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Selective Exposure, Uses and Gratifications
of a Cyber Election Campaign:
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**Selective Exposure, Uses and Gratifications of a Cyber Election
Campaign: Presidential Election 2000**

By

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A DISSERTATION

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Abstract
Selective Exposure, Uses and Gratifications of a Cyber Election
Campaign: Presidential Election 2000

By
Yasuhiro Inoue

This dissertation examines factors that determine voters' use of candidates' online campaigning and the Web's possible effects on voting behavior in the Presidential Election 2000 by applying selective exposure and uses and gratifications theories. The specific purpose of this dissertation is five-fold; this study (1) tests whether voters are more likely to log on to a preferred candidate's Web site, (2) investigates whether selective exposure to a preferred candidate's Web site affects the endorsement for the candidate, (3) judges whether Web site use enhances voting turnout, (4) explores why voters log on to online campaign sites; and (5) examines if there are differences in voters' gratifications between online campaigning and other media.

These objectives were accomplished by conducting a two-wave panel survey of college students. Survey questionnaires were administered to 461 college students at Time 1 (September 2000) and 366 at Time 2 (November 2000). Time 1 survey consisted of voting decisions for a candidate, uses and gratifications and demographic profiles. Time 2 survey asked respondents about the frequency of logging on to candidate Web sites, news Web sites and whether and whom they voted for on election day. The survey explored the relationship between voters' preference and exposure to online campaigning over time, as well as the possible effects of online campaigning on voting behavior. It also mapped what gratifications voters sought from campaign Web

sites and how they made use of such sites.

The dissertation documented five major findings: (1) a potential for Web sites to enhance the probability of voting turnout, (2) respondents' tendency of selective exposure toward preferred candidate Web sites, (3) third party supporters' dependency on candidate Web sites, (4) the media-specific nature of political uses and gratifications and (5) respondents' tendency to be gratified more by the old media than by the online media.

The first major finding provided empirical evidence contrary to what had been found in the previous studies, i.e., the online media were predictors for voting turnout while the old media were not. This finding allowed me to construct the cyber motivation hypothesis, which posits that (1) selective exposure to consonant messages on a Web site enhances confidence, or self efficacy, (2) the Web site offers a sense of community which enhances self-efficacy, and (3) the obtained and enhanced self-efficacy eventually affects voting behavior, i.e., motivates people to vote.

This dissertation provided new empirical evidence about online election campaigning and cast light on voters' uses and gratifications on candidate Web sites. However, due to the lack of representation and ever changing role of the Internet in politics, it is necessary for researchers to constantly update the roles of the Internet in presidential election campaigns.

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Dedicated to my father and mother,

Yutaka and Kayoko Inoue

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CHAPTER I

INTRODUCTION

Justification

In the presidential election of 2000, every candidate jumped onto the online campaign bandwagon. Online campaigning made its debut in the 1996 presidential race, but was used only as a novelty. Some argue that online campaigning in 2000 was still a “beta version” and did not carry substantial implications (Dickerson, 2000). While television is said to have contributed to John F. Kennedy’s victory over Nixon in the 1960 presidential election, the Internet has not played a crucial role in presidential elections. There is no “J.F.K. of the Internet” yet (Reed, 1999).

Online campaigning, however, may have the potential to change the way candidates campaign. The Internet allows candidates to communicate with voters, strengthen support, raise funds, and recruit volunteers in ways that other media do not. Some argue that the Internet will change the whole process of politics including election campaigns, policymaking, and perhaps even the balance of political power in the near future (Hill & Hughes, 1998; Morris, 1999). The composite of media channels for modern election campaigns may soon be transformed due to the utilization of the Internet.

While the utilization of the Internet by politicians has been documented and applied to actual campaign strategies, our understanding of how and why voters use online campaign information is still vague. Because the Internet provides three unique features that will empower voters, it is worth investigating online campaigning from the standpoint of the voters. One of the unique features is that information on the Web is of the “pull” variety, which means that the selection of online information is controlled by

Web users. Users can immediately “pull” information from online media at their convenience, while information in newspapers and on television is “pushed” to the readers and viewers. The second feature, customization, allows users to tailor and/or screen out online information for their purpose, whereas information in newspapers and on television is fixed. The third feature is the Internet’s interactivity, which makes it possible for voters to participate actively in political life by signing up to volunteer, to contribute money online to a candidate and to interact with those who share common interests.

These three features of the Internet should have tremendous implications for election campaigns and the future of democracy in a way similar to the invention of the printing machine in the 15th century made possible the mass-production of books and the spread of literacy, which eventually led to profound social and political changes. For example, voters and small political groups alike will be able to counterbalance the flows of political information controlled by politicians and to accomplish true or ideal forms of democracy by increasing their participation in the political process via the Internet. Specifically, before the inception of the Internet, voters were provided only with information filtered by the mainstream media so that they could not obtain information about marginalized political activists. Now, at least technically the U.S. president and a third party candidate, and even an ordinary person, have the same means of communication to the same potentially large audience (Hill & Hughes, 1998). Everybody can have a voice on the Internet and third party supporters can obtain information online that was nearly unavailable in the mainstream media. Thus, it is equally as important to understand why people choose to visit a specific Web site, for what purpose, and under what predispositions as it is to understand what effect the Internet information has.

In the light of these implications, this study will examine factors that determine

voters' use of online campaigning and the Web's possible effects on voting behavior in the Presidential Election 2000 by applying selective exposure and uses and gratifications theories. Selective exposure refers to a tendency toward supportive messages in order to increase confidence about thought and behavior. Uses and gratifications framework explains how people use media to gratify their needs and understand their motives for media behavior. The presidential election 2000 offered a special opportunity to investigate voters' use and possible effects of the Internet.

The specific purpose of this paper is five-fold; this study (1) tests whether voters are more likely to log on to a preferred candidate's site, (2) investigates whether selective exposure to a preferred candidate's site affects the endorsement for the candidate, (3) judges whether Web site use enhances voting turnout, (4) explores why voters log on to online campaign sites; and (5) examines if there are differences in voters' gratifications between online campaigning and other media.

This study accomplishes these objectives by conducting a two-wave panel survey of college students. Survey questionnaires were administered to 461 college students at Time 1 (September 2000) and 366 at Time 2 (November 2000). The panel survey explores the relationship between voters' preference and exposure to online campaigning over time, as well as the possible effects of online campaigning on voting behavior. It also maps what gratifications voters seek from campaign Web sites and how they make use of such sites. This study expects to find distinct roles of Web sites in the election campaigning because of the unique features of the Internet. Understanding the selection and needs of voters will provide more insight into the study of online election campaigning and cast light on new and growing voters' digital roles in democracy in the 21st century.

Cyber Election Campaigning

The Internet is dramatically changing the communications environment. An ever increasing number of people go online and communicate by email. The diffusion rate of Internet access among American people is growing rapidly. According to Pew Internet & American Life Project (2001), while 47 % of all adult Americans had Internet access in May-June 2000, a half-year later, the percentage increased to 56%. The number of email users also increased from 44% in May-June 2000 to 49% in November-December 2000. Beside e-mail, there are a variety of ways people are utilizing the Internet. "Hunt for hobby information" was the most popular feature (79%) among Internet users followed by "browse for fun" (68%). "Obtain online news" was the third purpose (63%). "Online shopping" was ranked in fifth place (52%) following "obtain medical information" (57%).

The Internet is changing not only the way people communicate, obtain information and do business today (Korgaonkar & Wolin, 1999), but also the way candidates campaign, and the way voters participate in politics (Morris, 1999). It can even change the way voters cast ballots. Computer companies and universities are now developing Internet voting systems, "e-voting," which incorporate voter registration, voter identification and ballot casting and counting (Schwartz, 2001). Some of the ballots in the 2000 presidential election were cast over the Internet before the election by 200 service people stationed overseas in a pilot program developed by the U.S. Department of Defense (Thomas, 2000).

It is said that 1996 marked the year that candidates began campaigning online (Whillock, 1997). For example, all major presidential candidates and two thirds of major party senatorial candidates established campaign Web sites, while only one fifth of

major party congressional candidates did so (D'Alessio, 1997). However, few candidates used the Internet strategically for campaigning (Reed, 1999). Candidates' Web sites were so primitive that few candidates offered online contribution and e-mail networks at that time (Zeller, 2000). In addition, Internet users composed a relatively minor segment of the U.S. population at that time. According to a survey result, only 23% of adult Americans experienced "going online" in 1996 (Pew Research Center, 2001). Thus, it was uncertain what online campaigning could do and how effective it would be in the 1996 race (Whillock, 1997).

Yet, the year 1998 witnessed dramatic growth in the number of campaign sites and voters' attention to campaign sites, probably due to the significant diffusion of the Internet to U.S. citizens. Scholars and political consultants then started to seriously examine the potential impact of online campaigning on voters. For example, Reavy (1999) explains the intended mechanism of online campaigning as follows:

The Internet gives candidates the ability to disseminate information about themselves. Citizens who possess knowledge about their politicians play a more active role in determining which of those politicians shall govern and which shall be governed. It follows that those who gain information from the Internet... are more actively engaged in the political process than those who do not (p. 249).

To paraphrase Reavy, online campaigning can turn interested voters into informed voters and informed voters into volunteers. The Internet allows voters to participate in politics and have politicians hear the voters' voices. Candidates began recognizing these roles and potentials of the Internet in the late 1990s.

One of the great advantages of online campaigning is that it can mobilize and

organize supporters regardless of geographical distance (Dickerson, 2000). In the 1998 election, current Minnesota governor, Jesse Ventura used the Web to connect and activate an army of supporters (Munro, 2000). It is estimated that Ventura's use of online campaigning contributed to his upset victory by giving him an additional two to four percent of the vote, which was approximately the size of his margin of victory (Noble, 1999).

Compared to "the meat and potatoes" of presidential campaigning such as television advertising, phone books, direct mail and old-fashioned knocking on doors, the utilization of the Internet was probably in its infancy in the 2000 presidential campaign (Zeller, 2000). But the Internet made a big stride as a campaign tool in the election: it was used for a variety of purposes such as recruiting volunteers, soliciting contributions, spreading candidates' messages, and even getting voters to the polls.

The John McCain campaign is a good example. He was considered "a cash-poor underdog" and was anticipated to withdraw early in the race. However, his online campaigning changed his underdog status to that of a legitimate candidate. Shogren (2000) explains, "Since McCain's stunning landslide victory in New Hampshire, his campaign has raised more than \$ 2.2 million online, giving him an immediate infusion of cash that is not only keeping his campaign alive but is changing the Arizona Republican's status from that of maverick longshot to serious contender" (p. A20). Fred Wertheimer, president of Democracy 21, a nonpartisan public policy organization, calls McCain's cyber-bonanza "the first big breakthrough example of how the Internet can affect elections in this country" (cited in Shogren, 2000, p. A20).

It was reported that the McCain campaign eventually garnered about 7 million dollars through Internet contributions (Munro, 2000). Third party candidates are no exception. The Nader campaign was reported to have raised about \$1 million on the

Internet (Regan, 2000). It was estimated that a total of \$50 million was contributed to presidential candidates over the Internet during the 2000 election, even though the amount was a fraction of the total campaign finance (Regan, 2000).

The implications of Internet election campaigning are not limited to the candidate side. Internet campaigning has changed the form of political information and increased the amount of information available for voters. The most important difference between online campaigning and traditional media such as mail, telephone and television is that voters can control access to the Internet and retrieve what they want at their convenience. Put in another way, the Internet allows voters to get unfiltered information directly from information sources, e.g., candidate Web sites.

Hockaday and Edlund (1999) say, "Voters use campaign Web sites for a depth of information that is unavailable in other media" (p. 14). Voters who visit campaign Web sites tend to look for serious, substantive political information such as issue sections, candidate biographies and comparative sections. According to Hockaday & Edlund, these kinds of information are what undecided voters use for decision making, which indicates that candidate Web sites influence the decision making for voting. However, their assertion was made with anecdotal evidence. The influence of campaign Web sites needs to be empirically explored.

Candidate Web Sites and Descriptions

There is no "industry standard" criterion with which one can evaluate campaign Web sites. Reavy (1999) suggests several key issues that can be used to evaluate the effectiveness of a Web site. These are Content, Audience, Purpose, Interactivity, Timeliness, Appearance, and Linkage (CAPITAL). Ireland and Nash (1999) list 10 criteria to evaluate a campaign Web site: (1) online credit card contributions, (2) volunteer

sign-up form, (3) form to collect e-mail addresses, (4) form to collect U.S. postal addresses, (5) links to issues, (6) newsletter sign-up, (7) sign-up for alerts, (8) events calendar, (9) updating and providing date of last update, and (10) a download time of 15 seconds or less. Although they do not list candidate's biographical information and issue standing, these topics are also preconditions for effective campaign Web sites.

One of the common points in the above listed checklists is interactivity. The term interactivity is defined as "the back-and-forth transactions between a Web site and the person using that site" (Reavy, 1999, p. 250). Why is interactivity important in online campaigning? First, interactivity is a unique feature that other traditional campaign media do not have. Second, voter interaction with campaigning can generate "virtual proximity" which can help voters feel that the person with whom they are communicating is nearer than he/she actually is (Reavy, 1999). For these reasons, it can be stated that the more interactive a Web site, the better it will be received by visitors.

Applying media richness theory, Park and Choi (2001) content analyzed the 2000 presidential candidates' Web sites. The theory posits that the effectiveness of media is contingent on its "information carrying capacity" (Daft & Lengel, 1984, 1986). Therefore, by measuring the information carrying capacity, one can evaluate the effectiveness of a Web site. The authors analyzed candidates' home pages and the first-layer pages directly linked to the home pages based on the four factors which consist of information carrying capacity: (1) interactivity, (2) multiple communication cues, (3) personalization, and (4) ease of navigation. The results are presented in Table 1. The Gore Web site was found to be the richest site in all four categories. The author concluded that the Gore site provided more interactive features and devices, and thus allowed visitors to interact with the site more effectively and easily.

Table 1: Media Richness of the Presidential Candidate Web Sites

Candidate Web Site		Bush	Gore	Nader	Total
Categories	Interactivity	41	68	26	135
	Multiple Communication Cues	180	1584	124	1888
	Personalization	143	266	35	444
	Ease of Navigation	84	187	78	349
	Total	448	2105	263	2816

Note:

- Adapted from Park and Choi (2001).
- Figures in each cell represent the numbers of Web features such as interactivity and communication cues.

Although Park and Choi (2001) provided a method to evaluate presidential candidate Web sites, it is difficult to precisely assess the effectiveness of a Web site because (1) there are many other factors which determine a Web page's effectiveness and (2) the definitions of the effectiveness depend on the purposes of Web site providers and users. Evaluations without having solved these potential problems could lead to an erroneous conclusion. The present study, therefore, avoids evaluating the effectiveness of a Web site, but briefly describes the content of the Bush, Gore and Nader Web sites by focusing on the most important function, interactivity.

