Communication technologies: Diffusion of online news use and credibility among young web users in the information age

Chee Youn Kang

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COMMUNICATION TECHNOLOGIES: DIFFUSION OF ONLINE NEWS
USE AND CREDIBILITY AMONG YOUNG WEB USERS
IN THE INFORMATION AGE

by

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Bachelor of Arts
Seoul Women’s University
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A thesis submitted in partial fulfillment
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December 2009
ABSTRACT

Communication Technologies: Diffusion of Online News Use and Credibility among Young Web Users in the Information Age

by

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Dr. Susanna H. Priest, Thesis Committee Chair
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The increasing popularity and extensive usage of communication technologies, particularly the Internet and online news, makes it important to obtain an insightful perception of the new media. The purpose of this study is to examine the diffusion of online news use and credibility among young web users in terms of how these main users adopt, use, and trust the new media. This study attempts to find which online news sites are widely used by this group, based on the credibility of online news adopted among undergraduate and graduate students at the University of Nevada, Las Vegas (UNLV), in which demographic diversity is distributed. A survey was administered to a non-randomly selected sample to explore the adoption and usage of the new media as well as perceptions of credibility. For this study, attitudinal questions of the Internet and online news were included. Particularly, the top three online news sites, Yahoo! News, MSNBC, and CNN were examined to gauge opinions about online news. Findings indicate that young web users generally have positive attitudes toward the Internet and online news;
higher correlations were shown with regard to attitudes toward online news than the Internet; online news usage does not have a strong influence upon perceptions of online news credibility; and there was a marginal association between demographic variables, the usage and credibility of the new media. The study will provide an overview of research areas relevant to communication technologies, particularly online news use and credibility among young web users, and the relationship between online news usage and credibility in order to evoke critical and improving knowledge for contemporary as well as future researchers and readers.

Keywords: new media, communication technologies, the Internet, online news, diffusion of online news use and credibility, main web users
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CHAPTER 1

INTRODUCTION

The penetration of the Internet and online news raises question why and how individuals adopt and use the new media. Since the emergence of the Internet, both the Internet and online news use have consistently increased. (Pew Internet & American Life Project, 2006). The development of communication technologies has allowed a great variety of individuals to adopt and use the new media. The diverse types of people, the young and old, female and male, the rich and poor, are able to participate in mass communication activities, via the Internet, unless they are restricted by the limitations of accessibility and connectivity. That is, due to the development of technologies, more people can utilize the new media in which they also engage with media participation regardless of age, gender, and region. Concerning the significant adoption of the Internet and online news, it is crucial to explore perceptions of the Internet and online news. A Pew's study (2006) found that the Internet and online news are widely adopted and used by various users, particularly, those who are young, aged 18-35.

In addition to the rapid growth of Internet and online news among young users, France (1999) stated that journalism is constructed upon credibility. The public tend to have more attention to media when the press is reliable (Gaziano, 1988). Exposed to a myriad of information by various media channels and sites, audiences may pursue the better quality for reliable media. In order to assess whether information sources are reliable and verifiable, media credibility should be examined. Given the tendency of the pervasive adoption of the Internet and online news among young users, it is essential to examine which elements encourage individuals to adopt, use, and trust a certain site.
Significance of the Study

In recent decades, communication technologies have rapidly developed. The Internet have a significant influence on society, and simultaneously this technology is affected by society and the audience. Online news has also become ubiquitous and plays a crucial role in the information age. The audience is now immersed in media content and media technology. It is vital to explore why and how online news has evolved to understand the interaction between the new media and audience. Concerning the increasing popularity of online news, it is important to investigate which elements encourage people to adopt and trust this particular medium. As Pool (1977) says, “what will shape the future is a creative potential that inheres in the new technologies” (p.1). Chafee and Metzger (2001) believe, “Contemporary media allow for a greater quantity of information transmission and retrieval, place more control over both content creation and selection in the hands of their users, and do so with less cost to the average consumer” (p. 369). The Internet and online news are nowadays widely opened to the public.

Nonetheless, the Interne is quite new; what takes place online is still complex and obscure to describe (Baran & Davis, 2003). It is indeed important to understand the new media world and the audience’s perception toward new media, rather than merely concerning the increasing popularity of the Internet usage. Audiences interested in news tend to gain reliable and accurate information. The need for higher quality in the new media outweighs their rising popularity. Online media credibility further may impact upon the journalistic success (Schweiger, 2000). With respect to how quickly the Internet have evolved and helped individuals hear, see, and speak online, this study will examine which factors spur the audience to utilize and trust the new media using the theory of
diffusion of innovations by Rogers, uses and gratifications theory, media credibility, and a survey conducted at the University of Nevada, Las Vegas.

**Purpose of the Study**

Previous studies have examined which elements encourage people to use the Internet and online news in general. Bolter and Grusin (1999) state the Internet has already passed through certain stages, and also evolved from traditional counterparts such as newspaper, radio, magazine, and television. The question of how audiences adopt a medium for news sources has long been examined (Althaus & Tewsbury, 2000; Moy, Pfau, & Kahlor, 1999; Shah, Kwak, & Holbert, 2001). Some researchers attempted to determine which mass communication medium was trusted the most for information and news (Abdulla, Salwen, Driscoll, & Casey, 2002; Bucy, 2003; Lu & Andrews, 2006; Sundar, 1998). A Pew’s study (2006) examined the most widely used online news sites, the main users, and sought to find the significant factors that invigorate users to utilize the new media including the Internet and online news.

This study, on the other hand, focuses on the usage and credibility of the new media among young web users. It is important to comprehend online news usage and credibility among young web users because young people are more inclined to adopt the Internet as well as online news than their older counterparts (Bucy, 2003; Diddi & LaRose, 2006; Lee, 2006; Metzger & Zwarun, 2003; Pew Research Center, 2002). Furthermore, understanding credibility of leading online news sites used by young web users can help researchers obtain a better perception of online news use for the future. This study expects that some of the young web users whom the main audience of the Internet may continually utilize the new media in the future. Although new communication
technologies have diffused to individuals, communities, organizations, and societies, media credibility is still underevaluated (Bucy, 2003; Cassidy, 2007; Cerf, 2004; Wathen & Burkell, 2002). Pool (1974) says, “Technological change transforms entire communications systems. Alternative ways of organizing systems confront societies with difficult choices. Hard knowledge is needed to make the policy decisions of the future” (p. 31). Rogers (1986) also suggests that new ideas about new media be considered. This thesis notes the pivotal role of communication technologies in the information age. The evolution of communications technologies enables audiences to gain and exchange information in varied ways.

Audiences are exposed to more diverse kinds of sources for news. Information is not just provided by traditional media, but new media, particularly the Internet, enable audiences to read, listen, and watch news. Regardless of gender, age, or social position, anyone can send and receive information via the Internet media, at any time or location. There are numerous news sites from which audiences can select the ones they prefer. Due to the enhanced technologies, the effects of media have become not solely more informative, but also more selective (Althaus & Tewksbury, 2000; Bimber & Davis, 2003; Deuze, 2003; Dizard, 2000; Lull, 2000; Sundar, 1998). Furthermore, news users seeking information online, for particular reasons, may choose certain news sites, despite the multitude of online news sites.

Given the tendency of the skyrocketing usage of the Internet media among young web users, this study attempts to a) provide an analysis regarding the diffusion of online news use and credibility among college students, b) review the major areas of research that are
relevant to this article, and c) examine the relationship between online news usage and credibility.

Theoretical Framework

This study adopts diffusion of innovations research by Rogers, uses and gratifications approach, and credibility in keeping with its concern with the Internet and online news use as well as perceptions of the new media. A number of studies have noted that diffusion research provides a constructive insight into understanding not solely an innovation, but also new media (Antonelli, 1989; Dutton, Rogers, Jun, 1987; Garrison, 2001). Rogers’ diffusion of innovations (1983) suggests that individuals adopt an innovation depending on demographic variables: income, age, education, social position. Similarly, recent studies also note that the usage of the Internet media among the audiences in a digital society differs according to socioeconomic variables such as gender, region, income, and education (Cooper & Kimmelman, 1999; Hoffman & Novak, 1998; Katz, 2002). In order to explore how and why varied individuals adopt and utilize a certain media channel or site, this study focuses on Rogers' diffusion theory in that it provides a critical guide to better understand the relationship between an innovation or new media, and diverse types of users.

In addition, it is also crucial to investigate the interrelationship between new media, particularly the Internet and online news, and audiences since individuals, today, no longer tend to be passively manipulated by media, but they, as active audiences, play a substantial role in participating mass communication activities online. This study, therefore, adopts the uses and gratifications theory to explore how audiences and the new media affect to each other. Uses and gratifications researchers Blumler and Katz (1974)
present that “the social and psychological origins of needs, which generate expectations of the mass media or other sources, which lead to differential patterns of media exposure, resulting in need gratifications and other consequences, perhaps mostly unintended ones” (p.20). While Rogers’ Diffusion of Innovations theory attempts to comprehend how one adopts innovations such as new technologies, ideas, or mediums, Uses and Gratifications theory focuses on how individuals adopt and use, particularly the media.

Furthermore, previous studies draw attention to credibility to better understand individuals’ perception and motivational elements that encourage them to rely on the media (Gaziano, 1988; Gunther, 1992; Hovland & Weiss, 1951; Mosier, 1981; Singletary, 1976; Stamm & Dube, 1994). By appraising credibility and its elements, this study attempts to examine which factors encourage individuals to adopt and trust the new media.
CHAPTER 2
LITERATURE REVIEW

Diffusion of Innovations

In recent decades, individuals have adopted various sorts of communication technologies including the new media, the Internet, and online news (Althaus, & Tewksbury, 2000; Bimber, & Davis, 2003; Bryant & Zillman, 1994; Deuze, 2003; Dizard, 2000). Since various people adopt and use the media for different purposes, it is complex to examine the diffusion and adoption patterns of the media. Concerning these complicated aspects, an overview of Roger’s diffusion theory and its application to communication technologies can provide an operative framework to understand the new media.

Diffusion of Innovations is a theory to explore which factors motivate individuals to adopt innovations or new ideas through communication channels and cultures. Rogers (1983) defines diffusion as “the process by which an innovation is communicated through certain channels over time among the members of a social system” (p. 5). Previously, the diffusion theory concentrated on various dimensions: anthropology, education, industry, sociology, and particularly agricultural sociology (Rogers, 1962). Influenced by rural sociologists, Rogers (2003) combined numerous diffusion studies into a solid theory to better comprehend the adoption of innovations among individuals as well as organizations.

When exposed to innovations or new ideas, individuals react in various ways. Some tend to accept new ideas or products quite promptly while others are reluctant to adopt innovations. It is due to the versatile perspectives amongst diverse types of people.
Rogers (1962) suggested that there were important elements in diffusion research as follows: an *innovation* itself, sorts of *communication channels* that can convey information about innovations or new ideas to others, *time*, and *the society*, where the diffusion of an innovation takes place. The purpose of this theory is to provide a constructive insight concerning who adopts a certain innovation and how this process would be conducted over time.

