

USES AND GRATIFICATIONS OF THE INTERNET IN GERMANY: IS THERE A
GENDER GAP?

THESIS

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By

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This thesis is dedicated to my husband, Lee, and my son, Stephen Fritz,
whose love is my strength,
and to the memory of my brother Martin Stingl (1961-2003),
and my mother, Friedhilde Stingl (1939-1995), who encouraged me to pursue my goals.

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CHAPTER I

INTRODUCTION

The Internet is one of the newest inventions of mass media technology. It is often called cyberspace or the information super highway. Cyberspace, according to Pelton (2000) is “ultimately a state of mind that represents the evolution from mass media, broadcast-orientated networks to a true many-to-many electronic system with enormous flexibility” (Pelton, 2000, p.26). Today, the Internet interconnects over 200 countries worldwide (International Telecommunication Union, 2003). There are approximately 429 million Internet users worldwide, but it is dominated primarily by White men with middle-class incomes and post-secondary education. American users are ranked first in Internet use (NUA, 2003).

The Internet offers many opportunities for individuals’ such as accessing public and governmental documents, viewing videos and discovering information on millions of topics. Home pages offer the most effective way to retrieve information about any topic in any country. Greenlaw and Hepp (1999) define a home page as a file that can be read over the World Wide Web. A Web page is “the global collection of documents associated with and accessible via the World Wide Web” (p.527).

The number of American Internet users as of April 2002 was 165 million (NUA, 2003). The Internet was not always that heavily populated. At the beginning, the Internet was primarily used by universities and governmental agencies. The 1990s, according to Samoriski (2002), marked the beginnings of Internet diffusion into offices and homes because computers and Internet access rates became more affordable.

The Internet had an impact on the millions of workers who had to adapt to changes in industry. Information became a commodity, which shifted millions of workers into jobs in the information industry (Samoriski, 2002). These were not the only changes that occurred. The Internet created major problems for businesses, such as software piracy and copyright infringements. In addition, employers were faced with issues regarding employees' right of privacy when using e-mail.

Universities were also affected by these changes. Plagiarism became a major problem at universities across the country. Some students believe that because academic papers are posted on the Internet that it is okay to download them and pass them off as their own. Another noticeable change occurred in mass media. Since the Internet never rests, news agencies are under constant pressure to update information as soon as it comes in. This means that it can become very difficult to report accurate and reliable information. Every newspaper and broadcast station wants to be the first to report an issue.

The Internet has brought many changes to people's lives, but not all Europeans are adapting the new technology to their lives in the same ways or at the same speeds as Americans. Germany is known for its well-developed technology industry and is considered Europe's economic and industrial powerhouse. Despite its reputation,

Germany's online population lags behind that of Great Britain. This seems ironic when we consider that Germany has the highest ownership rate of home computers in Europe, including the UK (Jupiter MMXI, 2001).

Thomas Pauschert, manager of Germany's Jupiter MMXI Internet research group, argues that PC ownership, a prerequisite for Internet use, does not necessarily contribute to the adoption of the Internet. For example, Great Britain's Internet diffusion was not related to PC ownership but instead Internet diffusion occurred when access became affordable. This was the case in Germany. Until 1996, Germany had a telecommunications monopoly and when the government deregulated its telecommunications market, Internet rates dropped and, therefore, rates became more affordable. Within six month to a year, after cheaper rates were introduced in Germany, the country saw a surge of Internet users (Jupiter MMXI, 2001).

When we examine Germany's Internet community, we discover that the Internet is dominated by men. In a recent study, NUA (2003) found that German women account for only 39 percent of the total online population. The study compared seven European countries in terms of women online users. German women were ranked sixth in Internet use. The percentage of the European women that outnumbered German women in Internet use includes the following: Great Britain (44.8), Switzerland (44.6), Netherlands (42.6), Spain (40.5) and France (40).

Nielson/NetRatings (2001) found that Canada and the United States are the only countries where female online users (52 percent) outnumber male users (48 percent). Some researchers ask why the Internet in Germany is dominated by men. Previous literature suggests that women are less knowledgeable about computer technology and

develop a phobia toward this innovation (Schinzel, 2001). Others argue that each gender uses the Internet differently (Bernbom, 2001). Jackson et al. (2001) argue that men and women use the Internet equally, but differently. They add that women are less aggressive computer users than men, which sets them back intellectually and occupationally. This could lead to a digital divide between men and women, where women are the information and technology have-nots and men are the haves. This could be a huge disadvantage for women competing in the job market.

Jackson et al. (2001) take a different approach in explaining the gender gap and Internet usage. They say, “the links between culture, political economy and technology should be examined to determine the interrelation between the Internet and gender identity” (p.306). These frameworks, they argue, are important in understanding the Internet’s role in relation to gender. Science, technology, political economy and culture all account for the difference in the way men and women use the Internet.

Feminist cultural studies acknowledge the unbalanced power relationships between men and women. Such “perspective permits an analysis of the Internet as a continuum between experiences of empowerment and alienation” (p.306). Gender studies claim that women have a phobia regarding new communication technology. Thus, they are less likely to own or use a computer. To become a member of cyberspace, individuals have to gain the basic knowledge of computer use.

As many scholars have argued, technical knowledge has been dominated by males. However, the Internet is viewed by many women as a space in which they can participate in a democratic forum. Gersch (1998) says that even though the Internet is male dominated, women feel that this technology can provide a tool for empowerment.

The Internet also provides an alternative medium of communication. It differs from traditional modes of communication because the Internet, similar to other media, has its own socio-cultural and political economic structures.

This study will apply the uses and gratifications theory to answer the previously discussed issues. Uses and gratifications theory examines why people use a specific medium, such as the Internet, and how a medium satisfies their needs. The Internet can satisfy social and psychological needs such as cognitive, affective, personal integrative, social integrative and escapist needs, which will be discussed later in this study. Hunter (1994) adds that the Internet provides the three basic gratifications: browsing, information seeking and entertainment.

Objectives

Based on uses and gratifications theory, this study tries to discover whether a gender gap in Internet uses and gratifications exists in Germany. Following are the specific objectives:

1. Is there a gender gap in Internet use in Germany?
 - a. Is there a relationship between time spent on the Internet and gender?
 - b. Is there a relationship between frequency of Internet use and gender?
 - c. Do men and women differ in types of Internet use?

- d. Do men and women differ in types of Internet use according to their demographic factors (age, income, education, occupation and marital status)?
 - e. Is there a relationship between gender and reasons for using the Internet?
2. Does a gender gap in Internet gratifications exist in Germany?
- a. Is there a gender difference in the level of satisfaction obtained from visiting different types of Web sites?
 - b. Is there a relationship between Internet ownership at home and gender?
3. In addition, this study will also examine issues regarding computer ownership, language and most frequently used medium.

The uses and gratifications theory will be used as a conceptual framework to find answers to these questions.

Background

Germany: Geographic Locations and Area

The Federal Republic of Germany is located in the heart of Europe, bordering the Baltic Sea and North Sea, between the Netherlands and Poland, south of Denmark. Altogether, the country has nine neighbors: Denmark in the north, the Netherlands, Belgium, Luxembourg and France in the west, Switzerland and Austria in the south, and the Czech Republic as well as Poland in the east. The country occupies an area of

357,021 square kilometers, which is slightly smaller than Montana (Central Intelligence Agency [CIA] World Factbook, 2003).

Demographic Profile

As of July 2003, Germany had a population approaching 83 million, the largest in Europe after the Russian Federation, followed by the United Kingdom (59 million), France (58.6 million) and Italy (57.5 million). Women represent 50.9 percent of the total population. About 15 percent of the population is between the ages of 0-14 years old, 67 percent are between the ages of 15- 64 and those age 65 and older represent 18 percent of the population. The population growth rate is only .26 percent. Germany has the following ethnic groups: German (91.5 percent), Turkish (2.4 percent) and Servo-Croatian, Italian, Greek, Polish, Russian and Spanish account for the remaining 6.1 percent of the population. The literacy rate is approximately 99 percent. German is the official national language, but many people speak English and French. Thirty-four percent of the populations are Protestants, 34 percent are Catholics, 3.7 percent are Muslims and 28.3 percent are unaffiliated or other (CIA World Factbook, 2003).

Government

Germany is comprised of 16 states (Länder) and has a federal government, like the United States, in which states have substantial powers. It is a “parliamentary democracy where the chief executive, the federal chancellor, who is the equivalent to the prime minister, is elected by the country's legislature, the Bundestag” (Bundesregierung Deutschland, 2003).

Germany has three branches of government, the executive, legislative and the judicial. The federal government, composed of the federal chancellor and minister, is the supreme executive authority. The chancellor, who is elected by the *Bundestag*, or national assembly, is the head of the government. The federal president is head of state and is elected by the federal assembly. The federal assembly (*Bundestag*) and the federal council (*Bundesrat*) comprise the legislative branch of government (CIA World Factbook, 2003).

Economy

Germany's economy is the third most technologically powerful in the world, after the United States and Japan. The country is among the largest producer of chemicals, machinery, steel, iron, vehicles and electronics and has one of the most advanced telecommunication systems in the world. In 2002, 70 percent of the German population owned a telephone and 58 percent owned a cellular phone (International Telecommunication Union, 2003). Germany has a social market economy, which rejects government interference in business and investment decisions. To ensure market competition, the European Parliament enacted a law in 2001 to set guidelines for takeover of German firms whose shares are publicly traded on the European stock market (German Embassy, 2003). The gross domestic product for 2002 was \$ 2.184 trillion and the gross domestic product per capita for 2002 was \$26,600 (CIA World Factbook, 2003).

History

Germany's recorded history begins between 58 and 50 B.C. in the time of Julius Caesar's campaign in Gaul. At the time of Roman occupation, German tribes settled west of the Rhine River and south of the Danube River. Roman colonial expansion ended in 9 A.D. when Arminius defeated the Roman Army in the battle of the Teutoburg.

The Holy Roman Empire's first emperor was Pope Leo III. During ancient and medieval times, Germany had many kingdoms, emperors and territorial changes. Religious and national movements brought about the Thirty Years War (1618-1648), in which Germany lost a huge portion of its population and territory. The Napoleonic wars ended the Holy Roman Empire in 1806 and forced the remaining states to implement social, political and administrative reforms (*Informationsamt der Bundesregierung*, 2003).

Many more wars followed including WWI and WWII, which brought many changes to Germany. In 1949, because of World War II, Germany was divided into four zones. The German Democratic Republic (East Germany) was occupied by the Soviets and the Federal Republic of Germany (West Germany) was occupied by American, British and French troops. The above named military powers are referred to as the "Four Powers." The city of Berlin was occupied by the Four Powers. A wall was built on August 13, 1961 to separate East Germany from West Germany. As a result, Berlin became East Germany's capital and Bonn became West Germany's capital.

Konrad Adenauer became West Germany's first chancellor and Theodor Heuss its first president in 1949. After 20 years of Christian Democratic rule, the Social Democrats won the election in 1969 and ruled the country until 1980. Helmut Kohl, Germany's chancellor from 1983-1990, campaigned for a German unification and succeeded on October 3, 1990 when Germany was finally reunited. This historic event marked the end of the Cold War. Germany's government and parliament moved its offices back to Berlin in June 1991, thus Berlin became the capital of Germany (Jenks, 2003).

Media Environment

Germany's print media are privately owned. The country has the highest per capita newspaper circulation within Europe. Twenty-five million copies of daily newspapers are printed every day (German Culture, 2003). There are 375 daily newspapers, 9,000 periodicals and 9,000 magazines (PR Passport, 2003). Only five of the daily newspapers are nationally recognized because of their national and international news coverage. These include the *Frankfurter Allgemeine Zeitung (FAZ)*, *Süddeutsche Zeitung*, *Frankfurter Rundschau*, *Handelsblatt* and *Die Welt*. Many of these newspapers offer an online version of their publications. "Germany is one of the highest information density countries in the world" (Magazin-Deutschland, 2003). There are six news agencies: the *Deutsche Presse –Agentur (dpa)*, *Deutscher Depeschendienst (ddpADN)*, Protestant Press Service (epd), the Catholic News Agency (KNA), Sports Information Service (SID) and the *Vereinigte Wirtschaftsdienste (vwd)*.

The government has no political control over the media. Germany's Basic Law guarantees freedom of the press and the right to obtain available information. However, because of Germany's wartime history, restrictions are placed on certain types of activities that include the ban on speech promoting Nazis and neo-Nazis. These restrictions also apply to the Internet (PR Passport, 2003).

Germany had a broadcast monopoly that ended in 1984. This monopoly limited the number of available channels to three publicly owned networks: Arbeitsgemeinschaft der öffentlich-rechtlichen Rundfunkanstalten der Bundesrepublik Deutschland (ARD), Zweites Deutsches Fernsehen (ZDF) and Channel 3. These channels are funded by a user fee that owners of radios and television sets and some advertisers have to pay on a monthly basis. The cost for owning a radio is 5 euro (\$4.27) per month and for television is 14 euro (\$11.96) per month (Campus Germany, 2003).

When the television monopoly ended in 1984, the number of private and public broadcast channels increased to 373 by 1995 (CIA World Factbook, 2003). Cable and satellite were introduced in 1987. Cable and satellite proliferation increased from 3.2 million in 1987 to 33.2 million in 2001 (Plusdetudes, 2003). By 1998, 51.4 million Germans owned a television and by 1997, 72 million owned a radio (CIA World Factbook, 2003). Broadcast companies that are privately financed provide enormous competition to the public channels. Regional media authorities are responsible for monitoring and licensing the programming of these channels (PR Passport, 2003).

Until 1996, Germany had a telephone service monopoly, which was provided exclusively by the Deutsche Bundespost, which later became the Deutsche Telekom AG. Since the enactment of the Telecommunications Act of 1996, telecommunications have

been deregulated throughout Europe. Following the Act, the Federal Ministry of Posts and Telecommunications, Regulatory Authority for Telecommunications and Posts of the Federal Ministry of Economics was established to oversee the transition from a monopolized market structure to a competitive one. The authority's main tasks were to control the dominant market role of Deutsche Telekom AG and Deutsche Post AG, to assist new competitors and to ensure further expansion of the telecommunications and postal markets (German Embassy, 2003).