Web Site Organizations: Each candidate Web site offered menu items that included online contribution, volunteer sign-up, email newsletter subscription, detailed biography, and political issues. The Nader site, however, did not offer a Spanish-language version, whereas the Bush and Gore sites did. The main menu of the Bush site consisted of "Bush-Cheney 2000," "News & Info," "Multimedia," "Issues," "Calendar," "Get Involved," "Contribute," "Voter Outreach," "Youth Zone," and "Toolbox." This pattern is observed in the other sites; however, the Gore site provided a variety of menu items more than the Bush and Nader sites did. For example, on the Gore site, there were such menu items as "Speeches," "For Family," "Gore Store," and an independent menu for multi-media presentations. Further, the Gore site provided much more information, such as brief news stories on the home page, than the other sites did.

Contribution: Each site offered an online contribution menu through which one can donate money using a credit card. Neither site accepted electronic checks; however, one can print out a form in the Bush site and send it to the campaign office with a check. The Bush site had a pop-up window which was designed to solicit contributions, but neither the Gore site nor the Nader site had this "intrusive" pop-up window.

The Nader site put the contribution menu just below the top header and gave it a distinct graphical button, which indicated the campaign camp regarded contribution as one of the most important objectives on the site.

Volunteer: In the volunteer menu of the Bush and Gore sites, a prospective volunteer could choose the state in which he/she lives. Thus, a prospective volunteer was able to know what he/she can do in that state. On the Bush site, one could sign up for various activities such as “I want to volunteer” and “I want to be a Bush E-Team Leader.” As was the case in the contribution menu, the Nader site located the volunteer menu on the top part of the page with a distinguishable button; however, the other sites located the volunteer menu on relatively lower parts of the sites without any attention-drawing graphical buttons.

Personalization: The Bush and Gore sites offered more sophisticated functions of personalization than the Nader site did. For example, the “Issues” sections on the Bush and Gore sites allowed visitors to choose information specifically relevant to them. Further, in the “State” sections, information was tailored to a visitor’s state. Conversely, the Nader site did not offer personalization functions such as “State.”

URL: URLs, or Web site names, matter. According to Cornfield, “A good Web site name is memorable, easy to spell and advances the message, ideally before opponents realize there’s an issue or election to define for the public” (1999a, p. 3). One of the reasons to choose a URL carefully is that it is relatively difficult for Web users to locate correct sites. One may accidentally log on to a rogue site, attack site, or parody site that is created to deceive and misinform visitors.

The Bush site’s URL is straightforward: www.georgewbush.com. The Bush campaign also has a URL without the middle initial “w” www.georgebush.com. Both

get you the same official site. The Gore site's URL is not as straightforward: www.algore2000.com. For one reason or another, www.algore.com is not his official site. Similarly, the Nader site's URL is www.votenader.com. It was reported that any URL which has something to do with Nader and the presidential election, such as www.nader2004.org, have already been bought up by a loyal Gore supporter (Regan, 2000).

CHAPTER II

THEORETICAL FRAMEWORKS

Selective Exposure

The classic political communication study of Erie County by Lazarsfeld, Berelsen and Gaudet (1944) found that people tend to selectively expose themselves to the media message of their preferred candidate. Since then, selective exposure to political messages has been confirmed in practically every subsequent research on political communication behavior (Chaffee & Miyo, 1983). The selective exposure hypothesis posits that “audience members prefer supportive rather than discrepant messages, in order to increase confidence that they think, feel, or act in a correct or acceptable manner” (Atkin, Greenberg, & Korzenny, 1979, p. 5). Researchers, however, have yet to investigate selective exposure toward supportive messages on the Web. Does this tendency toward selectivity hold in the Internet era, an era which is drastically different from the previous eras of traditional communications technologies such as newspapers, radio and television?

Technology can facilitate the extent to which people can expose themselves to the media. In the Renaissance era, the invention of the printing press brought “a fantastic change” to the world where books were scarcely available (DeFleur & Ball-Rokeach, 1989, p. 22). The technology spread literacy—which was once monopolized by priests, nobles, and scholars—to ordinary people and profoundly affected human life and history. In the modern ages, it was television that drastically changed our information environment. Zillmann and Bryant (1985) explain the impacts of television:

The fact that the new communication technology [television] allows the manipulation of audio-visual environments with enormous ease and provides an abundance of program choices at all times undoubtedly will have significant behavioral and social effects...[E]xposure to the environments presented on the monitor is more engaging and presumably more enjoyable than many alternative, immediate environments. There are few social circumstances and emotional conditions that are consistently preferred over the environments on the screen (p.5).

Television also provided people with great control over the messages they receive. "By pushing hand-held remote controls, any number of events can be accessed; and access can just as readily be abandoned in favor of exposure to other events" (Zillmann & Bryant, 1985, p.4). This statement is, however, an exaggeration of television's functions when compared to the age of the Internet. Some would argue that the video-on-demand (VOD)¹ service, which gives the audience more control than the regular television, is available these days. But the service has not been broadly used and the contents the service can provide are very limited. Television, hence, is not really interactive. Television programs are set and the viewers do not have control over television content.

On the other hand, the Internet is interactive. The control over content on the Internet is incomparable with that of television and other media. On the Internet, people can choose and/or manipulate by customization nearly everything they want to see and hear. For example, myyahoo.com allows customers to change the site's appearance and contents in order to match individual interests and needs, such as weather forecast where

¹ VOD is a pay-per-view television service in which the audience can select a program from a menu and have it delivered instantly to the television set (Grant & Meadows, 2000).

they live and the prices of stocks they own. Nearly all information on the Web site can be filtered at their discretion.

The Internet has also made it possible for users to reach anywhere in the world by merely clicking or typing a URL. Physical distance is non-existent in cyberspace. It takes virtually no physical effort for users to reach any site. The site or information they select will come to their place, their computer screen. It takes only a click to get to the candidate site on the Internet. Additionally, users not only can select content to retrieve, but also store it to use at a later time. Exposure to content on the Internet is in the users' hands. The Internet, more than the other media, help people selectively expose themselves to what they want to see and hear. On the other hand, in a newspaper or television news program, it may take relatively great effort or luck to reach events of interest. Therefore, the Internet may enhance the tendency toward selective exposure by allowing users to see what they want.

Whereas the tendency toward selective exposure has long been taken for granted, there is much less unanimity in terms of the extent to which this phenomenon of selective exposure occurs and the factors that account for it (Chaffee & Miyo, 1983). Understanding how and why people have this tendency is a pre-condition to examine selective exposure in the age of the Internet. Theoretical frameworks that explain selective exposure are reviewed below.

Partisan/Reinforcement Perspective

The partisan hypothesis posits that partisan predispositions motivate a person to be selectively exposed to favored political messages to reinforce that predisposition. In the political communication area, it is often asserted that the prior preference for a candidate would lead a person to select messages that would strengthen, not weaken, that

preference (Chaffee & Miyo, 1983). In other words, conversion from one candidate to another by political messages cannot be expected because the prior preference motivates people to selectively expose themselves to messages that only reinforce their respective preference.

This concept of selective exposure was once synthesized into the often cited “limited-effect model” which is no longer supported by current scholars. The model was based on the above mentioned political communication study by Lazarsfeld, Berelson and Gaudet (1944), which found that the mass media did not significantly influence people’s decision for whom they vote. Klapper (1954, 1963) incorporated the findings in the study and other bodies of evidence to elaborate the mechanism of the limited effect model. He claimed that attitudinal predispositions “largely determine the communications to which the individual is exposed” (1963, p. 67) so that “attitude conversions are... comparatively rare” (1954, p. 308).

Berelson and Steiner (1964) articulated selective exposure further by stating, “People tend to see and hear communications that are favorable or congenial to their predispositions; they are more likely to see and hear congenial communications than neutral or hostile ones. And the more interested they are in the subject, the more likely is such selective attention” (p. 529). Another underlying explanation of this mechanism is stated by Merrill and Lowenstein (1971).

So what must the sensible audience member do?... He will build up his own complex ‘safety’ mechanism for screening incoming information; he will see less and less that does not agree with his dominant dispositions [selective exposure];... he uses propaganda to simply reinforce—not challenge—his basic attitudes and predispositions. If he did not do this, he would quickly fly into a million emotional pieces in the face of unverifiable and disharmonic information

and opinion that surround him everyday (p. 226-227).

Dennis and Chaffee (1978) used a probability sample of voters representing the state of Wisconsin to examine a selective exposure effect. Four waves of telephone interviews were conducted with 164 respondents to trace a long-term trend of candidate evaluation during the fall 1976 presidential election. The findings in the panel study demonstrated that positive evaluations of one's preferred candidate/party increased as the campaign progressed, especially among those who were heavily exposed to the campaign and the Ford-Carter debates. However, a stronger reinforcing effect was found in interpersonal discussion than exposure to the campaign via media. Thus, the overall findings suggested that while selective exposure to the campaign through the media had a reinforcing effect, interpersonal discussion exceeded the mass media in terms of the effect magnitude.

Chaffee and Miyo (1983) interviewed 501 pairs of adolescents and their parents during the 1980 presidential campaign year to examine whether partisan predispositions would motivate to selectively expose oneself to political campaign messages, which in turn serve to strengthen those predispositions. The study found that the tendency toward selective exposure was exhibited among both adolescents and their parents. However, the tendency was found stronger among adolescents, contrary to their expectation. They interpreted the difference by stating, "Being comparatively new to politics, the adolescents respond more to the campaign, and they are considerably less likely than their parents to pay attention to the campaign communication of the candidate who is running in opposition to the one they favor" (p. 32). They also compiled a list of the characteristics of selective exposure they found as follows:

- (1) Selective exposure occurs mainly among those who are less experienced and informed about politics—the adolescents.
- (2) Selective exposure consists mainly of low attention to the opposition candidate, not heightened attention to one's favored candidate.
- (3) While there is a general positive effect associated with exposure to either candidate, the greatest change in affect during the campaign is found for the person's favored candidate, not the opponent.
- (4) Among the adolescents, the predisposition that appears to generate an indirect effect of reinforcement via selective exposure is identification with a political party, not specific liking of candidates (p. 32).

Sweeney and Gruber (1984) surveyed voter information preferences during the Senate Watergate hearings of 1973 in order to examine selective exposure theory. A three wave panel study was conducted: (Wave 1) just before the Watergate hearings² started, (Wave 2) midway through the hearings, and (Wave 3) just before the end of the hearings. The survey identified three types of respondents from a total of 82 interviewees who participated in all three surveys—Nixon supporters, McGovern supporters, and undecideds. It then examined their responses to questions regarding the incident. The researchers found that the Nixon supporters reported less interest in and less attention paid to Watergate-related matters than did members of the other groups. They were also found to be less likely to engage in Watergate discussion. Further, the Nixon supporters seemed to have less knowledge about the committee proceedings, perhaps due to selective exposure (or avoidance), than the undecided or McGovern supporters. Specifically, they were able to recall fewer names of those involved in Watergate and of the Senators

² The Senate Watergate hearings were set to investigate improprieties surrounding the conduct of the Nixon reelection committee. However, the hearings eventually focused on the President's White House staff and the President himself.

who were serving on the committee than were either the undecideds or the McGovern supporters. Yet, there is an alternative interpretation that these differences between the Nixon supporters and the other groups could be attributed to the possibility that Nixon supporters were generally less interested in and less knowledgeable about politics. However, the authors found no significant difference in terms of general political interest and knowledge between the Nixon supporters and McGovern supporters.

As presented before, partisan perspective of selective exposure seems to align with an online campaign study. According Cornfield (1999b), “Interactive communication begins when a person wants to learn more about a subject by going online” (p.31). In other words, online campaign sites have to be selected for exposure by the audience. Thus, it can be hypothesized that voters who visit a candidate Web site are likely to be primed for the candidate or have some predispositions to seek information about said candidate. They may also log on to a campaign site to reinforce or reconfirm their preference for a candidate.

Schemata Perspective

Even though our information environment is saturated with political information, most people remain indifferent to, poorly informed about, and very selective of political information (Fisk & Kinder, 1981). Fisk and Kinder explain selectivity of political information including conceptions of politicians, policies, and rules, by using the political schemata model. Schemata are cognitive representations of generic concepts and consist of the attributes that constitute the concept and relationships among the attributes.

According to Fisk and Kinder, schemata provide cognitive economy, which means that people construct understandings or expectations of the environment efficiently by depending on available and ready-made prior knowledge. In other words,

people do not struggle with constructing new understandings at each encounter with new information because schemata play a role of gatekeeper through which new information is screened (Fisk, Lau & Smith, 1990; Ossoff & Dalto, 1996). Thus, when it comes to political information, political understanding depends on prior knowledge that is an organized and abstracted version of previous experience.

Cognitive Consistency (Dissonance) Perspective

There is a different perspective by which selective exposure can be explained. One explanation for selective exposure derives from the human nature that seeks cognitive consistency. There are several theories that refer to cognitive consistency, e.g., Heider's balance theory (1946), Osgood and Tannenbaum's congruity theory (1955), Newcomb's strain for symmetry theory (1953) and Festinger's dissonance theory (1957). All posit that individuals deliberately seek out information either to reinforce shaken convictions or confirm those recently acquired attitudes so as to restore equilibrium in their system of belief. Of these theories, Festinger's has been often used and/or quoted to account for selective exposure mechanism (for example, Cotton, 1980; Cotton, 1985; Chaffee & Miyo, 1983) probably because the theory parsimoniously explains how selective exposure occurs.

According to Festinger (1957), there are three hypotheses regarding the mechanism of selective exposure: (1) if a person holds consistent cognition, he/she has no motivation for selective exposure, (2) if a person's cognitive state is moderately inconsistent, he/she will seek for information that would reduce the dissonance and avoid information that would exacerbate it, and (3) if the level of dissonance is extremely high, the person will not seek information that would reduce the dissonance but seek information that would increase the dissonance.

Research on this theory generally demonstrated the hypothesized effects, even though some studies found inconsistent results (for example, Feather, 1962) and a review by Sears and Freedman (1967) provided contradictory interpretations. It is argued that the failure of finding effects can be attributed to design deficiencies and other related problems (for example, Cotton, 1980). For example, studies which failed to demonstrate selective exposure effects did not incorporate those factors as curiosity and intellectual honesty, which affect selective exposure (Wichlund & Brehm, 1976).

The first empirical evidence for selective exposure was provided by Ehrlich, Guttman, Schonbach, and Mills (1957)'s field study. Ehrlich and colleagues examined the consequences of an important decision for selective seeking of confirming information. The study found selective exposure among owners of brand new cars: they tended to read more advertisements of the car they bought than ads of cars they did not buy. Stronger selective exposure was observed among those who mused over two or more cars. Conversely, the tendency of selective exposure was much less manifested among old car owners who had made no recent decision.

Brock and Balloun (1967) measured selective exposure in an experimental setting. Smokers and non-smokers were exposed to messages that either favored or opposed smoking. The study found that smokers made more efforts than non-smokers to hear a message which disputed the link between smoking and lung cancer, while non-smokers tried harder than smokers to hear a message asserting a causal link between smoking and lung cancer. Subjects sought consonance-creating messages and avoided dissonance-creating messages regardless of smokers or non-smokers.