Rogers (1962) described five categories of groups who may adopt or reject an innovation as follows: *innovators*, called risk takers, are usually the youngest and most knowledgeable to the innovation and, thus, investigate innovations promptly; *early adopters* help spread information about innovations or new ideas to other people; usually they are younger in age, highly educated, and have the greatest degree of opinion leadership; *early majority* typically have above average social position and still obtain some degree of opinion leadership; *late majority*, usually financially weak and skeptical about the innovation, have below average social position, thus they may adopt the innovation after observing the average people accepted the new innovation or idea; *laggards*, who have almost no opinion leadership with lowest social position, are financially the weakest and oldest among the adopters, and thus resist innovations and new ideas, seeking for obstinate perspectives and traditions. Sustaining their own values, they tend to decline new innovations and new ideas in many cases.

Additionally, Rogers (1983) pointed out that the adoption of innovation is best represented by an S-curve: The adoption of innovation initially increases slowly, but has rapid growth afterwards; then has a period of stable increase; and finally decreases. In many cases, the society can frame the innovation decision process.
Anticipating whether individuals would accept or reject innovations, Rogers (1995) suggested that there are three kinds of innovation decisions as follows: optional innovation decisions for those who may be distinctive from a social system, collective innovation decisions for those who are well-suited to a social frame, and authority innovation decisions for those who have authority and power, thus, direct the social system.

Rogers (1995) further describes the following elements as peculiar characteristics of innovations that affect individuals to determine to adopt or reject: relative advantage—the characteristic of the innovation which could be better developed than the previous counterpart; compatibility—the characteristic of innovation that may be assimilated with what individuals need to acquire in their situations, complexity—the characteristic of the innovation that affects individuals to adopt the innovation; if it is too complicated to use, individuals may reject to utilize the innovation; trialability—the characteristic of the innovation which includes the convenient effect of adopting and using the innovation; if it is useful and easy to use, individuals may adopt the innovation; and observability—the characteristic of the innovation that is notable to certain people. The innovation, which is notable, may affect particular people to have stronger positive or negative perspectives of the innovations.

In addition, diffusion of an innovation occurs through a five-step-process: awareness, interest, evaluation, trial, and adoption (Rogers, 1962). Later, Rogers categorizes these stages as follows: knowledge, persuasion, decision, implementation, and confirmation (1995).
**Figure 1.**
The Former Decision Innovation Process

Note, this figure is designed, according to Rogers’ Diffusion of Innovations (1962). In order to provide an effective understanding, this visual image was designed.

**Figure 2.**
The Decision Innovation Process

Note, this figure is designed, according to Rogers’ Diffusion of Innovations (1995). In the stage of “Decision”, individuals may either reject (continued rejection or later adoption may be involved) or accept (continued adoption or discontinuance may be involved) an innovation.

In the first stage (knowledge), despite lacks of information about innovations or new ideas, individuals are introduced to something innovative or new. In the second stage (persuasion), individuals are more likely to be interested in innovations and tend to gain information about innovations or new ideas. In the third stage (decision), individuals perceive innovations more cautiously concerning which factors of the innovation could be beneficial or ineffectual; in turn, they may either adopt or reject the innovation. In the fourth stage (implementation), individuals, depending on their varied perspectives as well
as peculiar circumstances, determine the advantage of the innovation. Considering the profitable elements of the innovation which are suited for their interest and need, individuals in this stage may seek for information about the innovation with details. In the last stage (confirmation), individuals finally confirm whether they would keep using the innovation with regard to its further benefits.

According to the diffusion process, it was found that individuals do not seem to adopt an innovation equally. More likely, diverse kinds of people, based on their awareness, interest, need, situation, and knowledge about the innovation, tend to accept and use the innovation. In this process, opinion leaders play an important role in shaping the others’ perspective of the innovation. Because opinion leaders are inclined to have higher socioeconomic position and contact with mass media, they can spread information about innovations or new ideas to others, particularly late adopters during the evaluation stage.

After adopting a certain innovation, individuals may have both positive and negative attitudes, associated with the further adoption of a new medium. Rogers (2003) stated that the consequences of adoption could be explained by the following processes: direct or indirect, anticipated or unanticipated, and desirable or undesirable effects. Although the diffusion theory provides a critical pattern how individuals adopt an innovation, it is quite complicated to predict the way people adopt an innovation, due to the varied individuals’ multifaceted needs and interests.

**Diffusion of the Innovations in the Digital Age**

**Diffusion of the Internet**

As noted above, diffusion and adoption patterns of an innovation include functions of characteristics of the innovation itself, the channel of communication, the nature of the social system, and time (Rogers 1983). The diffusion patterns and adoption of the
Internet entail decisions at various levels because varied individuals for different purposes may adopt and use the innovation. Since the Internet is still a new medium, an analysis of the diffusion pattern of the Internet can help understand the adoption of the communication technology. In the digital age, the diffusion of the Internet can play a significant role in business, economic, social, cultural, and political fields. It is, therefore, crucial to examine the factors that influence individuals to adopt the Internet.

Besides, previous research found that the factors that impede the diffusion of the Internet could be authoritarian government, regulation of online speech, and constraints on access connections (Kshetri 2001). Because each country has different policies, according to their circumstances and needs, the diffusion pattern of the Internet may vary, depending on what the country pursues or regulates in the society. Rogers (1983) stated that the degree of compatibility of an innovation is related to the norms and values of a social system.

The Internet is one of the fastest diffusion of an innovation (Antonelli, 1989; Dutton, Rogers, & Jun, 1987; Garrison, 2001). Not solely nationally, but also internationally, approximately 40 million people used the Internet in 1995, and the Internet use has continued to escalate (Pew Internet & American Life Project, 2006; Pew Research Center, 2000). In 1999, about 131 million users adopted the Internet; more than 600 million people used the innovation by 2002. Previous research said this communication technology medium has rapidly spread particularly since 1999.

The Internet passed through varied stages to reach today’s use. It first appeared as wide area network (WAN) for military purposes in 1965 (Dizard, 2000; Lull, 2000). In this stage, the Internet for the peculiar purpose was not yet opened to the public. In the
1990s, the advanced visual format of the Internet was widely recognized by individuals. The Internet in this stage was then opened to the public. In 2000, nearly 10 million of the Internet hosts were adopted, and the adoption of the Internet hosts in 2006 became approximately 44 million (for detailed information, see Table 1).

Such studies had examined the elements that encourage individuals to adopt the Internet in terms of economical, social, cultural, and political dimensions. It was found that individuals who have some income are more likely to adopt the Internet, due to the ability of obtaining access. More people have been able to adopt the Internet because it has become simply cheaper.

<table>
<thead>
<tr>
<th>Year</th>
<th>Hosts</th>
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<tbody>
<tr>
<td>69</td>
<td>4</td>
<td>90</td>
<td>313,000</td>
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<tr>
<td>70</td>
<td>9</td>
<td>91</td>
<td>617,000</td>
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<td>71</td>
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<td>72</td>
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<td>73</td>
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<td>77</td>
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<td>79</td>
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<td>81</td>
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<td>82</td>
<td>235</td>
<td>99</td>
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<td>562</td>
<td>00</td>
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<td>84</td>
<td>1,024</td>
<td>01</td>
<td>125,888,197</td>
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<td>85</td>
<td>1,961</td>
<td>02</td>
<td>162,128,493</td>
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<td>86</td>
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<td>28,174</td>
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</tr>
<tr>
<td>88</td>
<td>56,000</td>
<td>05</td>
<td>353,284,187</td>
</tr>
<tr>
<td>89</td>
<td>159,000</td>
<td>06</td>
<td>439,286,394</td>
</tr>
</tbody>
</table>

Note. Adopted from Zakon (2006). For a visual comparison of results see Figure 3.
Earlier studies had examined the elements that encourage individuals to adopt the Internet in terms of economical, social, cultural, and political dimensions (Antonelli, 1989; Dutton, Rogers, Jun, 1987; Garrison, 2001). It was found that individuals who have some income are more likely to adopt the Internet, due to the ability of obtaining access. More people have been able to adopt the Internet because it has become simply cheaper.

The diffusion pattern of the Internet can be manipulated. As mentioned previously, an authoritarian government may control the adoption of the Internet, although the Internet generally plays a role in encouraging anyone including male and female, young and old, and every ethnic group to participate in the mass communication activities online. The diffusion of the Internet can provide more opportunities of media participation for web users; but with regard to the quality and effects of the new media, any information should not be exposed to all of the people. Some media contents that may ruin social values or norms (e.g., sexual or confidential issues) should be regulated strictly (Cerf, 2004; Chaffee, & Metzger, 2001; Dizard, 2000; Lull, 2000; McQuail, 2005).

Although freedom of speech online could be important with relation to social, cultural, and political effects, unfiltered online information sometimes may bring both boon and bane. Thence, the diffusion of the Internet may vary, depending on the varied purposes of the new media use by diverse individuals,

_Diffusion of Online News_

The improving technology has allowed more people to adopt innovations in varied ways. As communication technologies have evolved, not only do they provide a variety of functions, but they also require sophistication to use these innovations. It is important to obtain discerning insights into new media, particularly the Internet and online news as
they play a significant role in the digital age. Yet, decision-making is complicated when adopting innovations.

Communication technology researchers note that increasing popularity of the Internet spurs individuals to adopt online news (Garrison, 2001; Nguyen, 2008; Pew Internet & American Life Project, 2006). The adoption of online news has also consistently risen while the growth of Internet use continues. A Pew’s study (2006) found that most of the Internet users constantly rely on online news. Though many studies have investigated the continuous adoption of the Internet as well as online news since its emergence, it has not been long examined, due to the short history of these new media.

As mentioned above, the Internet was first adopted and utilized primarily for military purposes under government’s control. Despite the advent of the computer, it was still restricted to being used by a certain population, for a particular function, in the early age. Given a relatively brief history, the world-wide web has been recognized by the public since the 1990s (Pew Internet & American Life Project, 2006; Pew Research Center, 2000). Soon after, the awareness and adoption of the new media have expanded so rapidly that they now have the status of mainstream media (Althaus, & Tewksbury, 2000; Bimber, & Davis, 2003; Deuze, 2003; Dizard, 2000).

Concerning how the Internet and online news have diffused recently, it is essential to investigate both advantageous and disadvantageous elements that influence individuals to adopt the Internet and online news. Zakon (2006) shows the increasing growth in the number of the Internet hosts from 2000 to 2006 as follows: 93,047,785 (2000), 125,888,197 (2001), 162,128,493 (2002), 171,638,297 (2003), 285,139,107 (2004), 353,284,187 (2005), 439,286,394 (2006)-see Figure 3.
The Pew Research (2006), on the other hand, reported the rapid growth in online news consumption accordingly: 19,000,000 (2000), 25,000,000 (2001), 27,000,000 (2002), 34,000,000 (2003), 35,000,000 (2004), 41,000,000 (Jan, 2005), 44,000,000 (Dec, 2005). That is, while the adoption of the Internet has risen notably, the adoption of online news has also rapidly increased (for more details, see Figure 3). Nearly 50 million audience members use the Internet for news on a typical day (Pew Internet & American Life Project, 2006). It is also found that the Internet use has increased from 58 percent to 70 percent of adult users from 2000 to 2005.