The liberalization of the telephone market has attracted a large number of competitors with local, regional and nationwide operations, in progress. According to the CIA World Factbook (2003), in March of 2001 Germany had 51 million telephone lines and 55.3 million cell phones in use. Two years after the liberalization, Germany saw a boom in Internet service providers. In large cities, ISDN connections are offered by the major providers such as Arcor, Otelio and MobilCom/Freenet. There are an increasing number of local and regional competitors such as NetCologne, Berlikomm, Sonatel, BreisNet, Pulsaar, Gelsennet, SoestCom and many more. According to PriMetrica (2003), by the end of 2002, over 2,100 Internet service providers registered with the Regulatory Authority for Telecommunications and Posts (RegTP). The Deutsche Telekom owned about 3 million of the total lines, their competitors owned about 195,000 ADSL/SDSL lines and the remaining lines were owned by cable or satellite operators. Internet broadband connections rose to 3.3 million in 2002. Currently, Germany has over 44 million Internet users (Internet World Stats, 2003).

Figure 1.1 Map of Germany and bordering countries



Source: Map of Germany courtesy of the AOL (2003) online at members.aol.com/deutsch54/aatg/home.html

Organization of Thesis

This thesis has been organized into six chapters:

Chapter I- Introduction: this chapter introduces the objectives of the study and provides the background information on Germany's gender gap in Internet use and gratifications. The study also addresses Germany's history and media environment.

Chapter II- Literature Review: looks at previous literature that was written on the subject of the gender gap on the Internet. Barriers in Internet use in relation to demographic factors concerning age, income, education and gender are being discussed in this chapter.

Chapter III- Theory: establishes the theoretical background of the study. A brief overview of the history of uses and gratifications theory is discussed along with the modifications that took place because of the Internet. In addition, motivations for Internet use, the various functions of mass media, types of human needs that are being satisfied by mass media and gratifications are discussed. The hypotheses and definition of terms are listed at the end of the chapter.

Chapter IV- Methodology: explains the methodology of the study. This chapter explains how the questionnaire was formulated, the timeframe for the study, the collection of the sample and the type of apparatus that is used to analyze the data.

Chapter V-Findings: presents the findings of the study.

Chapter VI-Conclusion and Discussion: provides the conclusion and discussion of the study. Summarization of the findings and suggestions are presented in this chapter. In addition, limitations of the study and recommendation for further research are discussed.

CHAPTER II

LITERATURE REVIEW

The Internet in Germany

Access, diffusion and utilization

Unlike traditional mass media, the Internet offers its users a wide range of communication opportunities. The Internet and the World Wide Web have opened the gates to global communication. This allows users to interact synchronously and asynchronously. Ruggiero (2000) says that the Internet brings together many features such as text, voice, video and smell. More companies are utilizing the Internet to offer customers a greater variety of products and services on a global scale. Those with access can retrieve tremendous amounts of information, plan vacations, shop online, publish their own Web sites, send and retrieve e-mails, chat online and bank online.

Since content and messages can be recorded, copied and observed it is easier for researchers to monitor consumer behaviors, demography and choices. Fortunately, for uses and gratifications researchers and advertising agencies, “communication on the Internet also leaves a trail that is easily traceable.” “Messages have time stamps; accurate to one hundredth of a second” (Ruggiero, 2000, p.51).

Even though the Internet has brought many changes to people's lives and the economy as well, not all Europeans are incorporating the new technology into their lives in the same ways or at the same speeds. In order to use the Internet, people have to have access to a computer. Germany has the greatest PC ownership in Europe. According to the Federal Commissioner for Foreign Investments (2002), 27 percent of all German households owned two computers in 2002 compared with France (15 percent), United Kingdom (22 percent) and Italy (12 percent).

Welling and Kubicek (2000) argue that these statistics provide useful insights on computer ownership, but they say that most of the surveys do not provide information about the purpose of these computers. Some computers may be used to play games, while others may be used as a typewriter only. In short, not all home computers have the technical ability for Internet access. People who have a home PC without Internet capability are more likely to use the Internet at work. Results from the ARD/ZDF (2003a) study shows that 13 percent of the Germans use the Internet at work and school, 46 percent use it at home. Increased usage at home is attributed to people having more freedom. For example, when people access the Internet at work they are limited on what they can do. Many companies have policies that monitor employee's activities; therefore, employees cannot visit certain Web sites such as pornographic sites.

Internet diffusion in Western Europe

Germany has been known for its well-developed high technology industry and is considered Europe's economic and industrial powerhouse. Despite this, Germany's on-line population lags behind Great Britain in regards to Internet use. Schmid (2001) argues, "Germany is even below the European average in online penetration" (<http://iht.com/articles/14140.html>). The International Telecommunication Union (ITU) reported in 2003 that Germany had 35 million Internet users and a PC penetration of 43 units per 100 people. Earlier surveys conducted between 1998 and 1999 by Media Vision and the Federal Office of Statistics discovered that of the real number of people with access to a computer, only 11 percent had Internet access (Welling and Kubicek, 2000). Table 2.1 shows a comparison between Germany's Internet penetration and some other Western European countries.

Table 2.1

Internet penetration in Western Europe

Country	Date	Number	Percentage of Population
United Kingdom	September 2002	34.3 million	57.24
Germany	August 2002	32.1 million	38.91
Italy	August 2001	19.25 million	33.37
France	May 2002	16.97million	28.39
Spain	May 2002	7.89 million	19.69

Source: NUA (2003). *How many online?* Available:

http://www.nua.com/surveys/how_many_online/europe.html

Thomas Pauschert, manager of Jupiter MMXI Germany, adds that Germany's deregulation of its telecommunications market created a surge in Internet connectivity. He says that the same phenomenon occurred in Great Britain when it lowered its access rates. T-Online, a German Internet Service Provider, added 800,000 new subscribers between January and March of 2000 when rates were lowered (Jupiter MMXI, 2001).

Barriers to Internet use

Despite the user growth noted, the majority of the German population (70 percent) does not utilize the Internet. A study conducted by ARD/ZDF (2003b) found that people between the ages of 60 and over are using the Internet less than those that are between the ages of 14 to 19. The gender gap in Internet use still exists today (see Table 2.2).

Table 2.2

German population who does not use the Internet

	2003
Total	46.5
Men	37.5
Women	54.7
14-19 years old	8.7
20-29 years old	17.5
30-39 years old	26.1
40-49 years old	33.6
50-59 years old	51.1
60 years old and over	78.7

Source: ARD/ZDF (2003b). *Internetverbreitung in Deutschland: Unerwartet hoher Zuwachs*

[Internet diffusion in Germany: Unexpected growth]. Available:

<http://www.daserste.de/service/ardonl03.pdf>

According to Welling and Kubicek (2000), there are three types of non-users: “(1) people who do not have access to the Internet, (2) people who have access but do not use it and (3) former Internet users who [quit using the Internet]” (p.18). They theorize that there are two primary reasons why people do not use the Internet. The first reason is that people who do not gain certain gratifications from the Internet are more than likely not to use it. The decision to reject the Internet is based on the perception that the Internet does not offer significant benefits. The second reason is that some people may be interested in using the Internet, but their perceived barriers, such as the skill to navigate the Web or language barriers, are too high to overcome (Kubicek & Welling, 2000).

ARD/ZDF (2003b) offers additional reasons why people are not using the Internet. Results from their study indicated that people did not need the Internet in their private lives or at work. Other responses were that people would rather spend the money on other things, have no time or desire to go online and that they did not need the Internet because television, radio and newspapers provide the necessary information they needed.

Many of the non-users lack Internet and computer skills. ARD/ZDF (2003b) survey showed that women are less likely to own a computer and use the Internet than do men, because women do not possess the technical skills to operate a computer. Thus, they do not want to take the time and effort to acquire these skills. In some cases, non-users rely on someone else who already has the Internet. This viewpoint increases with age; especially those who are 60 and older (see Table 2.3).

Table 2.3

Reasons for not using the Internet

Reasons for not using the Internet	Percentage
TV, radio and newspaper provide sufficient information	96
Don't need the Internet in my private life or at work	85
I'd rather spent the money on something else	84
Have no time or desire to use the Internet	74
I can use the Internet at my friends or colleagues house	59
Internet Services Providers and rates are confusing me	65
The Internet takes time away from my social life	64
The Internet is too expensive	50
Navigating the Internet is frustrating	44

Source: ARD/ZDF (2003b). *Offliner 2003: Stabile vorbehalte gegenüber dem Internet* [Offliner 2003 Stable reservation toward the Internet]. Available: http://www.br-online.de/br-intern/medienforschung/md_mm/gerhards.pdf

Additional reasons for the non-use of the Internet include skepticism and Internet content. Seventy-seven percent of the participants in the ARD/ZDF (2003b) study found pornographic Web sites offensive and others viewed extreme political content as dangerous. Results also showed that participants expected negative consequences from using the Internet such as unauthorized use of their personal data and Internet addiction. Fifty-eight percent did not understand the language of the Internet and its terms.

Language dominance on the Internet appears to be a barrier in Internet use, especially when the Web is dominated by the English language. In 1998, Alta Vista conducted a study and found that 89 percent of all Web sites were written in English. Those who want to communicate with the new medium have to be proficient in English.

Foreign languages are easily learned when taught in early stages of life; thus, older people have a more difficult time learning a foreign language. When the Internet was first introduced in the 1990s, many people did not know how to communicate with this medium because of English language dominance, and as a result, English loan words were adopted into the German language. As time went on, the German language became a mixture of German and English, which is often referred to as Denglish (Schlobinski, 2000).

Many people see this dominance as a globalization of culture and argue that we need a universal language to communicate globally. Others are not as enthusiastic to adopt another language because they see it as serious threat to their culture. Schlobinski (2000) says that the forced evolution of the English language as a lingua franca of the Internet is only one side of the diffusion of communication technology; the adaptation of English loan words in a not-Anglophone culture is another.

Despite all of the above listed concerns, many of the respondents, in the ARD/ZDF (2003b) study, say that the Internet will establish itself like television, radio and the press did in previous generations. A majority of the German population had a favorable attitude toward development of an information society. Information society is “a broadly defined term that describes a society in which ubiquitous information and communications technology form the basis for the economic, social and cultural foundation of civilization” (Samoriski, 2002, p.362).

Classification of an Internet user

Those that utilize the Internet are often classified by research firms such as Cyber Atlas, NetSmart and NUA as “overwhelmingly white, male, well-educated and with higher income” (Weiser, 2000, p. 168). Welling and Kubicek (2000) argue, “access and utilization are sometimes neglected” (p.3). Many research firms overlook the importance of the difference between access and Internet use. They say that access describes the possibility to use the Internet whereas Internet utilization “requires occasional or regular use of Internet service” (p.3).

Welling and Kubicek (2000) found various differences among several Internet studies that were conducted between 1998 and 2002. The primary difference among surveys is they neglect to provide a consistent definition of Internet utilization. Some of the survey companies describe utilization as regular use, while others describe it as an occasional activity. In addition, some survey samples include the age group between 14 and 54 years of age; others include all age groups beginning with those at the age of 14. Thus, one must be very careful in drawing conclusions about Internet access and use. The following table provides a comparison of different studies that were conducted between 1999 and 2003 (see Table 2.4).

Table 2.4

Classification of Internet users in Germany

Date	Survey	Definition of User	Number of Internet Users (in millions)	Users (in percentage)
01/99	GfK Online-Monitor	People ages 14 to 59 who use the Internet occasionally	8.4	19
01/00	GfK Online Monitor	People ages 14 to 69 who use the Internet more or less regularly	15.9	30
08/02	ARD/ZDF Online	People ages 14 and older who used the Internet at least once a week	28.3	44.1
08/2003	ARD/ZDF Online Survey	People ages 14 and older who use the Internet within the last month	33.1	51.5

Source: Welling and Kubicek (2000). *Measuring and bridging the digital divide in Germany*. Available: <http://www.digitale-chancen.de/transfer/downloads/MD35.pdf>

Age and Internet use

Despite the differences in user classification surveys, the number of German Internet users has slightly increased in 2003. According to ARD/ZDF (2003a), the number of women using the Internet has increased from 3.3 percent in 1997 to 61.6 percent in 2003. Those between the ages of 14-19 years old represent the largest group of users, followed by those ages 20 to 29. Internet users age 60 and older are still under represented (see Table 2.5).

Table 2.5

German Internet population timeline (in percentage)

	1997	1998	1999	2000	2001	2002	2003
Total	6.5	10.4	17.7	28.6	38.8	44.1	53.5
Men	10.0	15.7	23.9	36.6	48.3	53.0	62.6
Women	3.3	5.6	11.7	21.3	30.1	36	45.2
Age							
14-19	6.3	15.6	30.0	48.5	67.4	76.9	92.1
20-29	13.0	20.7	33.0	54.6	65.5	80.3	81.9
30-39	12.4	18.9	24.5	41.1	50.3	65.6	73.1
40-49	7.7	11.1	19.6	32.2	49.3	47.8	67.4
50-59	3.0	4.4	15.1	22.1	32.2	35.4	48.8
60 and over	0.2	0.8	1.9	4.4	8.1	7.8	13.3

Source ARD/ZDF (2003a). Internetverbreitung in Deutschland: Unerwartet hoher Zuwachs

[Internet diffusion in Germany: Unexpected growth]. Available:

[http //www.daserste.de/service/studie.asp](http://www.daserste.de/service/studie.asp)

Income and Internet use

Income is another important variable in Internet use. Internet penetration may have increased over the past few years, but many Germans, especially people with lower income are not big users. According to Welling and Kubicek (2000), individuals with higher income have a more favorable attitude toward the information society than those with lower levels of income. Their study found that 40 percent of people who had a monthly net income of DM 2, 499¹ (\$1477) had a favorable attitude toward the Information Society compared to 71 percent of those who earned more than DM 5, 000 (\$2957) per month who shared the same view.¹

¹ As of January 2002, the German currency is obsolete. The new currency is called the Euro (EUR). 1EUR=1 1566 USD (<http://www.xe.com/ucc/convert.cgi>).

Therefore, income is a determining factor in Internet use and perception. Individuals with less income will not only perceive the Internet as negative, but they may also feel pressure to utilize the Internet. In some cases, the same individuals may even reject the Internet because it does not offer the benefits they seek.

Education and Internet use

Education is another variable that associated with Internet use. It has been argued that those with more education are more likely to have Internet access than those less educated. ARD/ZDF (2002) found that people with college degrees were the primary users of the German Internet. Another study conducted by ARD/ZDF (2003b) showed that people with high school diplomas represented the largest percentage of non-users followed by people with secondary degrees such as vocational degree (see Table 2.6).