One typical situation that produces dissonance is making a choice between two equally attractive alternatives (Cotton, 1985). A presidential election in the United

States may also be such a case. U.S. presidential elections have been usually contested by two candidates from two major political parties, Democrat and Republican. Some people might have difficulty choosing one; some might not have any difficulty. Regardless of whom people have decided to vote for, they are certainly exposed to negative information about their preferred candidate. If people's confirmation for candidates is swayed by opposing views in newspapers and television news programs, dissonance may occur. Then, one way to reduce the dissonance is through selective exposure to confirming information (Festinger, 1957). Voters may selectively seek information that supports their decision. A candidate's Web site may be a perfect place to reduce the dissonance because the site is designed to persuade people how good, competent, and beneficial the candidate is.

The selective exposure paradigm is explained by these three perspectives: partisan/reinforcement, schemata, and cognitive consistency. Although each perspective bases the mechanism of selective exposure on a different theoretical framework, all of these three posit that people tend to expose themselves to supportive messages rather than discrepant messages. The selective exposure paradigm thus provides hypotheses that are interesting to examine. These hypotheses are:

H1: A person logs on to one's preferred candidate's campaign Web site more often than the other candidate sites.

H2: The stronger the endorsement for a candidate a person has, the more likely and frequently a person logs on to the candidate Web site.

H3: The more a person logs on to the preferred candidate Web site, the stronger one's endorsement for the candidate will become.

Voting Behavior

Much of political communication research has found that exposure to media coverage of elections is likely to increase interest in politics and eventually voting turnout or intention to vote (for example, see Atkin, Galloway, & Nayman, 1976; McCombs & Mullins, 1973, Patterson, 1980; Pinkleton, Austin, & Fortman, 1998). It is also found that the level of information voters gained via the mass media increased the probability of voting (for example, see Palfrey & Poole, 1987). This significant role of the mass media on voting is probably ascribed to the fact that “[t]oday’s presidential campaign is essentially a mass media campaign” (Patterson, 1980, p. 3). Few voters have an opportunity for first hand experience of a presidential election campaign; voters cannot help but rely on mass media coverage for nearly all election information.

As for candidates, they also have to depend on the media to get across their messages to the electorate. In the past, for example, the nominating process was mostly controlled by party leaders. Candidates had to be liked by party leaders, or they did not have a chance to be nominated. In the modern age, as voters have lost partisan loyalties, party leaders’ power has weakened. Candidates have to be covered favorably by the mass media, or they have little chance of being nominated and eventually elected as president.

Political communication research provided a lot of empirical evidence that mass media increase (1) voters’ interest in politics and eventually (2) voting turnout or intention to vote. The first step, stimulating the electorate’s political interest is important because interested people are more likely to go to the polls (Campbell, et al., 1960; Milbrath, 1965). Research findings consistently demonstrated the link between media exposure and audience’ interest in politics and elections.

Hypothesizing the amount of exposure to campaign news (newspaper, television, radio and news magazines) would be functionally related to the level of political knowledge and the degree of campaign interest, Atkin, Galloway and Nayman (1976) examined the causal flow among mass media exposure, political knowledge and interest. They conducted a secondary analysis of the 1972 election data and a panel survey on college students. The data from these two were then combined to draw inferences. The findings demonstrated that mass media exposure was functionally related to political knowledge and to political interest, which suggested that media exposure contributed to enhance political knowledge and interest. The pattern of the findings also indicated that each factor (media exposure, political knowledge and interest) stimulated increases in the other, i.e., mutually reciprocal relationships. The authors interpreted these findings by stating, “[A] person’s basic interest in politics probably leads him to read and watch news about a particular campaign; in turn, this exposure arouses more exposure behavior. Similarly, there may be an exposure-knowledge spiral, such that attention to political content generates a better informed person, who then seeks to keep up with the events of the campaign” (p. 237).

While Atkin et al. suggested a rather reciprocal relationship between media exposure and political interest, McCombs and Mullins (1973) found that media exposure led to political interest, not vice versa. Their study was based on the University of California, Los Angeles (UCLA) longitudinal survey data, which was a random cross-section of the entire student body and surveyed the same individuals through four or more years of college. A cross-lagged correlation analysis revealed that the correlations between media exposure at Time 1 and political interest at Time 2 were much higher than the correlations of political interest at Time 1 and media exposure at Time 2.

In other words, media exposure enhanced political interest. The authors delved into the relationships between media exposure, political interest, and preference for media content. Although reciprocity among these factors could not be eliminated, the findings suggested that media exposure increased political interest, and then the increased interest enhanced the preference for public affairs media content.

Patterson (1980) analyzed longitudinal trends of voters' interest during the 1976 presidential election campaign by focusing on the roles of media as political interest stimulators. The panel survey of 1,236 eligible voters found a positive relationship between media exposure and interest in the election. The relationship was found at every stage of the campaign—the primaries, the conventions, and the general election; however, the impact of news exposure was especially strong during the primaries. Although the reciprocal relationship between election interest and media exposure could not be eliminated, the author concluded that the effect of media exposure was more powerful than that of prior interest in election. He also compared the interest degree of the early stage in the 1940 election and that of the 1976 and found higher interest in the 1976 election. He attributed the increased interest not only to the larger public role in the nominating process but also to the more intense media coverage with television news, which was practically non-existent in the 1940s presidential elections.³

McLead, Glynn and McDonald (1983) tested whether reliance on television would influence the way people make voting decisions by a panel study with 97 Wisconsin voters in the 1980 presidential election. The panel found that television reliant voters used candidate image characteristics in making their voting choices more than did the

³ There is an alternative interpretation for the difference. Higher interest may be attributable to the fact that the 1976 election was held after the Watergate affair.

newspaper reliant.

The effect of media exposure on voting is not limited to presidential elections. Shields, Goidel and Tadlock (1995) examined the different impact of media exposure in the 1988 and 1990 U.S. Senate and House elections. They based their study on the empirical evidence that senators have less control than representatives over media coverage on their performance (Abramowitz, 1980); i.e., “[I]n House elections the vast majority of campaign messages received by an individual voter will favor the incumbent. In Senate elections the distribution of messages favoring the incumbent and favoring the challenger should be much more balanced” (Shields, Goidel & Tadlock, 1995, p. 419) because Senate elections generally draw more attention and are more competitive than House elections. They investigated if these different levels of control over media coverage had any impact on voting decision. As predicted, they found that high levels of media exposure tended to be associated with an increased likelihood that respondents would vote for the House, though not for Senate, incumbents. In addition, media exposure was found to have the greatest impact on voting among independents.

The roles of the media on voting were empirically tested by incorporating content analysis of media coverage on elections and in other countries. For example, Kleinnijenhuis and Oegema (2001) used a 13-wave panel study and content analysis of the media coverage of television news to examine whether television news during the 1998 Dutch general election campaign had any effect on voters. A total of 516 respondents participated in the panel survey, and 794 news stories broadcast in prime time television news programs from the two major television networks were content analyzed and then sorted by week. The results showed that television news affected the weekly shifts of voters’ party preference and that favorable news for a party increased the probability

of a vote for the party.

There are, of course, some researchers whose research contradicts the media exposure-political interest-voting behavior sequence, especially when it comes to the effects of negative campaigns. They believe that reliance on negative media campaigning contributes to low political knowledge, voter disgust, cynicism and then a lack of political participation (for example, Cappella & Jamieson, 1997). Particularly negative television advertising has been blamed for demobilizing voters, creating citizen apathy toward politics and eventually diminishing people's interest in voting (for example, Ansolabehere & Iyenger, 1995). However, other findings demonstrated that negative messages could positively contribute to individuals' interest in politics or made no differences in voting intention (for example, see Finkel & Geer, 1998; Garramone et al., 1990). The effects of negative political television advertising are beyond the scope of this study; however, empirical evidence suggests that positive effects of media exposure such as television news and newspapers override these negative effects.

Pinkleton, Austin and Fortman (1998) examined relationships among mass media use, political disaffection, political efficacy and participation. They conducted telephone interviews on 582 registered voters in Washington State during the week prior to the November 1994 election. The findings were contrary to concerns about negative effects of media coverage on political participation. The study demonstrated that mass media use strongly predicted positive voting behavior and a higher likelihood of voting, even though it also found that media coverage surely had negative effects on voters by increasing cynicism about politics.

While well-documented about the roles of the traditional media in voting behavior, research findings about newer forms of media such as radio and television talk

shows are scarce and less consistent (Weaver, 1996). Pfau and Eveland's study (1996) was of a few to investigate the influence of non-traditional news media. This study used a path analysis of panel data ($N = 151$) to compare the influence of traditional (television news, newspapers and news magazines) and non-traditional (talk and interview shows) forms of news media in the initial phase of the 1992 presidential election. The results indicated that whereas non-traditional media exerted greater influence on the perceptions and attitudes during the initial phase, the influence of traditional news media exerted greater impact on voting intentions in the final phase of the campaign.

Of course, the roles of Web sites on voting behavior seldom have been documented because the Internet is the most recent addition to campaign media, but should be investigated. Since the characteristics of the Internet are quite different from the other media, the roles of political Web sites may be distinct from those of the older media. It might be true that those who sought political information either through candidate Web sites and/or news sites are more motivated to vote on election day. However, due to the non-existence of research on the influence of political Web sites, it is impossible to derive a firm hypothesis. Therefore, this study presents a first research question which will explore Web sites' role on voting behavior:

RQ1: Is there any relationship between logging on to candidate Web sites (or news Web sites) and reported voting?

Third Party Supporters

American voters are socialized into a two-party norm, which is constantly reinforced by the media portrayal of elections between Democrats and Republicans (Rosen-

stone, Behr, & Lazarus, 1996). Third party supporters must often face a lot of difficulties, such as ridicule from friends, and must face up to a reality that their candidate has no chance of winning. Most importantly, they must make great effort to gather information on their third party candidate simply because the mainstream media rarely cover third party candidates.

In the 1980 presidential election, the major newspapers and weekly news magazines gave Reagan and Carter about 10 times more coverage than all 11 third party and independent candidates combined (Rosenstone, et al., 1996). Television coverage has the same tendency to neglect third party candidates. For example, televised presidential debates usually exclude third party candidates with some exceptions, such as Ross Perot in the 1992 election. Although third party candidates are sporadically covered during the early stage of elections, they disappear from the media soon after an election is in full swing. This is especially the case in the final crucial weeks of an election. In addition, the media not only ignore third party candidates but also at times are hostile toward them (Rosenstone, et al., 1996).

Third parties have tried to counterattack the mainstream media's neglect and hostility by publishing their own newsletters and newspapers. Yet, unlike television, radio and commercial newspapers, these publications are read only by faithful supporters and cannot reach the general public who may become supporters. Media coverage is an essential component of a successful campaign, thus third party candidates are handicapped from the very start of a campaign. But the present formation of the media has drastically changed with the inception of the Internet. Only a decade ago, the media practically meant the mainstream media such as television news and newspapers. Now, the Internet, which gives major parties and third parties equal means of communication,

has become an important component of the media.

The Internet can provide ample information for third party supporters. Since third party candidates are not covered by the major news media as much as major party candidates, third party supporters are expected to seek information from Web sites. As was the case for voting behavior and Internet use, there is no research with which a hypothesis could be made. Thus, a second research question is presented to explore the use of Web sites by third party supporters:

RQ2: Are third party candidate supporters more likely than major party candidate supporters to log on to candidate Web sites and news Web sites?

Uses and Gratifications

The selectivity for preferred and supportive political messages would be only one of various factors that determine the exposure decision. Online campaign sites should be selected by the audience for a wide variety of uses and gratifications which might surpass the above mentioned selective exposure models. The selective exposure paradigm sees the audience in a negative light: it posits that the audience is active only in the sense of seeking consonant messages and avoiding discrepant ones. On the other hand, the uses and gratifications paradigm presents a more positive image of the audience: it postulates that the audience follows their interest by choosing the media content according to their personal needs and goals (Katz, Blumler, & Gurevitch, 1974; McLeod & Becker, 1981).

Most media effect models or theories including selective exposure assume that the audience is rather passive. The application of “passive audience” propositions to

online campaigning may not be relevant. Information on the Web is not “push” that is, a passive audience can obtain information without effort, but “pull,” so the audience may have to do something to obtain it. The audience has to have not only a prior knowledge but also motivation and some degree of need in order to choose a specific Web site on which he or she can obtain desired information. Chaffee and Kanihan (1997) explain that the passive audience model “is not especially appropriate for understanding political learning, since many people actively seek information” (p. 425).

The uses and gratifications perspective fills the gap because it incorporates what the selective exposure perspective lacks: audience motivation and behavior for a specific media use. According to Rubin (1994), “Uses and gratifications is a psychological communication perspective that shifts the focus of inquiry from the mechanistic perspective’s interest in direct effects of media on receivers to assessing how people use the media” (p. 418). Uses and gratifications is a new paradigm that shifted research focus from “how the media affect the audience” to “what the audience does with the media” (Rubin, 1994, p. 418). It posits that the audience is active so that media choice lies with the audience to satisfy needs and desires (Katz, Blumler, & Gurevitch, 1974). The objectives of uses and gratifications research (Katz et al., 1974) are: to explain how people use media to gratify their needs; to understand motives for media behavior; and to identify functions or consequences that follow from needs, motives, and behavior.

Although uses and gratifications theory possesses these advantages, lack of theoretical rigor is one of the weaknesses of the theory (for example, McLeod & Becker, 1981), and research using uses and gratifications tended to be unsystematic (Rubin, 1994). Uses and gratifications research, however, has become systematic and diverted from an audience motivation focus to a synthesis of audience motivation and media ef-

fects. This is a logical convergence since both perspectives have a major similarity: both seek to explain the outcomes of mass communication.

It has been proved that the paradigm of uses and gratifications is applicable to a variety of mediated communication situations such as psychological motives, communication channels, and communication content (Lin, 1996). On the other hand, the application of uses and gratifications was limited to a static media landscape of print and broadcasting communication. However, as new communications technologies and devices have been introduced into our communication environment, uses and gratifications research foci have been diversified and applied to such new communications technologies as the VCR (Cohen, Levy, & Golden, 1988), the home computer (Perse & Dunn, 1998), and most recently, the Internet (Korgaonkar & Wolin, 1999; Lin, 1999).

Korgaonkar and Wolin (1999) studied Web users' motivations and concerns from a perspective of business use. The authors first conducted a series of six focus groups to elicit responses in terms of Web use, and then constructed the survey questionnaire based on the data from the focus groups. Results obtained from a total of 420 Web users revealed the presence of seven motivations and concerns regarding Web use. These seven factors in rank order are as follows: (1) social escapism motivation, (2) transaction-based security concerns, (3) information motivation, (4) interactive control motivation, (5) socialization motivation, (6) privacy concerns and (7) economic motivation.