**Figure 3**

Growth in the Number of the Internet Hosts

Note, this figure was designed, based on the data provided by Zakon (2006). For academic purposes, it was allowed to use the data measured by previous research. This study was explored Growth in the number of the Internet hosts, as an indicator of the Internet usage.
Table 2:  
Online News Growth

<table>
<thead>
<tr>
<th>Date</th>
<th>The adoption of online news</th>
</tr>
</thead>
<tbody>
<tr>
<td>March, 2000</td>
<td>19,000,000</td>
</tr>
<tr>
<td>February, 2001</td>
<td>25,000,000</td>
</tr>
<tr>
<td>March, 2002</td>
<td>27,000,000</td>
</tr>
<tr>
<td>February, 2003</td>
<td>34,000,000</td>
</tr>
<tr>
<td>February, 2004</td>
<td>35,000,000</td>
</tr>
<tr>
<td>January, 2005</td>
<td>41,000,000</td>
</tr>
<tr>
<td>December, 2005</td>
<td>44,000,000</td>
</tr>
</tbody>
</table>

Note, this table was designed, according to the Pew research project (2006), See John B. Horrigan, *For Many Home Broadband Users, the Internet is a Primary News Sources* (2006), available online at: http://www.pewinternet.org/Reports/2006/Online-News-For-many-home-broadband-users-the-internet-is-a-primary-news-source.aspx?r=1

For a visual comparison see Figure 4.

**Figure 4**

Online news growth

![Online news growth chart](image-url)
Although it is difficult to find which elements motivate individuals to adopt the Internet and online news, diffusion researchers argue that those who are younger with higher knowledge of the innovation, income, social position, and education tend to adopt the innovation more quickly than those who are older with weaker information about the innovation, less income, and lower social position and education (Antonelli, 1989; Dutton, Rogers, Jun, 1987; Garrison, 2001).

More importantly, the adoption of online news varies with age (Pew Internet & American Life Project, 2006). For the adoption of online news in particular, users under age 36 are more likely to try to use the new medium while the older, which are in fact stronger news-users, tend to rely on traditional media such as radio, newspaper, and television. It should be, therefore, effective to examine the under age 36 cohort to understand the adoption of online news among the main users.

Diffusion researchers have sought to find which elements encourage individuals to adopt and use the new media in terms of how they were exposed to and aware of the innovations; and why they determine to adopt them (Antonelli, 1989; Dutton, Rogers, Jun, 1987; Garrison, 2001; Rogers, 1962, 1983, 1995, 2003). With respect to the diffusion model, previous research suggests that there may be both negative and positive factors that motivate individuals to accept or reject the innovation (e.g., the Internet or online news). Some of the elements that affect individuals to adopt and perceive the media as positive, according to Nguyen and Western (2008), could be convenience of use, content richness, a plethora of information that are instantaneous, multi-media effects, and broader participation opportunities online.
In addition to the Internet and online news attributes, it seems that the adoption of the innovation occurs, depending on varied demographics including income, education, gender, region, and online news accessibility as well as experience. Further, individuals are inclined to adopt the innovation, based on their need, interest, and circumstances (Antonelli, 1989; Dutton, Rogers, Jun, 1987; Garrison, 2001). When new media can replace old counterparts, users may continually adopt the innovation. In other words, individuals are more inclined to consider relative advantages of new media over old media when adopting the innovation.

Though there is no clear distinction between the stages—knowledge, persuasion, decision, implementation, and confirmation—in the decision innovation process, Rogers’ model can provide a constructive view to understand the process how and why individuals adopt new media. As the innovation producer invents more innovations for cheaper prices, individuals seem to be aware of the existence of the new media. If the innovation fulfills their need and situation, individuals may be more interested in the new media. When it is convenient to use, individuals may employ or keep using the innovation. Depending on how useful, cost-effective, convenient, and productive, users may continually adopt or reject the innovation.

As Rogers suggested, the decision to refuse or adopt an innovation may not be an instantaneous task. More likely, it takes place through sequential stages. After being persuaded or manipulated by decision-makers (e.g., innovators, early adopters, or advertising producers), the rest of the population may be aware of and attracted to the innovation; in turn, they try and adopt the innovation. Both favorable and unfavorable
characteristics of the Internet and online news that related to individuals’ interest, need, and circumstance may encourage or discourage them to adopt the new media.

Despite the lack of knowledge of the innovations in the earlier digital age, people today have more opportunities to view, adopt, and use the Internet and online news. Many suggest that people tend to reject or accept the Internet and online news passively or actively, based on the following factors: the cognitive and affective affiliation with online news, the capacity for continuous updates, the capability of multi-functions, convenience, a myriad of information, rich content, interactive participation, and cost-effectiveness (Antonelli, 1989; Garrison, 2001; Rogers, 2003).

What is notable is that the Internet users rely heavily on the national TV news sites such as CNN and MSNBC (adopted by 46% of the adult Internet users), according to Pew Research (2006). These sites are, in fact, highly recognized by individuals because they were previously established as traditional media. Portal sites such as Google or Yahoo! News are also widely used (adopted by 39%). Since Yahoo and Google put news links on their main page, users can conveniently adopt the connected news sites. Perhaps the connectivity attracts users to adopt the media intentionally or unintentionally.

Uses and Gratifications

The uses and gratifications theory attempts to understand the relationship between the sender of the messages and the receiver. Not only do gratifications researchers ask how media affect audiences, but they also question how audiences accept media content (Blumler, 1979; Dobos, 1992; Elliott, 1974; Katz, Blumler, & Gurevitch, 1974). Gratifications research sought to find why audiences used certain media contents. Uses and gratifications research supposed that individuals’ interests and needs affect what
media they adopt and use, and how they choose to use certain media (Blumler, 1979; Cantril, 1942; Carey & Kreiling, 1974; Galloway & Meek, 1981; Rubin, 1986).

Although traditional media theories concentrate on what do the media do to people, regarding individuals as homogeneous, uses and gratifications approach more focused on what people do with media (Katz, 1959). With respect to the relationship between media and individuals, uses and gratifications approach suggests that individuals intend to fulfill their needs and interests, which are determined by social and psychological elements (Blumler, 1979; Dohohew, Palmgreen, & Rayburn, 1987; Elliott, 1974; Katz et al, 1974; Palmgreen & Rayburn, 1985).

The purpose of gratifications research is to comprehend the relationship between media effects and audiences’ interests and needs in terms of how they empower each other to function socio-psychologically (Herzog, 1940; Lazarsfeld, Berelson & Stanton, 1944). Gratifications research suggests that it is crucial to explore the interrelationship between the media function and the role of the audiences (Blumler, 1979; Dohohew, Palmgreen, & Rayburn, 1987; Elliott, 1974). Katz, Blumler, and Gurevitch (1974) argued how audiences and media affect to each other as follows: "a) the social and psychological origins of b) needs which generate c) expectations of d) the mass media or other sources, which lead to e) differential patterns of media exposure (or engagement in other activities), resulting in f) need gratifications and g) other consequences, perhaps mostly unintended ones" (p. 20).

The development of Uses and Gratifications

Uses and gratifications approach has developed, according to social change. During the World War era, propaganda theory permeated society (Laswell, 1927). Individuals,
during this period, were more likely to be perceived as passive whereas media tended to
have direct effects, which involved an authority as well as dominancy (Laswell, 1951,
1960). It seems that audiences were more influenced or manipulated by messages from
media at this time. In addition to the early tendency, previous studies concentrated on
how media influence audiences’ perspectives, by changing their attitudes and behaviors.
Media were thus considered as agencies that alter audiences’ attitudes and behaviors in
the early media term (Herzog, 1940; Laswell, 1930; Lazarsfeld, Berelson & Stanton,
1944).

Though many studies between 1930 and 1960 postulated that media play a strong role
in mass communication effects, it is difficult to find whether media effect is more
significant or audiences’ role is more dominant (Blumler, 1979; Dobos, 1992; Donohew,
Palmgreen, & Rayburn, 1987; Katz, Blumler, & Gurevitch, 1974; Rubin, 1986). It could
be a matter for argument which role would be predominant.

In comparison to the direct effects of media, Lazarsfeld, Berelson, and Gaudet (1948)
found that the role of media could be, in fact, indirect or limited. Lazarsfeld’s study
suggests that political advertising can play a scant role in changing people’s voting
behaviors. Audiences may receive messages passively from the media, but at the same
time, they can actively respond to the media (Lasswell, 1950, 1960; Lazarfeld et al,
1948). This study indicates that messages from the media are no longer sent to the
audiences directly, but more likely, audiences can be influenced by opinion leaders who
deliver the messages, via face-to-face communication. Given the messages, audiences
became more active and selective, compared to the individuals influenced by the direct
effects of media during the World War era I, II. Furthermore, Katz and Lazarsfeld (1955)
argued that messages from the media were designed to be persuasive or reinforced to the audiences.

Early in the history of communications research, Klapper (1960) proposed that media messages no longer ascribe to direct or sufficient effects because information-seekers have become more selective. Audiences are more likely to pursue their social and psychological needs when adopting and using media contents (Blumler, 1979; Carey & Kreiling, 1974; Katz, Blumler, Gurevitch, 1974). Moreover, individuals tend to fulfill their interests, expectations, and gratifications from the messages that they receive.

During the 1950s and 1960s, researchers had conceptualized and operationalized psychological variables with regard to varied patterns of media gratifications (Katz & Foulkes, 1962; Palmgreen & Raybun, 1985). Katz et al. (1974) stated that there were no absolute effects of message that determine audiences’ perspectives. Gratifications research at this time had consequently provided a more functional and cognitive approach concerning those who actively view media contents and diverse media effects.

More recently, the goals of uses and gratifications rely heavily on individuals, rather than media as follows: “a) to explain how people use media to gratify their needs, b) to understand motives for media behavior, and c) to identify functions or consequences that follow from needs, motives, and behavior” (Bryant & Zillmann, 1994, p. 419). That is, uses and gratifications approach more focused on individuals whose active audiences empower media to provide messages that can fulfill their interests and needs (Gandy, Matabane, & Omachonu, 1987; Garranone, 1984).

Katz et al. (1974) posits that the media content compete with other media channels, due to the varied individuals’ interest and need satisfaction and different media channels.
that function in their own peculiar ways. The uses and gratifications research emphasized motives and media need satisfactions (Blumler, 1979; Carey & Kreiling, 1974; Katz, Blumler, Gurevitch, 1974; Palmgreen & Rayburn, 1985). Blumler and Katz (1974) noted that varied people may adopt and use the same media content for diverse purposes. The same media channel, thus, may gratify different interests and needs for different audiences. It is therefore important to explore which elements motivate audiences to use or disregard a certain medium.

