency and international students is nonexistent. The results of this study are expected to
explain the relations of the media system dependency theory and international student's reliance on their home-country Internet use.

Demographic Variables

Gender Differences

In the world of text-based computer-mediated communication (CMC), such as electronic mail (e-mail), bulletin board, or computer conferencing, there are many differences in Internet usage between males and females. Culnan and Markus (1987) suggested that by diminishing the salience of social cues in electronic discourse, the use of CMC should eliminate or at least lessen gender-influenced inequalities. However, Herring (1993) argued that gender-preferential language has been found in written, spoken, and face-to-face communication. Women involved in CMC asked more questions, use more hedges, apologized more and took more of an affective approach to their communication. Men, on the other hand, used stronger language, more put-downs, sarcasm and communicated more often (Herring, 1993).

Witmer & Katzman (1997) suggested that females also use more emotions or graphic accents in their communication than males. Graphic accents (Gas) are punctuation symbols
combined to add expressiveness or emotion to text such as :{, :P, or :D (Witmer & Katzman, 1997). Furthermore, some theorists argued that gender differences are less common in CMC than in other media. Kiesler and McGuire (1984) suggested that CMC did not provide non-verbal cues and had specialized language and different rules of etiquette. Dickerson (2003) indicated that women focused discussion while using the Internet on concerns for family and relationships while men did not emphasize on the relationship aspects of communication. As online communication source, women used the Internet for networking and collaborating with their friends and family. They carefully constructed their communication to avoid any misinterpretations that might happen. Men also used the Internet for communication but their use focused more on specific tasks of giving and receiving information. Moreover, men were less concerned with the interpersonal and supportive nature of the communication (Dickerson, 2003).

One feature of CMC that allowed fewer cues on gender, location, and status of the author was the lack of social cues. This was the reduced social cue approach (RSC) to electronic communication. Spears and Lea (1992) predicted
that the lack of social cues in electronic communication would result in a lesser impact of social norms. Thus, a male or female would be able to successfully create a false gender identity because social cues would be too lacking to indicate otherwise. For example, a female could effectively convince other CMC users that she is a male (Spear & Lea, 1992).

However, some evidence suggested that men and women are more comfortable participating in different types of conversations. Crowston and Kammerer (1999) found that women produced less adversarial discourse and avoided participating in discussions dominated by an adversarial style. Also women claimed to be very interested in the topic being discussed. Based on previous studies, one can conclude that women and men produce and prefer different communication styles, both in verbal and in computer-mediated communication. The field needs more information about the relationship between gender and Internet usage among international students. The present research examines this issue.

RQ1: Are there gender differences in the home-country Internet usage among international students?
Age

According to a new Baruch College-Harris Poll in Businessweek written by Amy Cortese in 1997, the poll found that 21% of adults use the Internet, the World Wide Web, or both. The Internet population is now 41% female, up from 23% in September 1995. Nearly 45% of those surfing the Internet are 40 years old and older, with baby boomers making up the largest group of all Web surfers. Looking at their age group as a percentage comparison, 30% of those who are between the ages of 25 to 29 have access to the Internet, compared with 25% of those who are between the ages of 18 to 24 and the ages of 40 to 49 groups (Cortese, 1997).

Age seems to be the prime determinant of Internet behavior. Based on the poll results, young people are more likely to use the Internet for entertainment and socializing, while older people spend most of their time on more serious matters. For example, 24% of 50 to 64 years old users and 19% of those who are 65 years old and over say they use the Internet often for investing purposes. Younger people tend to view the Web as a sprawling playground. Some 51% of 18 to 29 years old use the Internet often for entertainment, which is two times as much as
those who are 30 years and older. Young people are also the players of Internet games and participate more in chat rooms and discussion forums (Cortese, 1997). Hence, it is worthwhile to examine the relationship between the age of international students and their home-country Internet usage.

RQ2: Is the age of international students related to their home-country Internet usage?

Length of Stay in U.S.

America is a nation of immigrants. Since its inception, the United States has seen wave after wave of immigrants crossing her boarders. In just the last two decades, millions have entered the United States, both legally and illegally, and the length of their stay can vary from a few days to decades.

Historically, ethnic media have played a role in promoting assimilation and aiding immigrants. Viswanath (2000) indicated that print and electronic media have traditionally served ethnic community groups and these groups are now being served by new communication technologies such as the World Wide Web as well. Wide ranges of information sources are available from cyberspace. The ethnic news medium is one of the most
important and vital institutions, along with religious and cultural organizations. Media is even more important when it comes to increase groups of immigrants who are seeking information on issues that interest and affect them (Viswanath, 2000).

However, Jun’s research (1984) showed that the longer the length of stay in the U.S. of the immigrants the lesser their use of ethnic media. This means that the immigrants who stay in the U.S. for long time, or became the permanent residences, tend to consume more American media than the ones who just came to the U.S. (Jun, 1984).

Hence, more information is needed for establishing the relationship between international students’ home-country Internet usage and their length of stay in the U.S.

RQ3: Is the length of stay of International students related to the their home-country Internet usage?

Psychological Variables

Perceived Cultural Dispararity

Most international students experienced a sense of loss when they first moved to another country. Hayes and Lim (1994) stated that after arriving in their host country, students often feel less confident, sense constant
tension, take less time off, and feel guilty and confused when they have fun. All of these issues could make the adjustment and developing process to a new environment more difficult, which will lead to homesickness. Carden and Feicht (1991) studied the homesickness of American college freshman in the U.S. and Turkish college freshmen in Turkey. The results showed that both American and Turkish students who were homesick were lower in social presence, less poised, less spontaneous, and lacked self-confidence in their interactions with others. The results also showed that both groups were dependent on their parents and families (Carden & Feicht 1991).

According to Pedersen’s research (1991), it showed that each individual had his or her own self-concept and self-esteem which, established by significant others who had similar cultural backgrounds, provided the emotional and social support they needed. When international students were faced with a culture that differed from their own, they often felt lonely. He also stated that deprivation of familial support, advice, and a lack of self-confidence may cause the students to encounter worsening experiences in adjustment and adapting new environments (Pedersen, 1991).
Heikinheimo and Shute (1986) proposed the social adjustment model with which international students' interactions with host society are identified. Stimulators such as language difficulties, cultural aspects, personal characteristics, academic concerns, and perceived discrimination, lead international students to willingly learn about another culture's opportunities, which leads to the reason why international students are willing to learn the English language and explore common interests with their host country counterparts (Heikinheimo & Shute, 1986).

Hayes and Lin (1994) stated that the positive functions of the cultural subgroup provide a place where international students can establish new primary relations, thereby developing a sense of belonging and a place to share familiar traditional values and belief systems. However, some students are more likely than others to encounter barriers to potential support (Hayes and Lin, 1994). Every campus has international student services that provide counselors to help and guide international students as needed. Drawing upon the relational competence model of Hansson and Carpenter, counselors can help students to develop self-social support.
Hansson and Carpenter (1984) created the relational competence model. The concept of social support is the expected establishment of satisfying relationship that meet the individual's personal needs. Shyness, loneliness, low self-esteem, and pessimistic attitude of the international students are indications of relational incompetence that counselors are encouraging their international students to overcome. The next step is to construct relational and social networks. The students are in need of help to identify interesting campus activities or find potentially compatible social groups that will provide a bridge to their becoming more socially competent. Then, students have to construct the relationship networks that involve the use of interpersonal skills such as assertiveness, instrumental competence, persistence, and social intelligence. The final step is to maintain the relationships and support networks. Students may need help from a counselor to provide the support and training necessary to remediate any deficits. Counselors may help students as needed to develop the desired social relationships (Hansson & Carpenter 1984).

Bahk, Woeste, and Cushing (2003) contend that the perception of cultural disparity can lower the level of involvement in the host culture. Perceived cultural
disparity is defined as "the extent to which the individual senses dissimilarities between their own well established cultural traditions, i.e. beliefs, values, norms, customs, etc., and those of the comparison group" (Bahk, Woeste, & Cushing, 2003).

Hence, it is possible that the international students who have difficulty with intercultural communication might use their home-country media, including the Internet, more often.

RQ4: Are the international students' perception of cultural disparity related to their home-country Internet usage?

Intercultural Communication Anxiety

During the past three decades, the international student population in American colleges and universities has been increasing. According to Landis & Brislin's survey (1983), in the academic year 1954-1955, there were 34,232 international students enrolled in U.S. higher-education institutions. In 1979-1980, international students were enrolled in 2,651 colleges and universities. Today, American college campuses are the setting for new patterns of intercultural communication and relations as cultures
come into contact where no contact existed before (Landis & Brislin, 1983).

According to Althen's study (1983), international students share common characteristics regardless of their country of origin, social, religious, and political backgrounds. International students are being challenged to adapt themselves to a variety of cultural differences. They are far from their families, relatives, and friends. Also they are likely to have basic social support networks that are different from those of American students (Althen, 1983).