The first factor, social escapism, refers to the Web as entertainment in which it allows users to escape from reality and it provides diversion and enjoyment. Transaction-based security concerns are about users' fear of Internet security problems. Information motivation, the third factor, describes how respondents use the Web for their

self-education and information needs. Interactive control motivation means Web users ability to control over content by personalization and customization. Socialization motivation represents the role of the Web as a facilitator of interpersonal communication and activities. Privacy concerns refers to privacy in general and are different from the second factor, transaction-based security concerns. The last factor, economic motivation, means users' motivation to shop wisely and get free products.

In addition, these seven factors, along with age, income, gender and education levels, are significantly related to the Web use. For example, the findings demonstrated that heavier Web users were more likely to appreciate the Web by rating it higher than light users; that those who experienced "e-shopping" were more likely to accept the privacy and security issues and enjoy the interactive features of the Web; and that business Web users were less worried about the privacy issues while they were more appreciative of the Web because of economic and convenience reasons.

While little research has explored the political uses of the Web, there are numerous studies about the political uses of the other media such as newspapers and television news. Research consistently found that newspaper use is associated with informational uses and gratifications including political knowledge (Chaffee & Kanihan, 1997). Whereas reliance on television news correlated negatively with knowledge of issues, newspaper use was strongly associated with political knowledge (Culbertson & Stempel, 1986). Atkin (1972) found in an experiment that an announcement of a discussion about a social event for the next class increased significantly the rate of students' use of the newspaper. Kanihan and Chaffee (1996) found that political involvement induced by a class discussion of current events leads to a significant increase in newspaper readings (cited in Chaffee & Kanihan, 1997).

Similarly, past research found that people use newspapers for political information necessary to vote for a specific candidate (for review, Chaffee & Kanihan, 1997). Other studies also found that people who need political information for various reasons tend to read the newspaper. When it comes to the influence of television, however, no general conclusion has been reached. Some studies found that television news is not as informative as newspapers regarding political issues. However, recent studies found that television news viewing was associated with viewers' knowledge about candidate biographies.

As for the political uses and gratifications of the media, Blumler and McQuail (1969) developed eight different motivations for use and non-use of the political contents of the media. They listed five use motivations: vote guidance, reinforcement of decisions, general surveillance of the political environment, excitement and anticipated utility in future discussion. Three motivations for non-use or avoidance of political messages are feelings of alienation, partisanship, and avoiding stress.

Becker (1979) refined the measurement of gratifications and clustered gratifications into five categories: surveillance, vote guidance, reinforcement, communication utility, and excitement (mentioned in detail in the method section), which are adapted for the present study. These gratifications categories, however, were constructed exclusively for the old media. Consequently, the features of the Internet were not incorporated. Internet's features, especially interactivity, may be salient gratifications people seek from online campaigning and should be examined in the research. The third research question is to explore Web gratifications:

RQ3: What gratifications do individuals seek from online campaign Web sites?

Past research consistently found that gratifications are not media specific except for political knowledge gratification (for example, Becker, 1979). Specifically, people seeking a specific gratification from television seek that gratification from the newspaper. However, people may seek different gratifications from online campaign sites because, as stated above, the Internet is significantly different from other media in terms of interactivity, personalization, and a “pull” function.

Another important question is whether or not online political campaigning (e.g., candidate Web sites) can displace or supplement the traditional media in the future. To answer this question, first it is necessary to understand the extent to which the online campaign is a functional alternative to the traditional media (Ferguson & Perse, 2000). If online campaign Web sites are used for the same or similar reasons as those of the traditional media, i.e., function as alternatives to the traditional media, there is a possibility that online campaigning will displace or at least supplement the traditional media in the future.

For example, newspapers once dominated the acquisition of political information before the inception of television. Now television is used as the most significant political information source (Graber, 1980; Patterson, 1980). The reasons that television became the primary information source by displacing newspapers are: (1) television is a functional alternative to newspapers, (2) it has features which newspapers do not, such as transmission of audio and visual images, (3) it can broadcast live, and (4) it provides information for free. The Internet has at least a couple of additional features to these reasons: users’ control over content and interactivity. These Internet features are inherent advantages over television. Thus, it is important to test whether the Internet is a functional alternative to television in other gratifications categories, such as surveil-

lance and vote guidance. Four research questions are constructed to analyze and compare uses and gratifications between the traditional news media and the online media:

RQ4: Are there any differences in gratifications people seek from Web sites and other information sources?

RQ5: Is the Internet an alternative to traditional media?

RQ6: Are the uses and gratifications for Web use a predictor for online use?

RQ7: Is there any difference in Internet uses and gratifications between major party supporters and third party supporters?

CHAPTER III

METHOD

Research Design

A two-wave panel survey was conducted between September (Time 1) and November (Time 2) 2000. Since the same individuals answer questionnaires repeatedly in a panel design survey, the changes in their thinking and behavior can be traced for a long-term period. This panel provides an opportunity to explore the relationship between voter preference, media exposure and voting behavior over time. Time 1 preference and predisposition are used as predictors of Time 2 media exposure patterns and voting behavior, while controlling for exposure experience variables at Time 1 and other variables, such as demographic information and partisanship.

Respondents of this study are college students. Data for Time 1 were collected during the second and third weeks of September 2000 from three major universities, located in Michigan, Missouri and Texas. The number of respondents who participated in the Time 1 survey is 461. The majority of respondents, 355, were from a university in Michigan. The numbers of respondents from Texas and Missouri were 58 and 48, respectively. All classes in which data were collected were social science courses, except the courses used in Missouri were humanities courses. Respondents were asked to participate again in the survey after the presidential election in November 2000. The number of respondents who participated in the Time 2 survey is 366: 273 from Michigan, 52 from Texas and 41 from Missouri. Class attrition and absences were responsible for the decrease in the number of participants from Time 1 to Time 2.

The purpose of this research is not to estimate parameters for the general public

in order to generalize the results, but to test the hypotheses and answer the research questions about the implications of the latest technology in the 2000 Presidential Election campaign. Whereas the results of this study may not be generalized, this study will contribute to new empirical evidence to the literature. Additionally, despite the restricted representativeness of the respondents, this study has several methodological and sample advantages. First, panel design allows analysis of time-order relationships among variables, which is essential for making inferences about cause and effect relationships. In addition, panel design is more sensitive in detecting spurious relationships than one-time measurement methods, such as a cross-sectional design.

Second, in terms of Internet access, the sample has an advantage over the general public: all the respondents have access to the Internet because these three universities provide students with direct Ethernet connections to the Internet in computer labs across campuses and/or in dormitory rooms. Although Internet access has been exponentially spreading among the general population, users of the Internet are still skewed to younger generations (Morris, 1999). For example, in November-December 2000 while 75 percent of those between ages 18 and 29 had Internet access, only 15 percent of those 65 and over had access (Pew Internet & American Life Project, 2001). All of the respondents of this study were “wired” to the Internet, at least theoretically. Thus, unqualified respondents—without access to the Internet—were very unlikely to be included in this survey.

Hypotheses and research questions which the present study tests are as follows:

H1: A person logs on to one’s preferred candidate’s campaign Web site more often than the other candidate sites.

H2: The stronger the endorsement for a candidate a person has, the more likely

and frequently a person logs on to the candidate Web site.

H3: The more a person logs on to the preferred candidate Web site, the stronger one's endorsement for the candidate will become.

RQ1: Is there any relationship between logging on to candidate Web sites (or news Web sites) and reported voting?

RQ2: Are third party candidate supporters more likely than major party candidate supporters to log on to candidate Web sites and news Web sites?

RQ3: What gratifications do individuals seek from online campaign Web sites?

RQ4: Are there any differences in gratifications people seek from Web sites and other information sources?

RQ5: Is the Internet an alternative to traditional media?

RQ6: Are the uses and gratifications for Web use a predictor for online use?

RQ7: Is there any difference in Internet uses and gratifications between major party supporters and third party supporters?

Questionnaire and Variables

A questionnaire was prepared to retrieve voter preference, exposure to campaign Web sites, and gratifications from online campaign sites. Time 1 and 2 questionnaires are provided in Appendix A and Appendix B, respectively. Respondents were asked to write their names on the questionnaires so that the present investigator would be able to identify and match Time 1 and 2 questionnaires. Although respondents wrote their names, confidentiality was stressed by stating, "Your name on the questionnaire will be transformed to a code name which could not be traced back to you." Expressing the confidentiality during the survey administration is expected to reduce socially desirable

answers and allow for freer expression of political opinions and preferences. Questionnaire items and corresponding variables are presented as follows (A list of variables and recoded variables is provided in Appendix C):

Voter Preference/Partisanship Variables

One of the independent variables in the present study is respondents' candidate choice. Three questions about voting choice are used to classify respondents. The first question is "Which candidate would you vote for if the election is held today?" for Time 1; "Which candidate did you vote for?" for Time 2. Then, respondents are divided into five types: Bush supporters, Gore supporters, Nader supporters, other candidate's supporters, and undecideds ("Did not vote" for Time 2).

The second question in the questionnaires asks respondents about the degree of their candidate preference. This is measured by a 5-point Likert scale of respondents' support for the candidate. Respondents mark their degree of support for the preferred candidate where 1= a little support and 5 = strong support. These variables along with media exposure variables listed below are used to test Hypotheses 1 to 3 and Research Questions 1 and 2. The third question asks respondents about their partisanship regardless of their candidate preference and official membership. This variable is used for a control variable in multivariate analysis.

Media Exposure Variables

Measurement of media exposure includes respondents' use of: candidate Web sites, news Web sites, television news programs, newspapers, radio news, and news magazines. In this study, exposure to Web sites is obtained by asking, "Estimate how often you have visited to each candidate official Web site during the presidential election campaign." This study operationalized exposure to a Web site as the frequency of log-

ging on to Web sites regardless of duration. Unlike the traditional media audiences, Internet users have to choose a Web site either by typing a URL or clicking a hyperlink; therefore, it can be assumed that they pay attention to Web sites whenever they log on. Further, the purpose of this study is not to measure the duration of Web surfing, but the use of specific Web sites, such as candidate Web sites and news Web sites. Consequently, frequency measurement is more appropriate for the purpose than duration measurement.

Whereas Web site use is measured by frequency, the use of non-Internet media such as television news and newspapers is measured by duration ("Estimate how much time you spent watching or reading the following news sources"). Questions about the media exposure do not accompany a rating scale ranging from "rarely" to "very frequently" with numeric values such as 1 - 7 or 0 - 6. Because the interpretation of "rarely" or "frequently" differ significantly from person to person (Sudman, Bradburn, & Schwarz, 1996), questions about media exposure are open-ended.

Gratifications Variables

Gratifications are measured for each information source, i.e. candidate Web sites, news Web sites, newspapers, and television news programs. Gratifications items present respondents with a list of reasons for use by wording of, for example, "To see how the candidates stand on the issues, I use information from the following sources." These items are designed to comparatively measure the levels of gratifications which respondents seek from these four information sources. Respondents answer the degree of each reason. Each item ranges from "strongly disagree" to "strongly agree" on a 5-point Likert scale. A higher score indicates the greater reason for watching or reading a given information source.

Items in the list are drawn from uses and gratifications research about political message/information by Becker (1979) and McLeod, Bybee and Durall (1982). These items reflect the most salient gratifications for political information and are modified to fit online campaigns. In addition, the most unique feature of the Internet, interactivity, is incorporated in the list. The interactive items are derived from a study by Korgaonkar and Wolin (1999). The gratifications items are as follows:

- **Surveillance/vote guidance:** To see how the candidates stand on the issues; to help make up my mind how to vote in the election; to see what the candidates would do if elected; to judge what candidates are like.
- **Reinforcement:** to remind me of my candidate's strong points; to get information which agrees with my positions.
- **Communication utility:** to use what I learn in politics; to give me something to talk about with other people.
- **Interactivity:** because it is interactive; because it gives me the control over what and when I want to use it; to participate in the Presidential Election campaign.

Control Variables

All of the respondents have Internet access; however, some students have their own computers with Internet access and others do not. There might be differences in terms of selective exposure to and gratifications about Web sites between the haves and the have-nots. Therefore, computer ownership is included in the questionnaire as a control variable. In addition, degrees of comfortableness with computers and the Internet are also asked because, for example, Internet comfortableness might be a factor which affects Web site use. Other control variables are demographic information: gender, age, level in a college and major.

Analysis Methods

Hypothesis 1, “A person logs on to one’s preferred candidate’s campaign Web site more often than the other candidate sites,” is examined by two methods. Differences in terms of logging on frequency between a preferred candidate Web site and the other candidate Web sites are examined by t-test. Descriptive statistics tests the differences in terms of logging on probability.

Supporters for each candidate are divided into three subgroups according to the degrees of support at Time 1 in order to test Hypothesis 2, “The stronger the endorsement for a candidate a person has, the more likely and frequently a person logs on to the candidate Web site.” Then, ANOVA tests the difference in terms of logging on frequency among these subgroups, while cross tab analysis with gamma (Goodman-Kruskal’s index of relationship) is used to examine the differences in terms of logging on probability.

Hypothesis 3, “The more a person logs on to the preferred candidate Web site, the stronger one’s endorsement for the candidate will become,” is tested by two methods. First, correlation analysis assesses the association between the degree of respondents’ Time 2 support for their candidates and the frequency of logging on to the candidates’ Web sites. Since this correlation analysis does not incorporate a longitudinal trend of support degree, the finding may be spurious. Therefore, the second method employs the difference between Time 1 support and Time 2 support as a dependent variable in correlation analysis.

Research Question 1, “Is there any relationship between logging on to candidate Web sites (or news Web sites) and reported voting?” is first analyzed by cross tab analysis to assess the likelihood of voting by logging on to candidate Web sites and news Web sites. Then, logistic regression analysis measures the odds ratio and probability of vot-

ing by incorporating Web site use, other media consumption and demographic information.

Research Question 2, “Are third party candidate supporters more likely than major party candidate supporters to log on to candidate Web sites and news Web sites?” is examined by: (1) t-test for the differences in terms of logging on frequency, and (2) cross tab for the differences in the likelihood of logging on between third party supporters and major party supporters.

Research Question 3, “What gratifications do individuals seek from online campaign Web sites?” and Research Question 4 “Are there any differences in gratifications people seek from Web sites and other information sources?” are answered by descriptive and comparative analysis of gratifications items.

A principle component analysis and factor analysis construct gratifications indexes for each medium (candidate Web sites, news Web sites, newspapers, and television news) to prepare for the analysis of Research Question 5, “Is the Internet an alternative to traditional media?” Then, the differences between Internet indexes and the other media indexes are examined by t-test.

Research Question 6, “Are the uses and gratifications for Web use a predictor for online use?” is answered by a correlation method which analyzes the associations between gratifications index for each medium and respondents’ consumption of corresponding medium.

Lastly, the difference in each gratifications index between major party supporters and third party supporters is accessed by t-test to explore Research Question 7, “Is there any difference in Internet uses and gratifications between major party supporters and third party supporters?”

CHAPTER IV

RESULTS

Participants

Findings reported here are based on 325 respondents who participated both at Time 1 and Time 2 surveys. The sample breakdown was 55.4% male respondents ($n = 180$) and 44.6% females ($n = 145$). The majority of respondents ($n = 167$, 51.4%) are freshmen, followed by senior students ($n = 99$, 30.5%). Juniors ranked third ($n = 39$, 12%) and sophomores fourth ($n = 14$, 4.3%). The rest are graduate students and other students, e.g., life long education students ($n = 6$, 1.8%). All respondents were over the age of 18 and eligible to vote at the presidential election 2000.