Specifically, Katz, Blumler, and Gurevitch (1974), based on the social and psychological roles of media, they specified audiences’ needs when adopting media as follows: **cognitive needs**-obtaining information, knowledge, and understanding, **affective needs**-emotion, feelings, and pleasure, **personal integrative needs**-stability, status, and credibility, **social integrative needs**-interacting with others, and **tension release needs**-escape and diversion. McQuail (1983), on the other hand, suggests that there are several factors that influence media use accordingly: audiences’ personal identity, reliable information, integration and social interaction, and entertainment. Given varied individuals’ different interests and needs, media gratifications can be sought and obtained (Palmgreen, Wenner, & Rayburn, 1980; Swanson, 1987).

**Uses and Gratifications in the Digital Age**

Throughout the decades, uses and gratifications researchers have sought to discover the coherence between people and media; in turn, the approach became not just evolved but in fact also controversial (Blumler, 1979, 1985; Carey & Kreiling, 1974; Dohohew, Palmgreen, & Rayburn, 1987; Galloway & Meek, 1981). Although early studies had contended that this theory failed to meet a point of convergence to perceive varied
audiences’ attitudes toward media, the uses and gratifications approach has provided a
critical view of understanding of the role of the audiences and the media since the
emergence of newspapers, radio, television, and recently the Internet (Bantz, 1982;
Blumler, 1979, 1985; Carey, 1974; Dohohew, Palmgreen, Rayburn, 1987; Eighmey &
McCord, 1998; Elliot, 1974).

The advent of communication technologies allows diverse media to modify the
patterns of audiences (Garramone, 1984). The more varied media choices may expand
audiences’ motives, interests, and needs when adopting media contents. Ruggiero (2000)
said that gratifications theory is better suited for the Internet research in that audiences
became more active to participate in the realm of the Internet at any time and place.

Contemporary studies found that the Internet environment mostly enables those
exposed to information-laden contents to meet their needs when adopting and using the
Internet (Eighmey & McCord, 1997; Lillie, 1997). It is possible for anyone including
demographic diversity to communicate and interact with each other online. There were
less constraints for audiences to exchange information through the Internet unless they
are restricted to connectivity and accessibility. Parker and Plank (2000) present that new
media often impact upon new motivations and gratifications among diverse individuals.

Concerning the increasing complexity of varied audiences as well as media content
such as information, news, and entertainment online, Eigmey and McCrod (1998)
questioned which elements could be most useful and appealing to audiences. They
suggested that it would be practical to apply the uses and gratification approach to
explore the audiences’ perspective associated with the Internet, due to the broader range
of media users and media content online.
A crucial tenet of the uses and gratifications approach is that individuals, as active audiences, are selective and based on their adaptable motives including social and psychological needs, they choose certain types of media channels. Recently, gratifications research found that one of the most influential factors that encourages individuals to adopt and use the Internet is to gain various kinds of information (Dyson, 1993; Ruggiero 2000; Lillie, 1997; Lin, 2001). Ferguson and Perse (2000) demonstrated that there are several influential elements that motivate individuals to adopt and utilize the Internet: passing time, relaxation, escape, entertainment, and social information.

This study expects that it is possible for users to use certain media content since they just encounter it. With regard to the Internet and online news, web users can also check online news sites just after checking their email or blog. Contemporary gratifications research indicates that a wider variety of people today are allowed to participate in numerous sites online, thence, they can better fulfill their varied interests and needs socio-psychologically, via the Internet (Lin, 2001; McQuail, 2005; Parker & Plank, 2000).

Credibility

Such studies had examined the role of source credibility in terms of how certain messages could be reliable or persuasive (Anderson & Clevenger, 1963; McCroskey, 1969). Many researchers have used various types of statistical procedures to assess media credibility (Flanagin & Metzger, 2007; Gaziano & McGrath, 1986; Johnson & Kaye, 2002; Meyer, 1988; Kiousis, 2001; Schweiger, 2000). In comparison to early communication studies, recent studies conceive credibility as a receiver assessment that allows one to measure the quality of credibility, rather than considering a message that solely manipulates or persuades individuals (Gunther, 1992; Salmon, 1986; Stam & Dube, 1994).

Contemporary research concentrates on the role of communication technologies, collaborative and interactive media use, faced source manipulation by various media corporations (Metzger, Flanagin, Zwarun, 2003; Sundar & Nass, 2000). Flanagin and Metzger (2008) argue that “endorsed credibility in the digital media environment compensates for the relative anonymity of tools like the web…The means of sharing these assessments can take many forms resulting in several variants of credibility, most notably, conferred, tabulated, reputed, and emergent credibility” (p.7). Given the exploratory nature of this endeavor, credibility has been measured as a multifaceted construct (Johnson & Kaye, 2002).

With respect to exploring the quality of credibility, it is, indeed, important to understand the relationship between message senders and message receivers. Deuze (2003) argues that “Online researchers and journalists consider the importance of being interactive without accepting the fact that ongoing levels of interactivity undermine the we write, you read dogma of modern Journalism” (p. 220). Previous research, on the
other hand, found that online news stories include incorrect information as well as errors due to the instantaneous posting online (Lascia, 2002). However, Pew Research Center (2006) indicated that a number of web users, younger users in particular, consider the Internet as credible as traditional media or even more credible than old media. Furthermore, a national study indicated that web users concern about the quality of online news credibility (Online News Association, 2002).

More likely, it is complicated to evaluate media credibility. The Pew Research Center (2002) reported that the public's trust in the media such as newspapers and television have decreased since the mid-1980s. Despite the decline of the trust in traditional media including newspapers and television, nearly 75 percent of web users considered newspapers, magazines, and political sites online as more credible than their counterparts (Johnson & Kaye, 1998). The public further think that the Internet has reinforced mass communication effects, providing a research means (Pew Research Center, 2004). Although many studies found that newspapers were regarded as the most credible news sources (Flanagin & Metzger, 2000; Kiousis, 2001), some studies indicate that the Internet is as credible as traditional counterparts or significantly more credible (Johnson & Kaye, 1998; The Online News Association, 2002). It seems that media credibility could be relatively comparable, depending on varied media content and public.

As the Internet and online news has been rapidly adopted and used by a great number of people, the quality of information online should be explored. For decades, media credibility has played a focal role in understanding whether media sources are reliable (Anderson & Clevenger, 1963; Flanagin & Metzger, 2007; Gaziano & McGrath, 1986; Johnson & Kaye, 2002; McCroskey, 1969; Meyer, 1988; Kiousis, 2001; Schweiger,
2000). Schweiger (2002) stated that credibility may play a significant part in succeeding journalistic activities. To assess the new media credibility, it is essential to examine the elements of credibility.

Due to the varied types of information adopted and used by diverse people, media credibility may vary. Many studies consider credibility as multidimensional (Metzger, Flanagin, Zwarun, 2003; Sundar & Nass, 2000). Past research suggests that credibility is considered as a situational and perceptual variable (Freeman & Spyridakis, 2004; Sundar, 1998; Sundar & Nass, 2001; Thorson & Moore, 1996). It is intricate to define the absolute value of credibility. Furthermore, diverse media content and audience obfuscate perceptions of credibility. Credibility research, therefore, has used a variety of measurements to examine media credibility.

Despite the complex characteristic, the following dimensions that are combined by credibility studies, can be used to gauge media credibility; trustworthiness, honesty, believability, bias, fairness, accuracy, objectivity, verifiability, reporting the whole story, up-to-date, currency, and timeliness (Flanagin & Metzger, 2000; Gaziano & McGrath, 1986; Hovland & Weiss, 1951; Infante, 1980; Johnson & Kaye, 1998, 2000; Kiousis, 2001; Sundar, 1998). Although credibility research has not been consistent or conclusive, credibility studies that are collaborative and explorative provide a practical guide to evaluate perceptions of new media credibility among varied individuals.

*Research Questions*

This study investigates the diffusion of online news use and credibility among college students. Compared to traditional media, online media credibility has neither been consistent nor conclusive (Flanagin & Metzger, 2000). In order to better obtain
comprehensive perceptions of online news and credibility, this study, based on previous studies as well as current research, is conducted. The literature reviewed above suggests research questions as follows:

RQ 1: What are the students’ attitudes toward the Internet and online news?

   H1: Young people have positive attitudes toward the Internet generally, and online news particularly.

RQ 2: Why do the students prefer to adopt online news for their news source?

   H2: Young people believe that online news meets their needs better.

RQ 3: Why do the students, who think online media information is more credible than traditional media, believe they are getting more accurate information from web sites?

   H3: Young people see online news as highly credible.
CHAPTER 3
METHODOLOGY

Data Collection

The data were collected from a survey conducted on a sample of non-randomly chosen 300 undergraduate students and graduate students enrolled for the summer session 2009, at the University of Nevada, Las Vegas (UNLV). The graduate researcher for this survey met with professors in the six large colleges: Business, Engineering, Science, Hotel College, Liberal Arts, and Urban Affairs. Based on how many students were enrolled, the biggest class of the each college was selected for survey. Most of the students from Business, Engineering, Journalism and Communications, Hotel, Liberal Arts, and Science College administered the survey before or after their classes. Students for this survey were recruited as volunteers from larger classes on campus. In order for more comprehensive analysis, tables and figures are added, based on acceptable parameters for survey data.

Sample

Both undergraduate and graduate students enrolled in UNLV summer sessions, 2009 were the target in this research. The sample was limited due to the purpose of this study that concentrated heavily on perceptions of online news credibility among young web users, who have access to the Internet. The sample was not randomized. The students on campus were not allowed to have an equal chance to respond this survey. This survey was administered to a convenient sample. Pilot study was previously conducted, and the graduate researcher noted that there was no significant problem with questionnaire.
Instrument

No flyers, letter, or advertising were used. The important elements of consent are included at the beginning of the survey form, including a statement that the survey is for research purposes. All respondents were ensured anonymity. In total, 300 respondents completed the survey, although several questions by some respondents were omitted. When asked to choose only one answer, some selected more than one answer choice. In addition, some created their own answer choice. Despite these errors, all the surveys for this study were collected in order for more abundant information.

Media Credibility Analysis

In order to examine the hypotheses and research questions, attitudinal questions toward the Internet and online news credibility were asked. In addition, respondents were asked why they adopt and use certain sites. Although previous studies investigated perceptions of the Internet and online news use as mentioned above, only few contemporary studies have examined online news credibility. Since the emergence of the Internet, online news usage has rapidly increased. To measure the Internet and online news use behavior, this study asked about the Internet, online news use, and media credibility. Concerning the tendency for young people are more inclined to adopt innovations as well as new media, this study attempted to gauge young people’s attitudes toward the Internet and online news credibility in terms of comparative perspectives.

With respect to attitudes toward the Internet and online news, respondents in this study were questioned the following questions: “In general, would you describe your attitude toward the Internet as negative or positive?” “Specifically for online news sites, would you describe your attitude toward online news as negative or positive?” The
responses were measured using a 5-point Likert-type scale (1=not at all, very little, neutral, somewhat, or 5=very much).

Regarding the usage of online news, respondents were asked to assess the important qualities of online news as follows: convenient, informative, retrievable, multifunctional, cheaper, and instantaneous means. In addition, by ranking from 1=most important to 6=least important, respondents indicated their perceptions of the influential factors that encourage them to adopt and use online news.