Table 2.6

Non-Internet users in Germany according to their level of education

Education	2002	2003
Total	55.9	46.5
High School	76.4	66.5
Secondary school (vocational school)	45	34.1
Some College	21.6	14.7
College degree	20.7	20.4

Source: ARD/ZDF (2003b). *Offliner 2003: Stabile vorbehalte gegenuber dem Internet* [Offliner 2003: Stable reservation toward the Internet]. Available: http://www.br-online.de/br-intern/medienforschung/md_mm/gerhards.pdf

Germany's Gender Gap on the Internet

Status of women in Germany

Before we address the issue of gender gap in Internet use, we must first examine the economic status of women in Germany. Germany's Basic Law states that men and women have equal rights. While this constitutional rule is in place, women do not actually have equal rights. They are still being discriminated against in top management positions and earn less than men do. In addition, it is much more difficult for women to find apprenticeships or jobs in any field (German Embassy Online, 2003).

The *Bundesanstalt für Arbeit*, (Germany's governmental employment agency) reported in 2002 that more men than women work in the technology industries and in the electrical engineering field. Schinzel (2002) discovered the same discrepancy. She says that the German government should investigate the gender gap in the technology field and take the appropriate steps in closing this gap. Because women do not have access to technology, which could enhance their career opportunities, many are overqualified for the jobs they can accept.

Because of women's inequality in the workplace, Germany's government expanded their equal rights opportunities in 1994 to say, "the state fosters equal rights between men and women and works toward eliminating existing disadvantages (www.german-info.com)." The German Federal Government also created a program called "Women and Work" to improve educational opportunities for women, reduce income and wage discrimination and increase the number of women working in the research and training fields (German Embassy Online, 2003).

Gender difference in time spent on the Internet

Because not much research has been done regarding the gender gap in Internet use in Germany, this study will use the data obtained by researchers elsewhere as a base to examine whether a gender gap in Internet uses and gratifications exist in Germany. As previously mentioned, Germany does have a gender gap but what accounts for the gender differences in the uses of online participation? Many studies do not consider the fact that men and women do not use the Internet equally in terms of time spend online. Women, for example, spend less time online than men do, and they have fewer reasons to use the Internet as well. Most important, “broad definitions of usage have often masked important differences in how much technology is used in specific ways, as well as qualitative differences in men’s and women’s experiences in using the Internet” (Sherman et al., 2000, p.885).

These gender differences are more noticeable in higher education, which is out of the ordinary because computer usage is emphasized in every field of study. Findings from previous research (U.S. Department of Commerce, 2002) suggest that the gender gap in Internet use among the general population is narrowing in the U.S.; the question remains whether the gender gap among American college students is narrowing likewise.

College students are an important group for predicting future national Internet use because of their access to the Web and to computers. Students are the primary users of the Internet and thus “research on this student population allows for an examination of gender differences within the institution in which men and women have equal access to the Internet” (Odell et al., 2000, p. 856).

Odell et al. (2000) surveyed 843 undergraduate students from eight different colleges, which included both public and private universities. It has been argued that women spend less time on the Internet than men do. Time spent on the Internet is an important variable in predicting future Internet use. Odell et al. found a significant ($p < .004$) difference between gender and time spent on the Internet.

Interestingly, Odell et al. (2002) also found that undergraduates depending upon their major spend various amounts of time using computers. Math, science and business majors spend 3.9 hours more a week online compared to students majoring in humanities, social sciences, education and communication. Students with undecided majors spend the least amount of time online. Of these groups, more men than women major in math and science versus more females than males major in social science and humanities and men possess greater Internet expertise than the women do.

Schmid (2001) adds that Germans spend considerably less time on the Internet than do Americans and other Europeans. The ARD/ZDF (2003a) study found that German Internet users spent approximately 10 hours per week online. This number is relatively low when compared to American users who spent almost twice as much per week online (NUA, 2003).

Because women spend less time on the Internet, women develop a different attitude toward computer and Internet use (Sherman et al., 2000). For example, female college students are less comfortable with computer technology and feel less confident about using the Internet. "One explanation for such gender differences may be the socialization of young girls, who are often systematically, if unintentionally, discouraged from many academic pursuits, particularly in math and science" (Weiser, 2000, p.2).

Schinzel (2001) argues that stereotypical images of women in society contribute to this viewpoint. Society assumes that women are less knowledgeable about computers and develop a phobia toward this new medium. This viewpoint begins in early childhood when parents teach their children how “boys and girls” should act and what types of toys they should play with (Schöneberger, 1999).

Stereotypes are very harmful because stereotypes create labels for individuals that place them in different categories according to their role in society. There are duties only for men and duties only for women. These children will grow up with the stereotypical images of men and women in their minds and will imitate these roles as adults. Children that grow up in a household where the father is doing the household chores will have a different view about gender roles. The home is not the only place where socialization occurs. It also occurs in schools where boys are told that they are better in math and science and girls are better in reading and writing. Thus, girls are less interested in computer science than boys are (Peirce & Atkinson, 2002).

Such gender stereotypes create low self-esteem and may explain why fewer women enter the field of computer science (Schinzel, 2001). “Technology itself is a product of social relations, so diffusion of new innovations favors particular social groups, such as men” (Ono & Zavodny, 2003, p. 113). This can be seen in the different experiences men and women have when taking courses in math and science, especially online courses (Sherman et al., 2000). It is important for women to utilize new media technology because it contributes to their economic success (Ono & Zavodny, 2003).

One of the reasons why women may spend less time online than men is that women have different roles in society. Ellen Israel Rosen conducted a study in 1987 and found that women often have a “double day.” Women spend so much time working and taking care of the family that they only have about 30 minutes a day of free time. Thus, instead of using the Internet they chose to relax in other ways (Rosen, 1987). Because of these differences, it is imperative to examine how each gender integrates technology into their daily lives.

Gender differences in types of Internet use

Time spent on the Internet is only one factor that accounts for the gender differences: uses are another. Odell et al. (2000) found a significant difference in how each gender uses the Internet in America. They found that women’s purpose for going online was to send e-mails. Men used the Internet primarily for visiting pornographic sites, conducting research, listening or copying music and looking for news. Sherman et al. (2000) add that women’s primary motive for using the Internet is for educational and interpersonal communication, whereas men used it for entertainment.

Ven-hwei and Ran (2002) state that pornographic content is created and consumed primarily by men. The U.S. Congressional Research Service reported that pornographic sites are the most visited. When people conduct a word search on “sex,” the Web produces thousands of hits (Pelton, 2000). Men are three times more likely to watch X-rated movies. Ven-hwei and Ran (2002) add that results from previous studies show that more women than men associate Internet pornography with negative effects. Women have a less favorable attitude toward pornography than men have, are less likely

to consume it than their male counterparts are. An earlier study conducted by Wilson and Ableson (1973) showed similar results. Women responded that pornography could lead to “a breakdown in morals” (Van-hwei & Ran, 2002, p.16) and may lead people to commit rape. The effects of pornography have not been fully determined. One study found that “exposure to pornography had no effect on men’s attitudes toward women” (p. 16). While another announced that excessive exposure to pornography did have an effect on men’s violent behavior toward women (Zillman & Bryant, 1989).

About Women and Marketing (1998) reports that women’s online activities include using e-mail, conducting research, participating in chat groups, and general surfing. Fewer women than men use search engines. The same is true for visiting company Web sites or purchasing products and services online. Women prefer to find information about marketer’s home pages rather than being targeted by online marketers.

Another study conducted by The Graphics, Visualization and Usability Center (GVU) in 1999 supports the above findings. They found that women had greater difficulties using the Internet to find information while men had fewer difficulties finding information. Women used the Internet for education and personal information while men used it for chatting, entertainment, newsgroups, conducting research and obtaining news, sports and weather information. Men also had greater skills than did women in terms of creating Web sites. Women were less likely to participate in Multiple-User Dungeons or Multi-User Dimensions (MUDs) than men were. According to Greenlaw and Hepp (1999), “a MUD is a real-time interactive game, which takes place in an imaginary environment where multiple computer users can play simultaneously” (p. 522).

When we compare Germany's gender differences in types of Internet use to that of the United States, we find that there are many similarities. Ranked among the most popular activities include: using e-mail, general surfing, online banking, downloading information from databases, chatting, participating in online auctions, playing online games, e-commerce and listening to music. As previously noted, women spend less time online than do men. However, German women spend their time online more effectively than men do. In addition, they are more interested in finding information about home-based jobs, health and medical news and are least interested in gathering general information. German men, on the other hand, spend more time online and use the Internet for general surfing, reading articles, downloading music and online banking (New Media Age, 2002).

Gender difference in Internet gratifications

Jackson et al. (2001) take a different approach in explaining the gender gap in Internet use. They suggest that both men and women use the Internet equally, but each gender uses it differently. They argue that people use the Internet to satisfy their motives. They say that communication and information are often associated with positive affects and because "the cognitive requirements for use are compatible with their existing cognitive repertoire" (p.363). Interpersonal communication is the primary reason why people use the Internet. Therefore, it comes as no surprise that e-mail is the number one application used (Carnegie-Mellon University, 1997). Ranked second in motives for using the Internet is information gathering. The Internet's millions of Websites clearly support the need for information (Internet Trends, 1999). Jackson et al. (2001) state that

the need for information is often associated with interpersonal communication because individual's use search engines to find other people.

One of most fundamental principles in psychology is the belief "that behavior associated with pleasant affective experience is repeated, and behavior associated with unpleasant affective experiences is avoided" (Jackson et al., 2001, pp.364). When people experience a pleasant feeling when conducting an activity, they are more likely to repeat this activity. The opposite happens when the experience is negative; they are more likely to avoid this activity.

Women are less satisfied when visiting chat rooms because they are often afraid of being sexually harassed, threatened or flamed (Weiser, 2000). Flamed is a term used to describe "a nasty, electronic response from an offended party" (Greenlaw & Hepp, 1999, p.518). Weiser (2000) says that much of the findings suggest that the primarily purpose for using the Internet is for interpersonal communication, entertainment and information gathering. According to him, such a generalization does not adequately explain the underlying reasons why people use the Internet because people can use the Internet for a variety of interpersonal communication such as e-mail, chat rooms, Multiple User Dungeons (MUDs) and Internet Relay Chat rooms (IRCs). "IRC is a multi-user chat system, where people convene on "channels" (a virtual place, usually with a topic of conversation) to talk in groups, or privately" (<http://www.irchelp.org/irchelp/altircfaq.html>). People are also able to conduct research; make travel arrangements, build Web sites, play games and shop online.

An article titled “Women use Internet for research, not play,” sheds a different light on women’s Internet use. According to the findings provided by the Internet Research Group, EMP Communications, Inc., (2002), most women use the Internet to find information; only 11 percent use it for entertainment. Results also show that women do not find the Internet as entertaining as television or print media. When women go online, they want to find solutions to problems that could make their lives easier. Thus, they do not have the time to read advertising. Their motives for shopping online are not to browse for a specific product, but instead to save time and money. Despite this, 44 percent of the surveyed read e-mail about merchants. Interestingly, the above study found that 44 percent of European women used the Internet to find information about health and medical news compared to 32 percent of men who search for this type of information (EPM Communications, 2002).

CHAPTER III

THEORY

Uses and Gratifications: Traditional media

This study is based on uses and gratifications theory. Uses and gratifications research has endured many modifications since it was first introduced. Media scholars have criticized this theory for not being a social science theory. Ruggiero (2000) argued that many theorists tried to produce a more accurate theory, but several flaws still exist today. First, he adds that uses and gratifications focuses too much on audience consumption and is too individualistic, which “makes it difficult to explain or predict beyond the people studied or to consider societal implications of media use” (p.41). Second, uses and gratifications researchers have created their own lists of motives, thus it produced too many separate categories that are not solid. Third, the validity of individual’s answers might not be reliable because the motives were assumed by researchers. Therefore, it is important for current researchers to pay close attention to “antecedent, mediating and consequent conditions” (p.42). To gain a better understanding of the changes that occurred in uses and gratifications research, we must look at the historical perspectives of this theory.

Historically, uses and gratifications theory was applied to traditional mass media such as television, radio and newspapers. Tan (1981) says that uses and gratifications it is an alternative model to persuasion theory in communication research. Ruggiero (2000) criticizes earlier uses and gratifications research that were conducted during the 1920s, especially the Payne Fund Studies, because they were “effects-orientated studies” (p.4) that failed to focus on individual use of the media.

In his book, *Uses and Gratifications at the Crossroads*, Windahl (1981) notes that effects research examined “mass communication from the perspective of the communicator, whereas uses and gratifications research uses the audience as a point of departure” (Ruggiero, 2000, p.39). Traditional uses and gratifications research was too descriptive and placed audience’s answers into too many categories. Another limitation in earlier studies lies in the relationship between gratifications obtained and the “physiological or social origins of the needs satisfied” (p.39).

Uses and gratifications theory was first introduced in the 1940s and 1950s when mass media researchers were investigating audience behavior. Herta Herzog, a student of Paul Lazarsfeld, “has often been credited as the originator of the uses and gratifications approach” (Baran & Davis, 2003, p.255). During this time, researchers viewed audiences as passive. This perspective changed later during the introduction of new media technology. In the 1960s and early 1970s, mass media professionals conducted systematic research to build onto the model and finally named it the uses and gratifications theory. During the 1960s very little research had been done on what the audience was doing with different types of media and on whether the viewers “were passive consumers of entertainment” (Baran & Davis, 2003, p.255).

Wilbur Schramm, however, addressed active audiences by asking why audiences select certain types of media and ignore others in his book, *The Process and Effects of Mass Communication*, which was written in 1954. His explanation was that people select different types of media based on their level of gratifications “against how much effort they must make to secure that gratification” (Schramm, 1957 as cited in Baran & Davis, 2003, p.257). Baran and Davis (2003) argue that it is easier to get news from television because it requires little effort to flip through the channels. They say that much of the empirical research ignored “audience’s selection, interpretation and use of media content” (p.255). Uses and gratifications research examines individuals’ media needs and how these needs are being satisfied by a particular medium (Hunter, 1994). Before any individual needs can be discussed, it is important to address the four functions of media that meet individuals’ needs.

Function of mass media

According to Tan (1981), media perform four functions. The first function is surveillance, which describes media as an information source of our environment. The second function is escape or diversion; it describes mass media as a stress reliever and a vehicle that disrupts individuals’ daily routines. The third function is personal identity, in which individuals’ identify themselves with mass media. The fourth and final function is social integration, in which media acts as a substitute companion. In other words, mass media serves as a relationship counselor by providing information that could be used by the individual to establish and maintain relationships. In 1964, Mendelsohn identified several functions of radio listening. These included “companionship, bracketing the day,

changing mood, counteracting loneliness or boredom, providing useful news and information, allowing vicarious participation in events and aiding social interaction” (Ruggiero, 2000, p. 41).