Information Media Use

Respondents, on average, spent 2.27 hours a week on television news watching ($SD = 2.75$), 1.56 hours ($SD = 1.73$) on newspaper reading, .86 hours ($SD = 2.10$) on Internet news sites, .44 hours ($SD = .87$) on news magazine reading, and .41 hours ($SD = .94$) on radio news. One third of respondents logged on to candidate Web sites ($n = 101$, 31.1%). Excluding non-users, candidate Web site users logged on to the sites an average of 5.27 times ($SD = 5.54$) during the presidential election campaign. The majority of respondents used news Web sites ($n = 177$, 54.5%) to obtain election information. The news Web site users visited the sites an average of 10.82 times ($SD = 16.99$).

On average, they went online 10 hours a week (range = 0 to 55, $SD = 9.21$). Eighty-five percent of respondents said they owned a computer with Internet access; however all of the three universities which participants attend provide students with Internet access so that the access rate is 100%. According to Pew Internet Project, 58

percent of adult Americans and 75 percent of an age group from 18 to 29 had Internet access as of November-December 2001 (Pew Internet & American Life Project, 2001). Participants' access rate is much greater than that of other demographic groups.

The ownership of computers with Internet access is a factor influencing Internet time spending: while those who owned a computer spent 11 hours online per week, those who do not own spent four and a half hours. The difference is statistically significant ($t = 4.71, df = 319, p < .001$). This finding suggests that the ownership of computers with Internet access is a predictor for longer Internet spending.

Voting

At Time 1 (September 2000), 43.1% of respondents ($n = 140$) intended to vote for Bush, while 37.8% ($n = 123$) intended to vote for Gore. Nader attracted 17 respondents (5.2%) who intended to vote for him at that time. Five respondents (1.5%) intended to vote for other candidates. The rest of respondents ($n = 40, 12.3\%$) did not intend to vote for any of them. According to the Time 2 survey, which was administered a week after the presidential election 2000, the reported turnout rate for respondents was 69.1%. This turnout rate is greater than the national average, about 51% (Center for Voter and Democracy, 2001). Of all respondents, 32.9% ($n = 107$) reported that they voted for Gore, 28.6% ($n = 93$) for Bush, and 6.8% ($n = 22$) for Nader. Only two respondents voted for other candidates.

Selective Exposure

Hypothesis 1 predicted that respondents would log on to their preferred (Time 1) candidate Web sites more often than other candidate Web sites. Charts 1 through 3 and Table 2 generally demonstrate the tendency for selectivity throughout the

Chart 1: Bush Supporters' Candidate Web Site Use

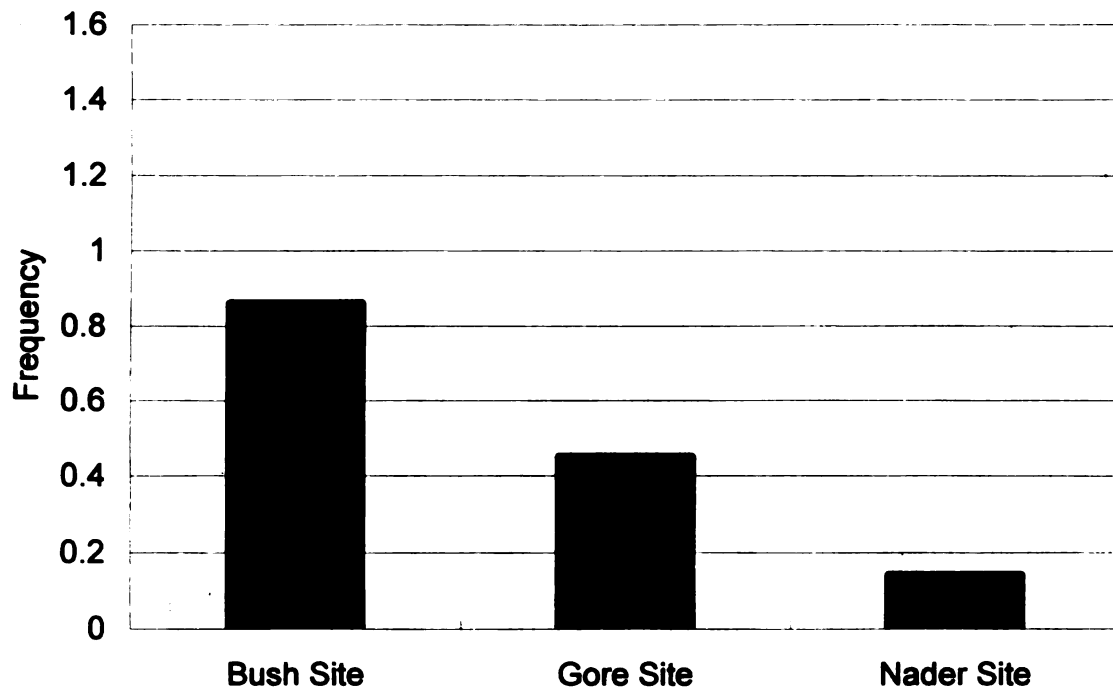


Chart 2: Gore Supporters' Candidate Web Site Use

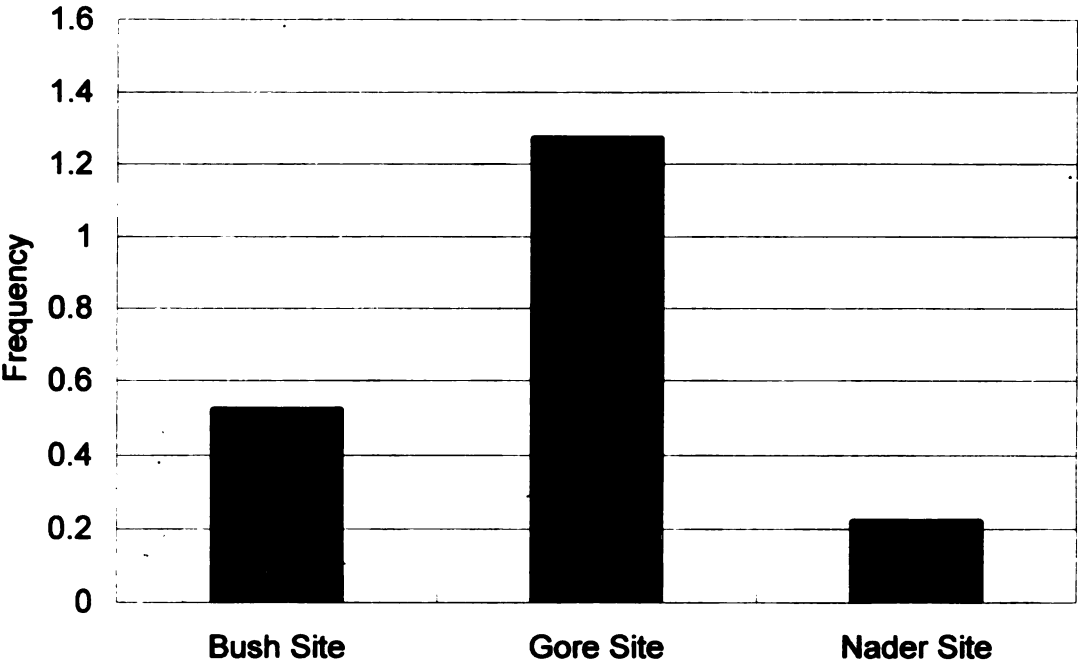


Chart 3: Nader Supporters' Candidate Web Site Use

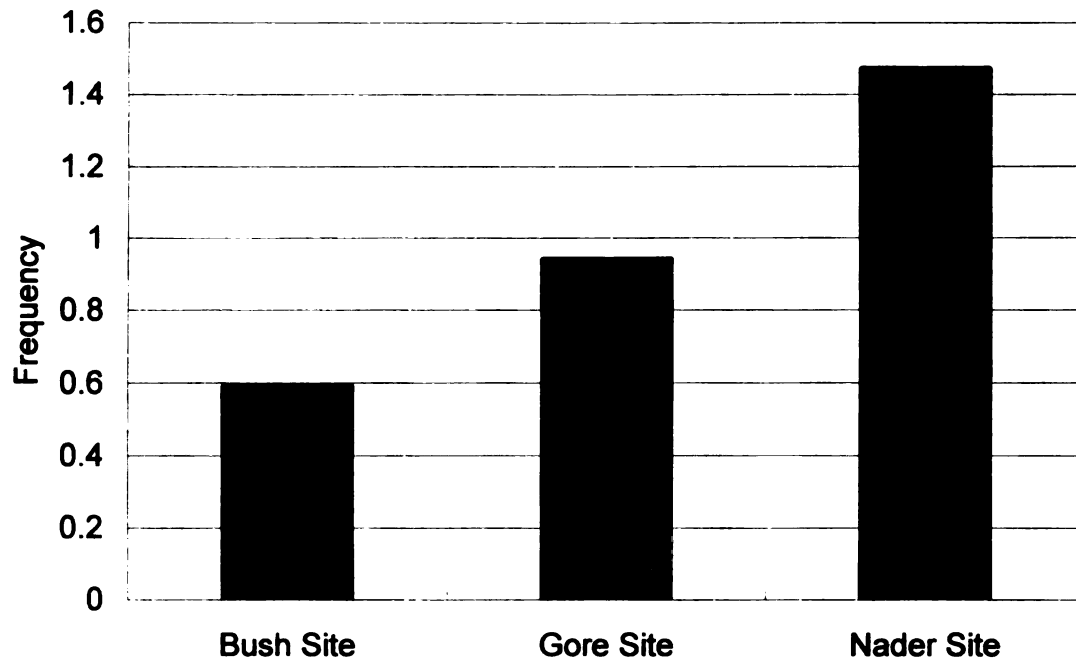


Table 2: Mean Frequencies of Visiting Each Candidate Web Site by Bush, Gore and Nader Supporters

Supporter	Bush Site	Gore Site	Nader Site
Bush Supporters <i>f</i>	.86	.45	.14
<i>SD</i>	2.53	1.46	.72
Gore Supporters <i>f</i>	.52	1.27	.22
<i>SD</i>	1.31	3.11	1.22
Nader Supporters <i>f</i>	.59	.94	1.47
<i>SD</i>	1.18	1.20	2.60

presidential election campaign. Bush supporters visited the Bush Web site an average of .86 times ($SD = 2.53$) while they logged on to the Gore site .45 times ($SD = 1.46$) and the Nader site .14 times ($SD = .72$) during the presidential election campaign. The differences are statistically significant (mean difference between the Bush site and the Gore site, $t = 2.45$, $df = 139$, $p < .05$; the Bush site and the Nader site, $t = 3.45$, $df = 139$, $p < .01$). Gore supporters used the Gore site an average of 1.27 times while they logged on to the Bush site .52 times and the Nader site .22 times. The differences are also statistically significant (mean difference between the Gore site and the Bush site: $t = 3.48$, $df = 122$, $p < .01$; the Gore site and the Nader site: $t = 3.58$, $df = 122$, $p < .001$).

Nader supporters visited the Nader site an average of 1.47 times compared to .94 times for Gore's and .59 times for Bush's sites. However, the differences are not or are only marginally significant (mean difference between the Nader site and the Gore site: $t = .91$, $df = 16$, $p = .38$; the Nader site and the Bush site: $t = 1.79$, $df = 16$, $p = .09$) probably due to the small sample size of Nader supporters ($n = 17$).

This tendency of selective exposure was further confirmed, though not outright, by the probability that respondents logged on to their preferred candidate Web sites. Table 3 generally demonstrates that respondents were more likely to visit their favored (Time 1) candidate Web sites rather than the other candidate Web sites. Twenty-five percent of Bush supporters logged on to the Bush site compared to 17.1% to the Gore site and 4.3% to the Nader site. For Gore supporters, 34.1% of them visited the Gore site while 23.6% and 7.3% visited the Bush site and the Nader site, respectively. Nader supporters visited the Nader site and the Gore site relatively equally (47.1 % and 41.2 %, respectively); however, a smaller segment of the Nader supporters (29.4 %) logged on to the Bush site.

Table 3: Percentages of Visiting Each Candidate Site by Bush, Gore and Nader Supporters

Supporter	Bush Site	Gore Site	Nader Site
Bush Supporters	25.0%	17.1%	4.3%
Gore Supporters	23.6%	34.1%	7.3%
Nader Supporters	29.4%	41.2%	47.1%

In sum, although there are a few fluctuations in the findings, the tendency of selective exposure to preferred candidate Web sites was generally observed in the patterns of respondents' candidate Web site use. Hypothesis 1 was generally supported. The finding also verified the effectiveness of an Internet function, users' control over the content, which allows Web users to select what they want to see and read.

Hypothesis 2 posits that the more strongly a person endorses a certain candidate, the more likely he or she is to log on to the candidate's Web site. To test this hypothesis, supporters of each candidate were first divided into three subgroups according to the degrees of support at Time 1: weak supporters, middle supporters, and strong supporters. Weak supporters are defined as those whose support degrees for the candidate were 1 and 2 in 5-point Likert scale. Support degrees of 4 and 5 are categorized as strong supporters. The rest, support degree of 3, was defined as middle supporters. The breakdowns of subgroups are as follows: Bush supporters (weak = 31, middle = 52, and strong = 57), Gore supporters (weak = 22, middle = 47, and strong = 54), and Nader supporters (weak = 5, middle = 7, and strong = 5).