Concerning online news credibility, nine types of media credibility elements such as believability, accuracy, verifiability, unbiased-ness, reporting the whole story, fairness, and objectivity were measured, based on previous credibility research (Flanagin & Metzer, 2000; Meyer, 1988; Newhagen & Nass, 1989; Rimmer, & Weaver, 1987; Shaw, 1973). A 5 point scale, ranging from 1=not at all, very little, neutral, somewhat, to 5=very much was again used. For the two group comparison of the attitudes toward the Internet and online news between female and male, T-tests were further used.

Data Analysis

In order to investigate the first research hypothesis, the mean scores of respondents’ attitudes toward the Internet as well as online news were calculated. To investigate the second and third hypotheses, Pearson \( r \) correlations were used. Because online news usage and media credibility may vary, depending on demographic variables (Gunther, 1992; Westely & Severin, 1964), attitudes toward the Internet and online news, and media credibility were also evaluated in terms of gender, income, major, region, and ethnicity. Because of the small sample size, after measuring initial sample, some variables were collapsed. For instance, Business and hotel majors were combined into
one; Journalism, Communication, and Liberal Arts were combined; Native American and Pacific Islander were also condensed into one group. Findings at the $p \leq 0.05$ or $p \leq 0.01$ level were considered as statistically significant.
Table 3
Demographic Profile of Respondents

<table>
<thead>
<tr>
<th>Variable</th>
<th>Sample Percentage (%) (n=300)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gender</td>
<td></td>
</tr>
<tr>
<td>Male</td>
<td>44.8</td>
</tr>
<tr>
<td>Female</td>
<td>55.2</td>
</tr>
<tr>
<td>Age</td>
<td></td>
</tr>
<tr>
<td>18-25</td>
<td>72.4</td>
</tr>
<tr>
<td>26-35</td>
<td>20.5</td>
</tr>
<tr>
<td>Over 36</td>
<td>4.8</td>
</tr>
<tr>
<td>Unknown</td>
<td>2.4</td>
</tr>
<tr>
<td>Race/ethnic group</td>
<td></td>
</tr>
<tr>
<td>African American/Black</td>
<td>9.7</td>
</tr>
<tr>
<td>Asian</td>
<td>25.2</td>
</tr>
<tr>
<td>Caucasian/White</td>
<td>43.3</td>
</tr>
<tr>
<td>Hispanic/Latino</td>
<td>10.4</td>
</tr>
<tr>
<td>Other</td>
<td>11.4</td>
</tr>
<tr>
<td>Income</td>
<td></td>
</tr>
<tr>
<td>Under $10,000</td>
<td>38.8</td>
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<tr>
<td>$10,000-$20,000</td>
<td>15.7</td>
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<tr>
<td>$20,001-$30,000</td>
<td>18.5</td>
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<tr>
<td>$30,001-$70,000</td>
<td>18.5</td>
</tr>
<tr>
<td>More than $70,000</td>
<td>8.0</td>
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<tr>
<td>Unknown</td>
<td>.3</td>
</tr>
<tr>
<td>Major</td>
<td></td>
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<tr>
<td>Business</td>
<td>8.1</td>
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<tr>
<td>Engineering</td>
<td>17.6</td>
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<tr>
<td>Hotel</td>
<td>11.2</td>
</tr>
<tr>
<td>Journalism/Communications</td>
<td>8.1</td>
</tr>
<tr>
<td>Liberal Arts</td>
<td>6.4</td>
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<tr>
<td>Science</td>
<td>36.6</td>
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<tr>
<td>Other/Unknown</td>
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<tr>
<td>Region/Hometown</td>
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<tr>
<td>United States</td>
<td>77.2</td>
</tr>
<tr>
<td>Non-United States</td>
<td>22.8</td>
</tr>
</tbody>
</table>
CHAPTER 4

RESULTS

This study first investigated research question concerning attitudes toward the Internet as well as online news. Findings suggest audiences generally have positive attitudes toward the Internet and online news sites. Furthermore, there was a positive correlation between the Internet usage and online news credibility. There was also a marginal association between demographic variables and online news credibility. The analysis will concentrate primarily on gender, based on the visible relationship between this demographic variable, the Internet, and online news credibility. Age data were not analyzed separately, due to the nature of the sample which contained almost all young people.

Descriptive Statistics

It is important to examine exploratory statistics due to the variables that are relevant to the data analysis. Tables and figures are added to succinctly show the findings with relation to viewers’ attitudes toward the Internet, online news, and media credibility. For demographic variables, charts are also included (see Appendix 2). This study focused on the larger number of respondents, aged 18-35, in order to concentrate on young web users’ perceptions of new media and credibility. Regarding online news usage by the whole population, the most widely used site was Yahoo! News (98 respondents, 32.7%), CNN (66 respondents, 22.0%), and MSNBC (40 respondents, 13.3%) in order, presented in Table 4 (See also figure 5). Other news sites were also used by 58 respondents (19.3%)- specifically, foreign or unknown site (13 respondents, 4.3 %), Google News (13 respondents, 4.2 %), FOX (10 respondents, 3.3 %), AOL (8 respondents, 2.7 %), BBC (5
respondents, 1.7 %), New York Times (3 respondents, 1 %), Wall Street Journal and Washington Post (3 respondents); and 30 respondents (10%) said they do not use online news sites. When asked to choose only one answer, some respondents chose more than one answer (8 respondents, 2.7%).

<table>
<thead>
<tr>
<th>Channel</th>
<th>Frequency</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yahoo! News</td>
<td>98</td>
<td>32.7</td>
</tr>
<tr>
<td>MSNBC</td>
<td>40</td>
<td>13.3</td>
</tr>
<tr>
<td>CNN</td>
<td>66</td>
<td>22.0</td>
</tr>
<tr>
<td>Other</td>
<td>58</td>
<td>19.3</td>
</tr>
<tr>
<td>Don’t use online news</td>
<td>30</td>
<td>10.0</td>
</tr>
<tr>
<td>More than</td>
<td>8</td>
<td>2.7</td>
</tr>
<tr>
<td>One answer</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>300</td>
<td>100.0</td>
</tr>
</tbody>
</table>

*Note.* For a visual comparison of results see Figure 5.

**Demographics of Sample and News Site Preferences**

As mentioned above, data were collected from 300 undergraduate and graduate students at the University of Nevada, Las Vegas (UNLV). Of the respondents 44.3 percent (N=133) were male, 54.4 percent (N=164) were female, the rest (1 percent, N=3) were unknown. The youngest respondent was 18 years old whereas the oldest was 52. This study primarily concerns respondents aged 18-35, in order to focus on the perception of *young* online news users, in accordance with the research questions. Only 14
respondents were between 36-52 (4.8 percent). The range for this survey was 17.00, with a mean age of 23.14 years (SD=3.795).

![Figure 5: Online News Usage](image)

For this research, 300 students from six large colleges-mostly Business (24 respondents, 8.1%), Engineering (52 respondents, 17.6%), Science including Biology and Medical School (108 respondents, 36.6%), Hotel (33 respondents, 11.2%), Journalism/Communication (24 respondents, 8.1%), Liberal Arts (19 respondents, 6.4%), and others including unknown (40 respondents, 23.4%)—participated in the survey (for more details, see Appendix 2).

Findings for annual income were shown accordingly: under $10,000 (111 respondents), $20,001-$30,000 (53 respondents), $30,001-$70,000 (53 respondents), $10,000-$20,000 (45 respondents) in order (for more details, see Appendix 2). The
sample of this survey consists of ethnic diversity as follows: Caucasian (129 respondents, 43.3 %), Asian (75 respondents, 25.2 %), Hispanic or Latino (31 respondents, 10.4 %), African-American (29 respondents, 9.7 %), others (26 respondents, 8.7 %), and the rest of the population including American Indian, Alaska Native, and Pacific Islander (8 respondents, 2.6 %) (for more details, see Appendix 2). In terms of region, 216 respondents said they originally came from the U.S., while 63 respondents said they came from outside the U.S.

Given the online news use tendency (see Appendix 3), 98 of the respondents preferred Yahoo! News, followed by CNN (N=66), other sites (N=58), MSNBC (N=39), and 8 of the respondents said they do not use online news sites (Table 4). In terms of the relationship between gender and online news preference, a few more women chose Yahoo! News, MSNBC, and CNN. It is found that 55 female respondents out of 164 (33.5 percent) said they use Yahoo! News while 43 male respondents out of 133 (32.3 percent) said they use Yahoo! News. Findings show that 24 female respondents out of 164 (14.6 percent) said they like to use MSNBC while 15 male respondents (11.3 percent) use MSNBC. Furthermore, 40 female respondents (24.4 percent) chose CNN while 26 male respondents (19.5 percent) used CNN. More men (49 respondents, 36.8 percent) than women (45 respondents, 27.4 percent) chose others (e.g., New York Times, Washington Post) besides Yahoo! News, CNN, or MSNBC (Table 5).

This study suggests that men may choose a variety of sites than women do. The results indicate that the way audiences adopt online news slightly varies, depending on gender. Yet, no significant difference was found between gender and online news site preference ($\chi^2 = 3.489$, n.s.).
Table 5
Online News Usage by gender

<table>
<thead>
<tr>
<th>Preferences of online news sites</th>
<th>Male</th>
<th>Female</th>
<th>N</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yahoo! News</td>
<td>43</td>
<td>55</td>
<td>98</td>
</tr>
<tr>
<td>MSNBC</td>
<td>15</td>
<td>24</td>
<td>39</td>
</tr>
<tr>
<td>CNN</td>
<td>26</td>
<td>40</td>
<td>66</td>
</tr>
<tr>
<td>Other</td>
<td>33</td>
<td>25</td>
<td>58</td>
</tr>
<tr>
<td>Do not use online news sites</td>
<td>13</td>
<td>15</td>
<td>28</td>
</tr>
<tr>
<td>More than one answer</td>
<td>3</td>
<td>5</td>
<td>8</td>
</tr>
<tr>
<td>Total</td>
<td>133</td>
<td>164</td>
<td>297</td>
</tr>
</tbody>
</table>

Note. For a visual comparison of results see Figure 2.

Figure 6
Online News Usage by gender

In relation to online news credibility by the whole population, the mostly trusted site was CNN (122 respondents, 43.0%), Yahoo! News (63 respondents, 22.2%), and MSNBC (41 respondents, 14.4%) in order, presented in Table 4 (See also figure 7).
Besides the top three news sites, other news sites including FOX, BBC, NYT, Google, AOL, WSJ, and WP, were also trusted by 52 respondents (18.5%). When asked to choose only one answer, some respondents chose more than one answer (5 respondents, 1.8%). As above, Yahoo! News is the most commonly used, although respondents trust CNN the most. It indicates that the usage of online news is not determined by credibility (for more details, see Table 4, 6).