Robie and Ryan (1996) argued that adjustment to a new culture is considered an important psychological process because of its effects on the performance and functioning of the individual. In addition, research conducted by Charles and Steward (1991) suggested that international students may face different cross-cultural adjustment problems such as adapting to new roles, homesickness, language difficulties, lack of study skills, academic difficulty, financial problems, and lack of assertiveness.

As a second language, English language competence is probably the most significant problem for most international students. Insufficient English skill is
basically a constraint to adjusting academically or becoming socially involved in American Society. Cadieux and Whehrly (1986) stated that students with insufficient English language skill usually have decreased ability to understand lectures, to complete reading and writing assignments and examinations, to take notes, and to orally express their opinions and ask questions in classes.

Furthermore, McCroskey (1997) suggested that the tendency to be anxious in intercultural communication encounters is much stronger in some individuals than others. The research had indicated that international students who are highly communication apprehensive are substantially hampered in their educational efforts. These students participate less in the classroom, are less able to process information in the classroom if they are expected to express themselves orally, and less likely to ask for help from their teachers or other students in class (McCroskey, 1997).

However, Triandis (1991) described situations where international students are likely to experience adjustment problems. He believed that adjustment is easier for students who come from a country that has the same cultural background. For example, European students in American
colleges have fewer adjustment issues than those students who came from Asian countries. Difficulties arise when students face everyday life situations and require a different response than they are accustomed. Students who are in a new environment that is culturally consistent with their home culture will adjust to the situation easier than ones who are not (Triandis, 1991).

Besides language differences, difficulties arise due to cultural difference and unfamiliarity, intergroup posture and the accompanying experience of stress. Kim (1991) identified that psychological adaptation is a typical stress on many foreigners. The cultural difficulties in intercultural encounters led to unfamiliarity with each of the participants’ messages and meanings. Therefore, the differences between dissimilar interactions created feelings of anxiety and uncertainty for both foreigners and host nationals (Kim, 1991). Gudykunst (1985) also indicated that management of anxiety and uncertainty is essential to communication effectiveness.

However, some international students who suffered from communication anxiety may avoid communication with their hosts or they may find someway to assist themselves such as
use more host-country media, including the Internet, in order to learn more about the host culture. Thus, this research attempts to find the answer.

RQ5: Are the international students’ anxiety in communication related to their home-country Internet usage?

**Host Receptivity**

The numbers of students from overseas studying at all levels in the U.S. are increasing. There are many research studies concerning the attitudes of people in the host country towards the international students. Most research studies discussed the problem of adjustment or adaptation suffered by international students on American campuses. For example, Furnham and Alibhai (1984) noted that the inability to speak the host language fluently is a primary inhibitor to becoming socially involved in the host society.

The most important problems encountered by international students appeared in many studies to be language difficulties, financial problems, adjusting to a new educational system, homesickness, adjusting to social customs and norms, and for some students, racial discrimination. Spaulding and Flack (1976) found that students from different parts of the world, upon first
arriving to the U.S., have different ideas about American people and the country as a whole. The research also found that students from Asia countries showed no relationship to positive or negative attitudes to Americans. On the other side, students from Europe tend to have a little negative opinion towards Americans (Spaulding & Flack, 1976).

However, most American students do not have any negative perception of international students. Pedersen (1991) stated that large numbers of American students were unaffected by the presence of international students on campus simply because they had little or no contact with the international students. Pedersen also indicated that the support from the home culture is more important than that of the host culture. If the student is faced with a choice between the two cultures they will first seek support from their home culture; however if this fails, they will turn to the host culture as the second choice. But most international students abroad for a short and fixed time tend to resolve adjustment problems and satisfy their social needs among their co-nationals or ethnic group (Pedersen, 1991).

Important factors in interaction between American and international students are nationality and the
international students' facility in English. Furnham and Alibhai (1984) found that there were some relationships between students' facility in English and the establishment of close friendships with Americans. The students who had a greater facility in English spent a longer proportion of their free time with Americans and had a greater variety of contact with American people and were more likely to have at least one close American friend (Furnham & Alibhai 1984).

According to the U-Curve hypothesis, described by Lysgaard (1995), it was hypothesized that a certain period of time, as well as the types of experiences of international students studying in the host country, influenced the adjustment of international students. Many campuses tried to find the solution of the adjustment problems. The research showed that some groups offered many positive benefits in helping the international students to adjust to the new environment (Lysgaard, 1995).

In addition, there are many studies suggesting that international student services should be allied to services for minority groups. According to Stafford's research (1980), it showed that the campus needs to design services to compare adjustment levels based on student's
classification and the student’s home country. In order to improve services to foreign students, the campus needs to design programs differently for different types of international students (Stafford, 1980).

Besides the assistance provided by schools, the international students may help themselves to find a way to improve their status so that they could have an easier time transitioning into their host countries’ culture. Thus, it is vital to research host receptivity in relation to the home-country Internet usage of the international students.

RQ6: Is perceived host receptivity of international students related to their home-country Internet usage?

Whiteness Perception

Culture is shaped by environmental and situational factors that subsequently shape individual attitudes, beliefs, goals and behaviors. Devore and Schlesinger (1987) stated that cultures differ in their worldviews and concepts of the human condition. Thus, it would be expected that different cultures would result in a variety of values, beliefs, and behavior regarding race and ethnicity (Devore & Schlesinger, 1987).

There are some research studies that have examined the difference among various ethnic groups. In the study of
Hurtado, Dey, and Trevino (1994), they found that non-white students interacted more across different racial and ethnic groups than did white students. Also, the ethnic student felt more excluded from school activities because of their ethnicity than did white students (Hurtado, Dey, and Trevino, 1994).

The United States is known as a country that has variety of races where everybody has equal rights. However, Whites are considered to be the majority group of the population. Other races or Non-whites perceive Whites as privileged and superior and regard themselves as unprivileged and subordinate. Chesler and Peet (2002) stated that White is synonymous with qualified, competent, hard working and deserving whereas the other races are not. Harris (1997) stated that the concept of privilege, including white privilege, entails an assertion of unspoken rights and entitlement through which an individual seeks to reaffirm his or her social, cultural, and economic privilege over another. The prospect of losing these benefits and privilege is analogous to losing a right or entitlement to property (Harris, 1997).

Bahk and Jandt (2004) stated that perceived skin color incites biases through people who observe and evaluate one
another. They believe that whiteness embraces concepts of privilege, power, normality, authority, beauty, purity, legitimacy, and refinement. Moreover in their study, whiteness can have different meanings to multi-racial societies that have established their own sociohistorical contexts related to white members. For example, in United States, Whites and Non-white groups have different perceptions of whiteness. Also, the research shows that Non-whites tend to perceive the privilege and dominance of Whites more than do Whites (Bahk & Jandt, 2004).

In the field of communication studies, there are many studies showing that Non-whites have difficult interactions with Whites due to many factors. Richmond and McCroskey (1992) stated that in the face-to-face interaction with Whites, Non-whites perceive White people as dominant, privileged, and superior. Furthermore, Jackson, Shin, and Wilson (2000) suggested that regarding to interaction between Whites and Non-white people, Non-white people believed that Whites regard them as subordinated, unprivileged, and inferior.

Bahk and Jandt’s study (2004), focusing on the perception of racial identity and interracial communication, showed that first, in the context of
interaction between White and Non-white, white people were unaware of their dominance over other Non-whites. Second, there are differences in the interracial communication anxiety of Non-whites when they interact with Whites depending on their own identity in the perceived reality of white racial dominance. Third, the level of interaction anxiety among Non-whites is related to the perception of whiteness. Therefore, each ethnic group may have different levels of communication anxiety towards Whites. Finally, English competence influences the level of interracial communication apprehension. The non-white who has limited abilities to speak English or use English as the second language might feel stress when they interact face-to-face with Whites and some may avoid the stressful situation as much as they can (Bahk & Jandt, 2004).

However, each individual has different perceptions of white people. The following research question will examine the relationship of white perception of international students and their home-country related Internet usage.

RQ7: Is whiteness perception of international students related to their home-country Internet usage?
English Competence

Cultures differ in numerous areas such as behavior, communication styles, function of language, and purpose of human interaction. In an education arena, cultures may differ in the appropriate roles of teachers and students, and acceptable classroom behaviors. Thus, it is not surprising that misunderstandings often occur when individuals from different cultures interact.

In American cultures, fluency and talkativeness are seen as indicators of intelligence, competence, friendliness, and other positive attributes. However, many cultures around the world value an assuming behavior and silence more than talking. As a result, the lack of opportunity and cultural permission to give public presentations may later cause extreme insecurity in students when they are faced with the prospect of interacting within the class and presenting their work before class. Johnson and Roen (1989) stated that this anxiety is exacerbated in students who are not native English speakers because they fear that they will make grammatical errors or that their pronunciation will be unintelligible.
Fantini (1997) mentioned that different individuals will have different goals and strive for differing levels of competence. However, Buckley (2000) stated that competence is an awareness of deeply held values and beliefs of students on classroom interaction and language learning. Hymes (1972) indicated that communicative competence is a process of representing the use of language in a social context. According to Brown’s study (1987), communication competence is an aspect of a language user’s competence that enables them to convey and interpret messages and to negotiate meaning interpersonally within specific contexts. Language is used for purposes such as persuading, commanding, and establishing a social relation (Brown, 1987).