Baran and Davis (2003) take a different approach in explaining the functions of the media. According to them, the media perform four functions, which include: “(1) surveillance of the environment, (2) correlation of the parts of society in responding to the environment, (3) transmission of social heritage from one generation to the next and (4) entertainment” (p.259). Media, they say, perform the surveillance of the environment through the dissemination of information. Baran and Davis (2003) define correlation of the parts of society in responding to the environment as the media ability to interpret and analyze activities. The third function of the media is the ability to transmit values and norms from one generation to the next. Finally, the media has the ability to entertain people. Baran and Davis (2003) emphasize the importance of understanding that media cannot serve these functions if people do not make use of certain media content, which will be discussed later in this research.

Tan (1981) says that all of the above functions satisfy audience needs. He adds, “cognitive needs are served by surveillance functions; affective and escapist needs are served by diversion and entertainment function; personal integrative needs are fulfilled by the personal identity function; and social integrative needs are served by the social relation function” (pp.300-301).

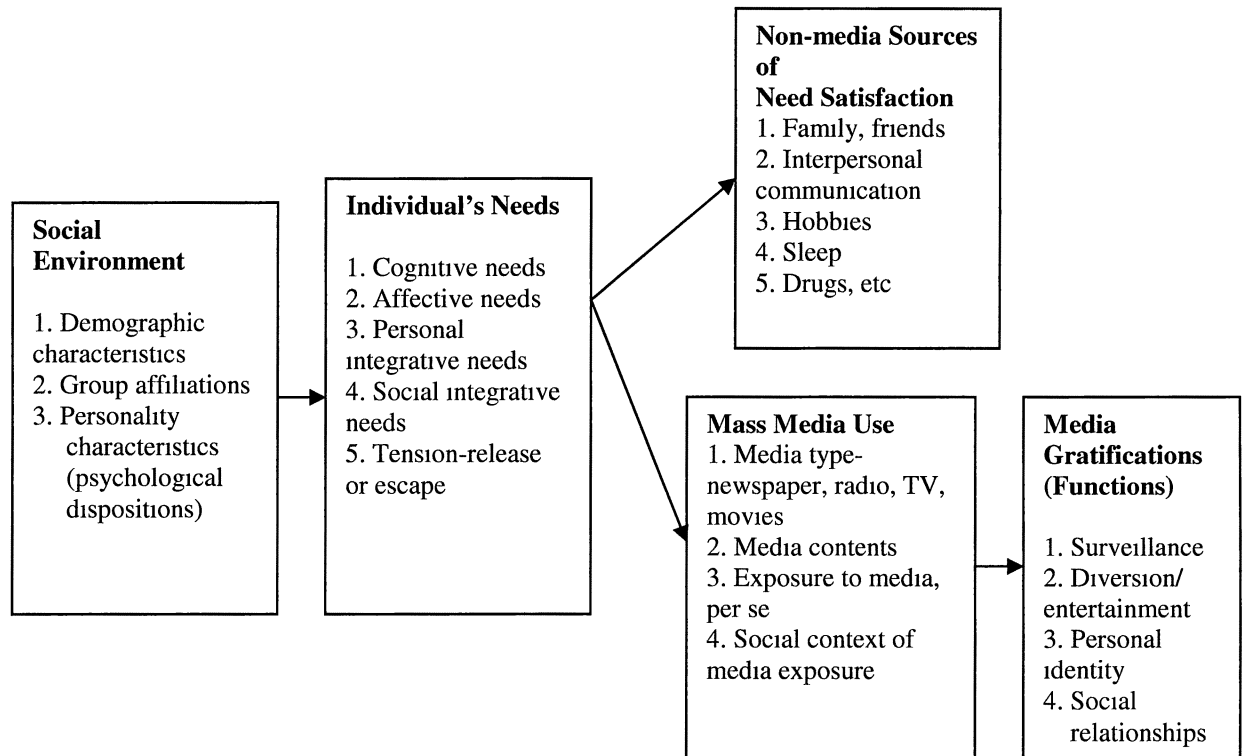
Types of human needs that are being satisfied by mass media

Researchers using this theory begin with the classification of human needs and then proceed with the categorization of these needs into theoretical meaningful categories. Tan (1981) categorized human needs into five categories: (1) *affective needs*, (2) *cognitive needs*, (3) *personal integrative needs*, (4) *social integrative needs* and (5) *escapist needs*. Affective needs are related to the strengthening of individuals' aesthetic pleasures and emotions. Tan (1981) claims that the media can satisfy individuals' pleasure and entertainment needs. Personal integrative needs are derived from individuals' need for self-esteem, and "are related to strengthening credibility, confidence stability and status of individuals" (p.298).

Cognitive needs are those that strengthen people's knowledge base and lead to a better understanding of their environment. These needs may also satisfy individuals' curiosity and exploratory drives. Social integrative needs are derived from individuals' desire for affiliation, and are related to strengthening relationships with friends, family members, and the rest of society. Escapist needs are those that are derived from individuals' tension release and desire for change. The escapist model of media use, especially in television viewing, has often been cited by those who support the concept of passive audience (Ruggiero, 2000).

According to McQuil, Blumler and Brown (1972), the escapist model presumed that audiences watch television primarily to pass time and "that television programming is primarily homogenous in gratifying a time-filling behavior" (Ruggiero, 2000, p.43). In 1988, Horna found that most individuals related leisure with mass media (as cited in Tan, 1981). The uses and gratifications model is demonstrated in Figure 3.1

Figure 3.1: Mass media uses and gratifications model



Source: From "Mass Communication Theories and Research," by A.S. Tan, 1981. Columbus:

Grid. Copyright 1981 by Grid Publishing, INC. Adapted with permission of the author.

Uses and Gratifications: Internet

The Internet may be a new media technology, but it is also an extension of traditional media. New technology has altered the uses and gratifications theory because the media environment has been broadened. Rao (2002) adds that because new media evolves constantly, it alters the "media habits of people" (p.109). It has also brought users greater opportunities for personalized gratifications (Williams et al., 1985).

Since the active audience concept is gaining more credibility with new communication technology, the uses and gratifications approach becomes more important in investigating audience behavior. Thus, Reagan (1996) suggests that researchers should take a different approach in labeling media users as just television or newspaper orientated, and “consider them as users of “cross-channel clusters of information source” (Ruggiero, 2000, p.5).

The Internet offers users the ability to build their own media repertoire. In other words, the Internet allows users to create their own music, videos and Web sites. Based on this perspective, users build their media repertoire within the Internet. Singer (1998) says that the Internet is a “medium with the capability to empower the individual in terms of both the information he or she seeks and the information he or she creates” (<http://www.ascusc.org/jcmc/vol4/issue1/singer2.html>). Yet, others view the Internet as an enrichment where individuals can create relationships with people from all over the world, something that is not yet possible with traditional media.

Rafaeli (1986) argued that the Internet might lead to loneliness and isolation. Kraut et al. (1998) concluded that greater Internet use leads to depression and loneliness because the amount of time spent on the Internet reduces time spent communicating with family and friends. Despite this, many uses and gratifications scholars agree that the concept of active audience needs to be revised when applied to the new media technology. Papacharissi and Rubin (2000) add that new media technologies could help researcher’s to determine how individuals use technology to express their identities, emotions and social roles.

Needs satisfied by the Internet

The Internet and the World Wide Web satisfy different needs in different ways than traditional mass media did. Hunter (1994) claims that the Web addresses all of the previous-mentioned needs. He says that the Internet has a lot more information than traditional mass media. Entertainment sites, for example, fulfill affective needs. The Internet's tremendous volume of information satisfies individual's cognitive needs. The Web has the ability to improve people's status, self-confidence and self-esteem, thus, satisfying personal integrative needs. Because the World Wide Web has no geographical boundaries, individuals can communicate with people worldwide and therefore satisfy their social integrative needs. Finally, the Web satisfies individual's escapist needs because of its Web surfing capability. People can become part of a fantasy world in which they create their own persona. They can explore new sites and release tensions by visiting sites like Playboy and Penthouse.

There are many reasons why individuals use the Internet, but one must understand that each person has different motives for doing so. For example, those individuals that are goal directed are more likely to search the Internet for specific Web sites than those that are just curious and surf the Web to pass time (Ruggiero, 2000) A study conducted by Papacharisi and Rubin (2000) found that computer users use the Internet for information seeking and entertainment. Ranked among the lowest activity for using the Internet was interpersonal communication and passing time. Those who used e-mail used it for information gathering and entertainment. Men used the Internet primarily for entertainment. They also found that women used e-mail and computer-mediated communication more than men did. Those who used the Internet more frequently also

used the Internet to satisfy the “needs of affection, inclusion, expression, social interaction, control and surveillance” (p.188).

Interactivity

Baran and Davis (2003) add that the uses and gratifications theory, when applied to new communication technology, may also provide researchers with a better understanding to “how and why various computer-based or wireless communication services are used to supplement and in some cases replace older media” (p.263). They argue that the Internet offers researchers additional opportunities to investigate communication behavior for uses and gratifications because the Web offers interactivity, demassification, asynchronicity and ubiquity. Interactivity, they say, reinforces the notion of active users because users can interact with the medium.

Interactivity, according to Williams, Rice and Rogers (1998), strengthens the notion of the active audience of uses and gratifications research because it has been defined as the “degree to which participants in the communication process have control over, and can exchange roles in their mutual discourse” (Ruggerio, 2000, p.10). According to Ha and James (1998), there are five kinds of interactivity: playfulness, choice, connectedness, information collection and mutual communication. They add that playfulness and choice satisfies Web-surfers self-communication and entertainment needs. Task-orientated users satisfy their information needs through connectedness, which is another part of interactivity. Expressive users find satisfaction from gathering information and initiating communication with others.

Heeter (1989) defines interactivity as a “multidimensional concept that includes the amount of choices available to users, the degree of effort needed to access information, the amount of interactivity and the degree to which a media system facilitates interpersonal communication between specific users”(Ruggiero, 2000, p.39). Williams et al (1985) add that the interactivity of electronic mail may gratify individuals’ need for accomplishing a specific task.

Demassification

Demassification offers individuals greater choices of information and as a result, they are able to tailor information according to their preference. Williams et al. (1988) define demassification “as the control of the individual over the medium, which likens the new media to a face-to-face interpersonal communication” (as cited in Ruggiero, 2000, p.47). An example of demassification is provided by Kuehn (1994), who cited the *New York Times*. He says that the online edition of the newspaper offers users the choice to select only those articles that are of interest to them (as cited in Ruggiero, 2000).

Ubiquity and Asynchronicity

Since the Internet and the Web are ubiquitous, meaning it is everywhere, and asynchronous, people can send and receive information anywhere at any time. Williams et al. (1998) define asynchronicity as the “concept that messages may be staggered in time” (Ruggiero, 2000, p.39). Internet users can send, receive and e-mail messages at their convenience. Individuals who are using e-mail have the ability to store, print, duplicate text and messages, or forward messages and graphics to other individuals.

Thus, these features offer uses and gratifications additional communication behavior to investigate (Ruggiero, 2000).

Gratifications

Unlike traditional media, the Internet offers users more choices and opportunities to obtain gratifications. Williams et al. (1985) conducted a study about the various types of new technology, which included electronic mail, teleconferencing and interactive services. Some scholars may argue that this information is outdated, but these features are still current today. They pointed out that the above services provided users with more choices, control over the selection and interactivity. The success of new technology depends on whether it provides certain types of advantages to users such as convenience and cost. Even though services such as interactive banking and shopping may provide advantages for some users, these advantages outweigh the disadvantages of the losing social interaction. In sum, these services may provide convenience, but they are not worth sacrificing time spent on other activities such as social interaction.

Williams et al. (1985) predicted that electronic bulletin boards become more popular when more people acquire computers. They say, “the choice to use such systems seems to reflect various motives” (p.248). Choice consists of users’ desire to “establish and maintain contacts outside one’s own home” (p.248). They also question whether there are other satisfactions besides the ease of keeping in touch with other people. Electronic mail for example, is often used to maintain personal relationships. Thus, the “personalization is an important gratification associated with some media technologies” (p.248).

As mentioned earlier, uses and gratifications theory is an audience-centered approach in which media use is a goal directed activity. In other words, the core of uses and gratifications theory is that individual's select the types of media based on their needs and expectations and that "those needs will be satisfied by particular types of media and content" (Ruggiero, 2000, p.46). Earlier research did not focus on gratifications sought, instead it focused on outcomes and gratifications obtained (Ruggiero, 2000). Williams et al. (1985) add that few studies have been conducted on new communication technologies. This may be because "the most pressing research issues have had less to do with certain types of media than with conceptualizing the behavioral and social process of selection and gratifications" (p.244). They say that uses and gratifications research explains how individuals use media, but media characteristics change over time. That is why it is important to examine new media technology and investigate "how or if gratifications change with media characteristics and how new media are perceived and used" (p.244). Scholars such as McLeod, Bybee and Durall (1982) argue that uses and gratifications research should distinguish between gratifications sought and gratifications obtained because these are two different things.

Scholars such as Elliott (1974) and Swanson (1977) pointed out weaknesses that occurred in earlier uses and gratifications research, such as "(a) a vague conceptual framework, (b) a lack of precision in major concept, (c) a confused explanatory apparatus and (d) a failure to consider audiences' perception of media content" (Ruggiero, 2000, p.37). Katz, Gurevitch and Haas (1973) later addressed these issues by creating a list of various social and psychological needs that may satisfy individual's media exposure. In 1979, Blumler identified the origins of media gratifications. These included "normative

influences, socially distributed life changes and the subjective reaction of the individual to the social situation” (Ruggiero, 2000, p.37).

Variables that lead to gratifications

Despite this, Katz, Gurevitch & Haas (1973) suggested that mass media uses variables that can lead to media gratifications. These variables include media content, media attributes and typical exposure. Media content, as defined by the above scholars, includes news, soap operas, television crime drama, etc. Media attributes include print versus broadcasting; reading versus audio or audiovisual models of reception. Typical media exposure situations are at home versus out-of home, alone versus with others.

Based on this perspective, Perse and Ferguson (2000) argue that people select certain media content based on expectations that will satisfy their motives. Therefore, “media use is associated with gratifications obtained, which can be expected (i.e., based on the motives for selecting the content) or unexpected (unrelated to motives for selecting the content)” (p.345). Gratifications obtained from media use become an important part of uses and gratifications because these gratifications can either reinforce or change people’s perception of media selection, use or choice. When audience member’s gratifications are met, they will continue to select that channel and if gratifications are not met, they will reject that channel (Perse & Ferguson, 2000).