<table>
<thead>
<tr>
<th>Channel</th>
<th>Frequency</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yahoo! News</td>
<td>63</td>
<td>22.2</td>
</tr>
<tr>
<td>MSNBC</td>
<td>41</td>
<td>14.4</td>
</tr>
<tr>
<td>CNN</td>
<td>122</td>
<td>43.0</td>
</tr>
<tr>
<td>Other</td>
<td>52</td>
<td>18.5</td>
</tr>
<tr>
<td>More than One answer</td>
<td>6</td>
<td>2.2</td>
</tr>
<tr>
<td>Total</td>
<td>284</td>
<td>100.0</td>
</tr>
</tbody>
</table>

*Note. For a visual comparison of results see Figure 7.*

Additionally, CNN is considered as the most trustworthy, believable, and honest news site. Regarding media credibility, correlations between attitudes toward the Internet/Online news and news credibility factors will be further described.
Research Questions and Survey Analysis

RQ 1: What are the students’ attitudes toward the Internet and online news?

H1: Young people have positive attitudes toward the Internet generally, and online news particularly.

This research question addressed students’ attitudes toward the Internet and online news. It appears that this hypothesis was supported by the data. The results show that young people generally have positive attitudes toward both the Internet and online news ($r=0.423; p \leq 0.01$). The results further indicate that if respondents feel positive about Internet, they are also positive about online news. More specifically, attitudes toward the Internet and online news by gender were compared.

Gender and Internet

Both males and females have positive attitudes toward the Internet in general (N=300, 4.374 out of 5.0). Male respondents said they strongly consider the Internet as positive
(N=133, 4.400 out of 5.0). Female respondents also consider the Internet as positive (N=164, 4.353 out of 5.0). Although there was no significant difference found, male respondents have slightly stronger positive attitudes toward the Internet (Table 7; t=.468; n.s.).

<table>
<thead>
<tr>
<th>Gender</th>
<th>N</th>
<th>Mean</th>
<th>Std. Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Describe attitudes</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Male</td>
<td>133</td>
<td>4.400</td>
<td>.87788</td>
</tr>
<tr>
<td>Female</td>
<td>164</td>
<td>4.353</td>
<td>.85079</td>
</tr>
<tr>
<td>Total including unknown</td>
<td>300</td>
<td>4.374</td>
<td>.85886</td>
</tr>
</tbody>
</table>

**Table 7**
Attitudes toward the Internet by gender

*Gender and Online News*

Both male respondents and female respondents have *positive* attitudes toward online news sites (N=295, 3.903 out of 5.0). Males consider online news sites as positive (3.825 out of 5.0). Females also regard online news sites positive (3.965 out of 5.0). As above, there was no significant difference by gender, but females have slightly more positive attitudes toward online news sites (Table 8; t=-.700; n.s.).

In accordance with attitudes toward the Internet and online news by gender, positive perceptions of the Internet and online news were found according to major, income, region, and ethnicity. In addition to main findings for the research questions, these additional findings will be discussed.
<table>
<thead>
<tr>
<th>Describe attitudes toward online news</th>
<th>Male</th>
<th>132</th>
<th>3.825</th>
<th>.97680</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total including unknown</td>
<td>Female</td>
<td>160</td>
<td>3.965</td>
<td>.87258</td>
</tr>
<tr>
<td></td>
<td>Total including unknown</td>
<td>295</td>
<td>3.903</td>
<td>.91751</td>
</tr>
</tbody>
</table>

RQ 2: Why do the students prefer to adopt online news for their news source?

H2: Young people believe that online news meets their needs better.

The results suggest that online news sites are not solely used by a great number of audiences, but they considered both the Internet and online news sites as positive. According to past research, the more experienced web users are more likely to consider the internet quality as well as the credibility of the sources they use (Flanagin and Metzger, 2000; Johnson and Kaye 2000; Kiousis, 2001, Sundar, 1998). In other words, there is a positive association between the internet usage and credibility. Considering the relationship between the usage of online news and credibility, it is crucial to examine which elements encourage audiences to adopt and use online news. Thus, this study focused on both online news usage as well as credibility.

**Online news usage: Ranks assigned to qualities of online news**

The most important factor that affects web users to use online news was convenience. It is found that 145 of the respondents ranked “convenient” as the most important quality(50 percent). Secondly, 76 respondents said they use online news, due to its informative quality (26.2 percent), followed by instantaneous quality (54 or 18.7 percent). The element that young web users most often called the least important to adopt
online news was *cheapness*. Interestingly, young web users are less likely to be affected by cheapness when they adopt online news.

<table>
<thead>
<tr>
<th>Important Elements of Online news</th>
<th>Most Important</th>
<th>Least Important</th>
<th>Total N</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>Convenient: available at any time and place</td>
<td>145</td>
<td>56</td>
<td>30</td>
</tr>
<tr>
<td>Informative: provide a myriad of information</td>
<td>76</td>
<td>56</td>
<td>49</td>
</tr>
<tr>
<td>Retrievable: can use sites repeatedly</td>
<td>30</td>
<td>38</td>
<td>58</td>
</tr>
<tr>
<td>Multifunctional: provide text, visual, image, audio, and audio-visual features</td>
<td>40</td>
<td>32</td>
<td>48</td>
</tr>
<tr>
<td>Instantaneous: provide information instantly</td>
<td>54</td>
<td>62</td>
<td>55</td>
</tr>
<tr>
<td>Cheaper: cheaper than traditional media</td>
<td>41</td>
<td>29</td>
<td>34</td>
</tr>
<tr>
<td>Other</td>
<td>12</td>
<td>2</td>
<td>3</td>
</tr>
</tbody>
</table>

While 126 of the respondents ranked “cheapness” as the least important quality (43.6 percent), only 41 of the respondents considered this factor as the most important (14.2 percent). More detailed information is shown in Table. Unexpectedly, some respondents
assigned the same rank to more than one of the elements. Some answers were omitted by the respondents.

The three highest correlations between particular elements and attitudes toward online news sites, according to the respondents, were with trustworthiness, honesty, and believability whereas the three lowest correlations were with objectivity, fairness, and reporting the whole story which are traditional news values. Although opinions about online news credibility were quite correlated across the Internet and online news sites, correlations between various news elements and attitudes toward online news were higher than between the same elements and attitudes toward the Internet. That is, lower correlations were found with attitudes toward the Internet (see Table 10).

<table>
<thead>
<tr>
<th>News Credibility Elements</th>
<th>Attitude toward Online news</th>
<th>Attitude toward the Internet</th>
</tr>
</thead>
<tbody>
<tr>
<td>Trustworthy</td>
<td>.382**</td>
<td>.188**</td>
</tr>
<tr>
<td>Honest</td>
<td>.359**</td>
<td>.202**</td>
</tr>
<tr>
<td>Believable</td>
<td>.356**</td>
<td>.226**</td>
</tr>
<tr>
<td>Accurate</td>
<td>.347**</td>
<td>.273**</td>
</tr>
<tr>
<td>Verifiable</td>
<td>.314**</td>
<td>.280**</td>
</tr>
<tr>
<td>Unbiased</td>
<td>.293**</td>
<td>.122*</td>
</tr>
<tr>
<td>Report the whole story</td>
<td>.286**</td>
<td>.151*</td>
</tr>
<tr>
<td>Fair</td>
<td>.289**</td>
<td>.150*</td>
</tr>
<tr>
<td>Objective</td>
<td>.282**</td>
<td>.172**</td>
</tr>
</tbody>
</table>

Note. * P ≤ 0.05, ** P ≤ 0.01
RQ 3: Why do the students, who think online media information is more credible than traditional media, believe they are getting more accurate information from web sites?

H3: Young people see online news as highly credible.

As noted above, young people consider online news as highly positive. Findings indicate that the three highest factors that affect their perception of online news credibility were trustworthiness, honesty, and believability. Concerning greater perceived accuracy in particular, in comparison to traditional news, the most highly related element was accuracy (.396), not surprisingly. The next most highly related three factors were believability (.342), trustworthiness (.340), and verifiability (.325).

<table>
<thead>
<tr>
<th>News credibility Factors</th>
<th>Perceptions of whether online news is more accurate</th>
</tr>
</thead>
<tbody>
<tr>
<td>Trustworthy</td>
<td>.340**</td>
</tr>
<tr>
<td>Honest</td>
<td>.318 **</td>
</tr>
<tr>
<td>Believable</td>
<td>.342**</td>
</tr>
<tr>
<td>Accurate</td>
<td>.396**</td>
</tr>
<tr>
<td>Verifiable</td>
<td>.325**</td>
</tr>
<tr>
<td>Unbiased</td>
<td>.232**</td>
</tr>
<tr>
<td>Report whole story</td>
<td>.299**</td>
</tr>
<tr>
<td>Fair</td>
<td>.250**</td>
</tr>
<tr>
<td>Objectivity</td>
<td>.269**</td>
</tr>
</tbody>
</table>

*Note.  * P ≤ 0.05, ** P ≤ 0.01

This study, thus, suggests that young web users tend to believe the more trustworthiness, honesty, and believability they obtain; the higher they trust their
information. Additionally, young web users perceive that where their information source includes credibility elements such as accuracy, believability, trustworthiness, and verifiability, they regard their information as accurate (Table 11).

Additional findings by major, income, region, and ethnicity

In addition to the research questions above, attitudes toward the Internet as well as online news, and online news credibility by the other demographic variables such as major, income, region, and ethnicity were examined for further information. Not surprisingly, these demographics also have positive attitudes toward the Internet and online news. Yet, it is important to understand varied people’s perceptions of new media in that innovations may be adopted differently, depending on what they need or where they use. When respondents adopt and utilize new media, these variables mentioned above could influence their perceptions of the Internet and online news. Thus, this study included media use and credibility in terms of major, income, region, and ethnicity (for details of these other variables, see appendix 2).
CHAPTER 5
DISCUSSION

As above, the findings answered the research questions; attitudes toward the Internet and online news among young web users, and contributory factors that encourage the viewers to better adopt and trust online news. In addition to the research questions, a contingent association between demographic variables and online news credibility was investigated.

Survey Interpretations

Not surprisingly, the results show that young people generally have positive attitudes toward both the Internet and online news. The findings further indicate that if respondents feel positive about the Internet, they are also positive about online news ($r = .423; p \leq 0.01$). Male respondents have slightly stronger positive attitudes toward the Internet whereas female respondents have slightly more positive attitudes toward online news sites. The results also suggest that male respondents tend to use a variety of online news sites. Perhaps, these differences stem from gender preferences. Past research found that males are more likely to use the Internet for visual communication including photography and games while females prefer to participate in mass communication. Future studies need to examine the more specific and solid factors that relate to perspectives of the Internet and online news in terms of gender.

Considering the relationship between the usage of online news and credibility, the influential elements that encourage audiences to adopt and utilize online news were examined. The results suggest that the most important factor that affects web users to use online news was convenience. Approximately 50 percent of respondents said this element led them to adopt online news. What is also crucial to encourage people to use online
news was the *informative* and *instantaneous* quality of online news. The three highest correlations between online news credibility elements and attitudes toward online news sites were with trustworthiness ($r=0.382; p \leq 0.01$), honesty ($r=0.359; p \leq 0.01$), and believability ($r=0.356; p \leq 0.01$). In contrast, the three lowest correlations were with objectivity ($r=0.172; p \leq 0.01$), reporting the whole story ($r=0.151; p \leq 0.05$), and fairness ($r=0.150; p \leq 0.05$), which are traditional news values.