By using the three types of subgroups according to the degrees of support, the differences in terms of logging on frequency and probability among the subgroups were examined. Overall, strong supporters were more frequently and more likely to log on to their preferred candidate Web sites than weak and middle supporters were. Charts 4 through 6 and Table 4 show the frequencies of visiting preferred candidate Web sites by the subgroups. Strong Bush supporters logged on to the Bush site an average of 1.67 times compared to middle supporters' .25 times and weak supporters' .39 times ($F = 5.257$, $df = 137$, $p < .01$). Strong Gore supporters visited the Gore site an average of 2.24 times whereas middle and weak supporters did so .60 times and .32 times, respec-

Chart 4: Bush Supporters' Logging on Frequency By Support Degree

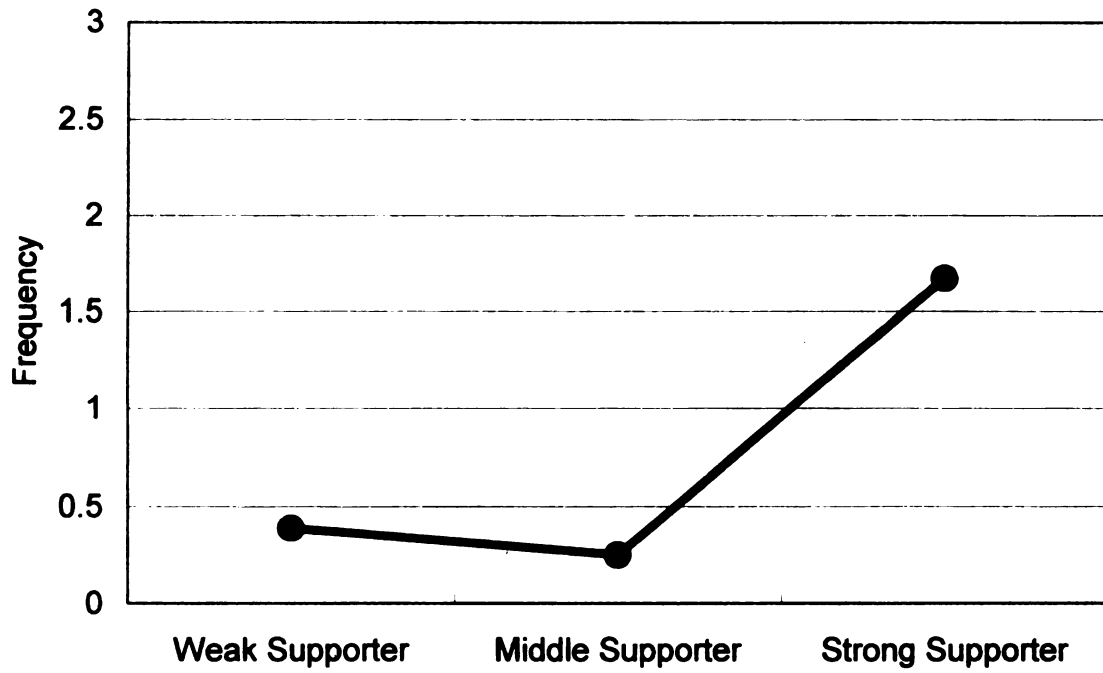


Chart 5: Gore Supporters' Logging on Frequency by Support Degree

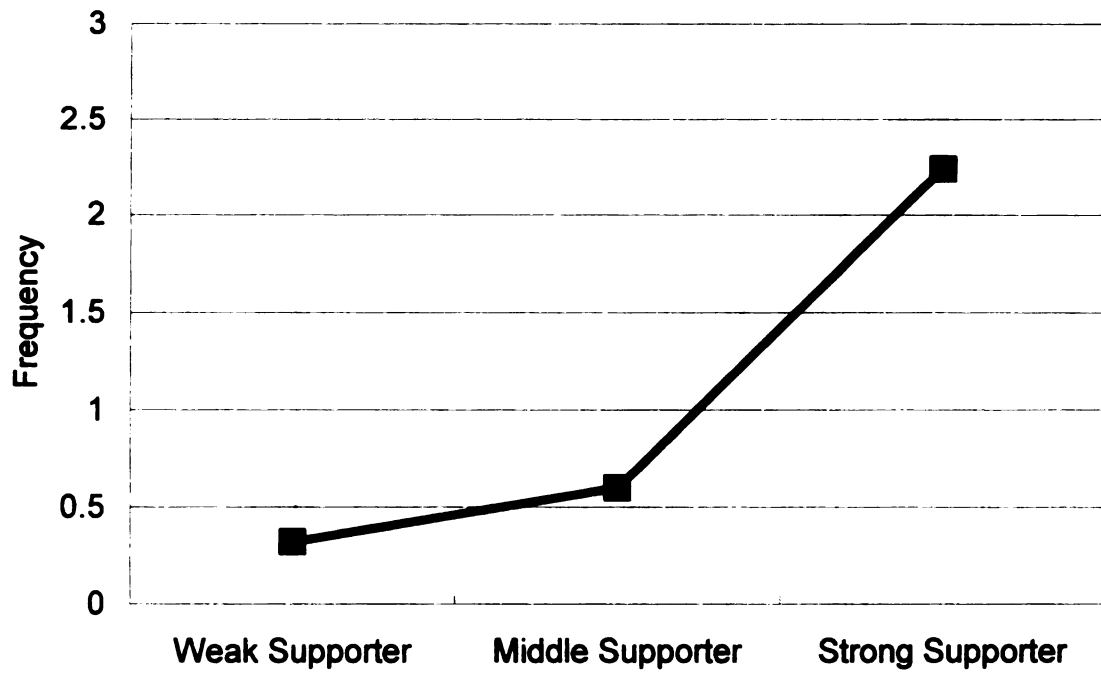


Chart 6: Nader Supporters' Logging on Frequency by Support Degree

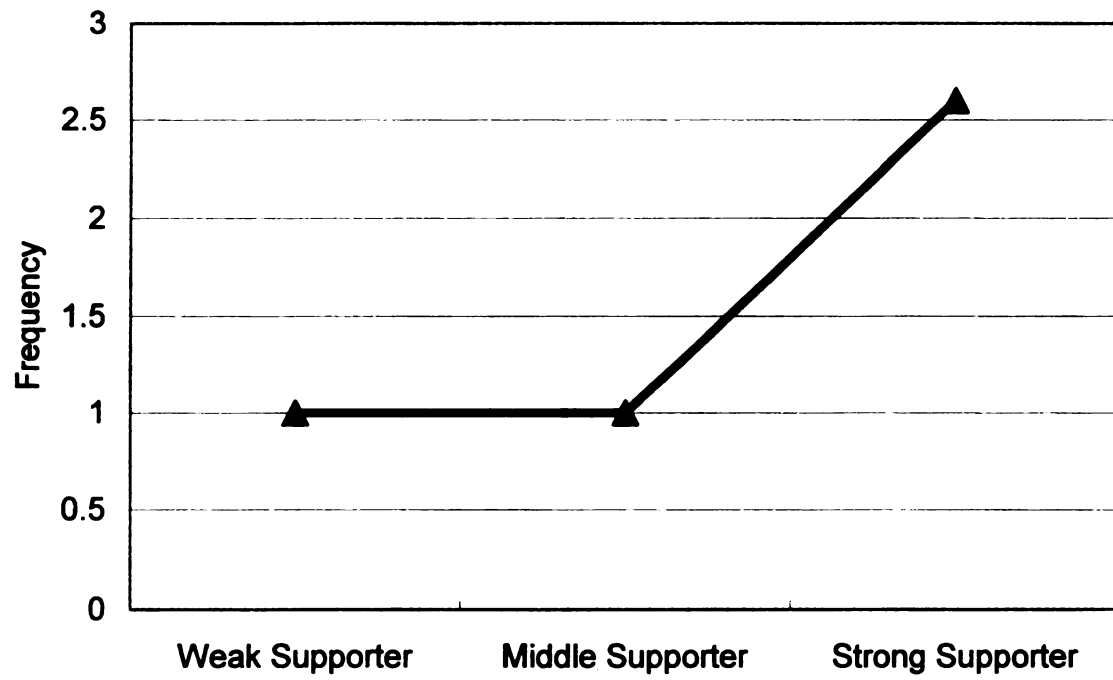


Table 4: Logging on Frequencies of Each Candidate's Supporters by Weak, Middle and Strong Support Degrees

	Weak	Middle	Strong
Bush Supporters $f(SD)$	.39 (1.17)	.25 (.62)	1.67 (3.70)
	$F = 5.26, df = 137, p < .01$		
Gore Supporters $f(SD)$	.32 (.89)	.60 (1.61)	2.24 (4.23)
	$F = 5.09, df = 120, p < .01$		
Nader Supporters $f(SD)$	1.00 (2.24)	1.00 (1.29)	2.60 (2.19)
	$F = 1.29, df = 14, p = .31$		

tively ($F = 5.093$, $df = 120$, $p < .01$). Strong Nader supporters (2.6 times) logged on to the Nader site more than twice as many times as middle and weak supporters did (1.00 times for each). However, the difference among Nader subgroups was not statistically significant ($F = 1.29$, $df = 14$, *ns.*).

In terms of probability, gamma (Goodman-Kruskal's index of relationship) was used to measure the strength and direction of the cross-tabular association between logging on probability (yes and no) and the three subgroups (strong, middle and weak supporters). The sign of gamma indicates whether the overall association is positive or negative, and the magnitude of gamma is the strength of the association. If respondents are overall higher on one variable as well as higher on the other variable, then the association is positive. On the other hand, if higher on one variable and lower on the other variable, the association is negative (see, Agresti & Finlay, 1997).

Table 5 demonstrates the positive relationship between the degree of support and the probability of logging on to the preferred candidate Web sites: as the degrees of support increase, the probability of visiting the preferred candidate Web sites goes up. Specifically, while 16.1 percent of weak Bush supporters logged on to the candidate site, 36.8 percent of strong Bush supporters did so ($\gamma = .401$, $p < .05$). Likewise, whereas 18.2 percent of weak Gore supporters logged on to the Gore site, 48.1 percent of strong supporters did so ($\gamma = .461$, $p < .01$). Strong Nader supporters (80%) were four times more likely to visit the Nader site than weak supporters were (20%). The association was significant ($\gamma = .69$, $p < .05$) even though the sample size was small.

Cross-tabular analysis may lose some information because the data are collapsed into subgroups. Thus, the 5-point degree of support at Time 1 for each favored candidate and the frequencies of logging on to the preferred candidate Web site were analyzed

Table 5: Logging on Probabilities for Weak, Middle and Strong Supporters by Each Candidate Supporters

	Sub-groups by support degree	Weak	Middle	Strong
BUSH SUPPORTER	Logged on (<i>n</i>)	16.1% (5)	17.3% (9)	36.8% (21)
	Did not log (<i>n</i>)	83.9% (26)	82.7% (43)	63.2% (36)
	$\gamma = .401, p < .05$			
GORE SUPPORTER	Logged on (<i>n</i>)	18.2% (4)	25.5% (12)	48.1% (26)
	Did not log	81.8% (18)	74.5% (35)	51.9% (28)
	$\gamma = .461, p < .01$			
NADER SUPPORTER	Logged on (<i>n</i>)	20.0% (1)	42.9% (3)	80.0% (4)
	Did not log (<i>n</i>)	80.0% (4)	57.1% (4)	20.0% (1)
	$\gamma = .692, p < .05$			

by Pearson's correlation. Generally, the degree of Time 1 support is positively related with the frequency of visiting the preferred candidate Web sites. For Bush supporters ($n = 140$), the relationship between the degree of support and logging on frequency is positively related ($r = .23, p < .01$). Similarly, Gore supporters' endorsement degree is positively associated with the frequency of visiting the Gore site ($r = .25, p < .01$). The correlation coefficient for Nader supporters ($r = .47$) is stronger than those for Bush and Gore supporters; however it is marginally significant ($p = .06$), again probably due to the small sample size ($n = 17$).

To sum, respondents logged on to their preferred candidate Web sites according to not only whether or not they endorsed the candidates but also how much they endorsed the candidates. The degrees of prior endorsement, or predisposition, determine the degrees of selective exposure to their favored candidate Web sites. Hypothesis 2 was supported.

Hypothesis 3 predicted that selective exposure to a preferred candidate Web site during the election campaign would eventually enhance the degree of support for the candidate at Time 2. While the findings above confirmed that the degrees of endorsement determine the degrees of selective exposure to the preferred candidate Web sites, the proposition of Hypothesis 3 predicted the causal effects of selective exposure on the endorsement for candidates. Only those who supported (Time 1) and voted for (Time 2) the same candidates were included in this analysis. Thus, converts who supported a candidate at Time 1 but voted for another candidate were excluded from this analysis. A total of 224 respondents who qualified for this criterion were identified. This hypothesis was tested by two methods.

First, correlation analysis assessed the association between the frequency of log-

ging on to the candidates' Web sites and the degree of respondents' Time 2 support for their candidates. Overall, the frequency of visiting preferred candidate Web sites and the degrees of Time 2 support for the candidates are positively correlated ($r = .28$, $p < .001$). The correlation coefficients between Time 2 support and logging on frequency are: for Bush voters, $.27$ ($p < .05$), for Gore voters, $.28$ ($p < .01$), and for Nader voters, $.50$ ($p < .05$).

These positive relationships between logging on frequency and support degree do not necessarily mean that selective exposure to preferred candidate Web sites boosts the degree of support for the candidates. It is quite possible to put an alternative interpretation on that finding: a strong endorsement for a candidate led respondents to log on to the candidate Web site and not vice versa, as the findings in the previous section demonstrated. Therefore, a second method was employed in order to invalidate the alternative interpretation. This method used the difference between Time 1 support and Time 2 support as the dependent variable. The degree of Time 1 support was subtracted from that of Time 2 support. The value could be positive (the support increased from Time 1) or negative (the support decreased from Time 1), or zero (the degree of support did not change from Time 1 to Time 2).

Overall, correlation coefficient analysis revealed no significant relationships between support increase/decrease and the frequency of logging on to the candidate Web sites ($r = -.01$, ns). For Nader voters, on the other hand, the support increase/decrease and the frequency of logging on appear to be positively related ($r = .53$). However, the association was not statistically significant ($p = .17$) due to the small number of Nader voters who qualified for this analysis ($n = 8$).

Although respondents who visited their preferred candidate Web sites tended to

endorse the candidates more strongly than those who visited less, this analysis could not confirm that the exposure to preferred candidate Web sites strengthened respondents' endorsement for the candidates. The analysis observed a weak indication of the reinforcement effect among Nader voters; however, causal inferences cannot be drawn from the finding. As a result, Hypothesis 3 was not supported.

Voting behavior

The first research question explored the relationships between voting behavior and the use of candidate Web sites and news Web sites. First, non-parametric statistic analysis was used to assess the likelihood of voting by logging on to candidate Web sites and news Web sites. The results are shown in Table 6. Those who logged on to candidate Web sites were more likely to vote than those who did not ($\chi^2 = 13.54$, $df = 1$, $p < .001$). Specifically, 83.2% of respondents who visited one or more candidate Web sites reported that they voted on election day, while 62.8% of non-visitors did so. Similarly, those who used news Web sites for the presidential election information were more likely to vote than others ($\chi^2 = 14.01$, $df = 1$, $p < .001$). Specifically, 77.8% of news Web users reported that they voted; 58.5% of non-users did so. Generally, users of candidate Web sites and news Web sites were more likely to vote than non-users.

The above analysis does not provide how much the probability of voting increased by a unit increase in the frequencies of candidate Web site use and news Web site use. In addition, the above results might be spurious because the analysis did not incorporate such variables as demographic information and other media consumption which have been found to influence voting behavior. Therefore, multiple logistic regression was used to measure the effect size of these Web sites and to improve the validity of analysis. Logistic regression quantifies the odds ratio of a dichotomous response.

Table 6: Voting Behavior by Online Information Use

		Did you vote?	YES	NO
ONLINE INFORMATION USE	CANDIDATE SITE	Logged (n)	82.3% (84)	16.8% (17)
		Did not Log (n)	62.8% (140)	37.2%% (83)
		$\chi^2 = 12.54, df = 1, p < .001$		
	NEWS SITE	Logged (n)	77.8% (137)	22.2% (39)
		Did Not Log (n)	58.5% (86)	41.5% (61)
		$\chi^2 = 14.01, df = 1, p < .001$		

The dependent variable of this research question is a binary response variable, whether or not respondents voted for a presidential candidate (coded 1 for yes, 0 for no). Thus, this statistical method can measure relative contributions of independent variables to the odds ratio of voting behavior which can be easily converted into the probability of voting.