Hunter (1994) says that the Web provides three main gratifications, which are browsing, information seeking and entertainment. Browsing and exploration gratifications “can be seen as an extension of their effective and cognitive needs” (<http://www.asc.upenn.edu/usr/chunter/webuses.html>).

A study conducted by Nielsen / NetRatings (2002) found that 90 percent of Internet users were surfing the Web for exploratory purposes. People gain satisfaction from simply exploring the Web, which in turn satisfies both their affective and cognitive needs. The second needs that the Web fulfills are informational or cognitive needs (Hunter, 1994). According to Nielsen/ NetRatings (2002), 73 percent of Internet users use the Web for information gathering. He concluded that the Web primarily satisfies cognitive and affective needs.

There are additional factors that affect individuals' motives for using media outlets. According to Papacharissi & Rubin (2000), three interpersonal factors such as inclusion, social interaction and control affect audience motives in terms of media use. Rubin et al. (1988) added six additional factors that contribute to individuals motives, which included pleasure, affection, inclusion, escape, relaxation and control.

Previous research on new technologies focused more on the interactive and information gathering and compared traditional face-to-face communication with new technologies, but computer-mediated communication (CMC) has much more to offer. It has the capability of providing users with a tremendous amount of information and the capability to extend people's social interactions. These extra features explain why information that is obtained from the Internet may be more gratifying than information obtained from television, radio or newspaper (Papacharissi & Rubin, 2000). In addition, the Internet provides in-depth information, which might make the additional effort of browsing and reading more enjoyable (Harwood, 1999). Thus, CMC "creates a social cultural network where people can fulfill informational and interactive needs" (Papacharissi and Rubin, 2000, p.176). Uses and gratifications may also be used to

investigate the relationship between people and technologies. According to this perspective, uses and gratifications may also determine why and how people use technologies to enhance their identities, emotions and social status (Papacharissi and Rubin, 2000).

Harwood's (1999) study supports this argument. He adds that individuals seek media outlets that strengthen their identity. His study examined media role in terms of social identity gratifications. This sample included 236 participants with a mean age of 19.5 years. Participants watched 58 shows, which included prime time and minor networks. Viewers were exposed to shows featuring younger and older people. After viewing, participants were asked to rate these television shows based on a four-point scale. Results revealed a significant difference ($p < .001$) between social identification and age. In other words, both younger and older participants identified themselves with television characters of their age group.

Another approach in theorizing gratifications obtained from the Internet is that the Internet has extended the social ability to interact with the new medium; therefore, it is important to examine "the personal and social attributes that affect why people use computer mediated communication (CMC) and the outcomes of CMC-related behavior" (Papacharissi and Rubin, 2000 p.175). Previous uses and gratifications research studied motives and outcomes of communication within interpersonal and mediated contexts. Unlike telephone and voice mail, CMC lacks verbal cues, thus CMC reduces social presence, which is a sense that others are physically present. A study conducted by Perse et al (1992) found that college students who used computers more frequently rated CMC more socially present (Papacharissi & Rubin, 2000).

To find the benefits associated with Web surfing, Perse and Ferguson (2000) hypothesized that Web surfing benefits would be associated with Web use and that Web surfing benefits would be associated with perceived value of Web surfing. In addition to monetary costs, there are opportunity costs, which include time spent on one activity, thus replacing another activity such as family time. Factors that contribute to opportunity costs include computer and Internet access, computer skills, connection speed and the willingness to surf. Results showed that the monetary costs associated with Web surfing affected media use. Those who had computer and Internet skills were more likely to surf the Web than those who did not. People who have high-speed Internet access were more likely to surf the Web than the ones who had dial-up modems. Users of dial-up modems were more frustrated by the slow connection speed and as a result, they lost a lot of time surfing the Web.

According to uses and gratifications theory, content contributes to the gratifications obtained from use. Perse and Ferguson (2000) found that college students used the Web to pass time and for entertainment. Escape, excitement and companionship were ranked among the most important benefit of surfing the Web. Learning, however, was related to passing time, companionship and relaxation. Thus, they suggest that the Internet reduces social contacts. In addition, people who use computers more frequently are more likely to fill media related needs than those who use computers less frequently (Perse & Dunn, 1998).

Significance

Germany has always been known for its technological invention and scientific expertise. When the Internet was introduced in Germany about 1995, it lagged behind its competitors. Once people discovered the Internet, and the German government deregulated the telecommunications market, people scrambled to participate. However, one problem still exists; men (62.6 percent) outnumber women (45.2 percent) by a significant percentage (ARD/ZDF, 2003b). Advertising, marketing and the entertainment industries can benefit from studies that examine gender differences. They can use this information to create an efficient marketing tool, making it easier to target certain groups. Academic institutions can also benefit from such studies. Computer science departments can use this information to recruit more women. Using this information to create programs in universities and colleges can appeal to both men and women (Weiser, 2000). Very little research has been done regarding the uses and gratifications of the Internet, especially in Germany, or on gender differences. Therefore, this research will contribute to the field of mass communication and cyber-related studies.

Hypotheses

This study will examine the gender difference in Internet uses and gratifications in Germany. Based on previous literature and the theoretical framework of uses and gratifications theory, the following hypotheses have been formed:

H₁: There will be a relationship between gender and Internet use.

H_{1a}: There will be a relationship between gender and amount of time spent on the Internet.

H_{1b}: There will be a relationship between gender and frequency of

Internet use.

H_{1c}: There will be a relationship between gender and types of Internet use.

H_{1d}: There will be a relationship between gender and reasons for using the Internet.

H_{1e}: There will be a difference between demographics and Internet use.

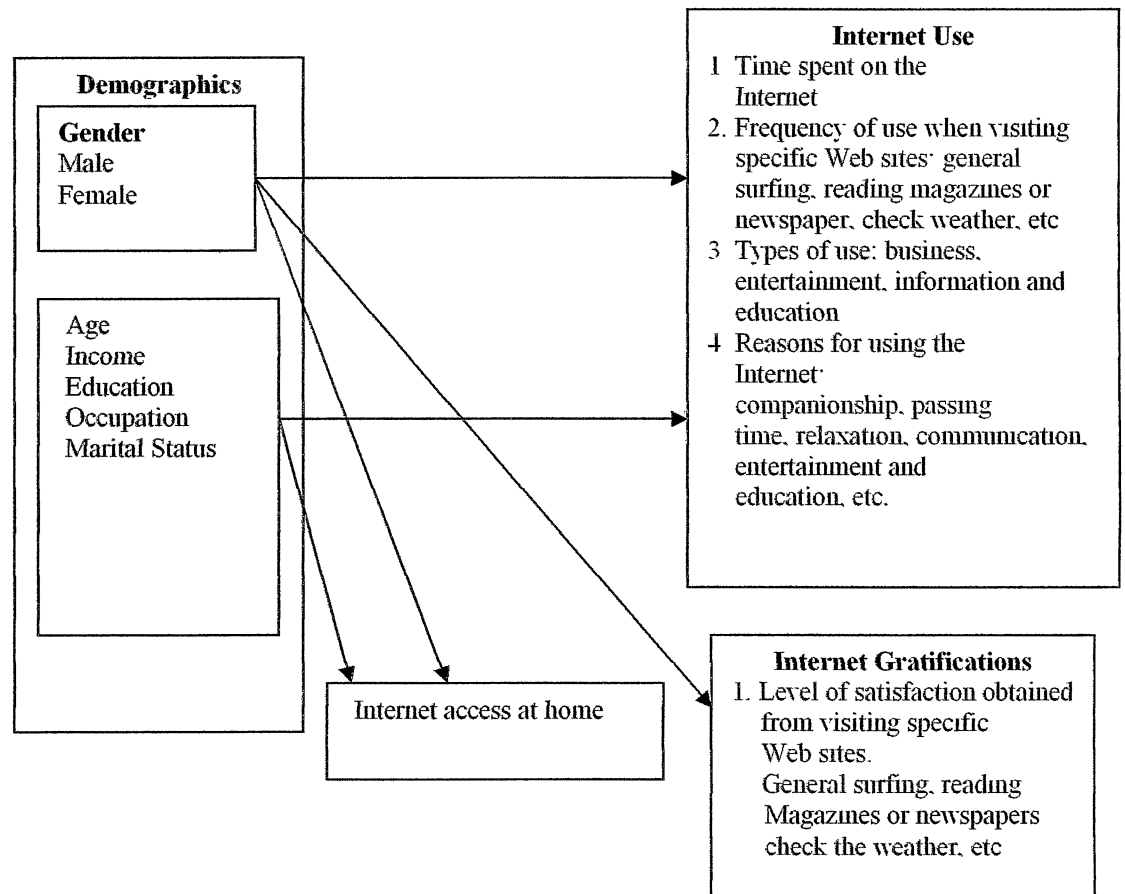
H₂: There will be a relationship between gender and Internet gratifications.

H_{2a}: There will be a relationship between gender and level of satisfaction obtained from visiting different Web sites.

H_{2b}: There will be a relationship between gender and Internet ownership at home.

The researcher specifically developed the Internet uses and gratifications model for this study as demonstrated in Figure 3.2.

Figure 3.2. A model of the study: Internet uses and gratifications



CHAPTER IV

METHODOLOGY

Sample Selection

The survey method was used to examine the problem. The sample consisted of 62 respondents. The respondents were all residents of Germany and were contacted via e-mail with the assistance of personal and professional contacts residing in Germany. Before any questionnaires were sent out, the researcher first mailed a letter to the contacts detailing the purpose and timeframe of the study. After individuals confirmed that they would be willing to assist, the researcher sent each an e-mail with the questionnaire attached to it.

Sample Timeframe

This study was carried out between September and October of 2003. The questionnaire was constructed based on previous research. Those willing to respond mailed the questionnaires either via e-mail attachment or via regular mail to the researcher. In addition, the researcher created an online version of the questionnaire (http://home.satx.rr.com/lssfritz/page02a_files/Survey%20Deutsch.htm) so that others could easily retrieve it.

The completed questionnaires were received either directly from the respondents or via the professional contacts in Germany.

Questionnaire

A pilot study was carried out in the spring of 2003 to pre-test the questionnaire for accuracy and reliability. The questionnaire was pre-tested on a group of mass communication students in a mid-size University located in Central Texas. The study investigated the gender differences in Internet uses and gratifications among female and male college students. The questionnaire contained 24 questions that addressed computer ownership, Internet access, time spent on the Internet, the frequency of Internet use, degree of satisfaction when using the Internet and reasons why they use the Internet. The survey generated 102 responses. Participants included 37 males and 65 females between the ages of 18-to 35.

The questionnaire consisted of some items measured on a Likert-scale, for example, frequency of Internet use (frequently, occasionally, rarely and never) and level of satisfaction of using the Internet (very satisfied, satisfied, neutral, dissatisfied and very dissatisfied). After all questionnaires were received, the researcher coded the questionnaire and used SPSS for analysis.

Since the main purpose of pre-testing was to check the questions for accuracy and reliability, it was felt that using samples here in the U.S.A. would be sufficient. The researcher is based in the U.S.A.; it was difficult to access Germans residing in Germany for pre-testing purposes. In addition, the German culture tends to resemble the American culture.

After the pilot study was completed, the researcher made the necessary adjustments. Changes included demographics, Internet activities and gratifications categories, top-ten Web sites, time spent on the Internet and reasons for using the Internet. In terms of demographics, the researcher changed the age groups so that any age group using the Internet could respond. Since the target group included Germans from all socioeconomic groups, the researcher deleted questions pertaining to academics, such as number of years in college, GPA and major and minor. In addition, income had to be changed to reflect Germany's currency and wages. Germany's minimum wages are higher than are those in the U.S. According to the Federal Statistics Office Germany (2003), salaried workers earn between 30,204 to 43,068 euros per year. Workers who receive an hourly wage earn between 22,044 to 29,808 euros per year. The pre-test did not include occupation, which was added to the final questionnaire.

The researcher added one Internet activity and gratifications category to differentiate between finding information about travel or vacations and booking vacations. Questions pertaining to amount of time spent were changed from open-ended questions to scales. Finally, the researcher deleted two items in the list of reasons for using the Internet. Because of language translation difficulty, it was necessary to delete the terms "escape and excitement" in relationship to why Germans use the Internet.

Most of the questions in this study were closed-ended. Some questions included "yes and no" answers, others used a Likert-Scale. After all questionnaires were collected, the researcher coded the responses and analyzed the data in October 2003 by using the Statistical Package for the Social Sciences (SPSS).

Definition of Terms

Internet use was measured on a four-point scale: Frequently (1), occasionally (2), rarely (3) and never (4). Types of Internet activities included 14 categories based on previous research, such as general surfing, creating Web sites, using search engines, reading or writing e-mails, information gathering, visiting pornographic sites and visiting or participate in chat rooms.

Internet gratifications were measured on a five-point scale: Very satisfied (1) satisfied (2), neutral (3), dissatisfied (4) and very dissatisfied (5). The same categories that applied to Internet activities were used for gratifications.

Amount of time spent on the Internet was measured in two parts: (1) Hours per week used was measured on a 7 point scale beginning with less than 1 hour to more than 10 hours. (2) Days per week used were measured on an 8-point scale beginning with 0 -7 days per week.

Frequency of using the Internet was measured on a four-point scale: Frequently (1), occasionally (2), rarely (3) and never (4). Four categories were selected based on previous research. These included business, entertainment, information and education.

Demographics: demographics included gender, age, income, education, occupation and marital status. Anyone using the Internet could respond. Income included six categories: less than 12.000 euros (1), 12.000-24.000 euros (2), 24.000-36.000 euros (3), 36.000-48.000 (4), 48.000- 60.000 euros(5) and 60.000 and over (6). Education included eight categories such as minimum high school requirements (9th Grade), high school (10th Grade), vocational school, associates degree (includes people that finished the universities core curriculum), bachelor's degree, master's degree, Ph.D.

and no high school diploma. Occupation included nine categories such as salaried worker, government or State employee (includes people who work for both the public and private sector), entrepreneur, homemaker, university student, high school student, retired, apprentice, and unemployed. Marital status included five categories: married, single, widowed, divorced and living with a partner (describes those people that live with a significant other and share all of their earnings).