**Implications**

The data analysis unveiled intriguing relations that lead to further discussion. The important factors that elicit web users to trust online news are relevant to *emotional* or *psychological* elements (e.g., trustworthiness, honesty, and believability). Yet, the least important factors were derived from *traditional journalism factors* (e.g., objectivity, reporting the whole story, and fairness).

This unexpected outcome suggests future research should be examined to explore the relationship between audiences’ psychological perspectives and mass media preferences with respect to traditional media versus new media. Regardless of whether people rely on psychological elements or journalism factors, the results suggest that people overall have positive attitudes toward online news. The uses and gratifications and diffusion literature posit that active audiences tend to be influenced by sociological as well as psychological elements when adopting new media. Concerning young audiences’ perspectives of online news use, an alternative interpretation should be examined with collaborative dimensions.

Another observation deserving concern involves the relationship between online news usage and credibility. Although online news usage is connected with perceptions of news credibility, the Internet use also seems to be associated with news credibility. The more
people use the Internet and online news, the higher it is to concern about online news credibility. Nevertheless, the data show that respondents use Yahoo! News the most while they trust CNN the most. The most used site may not be given higher credence. It appears that respondents’ online news use was yet modestly tied to online news credibility.

The findings also demonstrate that audiences adopt and use online news based primarily on convenience. Previous research suggests that many use online news, due to the connection from their interpersonal communication (e.g., email and blog). Web users are quite saturated with numerous links including online news. Online news may be used simply because it is intrusive. It would be possible that messages of online news associated with email or personal blog attract users to check news. Certain texts or visual images of online news may spur web users to view their information. Future research should examine whether such speculation is justified.

Overall, this study provides comprehensive insights into media use and online news credibility. The results suggest that young web users have positive attitudes toward the Internet and online news. The data demonstrate that the most important element that encourages audiences to adopt and utilize online news was convenience. With regard to online news credibility, psychological factors tend to affect audiences’ perceptions of online news credibility more than traditional journalism values. Furthermore, as previous research noted that perceptions of news credibility are quite uniform among audiences (Kiousis, 2001), the results indicate that the way individuals perceive online news slightly varies, depending on demographic variables (See Appendix 2).
Limitations

Nonetheless, this study is limited to a certain group of students, major, income, and region. The non-randomized sample of the survey consists of young people, mostly age 18-35, who attend undergraduate and graduate school. It is not generalizable to other populations including young people who are not in academia. Although the sample contained a number of students from each of the states, there was a dearth of non-U.S. respondents participated in this survey. Moreover, despite the various ethnic groups, certain populations were deficient. The sample of the population consists of Caucasian and Asian relatively higher than the other ethnic groups including African-Americans and Hispanic or Latino. If the sample would be chosen more randomly and the sample size would be larger, more significant results could be found. A more inclusive research might be highly practical. The results thus command greater attention that fulfills more diverse and broader populations.

Conclusions and Recommendations for Future Research

This study explores the quality of new media and audiences, exposed to pervasive communication technologies, how to adopt and use the new media. While utilizing the Internet in general and online news in particular, it is vital for media researchers to provide critical insights into new media use and perceptions of online news credibility. That respondents have positive attitudes toward the Internet and online news raises questions why they adopt and use particular news sites and how they perceive these sites. In order to understand audiences’ perspectives of online news, this study investigates the decisive elements that encourage audiences to adopt, use, and trust certain online news sites.

What is discovered through this study is that respondents choose to use certain sites,
but they do not rely on these sites they utilize simultaneously. It seems that media use was merely associated with perceptions of credibility. This study indicates that the three most influential elements that encourage audiences to adopt and use online news were the convenient, informative, and instantaneous quality of online news. The three most compelling factors that lead respondents to trust a particular site, on the other hand, were emotion-related elements such as trustworthiness, honesty, and believability in order. To understand audiences’ detailed perceptions regarding online news, collaborative research involving psychological as well as journalistic approaches should be explored.

Distributed unevenly, the sample of the survey at the University of Nevada, Las Vegas located in a metropolitan area has one of the highest diversity of ethnic groups from different regions. Although respondents have positive attitudes toward the Internet as well as online news, their preferences of online news use and credibility vary. It may be due to individuals’ versatile needs and interests as uses and gratifications and diffusion literature present. Further investigations should be developed to explore perceptions of online news in terms of a broad variety of demographics.

Despite its investigations, this study has a lack of understanding with respect to diverse populations for long-term media effects. Because of the limitation of the sample size, it is not generalizable to other populations. Future research should help reinforce its external validity. Given the ubiquity of the Internet and online news, it would be helpful to explore broader dimensions for a greater range of age and regional demographics. Perceptions of media use and online news credibility among populations in both rural and urban areas should be examined.

In summary, individuals are able to send and receive messages incessantly via the
Internet. Not only do audiences adopt and use new media, it is also crucial for both users and researchers to perceive the quality of the new media. Understanding the usage of the Internet, online news, and credibility can provide comprehensive insights into new media. This study expects future research to enhance media use and online news credibility among more varied demographics to better understand the relationship between new media and audience in the Information Age.
APPENDIX 1
ONLINE NEWS USAGE AND CREDIBILITY SURVEY QUESTIONNAIRE
Online News Usage and Credibility

Hello, I am Chee Youn Kang, a graduate student at the University of Nevada, Las Vegas (UNLV). This survey is for research purposes and is being conducted for my thesis about online news use and credibility. This survey is anonymous. Please answer the following questions as clear as possible. When questioned, you are requested to choose one answer only. Please try an answer that best represent your view or experience. Please circle the response that best represents your behavior. You are not required to do this survey, which is entirely voluntary, but I would appreciate it. If you have any questions or concerns about this study, please contact my thesis supervisor, Dr. Susanna Priest at susanna.priest@unlv.edu.

1. Which of the following online news sites do you use the most?
   a. Yahoo! News
   b. MSNBC
   c. CNN
   d. Other online news site (Specify: __________ )
   e. Do not use online news sites

2. Please rank the importance of the following qualities (Please fill in your rank order in the spaces provided using the numbers 1 through 6: 1=MOST Important, 6=LEAST Important). What is the main reason you use online news?
   _____ a. Convenient: available at any time and region
   _____ b. Informative: provide numerous information
   _____ c. Retrieveable: can use sites repeatedly
   _____ d. Multifunctional: provide text, visual images, audio, and audio-visual features
   _____ e. Instantaneous: provide information instantly
   _____ i. Cheaper: cheaper than traditional media like newspaper, magazine, radio, or TV
   _____ j. Other (Specify: _______________)

3. In general, would you describe your attitude toward the Internet as negative or positive?

   1-------------2----------3-----------4------------5
   Negative                                                         Positive

4. Specifically for online news sites, would you describe your attitude as negative or positive?

   1-------------2----------3-----------4------------5
   Negative                                                         Positive
5. If you use online news often, which one do you trust most?
   a. Yahoo! News
   b. MSNBC
   c. CNN
   d. Other (Specify: ______________)

6. In general, do you think online news sites are more accurate than traditional news sources?
   1-------------------2-----------------3---------------4-----------------5
   Not at all            Very Little            Neutral        Somewhat       Very Much

7. How important to you is keeping up with the news?
   1-------------------2-----------------3---------------4-----------------5
   Not at all            Very Little            Neutral        Somewhat       Very Much

8. On a scale of 1-5, how much do you **trust online news** to have each of the following characteristics.

<table>
<thead>
<tr>
<th>Characteristic</th>
<th>Scale</th>
</tr>
</thead>
<tbody>
<tr>
<td>Trustworthy</td>
<td>1-5</td>
</tr>
<tr>
<td>Honest</td>
<td>1-5</td>
</tr>
<tr>
<td>Believable</td>
<td>1-5</td>
</tr>
<tr>
<td>Accurate</td>
<td>1-5</td>
</tr>
<tr>
<td>Verifiable</td>
<td>1-5</td>
</tr>
<tr>
<td>Unbiased</td>
<td>1-5</td>
</tr>
<tr>
<td>Report the whole story</td>
<td>1-5</td>
</tr>
</tbody>
</table>
9. Of all the reasons below, what is the most important reason that you use any news source? Please rank the importance of the following qualities (Please fill in your rank order in the spaces provided using the numbers 1 through 12; 1=FIRST or MOST Important, 12=LAST or LEAST Important)

_____ a. Trustworthy
_____ b. Honest
_____ c. Believable
_____ d. Accurate
_____ e. Objective
_____ f. Verifiable
_____ g. Unbiased
_____ h. Fair
_____ i. Report the whole story
_____ j. Current
_____ k. Timely
_____ l. Up-to-date

10. What is your major? ____________________

11. What is your gender?
   a. Male
   b. Female

12. Ethnicity: Which category best describes your race?
   a. African-American
   b. American Indian or Alaska Native
   c. Asian
   d. Caucasian
   e. Hispanic or Latino
   f. Native Hawaiian or Pacific Islander
   g. Other

13. Where were you born? U.S. State (e.g., California) _________________
    Other Country (e.g., Canada) _________________

14. What is your age in year? (e.g., 25) ___________________

15. What is your annual income?
   a. Under $10,000
   b. $10,000-$20,000
   c. $20,001-$30,000
   d. $30,001-$70,000
   e. More than $70,000

Your information is very important and valuable in this survey. Thank you very much for your time.
APPENDIX 2
RESPONDENT DEMOGRAPHICS AND ONLINE NEWS AND CREDIBILITY
BY DEMOGRAPHIC VARIABLES
Note. Due to the small sample size, after measuring initial sample, some variables were collapsed. For instance, Business and Hotel majors were combined into one (57 respondents, 19.3%); Journalism, Communication, and Liberal Arts were combined (43 respondents, 14.6%), although bigger major groups such as Science and Engineering remained as above.
## Online news usage by collapsed major

<table>
<thead>
<tr>
<th>Major Category</th>
<th>Yahoo! News</th>
<th>MSNBC</th>
<th>CNN</th>
<th>Other</th>
<th>Don’t Use</th>
<th>More Than One</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Business/Hotel</td>
<td>24</td>
<td>5</td>
<td>14</td>
<td>9</td>
<td>4</td>
<td>1</td>
<td>57</td>
</tr>
<tr>
<td>Engineering</td>
<td>14</td>
<td>8</td>
<td>11</td>
<td>12</td>
<td>6</td>
<td>1</td>
<td>52</td>
</tr>
<tr>
<td>Journalism/Liberal Arts</td>
<td>13</td>
<td>6</td>
<td>13</td>
<td>8</td>
<td>3</td>
<td>0</td>
<td>43</td>
</tr>
<tr>
<td>Science</td>
<td>32</td>
<td>16</td>
<td>23</td>
<td>19</td>
<td>13</td>
<td>5</td>
<td>108</td>
</tr>
<tr>
<td>Others/Unknown</td>
<td>14</td>
<td>4</td>
<td>5</td>
<td>9</td>
<td>2</td>
<td>1</td>
<td>35</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>97</strong></td>
<td><strong>39</strong></td>
<td><strong>66</strong></td>
<td><strong>57</strong></td>
<td><strong>28</strong></td>
<td><strong>8</strong></td>
<td><strong>295</strong></td>
</tr>
</tbody>
</table>