One of the major problems of the foreign students is language shock. Miller (2004) stated that language shock is the common phenomenon that language learners experienced when adjusting to their new environment. This term refers to the anxiety that the immigrant experienced when first entering a community in which he or she does not speak the dominant language. He also indicated that the anxiety created by language shocks resulted in greater difficulty in performing well academically, especially when trying to
learn the new language. Therefore, the international students experienced high stress and lack of motivation and self-esteem (Miller, 2004).

On the research of Derwing (2003) regarding ESL students’ perceptions of their accent when they are speaking English, the results showed that 60% of the students have not been discriminated against because of their accent problems, but 53% of the students believed that the host country people would respect them more if they pronounced English well. Almost everyone has experienced unjustified rudeness from time to time because they cannot speak English fluently (Derwing, 2003).

Computer-mediated-communication (CMC) might be the new choice of international students who speak English as a second language and experience stress and discrimination. Using the Internet to communicate with others may help to avoid difficulties in speaking English and more encourage them to express themselves without embarrassment.

However, international students may choose to use more of their home-country Internet to communicate to others due to the difficulties in speaking English. The following research question will address this problem.
RQ8: Are International students' English competence related to their home-country Internet usage?

Internet Involvement

Over the past few years, electronic games, home computers, and the Internet have expanded and advanced other technologies such as telephone, TV, and radio. As a result, these more advanced technologies consume more time of the users, especially, that of children. The survey of Turow (1999) has reported that 60% of American families had a computer at home and 61% had Internet access.

Calvert, Jordan, and Cocking (2002) indicated that children between the age of 2 and 17 in homes spent time with a computer approximately 1 hour and 37 minutes a day. Teenager usage averaged about 3 hours a day or more than 16 hours a week. Teens used the Internet for schoolwork, for communication with friends and families to meet new people, to get personal help, and to join groups. They also used the Internet to listen to music, play games, and download software. In contrast, adults were more likely to use the Internet for purchasing products or getting information for those products (Calvert, Jordan, and Cocking, 2002).

Robert and Foehr’s survey (1999) showed that the time children spent on a computer and their activities on the
computer was determined their age, gender, ethnicity, and social class. The survey also indicated that 26% of children at age 2 to 18 used a computer out of school. Furthermore, the survey indicated that white children used the computer more than Blacks or Hispanics (Robert & Foehr, 1999).

Most children spent time on computer games such as Nintendo or Sega. Elmer-Dewitt's survey (1993) reported that boys are five times more likely than girls to own Genesis or SuperNintendo computer game system. Moreover, Gansky and Bradley (1999) stated that, with regard to the Internet, boys were heavier users than girls. For example, 58% of boys were active on the Internet, outstripping girl in many types of usage such as electronic mail, web sites visited, newsgroup messages sent and received, or school work.

Pew Internet and American Life Project (2002) indicated that 92% of teens used e-mail, and 74% used instant messaging which may replace the telephone as the principal means of communication with friends. The research also showed that e-mail was the primary Internet application that keeps users coming back to the computer (Pew Internet and American Life Project, 2002).
The Internet is a communication medium that delivers information and services via text graphics, sound and video. Unlike other forms of communication, the Internet is a global, open, public environment forum. The Internet also has multiple discrete characteristics such as the World Wide Web, e-mail, chat rooms and discussion list.

However, past research failed to include the Internet involvement of the international students. The following research question will examine the relationship between Internet involvement of international students and the Internet usage of their home-country.

RQ9: Is the Internet involvement of International students related to their home-country Internet usage?

Perceived Internet Utility

Everyday, millions of people spent time surfing on the Internet. They communicated via e-mail, bulletin boards (BBS), or chat rooms in wide area and local area networks. Internet use has created and maintained a wide variety of specialized discussion groups for exchanging messages, using electronic mail and evolving conversation. The recent appearance of the World Wide Web, splashy multimedia uses of the Internet, and the virtual explosion of voice, color, pictures and motion seemed to over shadow the mundane.
There are many purposes of computer media use. Delener and Neelankavil (1990) considered media consumption behaviors solely on the basis of time spent attending to a particular medium. Garramone, Harris, and Anderson (1986) provided a more active view of media used, in so far as it is connected to consumer choice of media for communication. Katz and Aspden (1997) stated that Internet interaction can lead to real life intimate interactions when people meet their online friends, and those new relationships can complement family interaction and community involvement. Moreover, Tangney and Feshbach’s research (1998) showed that computer and video games allow interaction, problem solving, and challenge for the users because games and software range from cognitively simple perceptual-motor activities to highly abstract complex and different problems.

In the educational area, there are many studies that have discussed the utilities of the Internet. Mowat (2004) stated that when hardware and software were invented, technology resource teachers were told that the building of technology plans was required to align these standards with instructional standards, showing evidence that technology would be integrated into instruction to improve students
learning. Woods (2002) indicated that a student’s perception of sufficient interaction with instructors and students is important to the level of satisfaction with the online learning experience.

Moreover, LaRose and Whitten (2000) also stated that the online classroom might create or contribute to a feeling of closeness. There are three sources of immediacy. The first one is the interaction between teacher and students, second is the interactions among the students, and the last one is the interaction with the computer system that delivers the course. Also, their research showed that the instructors could motivate students’ learning through various relational or social incentives (LaRose & Whitten, 2000).

Chrisman and Harvey (1998) stated that while lecture outlines had been distributed on paper, the Internet provided more flexible mechanism. Instead of a xeroxed copy of a report, teachers could illustrate a particular point with material from some external World Wide Web resource. This process opened up the bounds of the lecture material and provided much greater depth for the student’s exploration (Chrisman & Harvey, 1998). According to Turow’ survey (1999), it appears that parents believe the computer
is an excellent educational resource. More than 70% of the parents said their children can discover fascinating and useful information on the Internet, and 60% said children without Internet access were at a disadvantage compared to their friends who had Internet access (Turow, 1999).

Besides the educational area, the Internet also provided many advantages. In the medical area, Bessell (2001) examined the effect of delivering education via the Internet, comparing Web-based and printed patient education manuals for consumers on a cardiac surgery waiting list. The results showed that the Internet-based intervention provided increased social support, decreased social anxiety and improved attitudes toward surgery (Bessell, 2001).

However, there are some disadvantages of the Internet as well. Woods' research (2002) showed that students reported feelings of disconnection and lacked a sense of belonging. Such complaints led to greater amounts of student procrastination, a lack of participation in required of participant and in required group discussion, increased program attrition, and poor faculty evaluations.

Park and Floyd (1996) argued that intimate and sincere relationships can be formed in cyberspace since time and space barriers were reduced and that certain inhibitors to
communication, such as gender, status, race, and physical appearance, were greatly diminished. According to Grotevant's research (1998), the Internet can control identity construction, which applied to virtual bodies made possible on the Internet. For example, the fat can be thin, the short can be tall, or the female can be male.

However, most people believe that the Internet provides more advantages than disadvantages, especially students, who are the biggest group of Internet users. Past research has not been able to show the effect of Internet utilities on the International student's usage of home-country Internet. This may be answered by the following research question.

RQ10: Is the perceived Internet utility related to their home-country Internet uses among international students?

Internet Motives

For more than 20 years that the Internet has been used, Pew Internet and American Life Project' survey (2002) showed that 70% of U.S. adults now have Internet access and use the Internet for purposes other than work.

Cumming and Kraut (2002) indicated that for both computing and Internet use, the relative importance of
personal rather than work motives has increased. For example, in 1995 to 1998, people reported using their home computer more for personal purposes than for their job. People use the Internet for getting information about hobbies, entertainment, travel, and finance. From 1995 to 2000, 42% to 82% of the population doubled its use of the Internet to communicate with friends and family and from 50% to 80% of using e-mail for personal purposes (Cumming & Kraut, 2002).

Papacharissi and Rubin’s research (2000) showed that the Internet motive appeared to be a significant predictor of most outcomes. The interpersonal utility motivation is a positive predictor of the Internet use. On the other hand, people use the Internet to fulfill needs of affection, inclusion, expression, social interaction, control, and surveillance (Papacharissi & Rubin, 2000).

Moreover, Cumming and Kraut (2002) stated that users' motives for using the Internet came from four factors that are beneficial by using Internet services. First, the expanded number of online user was due to the fact that the duration of communicating with friends and family members was extended because of Internet availability. Second, for personal use, new series and content made the Internet more
attractive than it was in the past. Third, the increased home-computer usage provided a physical environment in which personal uses are given legitimacy. For example, working at home while surfing the web for a hobby or sending e-mail to friends at the same time. And fourth, increased depictions of Internet and computer use in the popular media led to a shift in real Internet usage, leading to a more normative status for the computer in individuals' daily lives. These depictions of individuals private lives in the popular media both reflected and reinforced individuals personal uses of computers and the Internet (Cumming & Kraut, 2002).