The primary independent variables are the frequencies of logging on to candidate Web sites and news Web sites. In addition, the amounts of newspaper reading, television news watching, radio news listening, and news magazine reading were entered. All these variables are continuous variables obtained by open-ended questionnaire items. Partisanship (whether or not you are officially or unofficially affiliated with a political party: coded 1 for yes, 0 for no), Gender (coded 1 for male, 0 for female) and Level (1 = freshmen to 5 = graduate students) were also entered in the equation because these demographic elements may influence voting behavior.

A preliminary analysis found an interesting result: all media variables except for online information sources (candidate Web sites and news Web sites) were not significant predictors for voting. Respondents' gratifications for online information sources are ranked only after newspaper and television news programs (This will be discussed further in the uses and gratifications section). Even though respondents generally answered that they did not appreciate online information sources as much as they did the traditional media such as television news and newspapers, the use of online information sources are significant predictors for respondents' higher probabilities of voting. Online information may have a tremendous impact on voting turnout.

The analysis also found that demographic variables were not significant predictors for voting behavior. Thus, these three variables (Gender, Level and Partisanship) were eliminated along with non-online media use variables from the equation. The

multiple logistic regression was then calculated by incorporating the frequencies of candidate Web site use and news Web site use. Table 7 shows the results of the multiple logistic regression analysis.

The frequencies of visiting both candidate Web sites and news Web sites are predictors for voting (candidate Web sites: $\beta = .1795$, $p < .05$; news Web sites: $\beta = .0795$, $p < .01$). Respondents who visited either candidate Web sites or news Web sites were more likely to vote than those who visited less or did not visit. The equation which predicts the log odds of respondents' voting is shown in Equation 1:

$$\text{logit}(p) = .3598 + .1795 x_1 + .0795 x_2 \quad (\text{Equation 1})$$

Where x_1 is the frequency of candidate Web site use, and x_2 is the frequency of news Web site use.

Coefficient (β) represents the change in the log odds of voting for a unit change (frequency) in each independent variable (candidate Web site use and news Web site use). The odds ratios for candidate Web site use and news Web site use are 1.20 and 1.08, respectively. The odds ratios mean that for each unit increase in each variable, the odds of p change to the product of odds ratio and its previous value. Specifically, the frequencies of candidate Web site use and news Web site use increase by 1, the odds of p change to 120% and 108% of their previous values, an increase of 20% and 8%, respectively. Odds can be obtained in the same way that odds ratio can be obtained, by taking the inverse of the natural log of logit (p) as Equation 2 denotes:

Table 7: Logit Regression Analysis about Factors Determining Voting Behavior

	Voting Behavior (1 = Yes, 0 = No)		
	Coefficient	SE	Odds Ratio e^{β}
Online Information Use			
Candidate Web Site	.1795**	.0891	1.20
News Web site	.0795***	.0306	1.08
Logit Constant	.3598**	.1452	

Note:

- Online use variables, candidate web site and news web site, are frequencies of visiting each web site.
- Dependent variable (Did you vote?) is coded as 1 = yes, 0 = no.
- Significance for Multiple logistic regression: * $p < .10$, ** $p < .05$, *** $p < .01$

$$\text{Voting Odds} = e^{(.3598 + .1795x_1 + .0795x_2)} \quad (\text{Equation 2})$$

Where e is the natural logarithm base, x_1 is the frequency of candidate Web site use, and x_2 is the frequency of news Web site use

For example, odds for those who did not log on to either candidate Web sites or news Web sites are 1.433. Odds for those who logged on to candidate Web sites 10 times, but did not visit news Web sites is 8.63. On the other hand, odds for respondents who did not visit candidate Web sites, but logged on to news Web sites 10 times is 3.17. Chart 7 shows that candidate Web sites and news Web sites have the different impacts of a unit change on odds of voting.

The predicted probability of voting by the frequencies of visiting candidate Web sites and news Web sites can be obtained by Equation 3:

Voting Probability = odds divided by (odds + 1), or

$$\frac{e^{(.3598 + .1795x_1 + .0795x_2)}}{1 + e^{(.3598 + .1795x_1 + .0795x_2)}} \quad (\text{Equation 3})$$

Where e is the natural logarithm base, x_1 is the frequency of candidate Web site use, and x_2 is the frequency of news Web site use

Chart 8 demonstrates the difference in terms of probability increase between candidate Web site use and news Web site use. For example, the probability of voting

Chart 7: Odds for Voting as Evidenced by Online Information Use

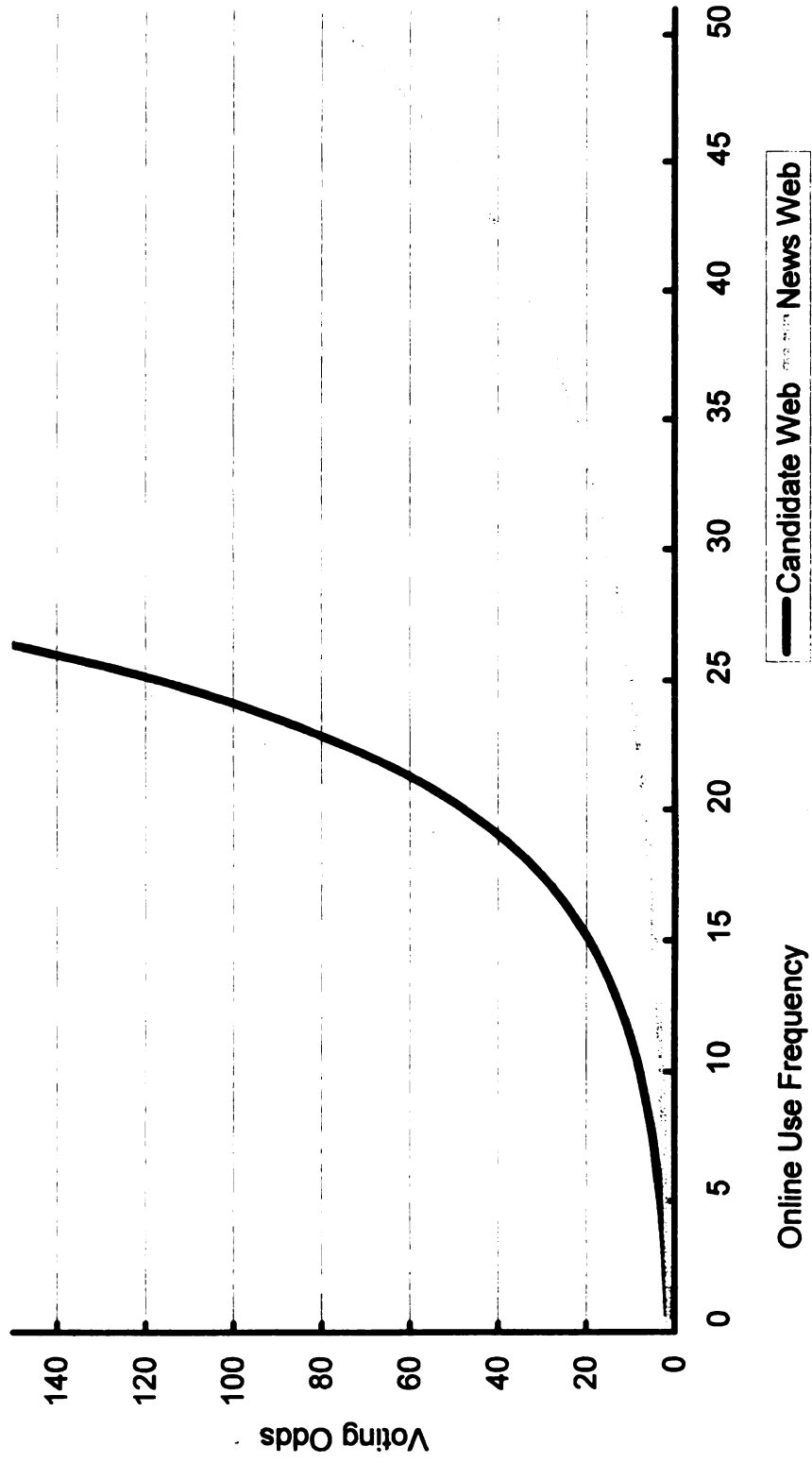
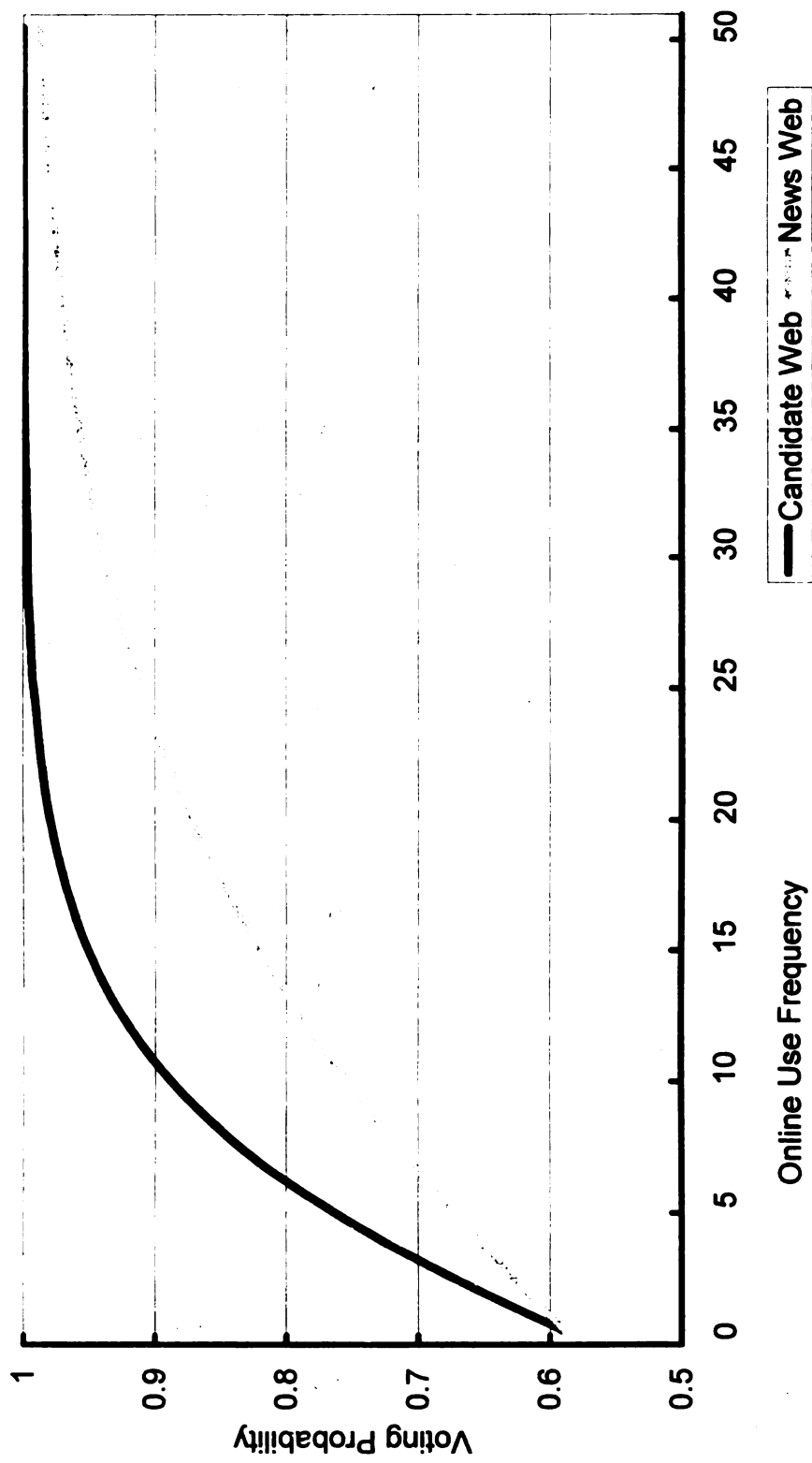


Chart 8: Probabilities of Voting as Evidenced by Online Information Use



of non-Web users—those who did not log on to either candidate Web sites or news Web sites—are 59%. The probability of voting of those who logged on to candidate Web sites 10 times, but did not visit news Web sites is 90%. On the other hand, the probability for respondents who did not visit candidate Web sites, but logged on to news Web sites 10 times is 76%.

On average, respondents logged on to candidate Web sites and news Web sites 1.64 times and 5.91 times, respectively. For the average online users, the odds of voting is 3.08 and the probability of voting is 75%. The average respondents' probability of voting is 16% greater than those who did not use either candidate Web sites and news Web sites. This result indicates that exposure to online information sources about the presidential election motivates respondents to vote and the effect of candidate Web sites on voting is stronger than that of news Web sites. However, the reverse could be true; respondents who decided to vote were more motivated to use online information sources.

Third Party Supporters

Research Question 2 explored whether third party supporters would use candidate Web sites and News Web sites more than major party supporters. Information about third party candidates is scarce in the major media so that third party supporters may have to rely on Web sites on which they can obtain information they want. Since there are only a couple of third party supporters who endorsed presidential candidates other than Nader, third party supporters in this study are defined as Nader supporters. In addition, this study differentiates supporters from voters: Supporters here are defined as those who endorsed a certain candidate at the Time 1 survey (September 2000), while voters are defined as those who reported that they actually voted for a can-

didate at the Time 2 survey (November 2000).

Table 8 shows the results regarding third party supporters/voters' use of candidate Web sites. While 64.7% of third party supporters at Time 1 logged on to candidate Web sites, 31.2% of major party supporters did so ($\chi^2 = 8.09$, $df = 1$, $p < .01$). As for voters at Time 2, 68.2% of third party voters used candidate Web sites while 34.0% of major party voters did so ($\chi^2 = 9.89$, $df = 1$, $p < .01$). The results demonstrate that third party supporters/voters were more likely to use candidate Web sites.

On the other hand, the third party supporters/voters' dependency on candidate Web sites did not hold in their use of news Web sites, as Table 9 demonstrates. The ratios of the use of news Web sites for third party and major party supporters/voters are so close that the null hypothesis could not be rejected. Specifically, 64.7% of Nader supporters and 58.0% of major party supporters at Time 1 logged on to news Web sites to obtain campaign information ($\chi^2 = .29$, $df = 1$, ns). Similarly, 77.3% of third party voters and 60.3% of major party voters went online to obtain campaign information through news Web sites. This difference appears to be large; however, it is not statistically significant ($\chi^2 = 2.42$, $df = 1$, $p = .12$).