![Online news usage by collapsed major](image-url)
### Online News Credibility by collapsed major

<table>
<thead>
<tr>
<th>Trusted Online news sites</th>
<th>Collapsed major</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Business</td>
</tr>
<tr>
<td>Yahoo! News</td>
<td>13</td>
</tr>
<tr>
<td>MSNBC</td>
<td>5</td>
</tr>
<tr>
<td>CNN</td>
<td>26</td>
</tr>
<tr>
<td>Other</td>
<td>11</td>
</tr>
<tr>
<td>More than one</td>
<td>1</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>56</td>
</tr>
</tbody>
</table>

![Online News Credibility by collapsed major](attachment:image.png)
## Online News Usage by Income

<table>
<thead>
<tr>
<th>Online News Usage</th>
<th>Annual Income</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Under $10,000</td>
<td>$10,000-$20,000</td>
</tr>
<tr>
<td>Yahoo! News</td>
<td>36</td>
<td>20</td>
</tr>
<tr>
<td>MSNBC</td>
<td>13</td>
<td>5</td>
</tr>
<tr>
<td>CNN</td>
<td>24</td>
<td>10</td>
</tr>
<tr>
<td>Other</td>
<td>22</td>
<td>9</td>
</tr>
<tr>
<td>Do not use</td>
<td>14</td>
<td>0</td>
</tr>
<tr>
<td>More than one</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>Total</td>
<td>111</td>
<td>45</td>
</tr>
</tbody>
</table>

### Online News Usage by Income

- Yahoo! News
- MSNBC
- CNN
- Other
- Do not use
- More than one

- Under $10,000
- $10,000-$20,000
- $20,001-$30,000
- $30,001-$70,000
- More than $70,000

---

63
## Online News Credibility by Income

<table>
<thead>
<tr>
<th>Trusted online news sites</th>
<th>Annual Income</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Under $10,000</td>
</tr>
<tr>
<td>Yahoo! News</td>
<td>26</td>
</tr>
<tr>
<td>MSNBC</td>
<td>17</td>
</tr>
<tr>
<td>CNN</td>
<td>44</td>
</tr>
<tr>
<td>Other</td>
<td>16</td>
</tr>
<tr>
<td>More than one</td>
<td>1</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>104</strong></td>
</tr>
</tbody>
</table>

### Online News Credibility by Income

- **Yahoo! News**
- **MSNBC**
- **CNN**
- **Other**
- **More than one**

*Graph showing the distribution of trusted online news sites by annual income.*
### Online News Usage by Region (U.S vs Non-U.S)

<table>
<thead>
<tr>
<th>Online News Usage</th>
<th>United States</th>
<th>Non-United States</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yahoo! News</td>
<td>72</td>
<td>24</td>
<td>96</td>
</tr>
<tr>
<td>MSNBC</td>
<td>32</td>
<td>7</td>
<td>39</td>
</tr>
<tr>
<td>CNN</td>
<td>52</td>
<td>13</td>
<td>65</td>
</tr>
<tr>
<td>Other</td>
<td>44</td>
<td>13</td>
<td>57</td>
</tr>
<tr>
<td>Do not use</td>
<td>22</td>
<td>7</td>
<td>29</td>
</tr>
<tr>
<td>More than one</td>
<td>5</td>
<td>3</td>
<td>8</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>227</strong></td>
<td><strong>67</strong></td>
<td><strong>294</strong></td>
</tr>
</tbody>
</table>

*Note.* Table shows that 227 respondents (77.2%) are from the United States, 67 respondents are not from the United States (22.3%).

---

![Online News Usage by Region (U.S vs Non-U.S)](image-url)
### Online News Credibility by Region (U.S vs Non-U.S)

<table>
<thead>
<tr>
<th>Trusted Online news sites</th>
<th>Region</th>
<th>United States</th>
<th>Non-United States</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yahoo! News</td>
<td></td>
<td>45</td>
<td>17</td>
<td>62</td>
</tr>
<tr>
<td>MSNBC</td>
<td></td>
<td>31</td>
<td>9</td>
<td>40</td>
</tr>
<tr>
<td>CNN</td>
<td></td>
<td>95</td>
<td>24</td>
<td>119</td>
</tr>
<tr>
<td>Other</td>
<td></td>
<td>41</td>
<td>11</td>
<td>52</td>
</tr>
<tr>
<td>More than one</td>
<td></td>
<td>4</td>
<td>2</td>
<td>6</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td></td>
<td>216</td>
<td>63</td>
<td>279</td>
</tr>
</tbody>
</table>

### Online News Credibility by Region (U.S vs Non-U.S)

![Bar chart comparing trusted online news sites credibility by region](chart.png)
### Ethnicity

<table>
<thead>
<tr>
<th>Ethnicity</th>
<th>Frequency</th>
<th>Valid Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>African-American</td>
<td>29</td>
<td>9.7</td>
</tr>
<tr>
<td>American Indian or Alaska Native</td>
<td>1</td>
<td>.3</td>
</tr>
<tr>
<td>Asian</td>
<td>75</td>
<td>25.2</td>
</tr>
<tr>
<td>Caucasian</td>
<td>129</td>
<td>43.3</td>
</tr>
<tr>
<td>Hispanic or Latino</td>
<td>31</td>
<td>10.4</td>
</tr>
<tr>
<td>Native Hawaiian or Pacific Islander</td>
<td>7</td>
<td>2.3</td>
</tr>
<tr>
<td>Other</td>
<td>26</td>
<td>8.7</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>298</strong></td>
<td><strong>100.0</strong></td>
</tr>
<tr>
<td>Missing System</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>300</strong></td>
<td></td>
</tr>
</tbody>
</table>

![Ethnicity Pie Chart](image-url)
## Ethnicity Collapsed

<table>
<thead>
<tr>
<th>Ethnicity Collapsed</th>
<th>Frequency</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>African-American</td>
<td>29</td>
<td>9.7</td>
</tr>
<tr>
<td>Asian</td>
<td>75</td>
<td>25.2</td>
</tr>
<tr>
<td>Caucasian</td>
<td>129</td>
<td>43.3</td>
</tr>
<tr>
<td>Hispanic/Latino</td>
<td>31</td>
<td>10.4</td>
</tr>
<tr>
<td>Others/Unknown</td>
<td>34</td>
<td>11.4</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>298</strong></td>
<td><strong>100.0</strong></td>
</tr>
<tr>
<td>Missing System</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>300</strong></td>
<td></td>
</tr>
</tbody>
</table>

*Note.* Due to the small sample size, after measuring initial sample, some variables were collapsed. For instance, American Indian, Alaskan, Native Hawaiian, and Pacific Islander were combined into the others/unknown group.
### Online News Usage by Ethnicity Collapsed

<table>
<thead>
<tr>
<th>Online News Usage</th>
<th>Ethnicity</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>African-American</td>
</tr>
<tr>
<td>Yahoo! News</td>
<td>10</td>
</tr>
<tr>
<td>MSNBC</td>
<td>6</td>
</tr>
<tr>
<td>CNN</td>
<td>10</td>
</tr>
<tr>
<td>Other</td>
<td>2</td>
</tr>
<tr>
<td>Do not use</td>
<td>1</td>
</tr>
<tr>
<td>More than one</td>
<td>0</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>29</strong></td>
</tr>
</tbody>
</table>

---

### Online News Usage by Ethnicity Collapsed

- **Yahoo! News**
- **MSNBC**
- **CNN**
- **Other**
- **Do not use**
- **More than one**

![Bar Chart](image-url)
### Online News Credibility by Ethnicity Collapsed

#### Trusted Online News Sites

<table>
<thead>
<tr>
<th>Ethnicity</th>
<th>African-American</th>
<th>Asian</th>
<th>Caucasian</th>
<th>Hispanic/Latino</th>
<th>Others/Unknown</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yahoo! News</td>
<td>6</td>
<td>20</td>
<td>28</td>
<td>6</td>
<td>3</td>
<td>63</td>
</tr>
<tr>
<td>MSNBC</td>
<td>4</td>
<td>9</td>
<td>16</td>
<td>4</td>
<td>7</td>
<td>40</td>
</tr>
<tr>
<td>CNN</td>
<td>16</td>
<td>32</td>
<td>50</td>
<td>11</td>
<td>13</td>
<td>122</td>
</tr>
<tr>
<td>Other</td>
<td>2</td>
<td>11</td>
<td>25</td>
<td>5</td>
<td>9</td>
<td>52</td>
</tr>
<tr>
<td>More than one</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>0</td>
<td>6</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>28</td>
<td>73</td>
<td>121</td>
<td>29</td>
<td>32</td>
<td>283</td>
</tr>
</tbody>
</table>

### Online News Credibility by Ethnicity Collapsed

![Bar chart showing trusted news sites by ethnicity and platform]
APPENDIX 3
TOP ONLINE NEWS SITES
Top 3 online news sites, 2002-2009

<table>
<thead>
<tr>
<th></th>
<th>Sep-02</th>
<th>Oct-03</th>
<th>Nov-04</th>
<th>Nov-05</th>
<th>Oct-06</th>
<th>Oct-07</th>
<th>Sep-08</th>
<th>Sep-09</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yahoo! News</td>
<td>14,958</td>
<td>17,431</td>
<td>22,596</td>
<td>24,670</td>
<td>29,113</td>
<td>33,171</td>
<td>38,073</td>
<td>43,469</td>
</tr>
<tr>
<td>MSNBC</td>
<td>17,169</td>
<td>20,596</td>
<td>22,587</td>
<td>22,300</td>
<td>26,548</td>
<td>29,841</td>
<td>43,211</td>
<td>36,450</td>
</tr>
<tr>
<td>CNN</td>
<td>18,058</td>
<td>21,227</td>
<td>26,587</td>
<td>22,111</td>
<td>27,570</td>
<td>30,218</td>
<td>37,277</td>
<td>38,024</td>
</tr>
</tbody>
</table>

Note, audience size (000). It is designed, based on data reported by Jonathan Dube, 2002-2007, available online at http://www.cyberjournalist.net/top_news_sites/. Data for 2009 were adopted from http://www.marketingcharts.com/interactive/top-10-current-events-news-online-destinations-august-2009-10558/

For a visual comparison see below.
REFERENCES


active participation. *Communication Research, 14*, 644–663.


VITA

Graduate College
University of Nevada, Las Vegas

Chee Youn Kang

Degrees:
Bachelor of Arts, 2002
Seoul Women’s University

Thesis Title: Communication Technologies: Diffusion of Online News Use and Credibility among Young Web Users in the Information Age

Thesis Examination Committee:
Chairperson, Dr. Susanna H. Priest, Ph.D.
Committee Member, Dr. Anthony Ferri, Ph.D.
Committee Member, Dr. Gregory Borchard, Ph.D.
Graduate Faculty Representative, Dr. Denise Tillery, Ph.D.