Hence, it is necessary to examine the relationship between the Internet motives of international students and their reliance on home-country Internet usage. Thus, the research question is as such:

**RQ11: Are the Internet motives of International students related to their home-country Internet usage?**
CHAPTER THREE

METHODOLOGY

Introduction

This study employed survey research by using a questionnaire as an instrument. This chapter will describe the methodology used in the research including sample and data collection, questionnaire design, measurement of variables, and data analysis.

Sample and Data Collection Method

The sample was selected from international students at California State University, San Bernardino. Out of 230 questionnaires handed out, 206 were completed. Participants were selected randomly during the period of March to April 2004. The questionnaires were given to the respondents in both undergraduate and graduate degree programs. Participants vary in nationality, age, and gender. Among 206 respondents, ages ranged from 19 to 32, 131 were males and 75 were females. They are from Thailand (61), Taiwan (37), China (25), United Arab Emirate (22), Saudi Arabia (21), Japan (19), Korea (9), Indonesia (7), Turkey (3), and India (2).
Questionnaire Design

To achieve the purpose of the study, the questionnaire was designed to gather the relevant information to evaluate international students' reliance on their home-country related Internet usage. The study also focused on examining how international students' home-country Internet usage was related to gender, age, length of stay in the U.S., perception of cultural disparity, intercultural communication anxiety, host receptivity, whiteness perception, English competence, perceived Internet utility, Internet involvement, and Internet motives. Hence, the questionnaire consisted of question items and scales measuring these dependent and independent variables.

Measurement of Variables

The self-administered questionnaire used in this study contains scales that measure home-country related Internet uses of international students as well as various factors that were considered to influence the dependent measure.

Home-Country Internet Usage

This section consists of 6 common Internet media (email, chat rooms, web camera, instant message, bulletin boards, and web sites), which international students always
use in their daily life. The respondents were asked to rank the order ranging from the most used medium (1) to the least used medium (6) including specific time spent per week on each medium. For example, the question consists "Please rank order (1-6) the following types of Internet media based on the amount of usage, also indicate approximately how much time a week you usually use each of the following."

Internet motives

This section consists of 5 dimensions of Internet motives (entertainment, convenience, information seeking, interpersonal utility, and passing time) related to home-country Internet uses of international students (Papacharissi & Rubin, 2000). The present study used Bahk's (2003) adapted version of Papacharissi and Rubin's (2000) Internet Motives Scale (IMS). Bahk (2003) uses a Likert-type 5-point scale anchored by 'strongly disagree' (1) and 'strongly agree' (5), whereas Papacharissi and Rubin's (2000) original measure asks subjects to indicate their responses on a 5-point scale, ranging from 'not at all' (1) to 'exactly' (5), on each of the statements preceded by the stem, "I use the Internet:" This instrument contains 27 items representing five categories of motives:
interpersonal interaction (12), pass time (3), information seeking (5), convenience (4), and entertainment (3). The interpersonal utility motive was indexed by such items as "to participate in discussions," "to express myself freely," and "to meet new people" (α = .52). The pass time motive included three items: "because it passes time when bored," "when I have nothing better to do," and "to occupy my time" (α = .36). The information seeking motive was measured by such items as "to look for information," "to see what is out there," and "because it is a new way to do research" (α = .48). The convenience motive had such items as "because it is easier to e-mail than tell people," "because it is cheaper," and "because people don’t have to be there to receive e-mail" (α = .24). Finally, the entertainment motive was measured by three items: "because it is entertaining," "because it is enjoyable," and "because I just like to use it" (α = .40).

Internet Involvement

A short version of Bahk’s (2003) Internet Involvement Scale (IIS) was used to index the students’ agreement or disagreement of the 4 statements on a 5-point scale ranging from 'strongly disagree' (1) to 'strongly agree' (5). For
example, the scale includes statements such as “I feel like I cannot live even a day without the Internet.” and “I can stay home all day alone if I have the Internet.” An internal reliability of the scale was α = .51.

Perceived Internet Utility

Perceived Internet utility was measured by a short version of Bahk’s (2003) Internet Utility Scale (IUS). Students indicated their agreement or disagreement with each of the 8 statements, on a 5-point scale ranging from ‘strongly disagree’ (1) to ‘strongly agree’ (5). The scale includes statements such as “The Internet is a very useful tool in modern life,” “The Internet is a very convenient way to communicate with people,” and “The Internet communication is inexpensive” (α = .66).

Intercultural Communication Anxiety

The level of intercommunication anxiety of international students was measured by Bahk and Jadnt’s (2003) IRCAS (Interracial Communication Anxiety Scale). Subjects indicated their agreement or disagreement with each of the 10 statements by circling an appropriate number on a 5-point scale ranging from ‘strongly disagree’ (1) to ‘strongly agree’ (5). The scale contains such items as “I
often become nervous when I speak with people of a different race in America,” “My heart beats faster than usual when I have to speak with people of a different race,” and “My body often feel tense and stiff when I speak with people of a different race” (α = .66).

Perceived Cultural Disparity

A short version of Bahk, Woesti, and Cushing’s (2003) EDPI (Ethnic Disparity Perception Inventory) was used to measure the perceived cultural disparity of international students. The subjects indicated the degree to which they agree or disagree with each of the 8 statements by marking an appropriate number on a 5-point scale ranging from ‘strongly disagree’ (1) to ‘strongly agree’ (5). The measure contains such items as “American culture is much different than my culture.” “I have much different life philosophies than the majority of Americans,” and “American life styles are not much different than those in my country” (α = .40).

Perceived Host Receptivity

A Likert-type scale was used to measure perceived host receptivity of internationals students. The subjects
indicated the degree to which they agree or disagree with each of the 3 statements by cycling an appropriate number on a 5-point scale ranging from 'strongly disagree' (1) to 'strongly agree' (5). The scale includes items such as "American people treat me very nicely," "I do not feel I am welcomed here in the United States," and "I feel like the United States is my second home country" (\( \alpha = .09 \)).

**Whiteness Perception**

The level of whiteness perception of international students was measured by Bahk and Jandt's (2004) BWAS (Being White in America Scale). Subjects indicated their agreement or disagreement with each of the 15 statements by marking an appropriate number on a 5-point scale ranging from 'strongly disagree' (1) to 'strongly agree' (5). The scale contains such items as "White people have privilege in the United States," "White people tend to distance themselves from other racial groups in the United States," and "White are the most powerful racial group in the United States" (\( \alpha = .55 \)).

**English Competence**

The level of proficiency in the use of English language was measured by 4-item, 7-point scale on which
subjects indicated their degree of competence in English, raging from 'highly competent' (5) to 'not competent at all' (1). The respondents were asked to self-assess their English language skills in four areas: speaking, listening, reading, and writing. An internal reliability of the scale was $\alpha = .50$.

Demographics

The respondents report their age, sex, marital status, primary purpose of stay in the U.S., and whether they intend to stay permanently in the U.S. after completing their studies.

Data Entry and Statistic Analysis

Statistic Package for the Social Science for Windows (SPSS for Window Program) was employed for data processing and statistical analyses. Score for items negatively stated on Likert-type scales were reversed for the purposes of computing an index through aggregating and averaging.
CHAPTER FOUR

RESULTS

General Background of the Respondents

Table 1 shows the gender composition of respondents. Out of 206 respondents, there were 131 males (63.6%) and 75 females (36.4%). Table 2 shows the respondents grouped by country. The results showed that, out of 206 respondents from nine countries, 61 students were Thai (29.6%), followed by 37 Taiwanese (18.05), 25 Chinese (12.1%), 22 Arab Emirates (10.7%), 21 Saudi Arabians (10.2%), 19 Japanese (9.2%), 9 Korean (4.4%), 7 Indonesians (3.4%), 3 Turkish (1.5%), and 2 Indians (1.0%). All of the 206 respondents have their own computer and Internet access.