CHAPTER V

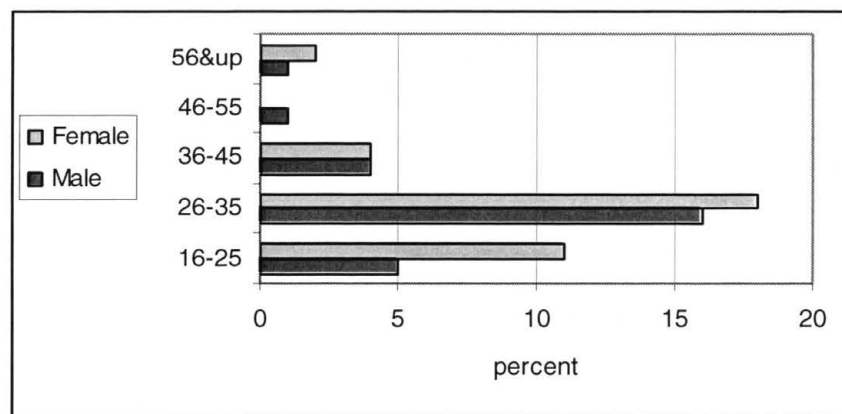
FINDINGS

Audience Profile

The audience ranged between the ages of 16 to 56 years- old and older. The majority of the sample fell in the age group of 26 to 35 years old. This age group was composed of 59 percent men and 51 percent of the women. The second largest percentage of the sample fell in the age group of 16 to 25. Thirty-one percent of the women and only eight percent of the men fell in this age group (Figure 5.1).

Figure 5.1

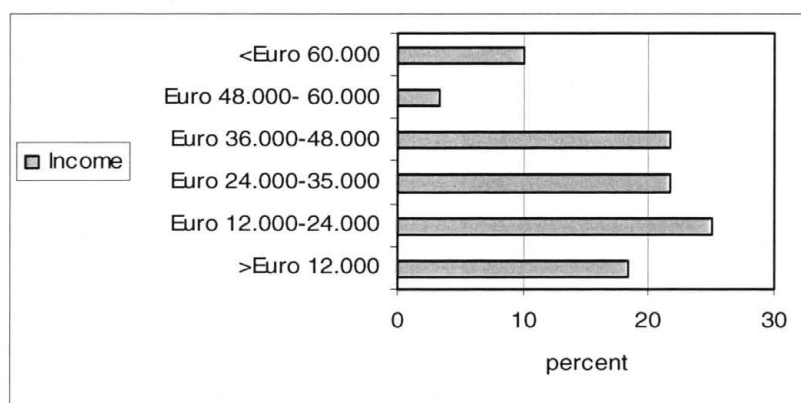
Age and Gender



Most of those surveyed had an income of 48,000² and below. Few earned above 48,000 euros. This finding supports the data provided by the Federal Statistics Office Germany (2003) that a salaried employee earns 44,000 euros per year (see Figure 5.2).

Figure 5.2

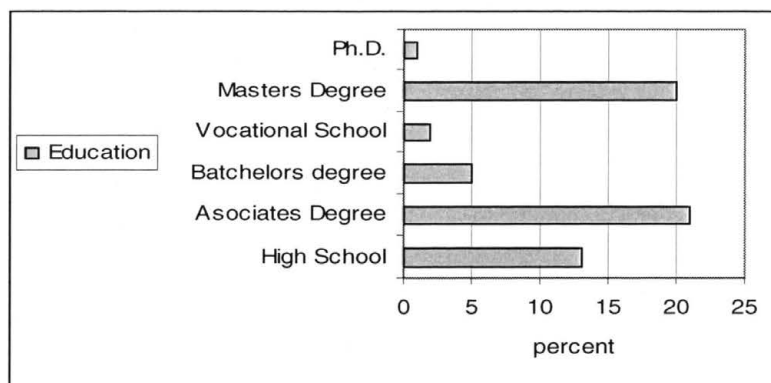
Combined annual household income in euros



Thirty-three percent of the respondents had an associate's degree followed by those who had a master's degree (32.2 percent). See Figure 5.3.

Figure 5.3

Education of respondents

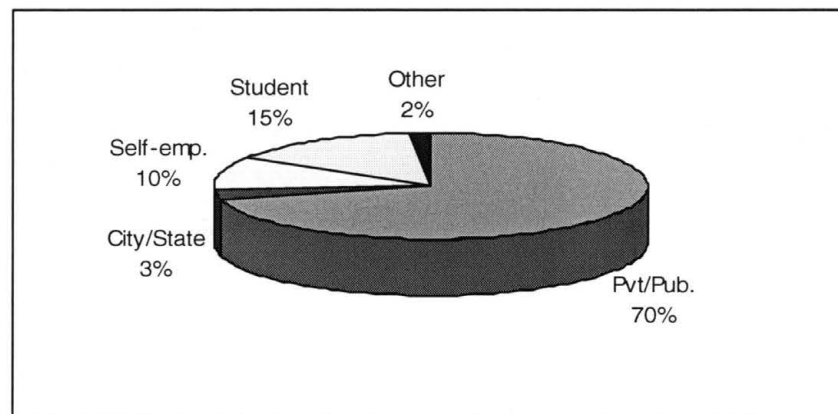


² 48,000 Euro = 56,569 USD (<http://www.xe.com/ucc/convert.cgi>).

The largest groups of respondents were salaried workers (70 percent), which include anyone working for the public or private sector. Others worked for the city or state, were self-employed, or students (see Figure 5.4).

Figure 5.4

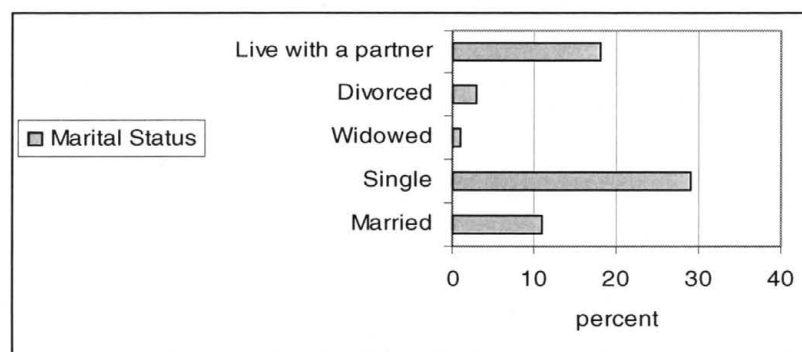
Occupation of respondents



A large number of respondents (46.8 percent) were single. This was followed by those who live with a partner (29 percent). This group includes anyone who lives with a significant other and share all of their earnings (see Figure 5.5).

Figure 5.5

Marital statuses of respondents



Hypothesis (H₁): Relationship between gender and Internet use

Hypothesis (H₁) included several sub-hypotheses that needed to be analyzed separately. H_{1a} investigated whether or not men spend more time on the Internet than women do. An independent-samples *t* test was calculated comparing the mean score of men and women in terms of hours spent on the Internet. A significant difference was found in the mean time men spent on the Internet ($m = 5.2$, $sd = 1.88$) and mean time spent by women ($m = 4.08$, $sd = 1.91$). H_{1a} was supported (see Table 5.1).

Table 5.1

T-test for time spent on the Internet

Variable	N	Mean	S.D.	df	<i>p</i>
Men	27	5.22	1.88	60	.023
Women	35	4.08	1.91		

MANOVA was performed to test H_{1b}, which stated that there would be a relationship between gender and frequency of Internet use. MANOVA was calculated examining the frequency of Internet use (frequently, often, sometimes, rarely and never). A significant difference was found (Wilks's Lambda = .267, $p < .05$). Results indicated that participating in newsgroups, visiting pornographic Web sites, reading magazines and newspapers online and checking sports scores contributed the most to the gender difference in frequency of Internet use. H_{1b} was supported (see Table 5.2).

Table 5.2

MANOVA for frequency of Internet use

Test	Value	F	Hypothesis df	Error df	Sig
Pillais	.733	2.87	23.00	24.00	.006
Hotellings	2.75	2.87	23.00	24.00	.006
Wilks's	.267	2.87	23.00	24.00	.006

H_{1c} , stated that there would be a relationship between gender and types of Internet use. MANOVA was performed to test H_{1c} . MANOVA was calculated examining the frequency (frequently, often, sometimes, rarely and never) of using the Internet for specific types of use, such as information gathering, education, entertainment and communication. H_{1c} was not supported (Wilks's Lambda = .832, $p > .05$). See Table 5.3 for results.

Table 5.3

MANOVA for gender and types of Internet use

Test	Value	F	Hypothesis df	Error df	Sig.
Pillais	.168	1.06	7.00	37.00	.403
Hotellings	.202	1.06	7.00	37.00	.403
Wilks's	.832	1.06	7.00	37.00	.403

In order to test H_{1d} MANOVA was used. It was hypothesized that there would be a relationship between gender and reasons for using the Internet. MANOVA found no significant difference (Wilks's Lambda = .796, $p > .05$). See Table 5.4.

Table 5.4

MANOVA for reasons for using the Internet

Test	Value	F	Hypothesis df	Error df	Sig.
Pillais	.204	1.97	7.00	54.00	.075
Hotellings	.257	1.97	7.00	54.00	.075
Wilks's	.796	1.97	7.00	54.00	.075

H₂ Relationship between gender and Internet gratifications

MANOVA was performed to test H_{2a} . It was hypothesized that there would be a relationship between gender and the level of satisfaction (very satisfied, satisfied, neutral, dissatisfied and very dissatisfied) obtained from visiting different Web sites. A significant difference was found (Wilks's Lambda = .168, $p < .05$). Further, it was found that using search engines, listening or downloading music and reading information about health and medical related issues contributed the most to the difference. H_{2a} was supported (see Table 5.5).

Table 5.5

MANOVA for level of satisfaction

Test	Value	F	Hypothesis df	Error df	Sig.
Pillais	.832	4.72	23.00	22.00	.000
Hotellings	4.94	4.72	23.00	22.00	.000
Wilks's	.168	4.72	23.00	22.00	.000

H_{2b} suggested that there would be a relationship between demographics and Internet access at home. Chi-square test of independence was performed to test the hypothesis. A significant difference was found (Pearson Chi-square = $p < .05$). More women than men had Internet access at home. The largest number of Internet users who had Internet subscription at home fell between the ages of 25 to 35. No significant differences were found in any of the other demographic categories. H_{2b} was partially supported (see Table 5.6).

Table 5.6

Chi-square for characteristic of Internet User and Non-Internet User

	Internet		No Internet	
	%	N	%	N
Sex*				
Male	49	26	11.1	1
Female	51	27	88.9	8
Age				
16-25	24.5	13	33.3	3
26-35	54.7	29	55.5	5
36-45	15.1	8	0	0
46-55	1.9	1	0	0
56 and older	3.8	2	11.2	1
Education				
High School	21	11	22.2	2
Associates degree	32.1	17	44.5	4
Bachelors degree	9.4	5	0	0
Vocational School	3.8	2	0	0
Masters degree	32.1	17	33.3	3
Ph.D.	1.9	1	0	0
Income (in euros)				
Below 12,000	21.6	11	0	0
12,000-24,000	22.5	12	33.3	3
24,000-36,000	19.6	10	33.3	3
36,000-48,000	19.6	10	33.3	3
48,000-60,000	3.9	2	0	0
60,000 and higher	11.3	6	0	0
Occupation				
Salaried employee	68	36	88.9	8
City/ State employee	3.7	2	0	0
Self-employed	9.4	5	11.1	1
Student	17	9	0	0
Other	1.9	1	0	0

* p< 05 across Internet subscribers and non-Internet subscribers

This study also examined issues regarding language and most frequently used medium. Chi-square test of independence was performed to test gender differences in types of medium most frequently used for education, information gathering, entertainment, relaxation, companionship and passing time. A significant difference was found (Pearson Chi-square = $p < .05$). Results indicated that newspapers were most frequently used for educational purposes. The Internet was the preferred medium for information gathering and companionship. Television was most frequently used for entertainment and relaxation (see table 5.7).

Table 5.7

Chi-square for medium most frequently used

	Chi- Square	df	Sig.
Education	40.33	3	.000
Information gathering	27.86	3	.000
Entertainment	85.15	3	.000
Relaxation	69.87	3	.000
Companionship	27.41	4	.000
Passing time	52.85	4	.000

Chi-square test of independence was performed to test German user's language fluency. A significant difference was found (Pearson Chi-square = $p < .001$). Fifty –eight percent of the users were proficient in both English and German language. Twenty-five percent of the users were proficient in more than two languages (see Table 5.8).

Table 5.8

Chi-square test for languages spoken

	Chi- Square	df	Sig.
Language fluency	33.72	12	.001

Respondents were asked whether they agreed, disagreed or had no opinion regarding the following question: (1) English loanwords that have been adapted into the German vocabulary since the invention of the Internet are endangering the German language. (2) I feel that much of the information that is available on the Internet is in English. (3) I believe that more Web sites should be written in German. (4) I believe that more websites should have translation links so that they can be retrieved in many languages. (5) I believe that the German language should not adopt English loanwords. (6) The spread of Denglish (English vocabulary that has been adopted into the German language) has spread more since the Internet was first introduced.

An independent -samples *t* test was calculated to compare the mean score of men and women regarding English language dominance on the Internet. A significant difference was found only ($t(60) = -.710, p < .05$) in the mean of English loanwords that need to be kept out of the German language (see Table 5.9)

Table 5.9

T-test for English language dominance on the Internet

Variable	N	Mean	S.D.	df	p
Men	27	2.44	.800	60	.048
Women	35	2.57	.608		

CHAPTER V

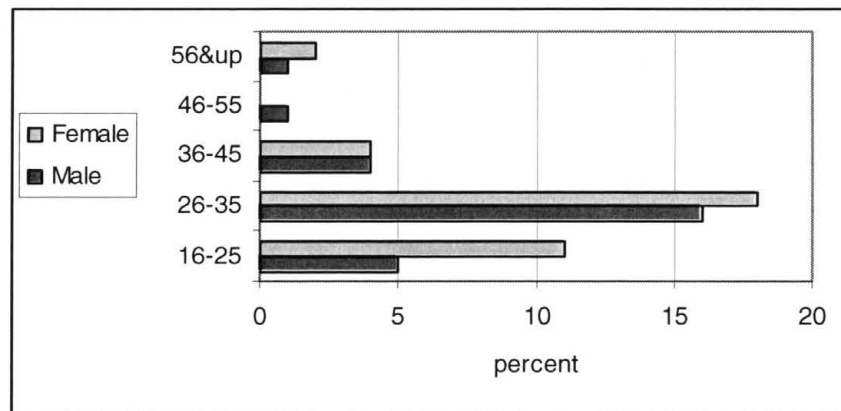
FINDINGS

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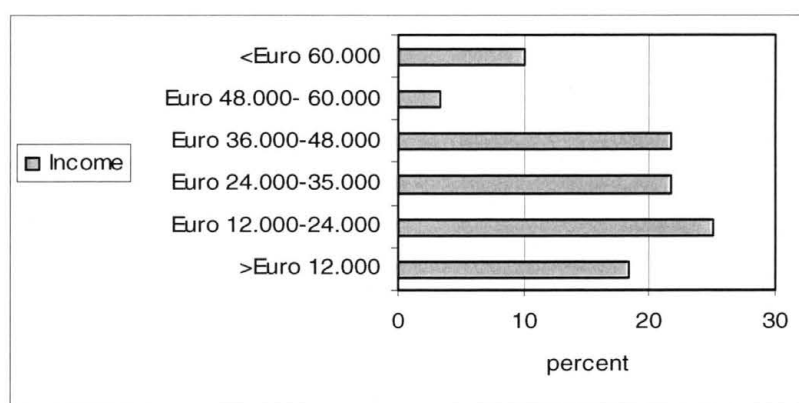
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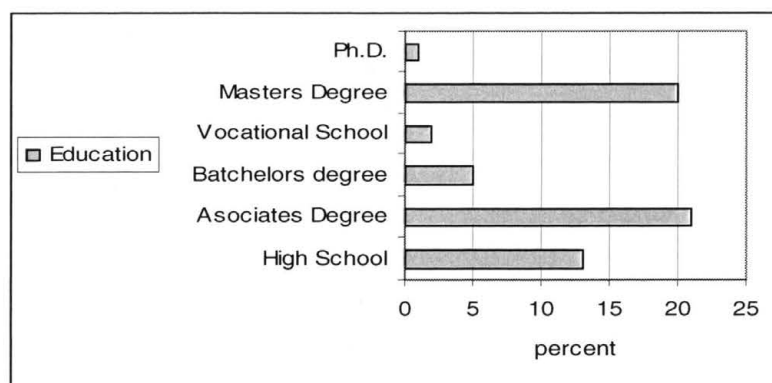
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Figure 5.3

Education of respondents

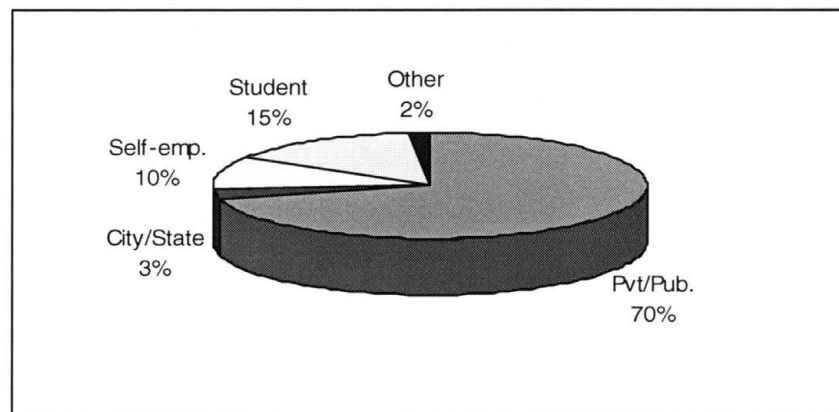


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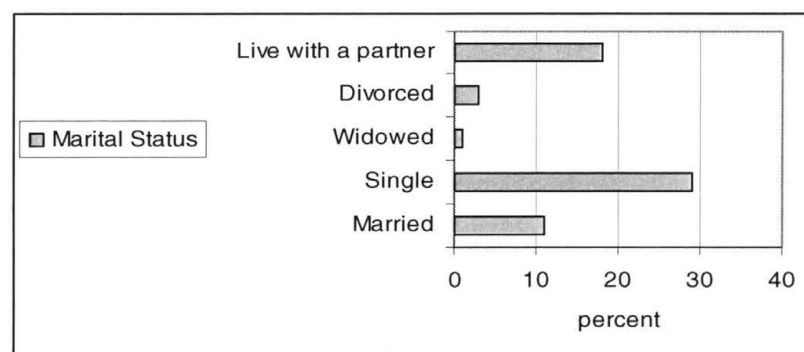
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MANOVA for frequency of Internet use

Test	Value	F	Hypothesis df	Error df	Sig
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In order to test H_{1d} MANOVA was used. It was hypothesized that there would be a relationship between gender and reasons for using the Internet. MANOVA found no significant difference (Wilks's Lambda = .796, $p > .05$). See Table 5.4.

Table 5.4

MANOVA for reasons for using the Internet

Test	Value	F	Hypothesis df	Error df	Sig.
Pillais	.204	1.97	7.00	54.00	.075
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Wilks's	.168	4.72	23.00	22.00	.000

H_{2b} suggested that there would be a relationship between demographics and Internet access at home. Chi-square test of independence was performed to test the hypothesis. A significant difference was found (Pearson Chi-square = $p < .05$). More women than men had Internet access at home. The largest number of Internet users who had Internet subscription at home fell between the ages of 25 to 35. No significant differences were found in any of the other demographic categories. H_{2b} was partially supported (see Table 5.6).

Table 5.6

Chi-square for characteristic of Internet User and Non-Internet User

	Internet		No Internet	
	%	N	%	N
Sex*				
Male	49	26	11.1	1
Female	51	27	88.9	8
Age				
16-25	24.5	13	33.3	3
26-35	54.7	29	55.5	5
36-45	15.1	8	0	0
46-55	1.9	1	0	0
56 and older	3.8	2	11.2	1
Education				
High School	21	11	22.2	2
Associates degree	32.1	17	44.5	4
Bachelors degree	9.4	5	0	0
Vocational School	3.8	2	0	0
Masters degree	32.1	17	33.3	3
Ph.D.	1.9	1	0	0
Income (in euros)				
Below 12,000	21.6	11	0	0
12,000-24,000	22.5	12	33.3	3
24,000-36,000	19.6	10	33.3	3
36,000-48,000	19.6	10	33.3	3
48,000-60,000	3.9	2	0	0
60,000 and higher	11.3	6	0	0
Occupation				
Salaried employee	68	36	88.9	8
City/ State employee	3.7	2	0	0
Self-employed	9.4	5	11.1	1
Student	17	9	0	0
Other	1.9	1	0	0

* p< 05 across Internet subscribers and non-Internet subscribers

This study also examined issues regarding language and most frequently used medium. Chi-square test of independence was performed to test gender differences in types of medium most frequently used for education, information gathering, entertainment, relaxation, companionship and passing time. A significant difference was found (Pearson Chi-square = $p < .05$). Results indicated that newspapers were most frequently used for educational purposes. The Internet was the preferred medium for information gathering and companionship. Television was most frequently used for entertainment and relaxation (see table 5.7).

Table 5.7

Chi-square for medium most frequently used

	Chi- Square	df	Sig.
Education	40.33	3	.000
Information gathering	27.86	3	.000
Entertainment	85.15	3	.000
Relaxation	69.87	3	.000
Companionship	27.41	4	.000
Passing time	52.85	4	.000

Chi-square test of independence was performed to test German user's language fluency. A significant difference was found (Pearson Chi-square = $p < .001$). Fifty –eight percent of the users were proficient in both English and German language. Twenty-five percent of the users were proficient in more than two languages (see Table 5.8).

Table 5.8

Chi-square test for languages spoken

	Chi- Square	df	Sig.
Language fluency	33.72	12	.001

Respondents were asked whether they agreed, disagreed or had no opinion regarding the following question: (1) English loanwords that have been adapted into the German vocabulary since the invention of the Internet are endangering the German language. (2) I feel that much of the information that is available on the Internet is in English. (3) I believe that more Web sites should be written in German. (4) I believe that more websites should have translation links so that they can be retrieved in many languages. (5) I believe that the German language should not adopt English loanwords. (6) The spread of Denglish (English vocabulary that has been adopted into the German language) has spread more since the Internet was first introduced.

An independent -samples *t* test was calculated to compare the mean score of men and women regarding English language dominance on the Internet. A significant difference was found only ($t(60) = -.710, p < .05$) in the mean of English loanwords that need to be kept out of the German language (see Table 5.9)

Table 5.9

T-test for English language dominance on the Internet

Variable	N	Mean	S.D.	df	p
Men	27	2.44	.800	60	.048
Women	35	2.57	.608		

CHAPTER VI

CONCLUSION AND DISCUSSION

The gender gap on Germany's Internet continues to exist despite the growing number of women who are going online. In the past two years, Germany has seen a slight increase in women users. This may be an indication that, within the next five years, the gender gap may narrow in Germany.

In this study, data on variables such as amount of time spent on the Internet, frequency of use, types of use, reasons for using the Internet, level of satisfaction and demographics were collected to compare the gender difference in Internet uses and gratifications. In addition, this study tried to investigate issues regarding computer ownership, language issues regarding the Internet and most frequently used medium. The following table summarizes the hypotheses that were tested (see Table 6.1).

Table 6.1

Summary of Hypotheses

H _{1a} :	There will be a relationship between gender and amount of time spent on the Internet.	Supported
H _{1b} :	There will be a relationship between gender and frequency of Internet use.	Supported
H _{1c} :	There will be a relationship between gender and types of Internet use.	Not Supported
H _{1d} :	There will be a relationship between gender and reasons for using the Internet.	Not Supported
H _{2a} :	There will be a relationship between gender and level of satisfaction obtained from visiting different Web sites	Supported
H _{2b} :	There will be a relationship between gender and Internet access at home	Partially Supported

Discussion

This study tried to discover whether a gender gap in Internet uses and gratifications existed in Germany. Previous studies found that women spent less time on the Internet than did men. The findings of this study support ARD/ZDF (2003b) results that men spend more time per week online than do women. ARD/ZDF (2003b) reported that men spend 9.3 hours per week online and women spend 8 hours per week online. In this study, it was found that German men spend an average of 5.2 hours per week online and German women spend 4 hours per week online, which is only half the time reported by ARD/ZDF (2003b).

Past research on uses and gratifications has established that there is a relationship between gender and frequency of Internet use. This study found that men and women differed significantly in terms of the frequency when participating in newsgroups, visiting pornographic sites, reading magazines and newspapers online and checking sports scores. This suggests that German users do not differ significantly from American users in terms of Internet activities (New Media Age, 2002).

This research supports past finding that men and women differ in the level of satisfaction obtained when visiting specific Web sites. This study found that men and women differ significantly in the level of satisfaction obtained when using search engines, listening or downloading music and reading information about health and medical related issues.

Based on previous research, this study hypothesized that socioeconomic variables such as gender, age, income, education occupation and marital status were related to Internet access at home. However, only gender was found to be related to Internet access. Fifty-one percent of women had Internet access at home, whereas, 49 percent of the men had access at home. This finding differs from results of earlier studies that indicated that men are more likely to have access to the Internet than women do.

There are several reasons that may explain why the hypothesis was not supported. First, the sample size was not sufficient to make a generalizable statement about the German population. Second, the sample was not random and most respondents belonged to the 26 to 35 age group. Finally, studies have also shown that when German users have Internet access elsewhere such as work or school, they might not subscribe to Internet service at home (Welling & Kubicek, 2000).

Sherman et al. (2000) and Odell et al. (2000) suggest that there is a gender difference in types of Internet use, such as information gathering, education, online banking, entertainment, communication and e-commerce. Past research also suggests that there is a gender difference in reasons for using the Internet (Jackson et al., 2001).

This study found no gender difference in the types of either use or reasons for using the Internet; therefore, this finding calls for further research in this area. It is difficult to explain why no significant difference was found in types of Internet use or reasons for using the Internet. The researcher believes that the respondents were skeptical about marking the answers because the surveys were sent via e-mail and, thus, the anonymity is limited. In addition, this may suggest that German users have different reasons for using the Internet than do American users. Hence, the researcher suggests using different categories for examining types of use and reasons for using the Internet when replicating this study in another country. It is also suggested that focus group experiments are conducted to explore these categories.

Does a gender gap in Internet uses and gratifications exist in Germany? This researcher concluded that a gender difference in uses and gratifications exists in the following areas: the amount of time spent on the Internet, frequency of Internet use and the level of satisfaction obtained from visiting different Web sites.

Limitations

Every research study has its limitations, so does this one. Because the sample size was not sufficient, the sample was self-selected and participants were not randomly selected, results of this study may not be generalizable to the German population. In addition, the questionnaire was not pre-tested in Germany, which would have eliminated

several categories in terms of Internet uses and gratifications. Most important, this study was an online survey and respondents may have shown skepticism when answering the survey. Even though the researcher promised anonymity and no names were given, the respondent's e-mails were still visible.

Contributions

Despite its limitations, this is one of the first studies conducted on uses and gratifications of the Internet in Germany. This study includes a model of Internet uses and gratifications, which is a contribution to the uses and gratifications theory. This model has practical as well as theoretical value. In regards to Internet and language issues, this research could also be applied to the Hispanic market. Since very few studies in Germany have examined the gender gap in Internet uses and gratifications, this study adds to the current literature on the topic. Statistics obtained in this study could also be used to draw comparisons with statistics gathered in other countries. Most important, advertising agencies and other businesses around the world could use the findings to attract German consumers.

Recommendations

Uses and gratifications often focus too much on what types of media individuals use to satisfy their information and entertainment needs. It is recommended that future uses and gratifications studies investigate the reasons why people do not use a specific medium. Research needs to address how technology skills are related to uses and gratifications. In other words, do individuals not use a specific medium because they do not have the necessary skills to operate it? It also needs to investigate why women use

the Internet less than men do. Past research found that women spent less time online but little research has addressed the reasons that account for this difference.

The problem with uses and gratifications research on the Internet is that researchers often try to examine an overwhelmingly large number of categories in terms of Internet uses and gratifications. This researcher suggests that future uses and gratifications research focus on fewer Internet categories. For example, more researchers need to categorize participating in chat rooms, reading or sending e-mails and using instant messenger service into the category of interpersonal communication. Another problem with uses and gratifications is the vague definition of terms such as 'companionship.' This term leaves a lot of room for interpretations. This term could mean different things to different people. It is suggested that researchers explain, in the questionnaire, to the participants what exactly these terms mean to eliminate any confusions.

Many people do not have the time to answer lengthy surveys and therefore, it is suggested that future research focus on a using a limited number of questions. This is especially true when conducting research in Germany. German lifestyle differs significantly from lifestyles in other cultures, especially in terms of marriage. Many German couples prefer to live together instead of getting married. Future studies need to list under marital status the category 'living with a partner.' This category includes heterosexual as well as homosexual couples. This category becomes an important factor in determining household income because it may double the household revenue.