Table 3 shows the percentage of students who indicated their intention to stay permanently in the U.S. The results showed that among 131 males, 14 males (10.7%) intend to stay permanently in the U.S. after they complete their study. As for 75 females, 67 of 75 females (89.3%) intend to stay permanently in the U.S. after they complete their study.
Table 1. Respondents by Gender

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<tr>
<td>Female</td>
<td>75</td>
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Table 2. Respondents by Country

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<tr>
<th>Country</th>
<th>Frequency</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Korea</td>
<td>9</td>
<td>4.4</td>
</tr>
<tr>
<td>Saudi Arabia</td>
<td>21</td>
<td>10.2</td>
</tr>
<tr>
<td>Taiwan</td>
<td>37</td>
<td>18.0</td>
</tr>
<tr>
<td>Thailand</td>
<td>61</td>
<td>29.6</td>
</tr>
<tr>
<td>United Arab Emirate</td>
<td>22</td>
<td>10.7</td>
</tr>
<tr>
<td>Turkey</td>
<td>3</td>
<td>1.5</td>
</tr>
<tr>
<td>Japan</td>
<td>19</td>
<td>9.2</td>
</tr>
<tr>
<td>China</td>
<td>25</td>
<td>12.1</td>
</tr>
<tr>
<td>Indonesia</td>
<td>7</td>
<td>3.4</td>
</tr>
<tr>
<td>India</td>
<td>2</td>
<td>1.0</td>
</tr>
<tr>
<td>Total</td>
<td>206</td>
<td>100.0</td>
</tr>
</tbody>
</table>
Table 3. Permanence of Stay in the U.S. by Gender

<table>
<thead>
<tr>
<th>Gender</th>
<th>Frequency</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Male</td>
<td>14</td>
<td>10.7</td>
</tr>
<tr>
<td>Female</td>
<td>67</td>
<td>89.3</td>
</tr>
</tbody>
</table>

Research Question Testing

Gender and Home-Country Related Internet Uses

Research Question 1 (RQ1) concerns whether gender is related to their home-country related Internet use. The results show that there are no differences on home-country e-mail uses between male and female international students ($t = -0.12, p > .05$) (see table 4). However, there are some significant differences on home-country chat room uses between males and females ($t = 2.67, p < .01$). The results show that males use their home-country chat rooms (141 minutes a week) more than females (84 minutes a week). There are no significant differences in the home-country web camera uses between males and females ($t = 1.36, p > .05$). However, there are some significant differences in home-country instant message uses between males and females ($t = 2.29, p < .05$). The results show that males use their home-country instant messages (164 minutes) more than
females do (123 minutes). There are no significant differences in home-country bulletin board usage ($t = -0.10$, $p > .05$), and home-country web sites usage between males and females ($t = 1.00$, $p > .05$) (see table 4).

Table 4. Gender and Home-Country Related Internet Uses

<table>
<thead>
<tr>
<th>Internet use</th>
<th>Male</th>
<th>Female</th>
<th>$t$</th>
</tr>
</thead>
<tbody>
<tr>
<td>E-mail</td>
<td>115.0$^a$ (90.33)$^b$</td>
<td>116.6$^a$ (98.57)$^b$</td>
<td>n.s.</td>
</tr>
<tr>
<td>Chat Room</td>
<td>141.0$^c$ (174.50)</td>
<td>84.4 (74.07)</td>
<td>2.67**</td>
</tr>
<tr>
<td>Web Camera</td>
<td>144.5 (115.89)</td>
<td>91.7 (117.44)</td>
<td>n.s.</td>
</tr>
<tr>
<td>Instant Message</td>
<td>164.0 (130.61)</td>
<td>122.6 (113.28)</td>
<td>2.29*</td>
</tr>
<tr>
<td>Bulletin board</td>
<td>147.7 (124.68)</td>
<td>149.5 (140.78)</td>
<td>n.s.</td>
</tr>
<tr>
<td>Web Sites</td>
<td>144.8 (98.23)</td>
<td>130.4 (108.38)</td>
<td>n.s.</td>
</tr>
<tr>
<td>Total</td>
<td>826.7 (382.44)</td>
<td>695.2 (389.29)</td>
<td>n.s.</td>
</tr>
</tbody>
</table>

$^a$ Mean (minutes per week) $^b$ Standard Deviation
*p < .05, **p < .01, ***p < .001

Age and Home-Country Related Internet Uses

To answer Research Question 2 (RQ2), Pearson’s correlation ($r$) was used. RQ2 examines the relationships between international students’ age and home-country Internet uses. The results showed that only the correlation between age and e-mail uses was significant ($r = .17$, $p <$
which indicates that the older the respondents, the greater the usage of home-country e-mail (see table 5.)

Permanence of Intended Stay in the U.S. and Home-Country Related Internet Uses

Research Question 3 (RQ3) concerns the relationships between permanence of intended stay in the U.S. and home-country Internet usage. The results showed no significant correlation between international students' home-country Internet uses and permanence of their intended stay in the U.S. (see table 5).

The Perception of Cultural Disparity and Home-Country Related Internet Uses

Research Question 4 (RQ4) deals with the relationships between perceived cultural disparity and home-country Internet uses. The results showed no significant correlation between the perception of cultural disparity and home-country Internet uses (see table 5).

Intercultural Communication Anxiety and Home-Country Related Internet Use

Research Question 5 (RQ5) examines the relationships between communication anxiety and home-country Internet uses among international students. The results showed that none of the correlations between the anxiety in
communication and home-country Internet uses were significant (see table 5).

**Perceived Host Receptivity and Home-Country Related Internet Uses**

Research Question 6 (RQ6) concerns the relationships between perceived host receptivity and home-country Internet uses. The results showed that none of the correlations between perceived host receptivity and their home-country Internet uses were significant (see table 5).

**Whiteness Perception and Home-Country Related Internet Uses**

Research Question 7 (RQ7) probes the relationships between international students' whiteness perception and their home-country Internet uses. The results showed that none of the correlations between whiteness perception and home-country Internet uses were significant (see table 5).

**English Competence and Home-Country Related Internet Uses**

Research Question 8 (RQ8) examines the relationships between international students' English language competence and their home-country Internet uses. The results showed that the correlations between English competence and instant message use \((r = -.14, p < .05)\), between English competence and bulletin board use \((r = -.16, p < .05)\), and
correlation between English competence and web sites use ($r = -.19$, $p < .01$) were significant. The results indicate that the better the English competence of the international students, the lesser the uses of their home-country related instant message, bulletin boards, web sites, and vice versa (see table 5).

**Internet involvement and Home-Country Related Internet Uses**

Research Question 9 (RQ9) concerns the relationships between Internet involvement of international students and their home-country Internet uses. The results showed that Internet involvement was significantly related to the overall usage of home country Internet resource ($r = .14$, $p < .05$) including instant messaging ($r = .16$, $p < .05$). The results indicate that the more Internet involvement of international students, the greater the uses of their home-country Internet resources, especially instant messaging (see table 5).

**Perceived Internet Utility and Home-Country Related Internet Uses**

Research Question 10 (RQ10) probes the relationships between perceived Internet utility and their home-country Internet uses. The results showed that none of the
correlations between perceived Internet utility and home-country Internet uses were significant (see table 5).

Internet Motives and Home-Country Related Internet Uses

Research Question 11 (RQ11) examines the relationships between Internet motives of international students and their home-country Internet uses. The results showed that none of the correlations between Internet motives and home-country Internet uses were significant (see table 5).

However, there are some interesting findings regarding Internet motives. The results showed that information seeking was the primary motive for international students' Internet use (M = 2.50, SD = 1.15), followed by entertainment motive (M = 2.74, SD = 1.42), convenience motive (M = 2.88, SD = 1.19), interpersonal utility motive (M = 3.35, SD = 1.46), and pass time motive (M = 3.43, SD = 1.53) (see table 6).

Table 5. Correlations between Major Variables and International Students' Home-country Related Internet Uses

<table>
<thead>
<tr>
<th></th>
<th>E-mail</th>
<th>Chat room</th>
<th>Web Camera</th>
<th>Instant Message</th>
<th>Bulletin Boards</th>
<th>Website</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age</td>
<td>.17*</td>
<td>-.01</td>
<td>.09</td>
<td>.06</td>
<td>.04</td>
<td>-.09</td>
<td>.08</td>
</tr>
<tr>
<td>Permanence</td>
<td>.03</td>
<td>.04</td>
<td>-.07</td>
<td>-.09</td>
<td>-.08</td>
<td>.11</td>
<td>-.06</td>
</tr>
<tr>
<td>of Intended Stay</td>
<td>Cultural Disparity</td>
<td>Communication Anxiety</td>
<td>Host receptivity</td>
<td>Whiteness Perception</td>
<td>English Competence</td>
<td>Internet involvement</td>
<td>Internet Utility</td>
</tr>
<tr>
<td>-----------------</td>
<td>-------------------</td>
<td>----------------------</td>
<td>-----------------</td>
<td>---------------------</td>
<td>-------------------</td>
<td>-------------------</td>
<td>-----------------</td>
</tr>
<tr>
<td>Cultural Disparity</td>
<td>0.06</td>
<td>0.09</td>
<td>0.01</td>
<td>0.08</td>
<td>0.06</td>
<td>0.00</td>
<td>0.10</td>
</tr>
<tr>
<td>Communication Anxiety</td>
<td>-0.10</td>
<td>0.08</td>
<td>0.10</td>
<td>0.09</td>
<td>0.12</td>
<td>-0.10</td>
<td>0.08</td>
</tr>
<tr>
<td>Host receptivity</td>
<td>0.09</td>
<td>-0.02</td>
<td>0.02</td>
<td>0.05</td>
<td>-0.03</td>
<td>0.04</td>
<td>0.01</td>
</tr>
<tr>
<td>Whiteness Perception</td>
<td>0.12</td>
<td>-0.07</td>
<td>0.03</td>
<td>-0.08</td>
<td>-0.01</td>
<td>-0.08</td>
<td>0.00</td>
</tr>
<tr>
<td>English Competence</td>
<td>-0.11</td>
<td>-0.03</td>
<td>-0.12</td>
<td>-0.14*</td>
<td>-0.16*</td>
<td>-0.19**</td>
<td>\</td>
</tr>
<tr>
<td>Internet involvement</td>
<td>0.08</td>
<td>0.03</td>
<td>0.12</td>
<td>0.16*</td>
<td>0.08</td>
<td>-0.00</td>
<td>0.14*</td>
</tr>
<tr>
<td>Internet Utility</td>
<td>0.08</td>
<td>-0.04</td>
<td>-0.01</td>
<td>-0.07</td>
<td>0.02</td>
<td>0.14</td>
<td>0.02</td>
</tr>
<tr>
<td>Internet Motive: interpersonal Utility</td>
<td>0.00</td>
<td>-0.13</td>
<td>0.04</td>
<td>-0.02</td>
<td>0.13</td>
<td>0.04</td>
<td>0.02</td>
</tr>
<tr>
<td>Internet Motive: pass time</td>
<td>0.04</td>
<td>-0.00</td>
<td>-0.06</td>
<td>0.02</td>
<td>-0.02</td>
<td>0.03</td>
<td>-0.02</td>
</tr>
<tr>
<td>Internet Motive:</td>
<td>0.07</td>
<td>0.00</td>
<td>0.03</td>
<td>0.02</td>
<td>0.01</td>
<td>0.00</td>
<td>0.04</td>
</tr>
<tr>
<td>Internet Motive</td>
<td>Mean</td>
<td>SD</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>-------------------------</td>
<td>-------</td>
<td>-----</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Entertainment</td>
<td>2.74</td>
<td>1.43</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Convenience</td>
<td>2.88</td>
<td>1.19</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Information Seeking</td>
<td>2.5</td>
<td>1.15</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Interpersonal Utility</td>
<td>3.35</td>
<td>1.46</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pass Time</td>
<td>3.43</td>
<td>1.53</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

N = 206  \( p < 0.05, **p < 0.01, ***p < 0.001 \)
CHAPTER FIVE

DISCUSSION

Introduction

This study examined the factors that determine international students' uses of Internet resources related to their home-country. The data collected on the demographics of the participants showed that all of the international students had Internet access. Compared to females, males have more Internet access in other places besides home. Interestingly, about 90% of females intended to stay permanently in the U.S. after they complete their study, whereas only 10% of males indicated their interest in staying permanently.

Discussion

Gender and Home-Country Internet Uses

The results showed that chat room and instant message usage were significantly correlated with gender. There appears to be different usage patterns in relation to chat rooms and instant messages between male and female international students. The results also showed that males spend significantly more time on the Internet than female. There are some prior studies that have indicated gender
differences on Internet uses. Dickerson (2003), for example, found that men and women have some differences on Internet use behaviors. First, women used the Internet as an educational and professional information resource in their daily lives. Men used the Internet as a resource for power sources to help them make decisions in their lives. Second, both men and women used the Internet for communication and interaction; however, men used the Internet for more specific tasks such as giving and receiving information with others. And third, for web site usage, women did not trust all information and developed their own way of evaluating web sites and interpreting information while men took a more technical view, trusting the technology and not fearing the potential addictions and immersion in the Internet (Dickerson, 2003).

Age and Home-Country Internet Uses

The results showed that only international students' age and their home-country e-mail usage were correlated positively and that there were no significant correlations in other types of Internet usage. Some researchers found that young people are more likely to use the Internet for entertainment and socializing while older people spend more time on serious matters. Cortese (1997), for example, found
that young people participate more in chat rooms and
discussion forums such as instant message and bulletin
board.

**Permanence of Intended Stay and Home-Country Internet Uses**

The results showed that there are no relationships
between permanence of stay in the U.S. and home-country
Internet usage. Surprisingly, the results showed none of
the Internet uses types were significantly correlated with
the variable despite many studies finding that the length
of stay of immigrants affected their media use. Viswanath
(2000), for example, found that the ethnic media is one of
the most important and vital institutions, along with
religious and culture organization. Jun (1984) also showed
that the longer the immigrants stay in the U.S., the lesser
their ethnic media usage. Future research may explore this
further empirical because there is no support for the
association in the present study.

**Perceived Cultural Disparity and Home-Country Internet Uses**

The results showed that there are no relationships
between the perception of cultural disparity and home-
country related Internet uses. Generally, most
international students experience a sense of loss when they
first move to a new country. As Hayes and Lin (1994) indicated, students often feel less confident, guilty, and confused after arriving in their host country. This present study expected the international students to use their home-country Internet more than their host-country Internet because of the difficulty in intercultural communication. Surprisingly, the results showed that perceived cultural disparity does not affect any home-country Internet use of international students. However, Heikinheimo and Shute's (1986) argued that because of language difficulties, culture aspects, personal characteristics, academic concerns and perceived discrimination, most foreign students are willing to learn about another culture's opportunities, learn the English language and the common interests they share with their host-country peers. Hence, international students might use more host-country media than their home-country since they want to adapt to the new culture and learn to accept the differences between their host country and their home-country.

Intercultural Communication Anxiety and Home-Country Internet Uses

The data showed no significant results. It was predicted that international students might use more home-
country Internet resources because of their anxiety in communication with members of host society. The results showed that there are no relationships between intercultural communication anxiety and home-country Internet uses among international students. However, according to Althen (1983), international students are being challenged to adapt themselves to a variety of culture differences. Thus, international students might try to adjust themselves to the host-country culture to avoid the anxiety in communication by using more host-country media.

*Perceived Host Receptivity and Home-Country Internet Uses*

The results showed that there are no relationships between perceived host receptivity of international students and home-country related Internet use. Most international students have a positive attitude toward Americans as the host people. However, Pedersen (1991,) contends that for international students, support from their home-country is more important than that from the host-country. Hence, international students would use their home-country Internet more for obtaining psychological support. Specifically, it was expected that their home-
country related e-mail or web sites use would be affected by the perception of host receptivity, but there was no clear support for this relationship. Thus, future research may need to explore this question further.

**Whiteness Perception and Home-country Internet Uses**

It is possible that international students will use their home-country Internet resources more because of their anxiety from whiteness perception. However, the results showed that there were no relationships between whiteness perception and home-country Internet uses. Bahk and Jandt study (2004) indicated that the level of interaction anxiety among non-whites is related to the perception of whiteness. The non-white who has limited English competence might feel stress when they interact face-to-face with whites and some may avoid the stressful context as much as they could (Bahk & Jandt, 2004). Therefore, it is possible that international students might use more host-country Internet resources in order to avoid interacting interpersonally with white people and to avoid stress and anxiety.
English Competence and Home-Country Internet Uses

The results showed that English competence of international students is a major factor determining their home-country related Internet uses. The results indicated that home-country related instant message use, bulletin board use, and web site use are negatively related to English competence. Johnson (1997) stated that anxiety is exacerbated in students who are not native English speakers because they fear that they will make grammatical errors or that their pronunciations will be unintelligible. Furthermore, Miller (2004) also indicated that the anxiety created by language shocks results in difficulty in performing well academically especially when trying to learn a new language. Thus, foreign students may experience high stress and a lack of motivation and self-esteem (Miller, 2004). To avoid the difficulties in English speaking, the computer-mediated-communication (CMC) might be a new choice for international student who has limited English competence to avoid experiencing stress and anxiety in communication with host people. However, the results showed that home-country e-mail, chat rooms, and web camera
uses were not significant. More research is needed to further explore this area of inquiry.

Internet Involvement and Home-Country Internet Uses

The results showed that Internet involvement was significantly related to the overall usage of home-country related Internet resources and the use of instant messaging. The Pew Internet and American Life Project (2000), the statistics show that 74% of teen use instant messaging which may replace the telephone as the principle means of communication with their friends. Therefore, it is possible for international students to use the instant messaging services of their home-country to communicate with their friends as well.

Internet Utility Perception and Home-Country Internet Uses

The results showed that none of the Internet utility usage was significant. There are no relationships between Internet utilities and home-country Internet use. However, it is expected that Internet utilities will somehow relate to international students home-country use because many studies have shown the availability popularity of Internet utilities. Woods (2002) indicated that a student’s perception of sufficient interaction with instructors and
their students was important in the level of satisfaction with online learning experience. Moreover, La Rose and Whitten (2000) also stated that the online classroom might create or contribute to a feeling of closeness. Furthermore, Katz and Aspden’s research (1997) also indicated that the Internet interaction can lead to real life intimate interactions when people meet their online friends so that, in turn, these new relationships can complement family interactions and communication (Kat & Aspden, 1997). Uses and gratification theory suggests that the more utility perceived regarding the Internet, the greater the use of the Internet. However, the perception of Internet utility was not shown to be significantly related to home-country Internet uses among international students.