The model used in this study could serve as a basis for future uses and gratifications research. Researchers using this model may also want to include the features of the Internet such as interactivity to investigate whether or not they contribute to the level of satisfaction obtained from visiting specific Web sites. Another important category that should be included in the model is who makes the decision in the home to buy a computer or to subscribe to Internet service. It would be interesting to find which gender determines media ownership in the home.

The Internet uses and gratifications model, which was constructed for this study, did not include the medium most frequently used for entertainment, education, information, passing time and companionship. The research suggests adding this category to the model to investigate whether a gender difference in medium most frequently used exists. It would be interesting to find out why users choose a specific medium over another. Overall, this model was very useful in investigating uses and gratifications of the Internet and reasons for using the Internet.

Few uses and gratifications research studies related to the Internet exists. Fewer studies have investigated the gender difference in Internet uses and gratifications in Europe. It would be interesting to compare two Western countries, such as the U.S. and Germany, to see if there is a difference in Internet uses and gratifications and examine how these differences exist. Many uses and gratifications studies concentrate on traditional mass media such as television, newspaper and radio; more studies need to be conducted about the uses and gratifications of the Internet. Because the Internet has more features than any other medium, future research needs to concentrate more on these

features in order to draw conclusions about why individuals use this medium to satisfy their needs.

APPENDICES

APPENDIX A: Questionnaire in German

ABSCHNITT A – Internet- und Computernutzung

1. Haben Sie einen Computer zu Hause?

Wenn Sie diese Frage mit Ja beantworten, gehen Sie bitte DIREKT weiter zu Frage 4.

2. Hatten sie in der Vergangenheit schon einmal einen Computer

3. Wollen Sie sich in naher Zukunft einen Computer anschaffen?

Ja	Nein

4. Wie viele Computer befinden sich in Ihrem Haushalt? Bitte angeben:

5. Wie viele Personen leben in Ihrem Haushalt?

6. Wissen Sie noch, wann Sie sich Ihren ersten Computer angeschafft haben?

Ja, im Jahr

Nein, weiß ich nicht mehr

7. Haben Sie einen Internetanschluss zu Hause?

Ja, seit	Nein

weiter mit
Frage 8b

weiter mit
Frage 8a

8a. Welche dieser Antworten trifft auf Sie zu ? (Mehrfachnennungen sind möglich)

Internetanschluss ist mir zu teuer.	Ich brauche keinen Internetanschluss.	Ich habe die Möglichkeit, beruflich das Internet zu nutzen.

8b. Wo nutzen Sie das Internet?

Schule	
Arbeit	
Internetcafe	
Zu Hause	
Oeffentliche Terminals	
Bei Freunden / Bekannten / Verwandten	
Sonstiges, und zwar: _____	

9. Wie viele Stunden pro Woche nutzen Sie das Internet?

< 1 Std.	
1-2 Std.	
3-4 Std.	
5-6 Std.	
7-8 Std.	
9-10 Std.	
> 10 Std.	

10. An wie vielen Tagen pro Woche nutzen Sie das Internet ?

0 1 2 3 4 5 6 7

11. Wie oft nutzen Sie das Internet für die folgenden Bereiche?

	sehr oft	oft	gelegentlich	selten	nie
Informationsbeschaffung					
Schule / Studium					
Online Banking					
Unterhaltung					
Bildung					
Kommunikation					
Shopping/E-Commerce					
Sonstiges, und zwar: _____					
Sonstiges, und zwar: _____					
Sonstiges, und zwar: _____					

ABSCHNITT B – Aktivitäten

12. Bitte geben Sie an, welche Angebote Sie im Internet nutzen?

	Sehr oft	oft	gelegentlich	selten	nie
Im Internet surfen					
Webseiten erstellen					
Suchmaschinen benutzen					
E-mails lesen und schreiben					
Beteiligung an Newsgroups					
Informationsbeschaffung für Schule / Studium					
Besuch von pornographischen Seiten					
Aufenthalt in Chatrooms					
Einkaufen / E-Commerce					
Zeitschriften und Magazine lesen					
Spiele spielen					
Musik hören / herunterladen					
Instant Messenger Service (MSN /AOL)					
Mitspielen im Multiuser dungeons (MUDs)					
Reisebuchung					
Reise- / Urlaubsauskunft					
Teilnahme an Online-Auktionen (z. B. ebay)					
Wetterauskunft					
Online Banking					
Sportnachrichten					
Börseninformationen / Aktienkurse					
Informationen zum Thema Gesundheit und Medizin					
Stellenanzeigen lesen					
Sonstiges, und zwar: _____					

ABSCHNITT C – Zufriedenheit

13. Wie zufrieden sind Sie mit dem Angebot im Internet?

	Sehr zufrieden	Zufrieden	Neutral	Unzufrieden	Sehr unzufrieden
Im Internet surfen					
Webseiten erstellen					
Suchmaschinen benutzen					
E-mails lesen und schreiben					
Beteiligung an Newsgroups					
Informationsbeschaffung für Schule / Studium					
Besuch von pornographischen Seiten					
Aufenthalt in Chatrooms					
Einkaufen / E-Commerce					
Zeitschriften und Magazine lesen					
Spiele spielen					
Musik hören / herunterladen					
Instant Messenger Service (MSN / AOL)					
Mitspielen im Multiuser dungeons (MUDs)					
Reisebuchung					
Reise- / Urlaubsauskunft					
Teilnahme an Online- Auktionen (z. B. ebay)					
Wetterauskunft					
Online Banking					
Sportnachrichten					
Börseninformationen / Aktienkurse					
Informationen zum Thema Gesundheit und Medizin					
Stellenanzeigen lesen					
Sonstiges, und zwar: _____					

14. Welche Gründe sind für Sie ausschlaggebend, das Internet zu nutzen?
(Mehrfachnennungen sind möglich)

(Weiter-)Bildung	
Zeitvertreib	
Partnersuche/Freunde finden	
Entspannen	
Informationsbeschaffung	
Unterhaltung	
Kommunikation	
Shopping/E-Commerce	
Sonstiges, und zwar _____	
Sonstiges, und zwar _____	
Sonstiges, und zwar _____	

15. Welches der genannten Medien nutzen Sie für die angegebenen Zwecke AM MEISTEN? (Bitte nur EIN Medium pro Zweck)

Kategorie	Medium			
	Fernseher	Zeitung	Radio	Internet
(Weiter-)Bildung				
Informationsbeschaffung				
Unterhaltung				
Entspannung				
Partnersuche/Freunde Finden				
Zeitvertreib				

16. Bitte nennen Sie uns Ihre 3 Lieblingsseiten im Internet und bringen Sie diese in die Reihenfolge 1 (absolute Lieblingsseite) bis 3 (drittbeste Lieblingsseite)

(1) _____

(2) _____

(3) _____

17. Welche der genannten Webseiten nutzen Sie?

	Sehr oft	Oft	Gelegentlich	Selten	Nie
T-Online					
Google					
eBay					
AOL Time Warner					
MSN					
Amazon					
Microsoft					
Web.de					
United Internet					
Lycos Network					

ABSCHNITT D – INTERNET SPRACHE

18. Ich spreche die folgenden Sprachen:

19. Wie gut sind Ihre Englischkenntnisse?

Sehr gut	Gut	Durchschnittlich	Grundkenntnisse	Keine Kenntnisse

20. Bitte markieren Sie im Folgenden Ihre Zustimmung oder Ablehnung in den vorgesehenen Kästchen.

	Stimme zu	Neutral	Stimme nicht zu
Englische Begriffe, die im Zuge der Entwicklung des Internets ins Deutsche übernommen wurden, gefährden die Deutsche Sprache.			
Ich habe das Gefühl, dass im Internet zu viele Informationen nur auf Englisch verfügbar sind.			
Im Internet sollten mehr Seiten in Deutscher Sprache sein.			
Internetseiten sollten alle einen Uebersetzungslink haben, so dass sie in verschiedenen Sprachen aufgerufen werden können.			
Ich finde, dass die Deutsche Sprache von englischen Wörtern frei gehalten werden sollte.			
Die Verbreitung von „Denglisch“ (Englische Wörter und Wendungen, die in die Deutsche Sprache übernommen wurden) hat mit der Entwicklung des Internets zugenommen.			

Abschnitt E – Persönliche Angaben

21. Geschlecht

Männlich	Weiblich

22. Alter

<15 Jahre	16-25 Jahre	26-35 Jahre	36-45 Jahre	46 –55 Jahre	>56 Jahre

23. Jährliches Brutto-Haushaltseinkommen (in Euro)

<12.000	12 000<24 000	24 000<36.000	36.000< 48 000	48 000<60 000	>60.000

24. Bildung

Hauptschulabschluss	
Realschulabschluss	
Abitur	
Fachgebundenes Abitur	
Berufschulabschluss	
Hochschulabschluss	
Promotion	
Ohne Schulabschluss	
Anderer Abschluss, und zwar _____	

25. Berufstätigkeit:

Angestellte/r	
Beamte/r	
Selbständig	
Hausfrau/-mann	
Student/in	
Schüler/in	
Rentner/in	
Auszubildende/r	
Arbeitssuchend	
Sonstiges, und zwar _____	

26 Familienstand

verheiratet	ledig	verwitwet	geschieden	In Partnerschaft lebend

APPENDIX B: Questionnaire English

SECTION A – Internet and Computer

1. Do you have a computer at home?

If you answered this question with YES, please go Directly to question 4.

2. Did you previously own a computer at home?

3. Do you intend to buy a computer in the near future?

Yes	No

4. How many computers do you have at home? Please specify:

5. How many people live in your household?

6. Do you remember the year you first bought your home computer?

Yes, in

No, I do not remember

7. Do you have access to the Internet at home?

Yes, since	No

Go to
question 8b

Go to
question 8a

8a. Which of the following answers best describes you. (Multiple responses are possible)

Internet access is too expensive.	Don't need the Internet.	I have the opportunity to use the Internet at work.

8b. Where do you access the Internet?

School	
Work	
Internetcafe	
Home	
Public Terminals	
Friends / Acquaintances / Relatives	
Other, please specify: _____	

9. How many hours per week do you access the Internet?

Less than 1 hour	
1-2 hours	
3-4 hours	
5-6 hours	
7-8 hours	
9-10 hours	
More than 10 hours	

10. How many days per week do you access the Internet?

0 1 2 3 4 5 6 7

11 How frequently do you use the Internet for the following?

	Frequently	Often	Occasionally	Rarely	Never
Information gathering					
School /Universtity					
Online Banking					
Entertainment					
Education					
Communication					
Shopping/E-Commerce					
Other,please specify: ____					
Other,please specify: ____					
Other,please specify: ____					

SECTION B – Internet Activities

12. Which of the following activities do you participate in?

	Frequently	Often	Occasionally	Rarely	Never
General surfing					
Create Web sites					
Use search engines					
Read/ write e-mails					
Participate in Newsgroups					
Information gathering for school/work					
Visit pornographic sites					
Visit/participate in Chatrooms					
Shop online/ E-Commerce					
Read newspapers and magazines					
Play games					
Listen/ download music					
Use Instant Messenger Service (MSN /AOL)					
Participate in Multiuser dungeons (MUDs)					
Purchase vacations					
Look for travel information					
Participate in Online-Auctions (z. B. ebay)					
Check the weather					
Online Banking					
check sports news					
Check financial news/ stock market					
Look for health/medical news					
Look for jobs					
Other , please specify: _____					

SECTION C – Internet Gratifications

13. How satisfied or dissatisfied are you when you participate in the following activities?

	Very satisfied	Satisfied	Neutral	Dissatisfied	Very Dissatisfied
General surfing					
Create Web sites					
Use search engines					
Read/ write e-mails					
Participate in Newsgroups					
Information gathering for school/work					
Visit pornographic sites					
Visit/participate in Chatrooms					
Shop online/ E-Commerce					
Read newspapers and magazines					
Play games					
Listen/ download music					
Use Instant Messenger Service (MSN /AOL)					
Participate in Multiuser dungeons (MUDs)					
Purchase vacations					
Look for travel information					
Participate in Online-Auctions (ebay)					
Check the weather					
Online Banking					
check sports news					
Check financial news/ stock market					
Look for health/medical news					
Look for jobs					
Other , please specify: ____					

14. Which best describes you, mark as many as apply: I use the Internet for the following activities: ? (Multiple answers possible)

Education	
Passing time	
Companionship	
Relaxation	
Information gathering	
Entertainment	
Communication	
Shopping/E-Commerce	
Other, please specify: _____	
Other, please specify: _____	
Other, please specify: _____	

15. Which medium do you most FREQUENTLY use for the following?
(Please mark only ONE Medium per use)

Categorie	Medium			
	TV	Newspaper	Radio	Internet
Education				
Information gathering				
Entertainment				
Relaxation				
Companionship				
Passing time				

16. Please list three of your favorite Websites and rank them as follows: Ranked 1st (my absolute favorite Website) Ranked 2nd (my second favorite Website) Ranked 3rd (my third favorite Website)

(1) _____

(2) _____

(3) _____

17. Which of the following Web sites do you use?

	Frequently	Often	Occasionally	Rarely	Never
T-Online					
Google					
eBay					
AOL Time Warner					
MSN					
Amazon					
Microsoft					
Web.de					
United Internet					
Lycos Network					

SECTION D – INTERNET LANGUAGE

18. Which languages do you speak?

19. How would you describe your English language ability:

Excellent	Good	Average	Basic	None

20. Please mark if you agree, disagree or have no opinion about the following statements:

	Agree	Neutral	Disagree
English loanwords that have been adapted into the German vocabulary since the invention of the Internet are endangering the German language.			
I feel that much of the information that is available on the Internet is in English			
I believe that more Web sites should be written in German.			
I believe that more Websites should have translation links so that they can be retrieved in many languages.			
I believe that the German language should not adopt English loanwords.			
The spread of Denglisch (English vocabulary that has been adopted into the German language) has spread more since the Internet was first introduced.			

SECTION E – DEMOGRAPHICS

21. Gender

Male	Female

22. Age

under15	16-25	26-35	36-45	46 –55	56 and older

23. Annual combined household income before taxes (in Euro)

under12.000	12.000-24.000	24.000-36.000	36.000- 48.000	48.000-60.000	Over 60.000

24. Education

9th Grade-minimum school requirement	
High School	
Associates Degree	
Batchelors Degree)	
Vocational School	
Masters Degree	
Ph.D.	
No High School diploma	
Other degree/diploma, please specify	

25. Occupation:

Salaried employee	
Government / Staat	
Self-employed	
Homemaker	
University/ College Student	
High school student	
Retired	
Apprenticeship	
Unemployed	
Other, please specify_____	

26. Marital Status

married	single	widowed	divorced	Live with a partner

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