Internet Motives and Home-country Internet Uses

The results showed that none of the Internet motives of international students were related to their home-country Internet uses. Internet motives (Internet utility, pass time, information seeking, convenience, and entertainment) do not appear to affect the level of home-country related Internet uses among international students. Papacharissi and Rubin (2000) indicated that people use the
Internet to communicate to fulfill their needs of affection, inclusion, expression, social interaction, control, and surveillance. Cumming and Kraut (2002) stated that, from 1995 to 2000, the population of Internet users has doubled from 42% to 82%. They use the Internet to communicate with friends and family and use e-mail for personal purposes. The results suggest international students’ home-country related Internet uses are not related to their overall motives for using the Internet.
CHAPTER SIX

CONCLUSION

Introduction

The purpose of this study was to determine factors that influence home-country related Internet uses of international students. Drawing upon uses and gratifications theory and media system dependency theory, this study was designed to explore relationships between various Internet usage related demographic/socio-psychological variables and home-country related Internet uses among international students.

Uses and gratifications theory examines behaviors from the audience’s perspective. Audiences are viewed as active media users. They are aware of their needs and choose to select a certain type of media to gratify those needs. The degree to which an individual is satisfied with gratifications obtained from media use experiences affects the audience’s media usage in the future. Media system dependency theory discusses about the relationship between audience and media resources. The more media meets the audience’s needs, the more they become dependent.
Conclusion

The present data showed that there were some relationships between demographic factors and home-country Internet uses of international students. Gender and age are the factors that affect home-country related Internet uses of the students. The results showed that males spend more time on Internet uses, especially chat rooms and instant messaging services than females do. Dickerson (2003) indicated that males rather spend more time than females on on-line game playing, downloading music, and adventuring on various sites. It is possible that male international students spend more time on their home-country Internet uses than female students.

Further, the results showed that international students’ age also affects home-country Internet uses. The older the students, the greater the home-country e-mail usage. From the results, it may be assumed that the older international students prefer using their home-country e-mail to communicate with their family and friends while younger international students might use other communication means such as cellular phone. However, there was no clear support for the relationship between permanence of intended
stay in the U.S. and home-country Internet uses of international students.

Interestingly, there were no significant relationships between perceived cultural disparity, intercultural communication anxiety, the perceived host receptivity, and whiteness perception and home-country Internet usage. Based on uses and gratifications theory, it can be expected that home-country Internet usage may provide international students with more gratifications than does host-country related Internet usage. International students may use home-country Internet resources such as e-mail or chat rooms because of the stress and anxiety from language difficulties, discrimination, culture disparity or any other negative social experiences they might encounter in host society. However, the study found that English competence is the most important factor in determining the home-country Internet uses of international students. In particular, instant message use, bulletin board and web sites uses were directly related to their English competence. It appears that because of English language difficulties, international students may choose to rely more on home-country related Internet resources, look for information or in developing and maintaining relationships
with others, seeking information, obtaining entertainment, and so on.

Surprisingly, perceived Internet utility and Internet motives were not related to international students' home-country related Internet uses. Moreover, Internet involvement was found positively related to overall levels of home-country related Internet usage. Many studies indicated that most young people use the Internet everyday to fulfill various satisfactions such as communicating with other people, seeking information and entertainment. International students who are far away from home may face stressful situations in the host country and seek for comfort and diversion by using their home-country Internet resources. Internet uses may also allow them to maintain connections with their home-country. It is possible that international students use their home-country Internet resources and feel that home-country Internet uses are necessary for their living in the host country.
Limitations

There are some possible limitations that may have affected the findings in this study. First, some respondents may have hesitated to give their honest answers or ratings because of the fear that the information would be used in the future and complicate their immigration status. Second, in regards to the respondents, this study used a convenience sample of only 203 international students. Hence, international students who did not participate in this study could be ones who are more reliant on their home-country Internet uses. Low reliability of the scales posed another limitation to the study. It is possible that the respondents in the present study were not very sincere, for whatever reasons, in responding to question items and scales, considering the fact that most of the scales used in this study have been found highly reliable in prior studies (Bahk, 2003; Bahk & Jandt, 2003; Bahk & Jandt, 2004; Bahk, Woesti, & Cushing, 2003). Future research should extend the scope to include diverse groups of international students, also focusing on their satisfaction with their home-country Internet uses.
APPENDIX A

INFORMED CONSENT FORM
INFORMED CONSENT

The study in which you are being asked to participate is designed to investigate the Internet usage patterns among international students. This study is being conducted by Songkwun Sukotapatipak under the supervision of Dr. Mo Bahk, professor of Communication Studies Department. This study has been approved by the Institutional Review Board, California State University, San Bernardino.

In this study you will be asked to respond to several questions regarding your Internet uses associated with your home country and/or host country (i.e., the United States). The questionnaire should take about 10 to 15 minutes to complete. All of your responses will be held in the strictest of confidence by the researchers. Your name will not be reported with your responses. All data will be reported in the group form only. You may receive the results of this study upon completion in the Spring quarter of 2004 at the following location: Department of Communication Studies and the Library.

Your participation in this study is totally voluntary. You are free not to answer any questions and withdraw at anytime during this study without penalty. When you have completed the questionnaire, you will receive a debriefing
statement describing the study in more detail. In order to ensure the validity of the study, we ask that you not discuss this study with other students or participants.

If you have any questions or concerns about this study, please feel free to contact me, Dr. Mo Bahk at 880-7662.

By placing a check mark in the box below, acknowledge that I have been informed of, and I understand, the nature and purpose of this study, and I freely consent to participate. I also acknowledge that I am at least 18 years of age.

Place a check mark here □

Today’s date: _____________
APPENDIX B

QUESTIONNAIRE
QUESTIONNAIRE

We are conducting a survey on the Internet usage among international students. Your responses will be processed anonymously and numerically only for a scientific purpose. Please be sincere and honest in your responses. Thank you for your cooperation.

Please do not write your name on the questionnaire.

I. Approximately how much time on a typical day do you usually spend using the Internet?

( ) hours ( ) minutes

II. When you use the Internet for matters related to your home country, what are your motives? Please rank order (1-5) the following, "1" being the most important motive.

Entertainment ( )
Convenience ( )
Information Seeking ( )
Interpersonal Utilities ( )
Passing Time ( )

III. When you use the Internet for matters related to the host country (i.e., the U.S.), what are your motives? Please rank order (1-5) the following, "1" being the most important motive.

Entertainment ( )
Convenience ( )
Information Seeking ( )
Interpersonal Utilities ( )
Passing Time ( )
IV. Please rank order (1-6) the following types of Internet media based on the amount of usage, "1" being the mostly used medium. "6" being the least used medium. Also, indicate approximately how much time a week you usually use each of the following.

<table>
<thead>
<tr>
<th>Ranking</th>
<th>Time Spent (a Week)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Email</td>
<td>( ) hours ( ) minutes</td>
</tr>
<tr>
<td>Chat Room</td>
<td>( ) hours ( ) minutes</td>
</tr>
<tr>
<td>Web Cam (Video Chat)</td>
<td>( ) hours ( ) minutes</td>
</tr>
<tr>
<td>Instant Messaging</td>
<td>( ) hours ( ) minutes</td>
</tr>
<tr>
<td>Bulletin Boards</td>
<td>( ) hours ( ) minutes</td>
</tr>
<tr>
<td>Web Sites</td>
<td>( ) hours ( ) minutes</td>
</tr>
</tbody>
</table>

V. Please indicate whether the following uses of the Internet are related to your home country or to the United States. Use percentages for each use so the two percentages add up to 100%.

<table>
<thead>
<tr>
<th></th>
<th>Home Country</th>
<th>Host Country (U.S.)</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Email</td>
<td>( )</td>
<td>( )</td>
<td>100%</td>
</tr>
<tr>
<td>Chat Rooms</td>
<td>( )</td>
<td>( )</td>
<td>100%</td>
</tr>
<tr>
<td>Web Cam (Video Chat)</td>
<td>( )</td>
<td>( )</td>
<td>100%</td>
</tr>
<tr>
<td>Instant Messaging</td>
<td>( )</td>
<td>( )</td>
<td>100%</td>
</tr>
<tr>
<td>Bulletin Boards</td>
<td>( )</td>
<td>( )</td>
<td>100%</td>
</tr>
<tr>
<td>Web Sites</td>
<td>( )</td>
<td>( )</td>
<td>100%</td>
</tr>
</tbody>
</table>

VI. Please indicate how much you agree or disagree with each of the following statements.

<table>
<thead>
<tr>
<th></th>
<th>Strongly Disagree</th>
<th>Strongly Agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. The Internet is a very useful tool in modern life.</td>
<td>1 2 3 4 5</td>
<td></td>
</tr>
<tr>
<td>2. The Internet is a very convenient way to communicate with people.</td>
<td>1 2 3 4 5</td>
<td></td>
</tr>
<tr>
<td>3. The internet expands the scope of life experiences.</td>
<td>1 2 3 4 5</td>
<td></td>
</tr>
<tr>
<td>4. The Internet provides students</td>
<td>1 2 3 4 5</td>
<td></td>
</tr>
</tbody>
</table>
with valuable resources for their school work.

5. The Internet communication is inexpensive.

6. The Internet helps me save time to do things.

7. There are many types of entertainment available on the Internet.

8. The Internet provides means of realistic interaction.

VII. Please indicate how much you agree or disagree with each of the following statements.

<table>
<thead>
<tr>
<th>Strongly Disagree</th>
<th>Strongly Agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. I feel like I cannot live even a day without the Internet.</td>
<td>1 2 3 4 5</td>
</tr>
<tr>
<td>2. Everyday after I come back from school, the first thing I do is to turn on the Internet.</td>
<td>1 2 3 4 5</td>
</tr>
<tr>
<td>3. I wonder how people could live without the Internet.</td>
<td>1 2 3 4 5</td>
</tr>
<tr>
<td>4. I can stay home all day alone if I have the Internet.</td>
<td>1 2 3 4 5</td>
</tr>
</tbody>
</table>

VIII. Please indicate how much you agree or disagree with each of the following statements.

<table>
<thead>
<tr>
<th>Strongly Disagree</th>
<th>Strongly Agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>“I use the Internet....”</td>
<td>1 2 3 4 5</td>
</tr>
<tr>
<td>1. To help others.</td>
<td>1 2 3 4 5</td>
</tr>
<tr>
<td>2. To participate in discussions.</td>
<td>1 2 3 4 5</td>
</tr>
</tbody>
</table>
3. To show others encouragement. 1 2 3 4 5
4. To belong to group. 1 2 3 4 5
5. Because I enjoy answering questions. 1 2 3 4 5
6. To express myself freely. 1 2 3 4 5
7. To give my input. 1 2 3 4 5
8. To get more points of view. 1 2 3 4 5
9. To tell others what to do. 1 2 3 4 5
10. Because I wonder what other people said. 1 2 3 4 5
11. To meet new people. 1 2 3 4 5
12. Because I want someone to do something for me. 1 2 3 4 5
13. Because it passes time when I bored 1 2 3 4 5
14. When I have nothing better to do. 1 2 3 4 5
15. To occupy my time. 1 2 3 4 5
16. Because it is a new way to do research. 1 2 3 4 5
17. Because it is easier. 1 2 3 4 5
18. To get information for free. 1 2 3 4 5
19. To look for information. 1 2 3 4 5
20. To see what is out there. 1 2 3 4 5
21. To communicate with friends or family 1 2 3 4 5
22. Because it is cheaper. 1 2 3 4 5
23. Because it is easier to e-mail than tell people. 1 2 3 4 5
24. Because people do not to be there to receive e-mail. 1 2 3 4 5
25. Because it is entertaining. 1 2 3 4 5
26. Because I just like to use it. 1 2 3 4 5
27. Because it is enjoyable. 1 2 3 4 5
IX. Please indicate your agreement or disagreement with each of the following statements. The intervals between numbers are equal.

<table>
<thead>
<tr>
<th>Statement</th>
<th>Strongly Disagree</th>
<th>Strongly Agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. I often become nervous when I speak with people of a different race in America.</td>
<td>1 2 3 4 5</td>
<td></td>
</tr>
<tr>
<td>2. I try to avoid interacting with people of a different race if possible.</td>
<td>1 2 3 4 5</td>
<td></td>
</tr>
<tr>
<td>3. I cannot communicate confidently in one-to-one interaction with people of a different race.</td>
<td>1 2 3 4 5</td>
<td></td>
</tr>
<tr>
<td>4. My heart beats faster than usual when I have to speak with people of a different race.</td>
<td>1 2 3 4 5</td>
<td></td>
</tr>
<tr>
<td>5. I often feel distressed after interacting with people of a different race.</td>
<td>1 2 3 4 5</td>
<td></td>
</tr>
<tr>
<td>6. I often become worried at the thought of speaking with people of a different race.</td>
<td>1 2 3 4 5</td>
<td></td>
</tr>
</tbody>
</table>
7. My body often feels tense and stiff when I speak with people of a different race.

8. I cannot think clearly when I speak with people of a different race.

9. My words become confused and jumbled when I speak with people of a different race.

10. When speaking with people of a different race, it is difficult to find the right words to express myself.

X. Please indicate your agreement or disagreement with each of the following statements about White people in the United States. Intervals between numbers are equal.

<table>
<thead>
<tr>
<th>Statement</th>
<th>Strongly Disagree</th>
<th>Strongly Agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. White people have privilege in the United States</td>
<td>1 2 3 4 5</td>
<td></td>
</tr>
<tr>
<td>2. White people are not much different than people of other racial groups in the United States.</td>
<td>1 2 3 4 5</td>
<td></td>
</tr>
<tr>
<td>3. White people tend to distance themselves from other racial groups in the United States.</td>
<td>1 2 3 4 5</td>
<td></td>
</tr>
<tr>
<td>4. In the United States, being White determines how a person is treated in everyday life.</td>
<td>1 2 3 4 5</td>
<td></td>
</tr>
<tr>
<td>5. U.S. society is largely permeated by the values and norms of White Americans.</td>
<td>1 2 3 4 5</td>
<td></td>
</tr>
</tbody>
</table>

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6. Being white doesn't mean much in the United States.

7. Whites are the most powerful racial group in the United States.

8. The politics in the United States are dominated by Whites.

9. The current social status of Whites in the United States is almost impenetrable.

10. In the United States, Whites are considered more intelligent than people of other races.

11. White people are regarded as superior to people of other racial groups in the United States.

12. Whites tend to mingle much better with Whites than with non-Whites.

13. Whites do not get along with non-Whites.

14. White people do not feel comfortable in the presence of non-Whites at social gatherings.

15. Whites tend to choose to interact with Whites rather than with non-Whites in social situations.
XI. Please indicate how much you agree or disagree with each of the following statements:

<table>
<thead>
<tr>
<th>Statement</th>
<th>Strongly Disagree</th>
<th>Strongly Agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. American culture is much different than my culture.</td>
<td>1 2 3 4 5</td>
<td></td>
</tr>
<tr>
<td>2. I have much different life philosophies than the majority of Americans.</td>
<td>1 2 3 4 5</td>
<td></td>
</tr>
<tr>
<td>3. Americans' values are much different than those of my culture.</td>
<td>1 2 3 4 5</td>
<td></td>
</tr>
<tr>
<td>4. I'm often skeptical about Americans' complete understanding of my feelings.</td>
<td>1 2 3 4 5</td>
<td></td>
</tr>
<tr>
<td>5. I do not like some rules and regulations in America.</td>
<td>1 2 3 4 5</td>
<td></td>
</tr>
<tr>
<td>6. American life styles are not much different than those in my country.</td>
<td>1 2 3 4 5</td>
<td></td>
</tr>
<tr>
<td>7. American friendships are not much different than those in my own culture.</td>
<td>1 2 3 4 5</td>
<td></td>
</tr>
<tr>
<td>8. My style of time management is much different than Americans'</td>
<td>1 2 3 4 5</td>
<td></td>
</tr>
</tbody>
</table>

XII. Please answer the following questions.

1. Do you have your own personal computer? ____ Yes ____ No

2. Do you have the Internet access with your computer? ____ Yes ____ No

3. Do you have the Internet access in other places (e.g., school)? ____ Yes ____ No
XIII. Please indicate how competent you feel in using the English language?

<table>
<thead>
<tr>
<th></th>
<th>Not competent At All</th>
<th>Highly Competent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Speaking:</td>
<td>1 2 3 4 5 6 7</td>
<td></td>
</tr>
<tr>
<td>Listening:</td>
<td>1 2 3 4 5 6 7</td>
<td></td>
</tr>
<tr>
<td>Reading:</td>
<td>1 2 3 4 5 6 7</td>
<td></td>
</tr>
<tr>
<td>Writing:</td>
<td>1 2 3 4 5 6 7</td>
<td></td>
</tr>
</tbody>
</table>

XIV. Please indicate your agreement or disagreement with each of the following statements.

<table>
<thead>
<tr>
<th>Statement</th>
<th>Strongly Agree</th>
<th>Strongly Disagree</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. American people treat me very nice</td>
<td>1 2 3 4 5</td>
<td></td>
</tr>
<tr>
<td>2. I do not feel I am welcomed here in U.S.</td>
<td>1 2 3 4 5</td>
<td></td>
</tr>
<tr>
<td>3. I feel like U.S. is my second home country</td>
<td>1 2 3 4 5</td>
<td></td>
</tr>
</tbody>
</table>

XV. Please answer the following questions.

1. Your sex? _____ Male _____ Female
2. Your age? _______ years old
4. Your primary purpose of stay in the U.S.? _____ To study _____ To travel _____ Others (Specify: ______)
5. How long have you been staying in the U.S.? (_____ ) years (_____ ) months
6. Do you intend to stay permanently after you complete your studies in the U.S.?
   ______ Yes  ______ No

7. What country are you from? (_________________)
REFERENCES


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