In terms of frequencies of logging on to candidate Web sites, descriptive statistics generally reveals that third party supporters/voters visited candidate Web sites more often than major party supporters/voters did. For example, third party supporters visited candidate Web sites an average of 3 times ($SD = 3.37$) while major party supporters did so 1.75 times ($SD = 4.22$); Bush supporters 1.50 times ($SD = 4.01$) and Gore supporters 2.03 times ($SD = 4.44$). Third party voters logged on to candidate Web sites an average of 3.59 ($SD = 4.54$) compared to major party voters' 2.02 times ($SD = 4.57$); Bush voters 1.78 times ($SD = 4.30$) and Gore voters 2.22 times ($SD = 4.79$). However, these differ-

Table 8: Probability of Using Candidate Web Sites by Major party candidate Supporters/Voters and Third Party Supporters/Voters

Support (Time1)		Major Party Supporters	Third Party Supporters
CANDIDATE WEB SITE	Logged (n)	31.2% (82)	64.7% (11)
	Did not Log (n)	68.8% (181)	35.3% (6)
	$\chi^2 = .29, df = 1, ns$		
	Voted (Time2)	Major Party Voters	Third Party Voters
	Logged (n)	34.0% (68)	68.2% (15)
	Did Not Log (n)	66.0% (132)	31.8% (7)
	$\chi^2 = 9.89, df = 1, p < .01$		

Table 9: Probability of Using News Web Sites by Major party candidate Supporters/Voters and Third Party Supporters/Voters

Support (Time1)		Major Party Supporters	Third Party Supporters
NEWS WEB SITE	Logged (n)	58.0% (152)	64.7% (11)
	Did not Log (n)	42.0% (110)	35.3% (6)
	$\chi^2 = 8.09, df = 1, p < .01$		
	Voted (Time2)	Major Party Voters	Third Party Voters
	Logged (n)	60.3% (120)	77.3% (17)
	Did Not Log (n)	39.7% (79)	22.7% (5)
	$\chi^2 = 2.42, df = 1, p = .12$		

ences were not confirmed by t-test. These insignificant results could be at least partly ascribed to the wide range of standard deviations, in that the distributions of frequencies are spread out.

In terms of the use of news Web sites, descriptive statistics also demonstrates that third party supporters/voters visited news Web sites more often than major party supporters/voters did. Time 1 third party supporters logged on to news Web sites an average of 9.29 times ($SD = 12.28$) compared to major party supporters' 6.34 times ($SD = 14.63$): Bush supporters 5.94 times ($SD = 14.60$) and Gore supporters 6.80 times ($SD = 14.71$). Time 2 third party voters logged on to news Web sites an average of 10.23 times ($SD = 21.32$) compared to major party voters' 7.53 times ($SD = 15.17$): Bush voters 7.52 times ($SD = 16.78$) and Gore voters 7.54 times ($SD = 13.71$). However, all these difference were not statistically different due to the same reason in the use of candidate Web sites.

Overall, third party endorsers were more likely to use candidate Web sites than major party endorsers whereas the frequencies of visiting were not significantly different between third party endorsers and major party endorsers. In terms of news Web site use, on the other hand, there is no difference at least statistically between third party endorsers and major party endorsers. Bringing together these two findings suggests that a difference exists between third party endorses' use of candidate Web sites and their use of news Web sites.

Uses and Gratifications

Research Questions 3 and 4 explored gratifications which respondents sought from the online media and examined differences (or similarities) in terms of

gratifications between the online media and the regular media. A total of 11 gratifications for each medium, their means and standard deviations are presented in Table 10. The table demonstrates that there are few gratifications items which are distinct from other items within each medium. It is especially the case in candidate Web sites and news Web sites: the mean values for the items are quite similar. This result suggests that respondents did not seek any specific gratifications from these Web sites, rather they regarded each gratifications item as similar within each medium.

The table also demonstrates that the mean values of gratifications items in news Web sites and candidate Web sites are consistently ranked third and fourth, respectively. Every item in candidate Web sites was rated the least. Television news programs were ranked as the most gratifying in their utility for a presidential election information source followed by newspapers except for one item, i.e., control over the content. This result suggests that these traditional media such as television news programs and newspapers are still important political information sources for respondents regardless of gratifications categories.

The magnitude of gratifications demonstrated a clear rank order among these four information sources; however, it is also important to examine the relationships among these media and their potential interchangeability as need satisfiers (Katz, Gurevitch, & Haas, 1973). Consequently, factor analysis is used to explore relationships among these four media by incorporating a total of 44 items (11 items for each medium) into the analysis.

The appropriateness of running a factor analysis on the data was pre-tested by measuring sampling adequacy (KMO statistics). KMO statistics was calculated for variables in the data. High values indicate that a factor analysis is an appropriate method to

Table 10: Means Values and Standard Deviations of 11 Gratifications Items by Each Media

	Gratifications Items	Candidate Web	News Web	News-paper	TV
Surveillance	To see how the candidates stand on the issues,	2.43 (1.39)	2.68 (1.26)	3.51 (1.03)	3.73 (1.06)
	To help me make up my mind on how to vote in the election,	2.09 (1.23)	2.51 (1.29)	3.45 (1.10)	3.62 (1.18)
	To see what the candidates would do if elected,	2.42 (1.45)	2.49 (1.28)	3.40 (1.11)	3.58 (1.17)
	To judge what candidates are like,	2.20 (1.34)	2.41 (1.20)	3.41 (1.06)	3.75 (1.14)
Reinforce	To remind me of my candidate's strong points,	2.36 (1.41)	2.53 (1.29)	3.41 (1.11)	3.55 (1.21)
	To get information which agrees with my positions,	2.36 (1.43)	2.50 (1.27)	3.28 (1.13)	3.38 (1.24)
Utility	To use what I learn in politics,	2.00 (1.18)	2.45 (1.31)	3.31 (1.21)	3.38 (1.25)
	To give me something to talk about with other people,	2.00 (1.27)	2.36 (1.36)	3.53 (1.26)	3.80 (1.24)
Interactivity	Because it is interactive,	2.18 (1.37)	2.51 (1.40)	2.73 (1.29)	2.87 (1.37)
	Because it gives me the control over what and when I want to use,	2.50 (1.49)	2.86 (1.44)	3.16 (1.23)	2.98 (1.29)
	To participate in the Presidential Election campaign,	2.16 (1.34)	2.45 (1.34)	3.36 (1.23)	3.48 (1.27)

Note: Each gratifications item is followed by "I use from the following sources."

use; the closer to 1, the more appropriate it is. Specifically, a KMO statistic more than .80 is appropriate; one less than .50 is unacceptable (Hutcheson & Sofroniou, 1999). All KMO statistics for individual variables were over .80: candidate Web sites = .956, news Web sites = .960, newspapers = .931, television news programs = .933.

A principal component analysis with varimax rotation identified seven factors which have more than 1 eigenvalue. The eigenvalue shows the amount of variance explained by each principal component with the sum of the eigenvalues equaling the number of variables (i.e., 44). These seven factors accounted for 73 percent of the variance. Interestingly, the first four factors are perfectly media specific (separated by each medium): candidate Web sites, news Web sites, television news programs and newspapers. In other words, each of these four factors consists of items purely from a corresponding medium. Thus, the first four factors can be named Candidate Web Factor, News Web Factor, Television Factor, and Newspaper Factor, respectively. This finding further confirmed the media specific nature of political information gratifications: respondents regarded each gratifications as similar within each medium. It also indicates that respondents distinctly recognized each medium for political purposes. Contrary to the previous findings, gratifications of political information may be very media specific.

Now, assuming that gratifications of political information is media specific, the first four factors are used for the further analysis. Each of the four factors is comprised of significant numbers of items. Specifically, both Candidate Web Factor and News Web Factor are comprised of all 11 items; Television Factor and Newspaper Factor are made up of nine and eight items, respectively. On the other hand, the other factors (5th to 7th) are comprised of only three or fewer items even though they have eigenvalues of more than one. Hence, these factors were dropped from the analysis. Table 11 shows

**Table 11: Factor Analysis of Gratifications Items for Presidential Election
Information Sources**

FACTOR 1: CANDIDATE WEB FACTOR		
Media	Gratifications Items	Factor Loadings
Candidate Web Site Gratifications	To see how the candidates stand on the issues,	.78
	To help me make up my mind on how to vote in the election,	.80
	To see what the candidates would do if elected,	.80
	To judge what candidates are like,	.82
	To remind me of my candidate's strong points,	.82
	To get information which agrees with my positions,	.80
	To use what I learn in politics,	.76
	To give me something to talk about with other people,	.72
	Because it is interactive,	.78
	Because it gives me the control over what and when I want to use,	.78
	To participate in the Presidential Election campaign,	.79
	Percent of variance explained	32.48%
	Eignevalue	14.29
	Candidate Web Index Mean (SD)	2.24 (1.14)
	Candidate Web Index Reliability (α)	.96

Table 11: (Continued)

FACTOR 2: NEWS WEB FACTOR		
Media	Gratifications Items	Factor Loadings
News Web Site Gratifications	To see how the candidates stand on the issues,	.80
	To help me make up my mind on how to vote in the election,	.82
	To see what the candidates would do if elected,	.81
	To judge what candidates are like,	.83
	To remind me of my candidate's strong points,	.83
	To get information which agrees with my positions,	.79
	To use what I learn in politics,	.69
	To give me something to talk about with other people,	.77
	Because it is interactive,	.73
	Because it gives me the control over what and when I want to use,	.71
	To participate in the Presidential Election campaign,	.71
	Percent of variance explained	20.22%
	Eignevalue	8.90
	News Web Index Mean (SD)	2.51 (1.12)
	News Web Index Reliability (α)	.96

Table 11: (Continued)

FACTOR 3: TELEVISION NEWS FACTOR		
Media	Gratifications Items	Factor Loadings
Television News Gratifications	To see how the candidates stand on the issues,	.80
	To help me make up my mind on how to vote in the election,	.79
	To see what the candidates would do if elected,	.80
	To judge what candidates are like,	.76
	To remind me of my candidate's strong points,	.81
	To get information which agrees with my positions,	.71
	To use what I learn in politics,	.68
	To give me something to talk about with other people,	.55
	Because it is interactive,	-
	Because it gives me the control over what and when I want to use,	-
	To participate in the Presidential Election campaign,	.67
	Percent of variance explained	5.86%
	Eignevalue	2.58
	Television News Index Mean (SD)	3.59 (.92)
	Television News Index Reliability (α)	.91

Table 11: (Continued)

FACTOR 4: NEWSPAPER FACTOR		
Media	Gratifications Items	Factor Loadings
Newspaper Gratifications	To see how the candidates stand on the issues,	.73
	To help me make up my mind on how to vote in the election,	.70
	To see what the candidates would do if elected,	.75
	To judge what candidates are like,	.76
	To remind me of my candidate's strong points,	.80
	To get information which agrees with my positions,	.72
	To use what I learn in politics,	.60
	To give me something to talk about with other people,	-
	Because it is interactive,	-
	Because it gives me the control over what and when I want to use,	-
	To participate in the Presidential Election campaign,	.59
	Percent of variance explained	4.76%
	Eignevalue	2.09
	Newspaper Index Mean (<i>SD</i>)	3.39 (.87)
	Newspaper Index Reliability (α)	.91

components and factor loadings for Candidate Web Factor, News Web Factor, Television Factor, and Newspaper Factor.

Item responses for each factor were first aggregated and then averaged to create scale scores (indexes). Cronbach's index of internal consistency (α) for each factor was also calculated to confirm the adequacy of creating these indexes (see Table 11). The first factor (Candidate Web Factor) was made into and named Candidate Index ($M = 2.24$, $SD = 1.14$, $\alpha = .96$); the second factor (News Web Factor) News Web Index ($M = 2.51$, $SD = 1.12$, $\alpha = .96$); the third factor (Television Factor) Television Index ($M = 3.59$, $SD = .92$, $\alpha = .91$); the fourth factor (Newspaper Factor) Newspaper Index ($M = 3.39$, $SD = .87$, $\alpha = .91$). Values in all indexes range from 1 to 5.

Paired-sample t-test was used to determine the rank order of these indexes. All the differences in these indexes are significant (difference between Television Index and Newspaper Index: $t = 5.35$, $df = 305$, $p < .001$; Newspaper Index and News Web Index: $t = 12.75$, $df = 303$, $p < .001$; News Web Index and Candidate Index: $t = 4.67$, $df = 303$, $p < .001$), which indicates that respondents' gratifications for political information sources are in the following rank order: television news, newspapers, news Web sites and candidate Web site. Television news was regarded as the most gratifying information source for the presidential election campaign while candidate Web sites were regarded as the least.

Research question 5 asked whether the online media are alternative to traditional media. The findings in uses and gratifications demonstrated that the online media did not become functional alternatives to the old media yet because respondents did not regard the online media as gratifying as the traditional media. In addition, interchangeability among these four information sources was not observed: the gratifica-

tions of political information is media specific. Taking these findings into consideration, it is concluded that it takes a while for the online media to become an alternative to the old media as a presidential information source.

Research Question 6 concerned whether respondents' gratifications for the online media are related to their political use of the online media (candidate Web sites and news Web sites). Table 12 shows a correlation matrix between each index and the respondents' consumption of each information source. Each index is correlated with a corresponding medium use, except for a couple of overlaps, which means that these indexes are reliable predictors for corresponding media use.

These gratifications indexes may not be the only predictors for respondents' media use. Demographic variables such as gender may affect the respondents' information use. Therefore, multiple regression was also employed to assess Research Question 6 by including gender, computer ownership, partisanship, party preference, online hour, and the gratifications indexes as independent variables. Gender (0 = female and 1 = male), computer ownership (0 = do not own and 1 = own), partisanship (0 = non-partisan and 1 = partisan), and party preference (0 = support a major party candidate and 1 = support a third party candidate) were dummy-coded. The multiple regression can explore the multivariate relationships and the degree of impact of these independent variables on the use of each of the four information sources.

As for candidate Web sites, a preliminary analysis identified that Candidate Index was the only significant predictor for the use of candidate Web sites. The Index represents respondents' gratifications level for the use of candidate Web sites. All of the other variables were not significant predictors so that these insignificant variables were dropped out of the regression analysis. The next analysis confirmed that logging

Table 12: Correlation Matrix between Gratifications Factors (Indexes) and Media Use

Media Use	FACTOR 1 Candidate Web Index	FACTOR 2 News Web Index	FACTOR 3 Television Index	FACTOR 4 Newspaper Index
Candidate Web Sites	.156**	.190**	-.074	.011
News Web Sites	.085	.160**	-.098	.020
Television News	-.028	.008	.239***	.133*
Newspapers	-.014	.022	.031	.253***

Note: * $p < .05$, ** $p < .01$, *** $p < .001$

on to candidate Web sites was predicted significantly by the Candidate Index ($\beta = .126, p < .01$) as is shown in Table 13.

As was done for candidate Web site use, a preliminary analysis was conducted to screen out insignificant variables from the analysis of news Web site use. It found that online hour and News Web Index are possible candidates for the further analysis. Multiple regression analysis was then conducted by including only these two variables. The results are presented in Table 13. Online time spending was a significant predictor for the use of news Web sites ($\beta = .247, p < .001$), while News Web Index was marginally significant ($\beta = .100, p = .08$). Overall, the findings by multiple regression further confirmed the reliability of gratifications indexes as predictors for respondents' online media use patterns.

Research Question 7 explored the difference in terms of Internet gratifications between major party supporters and third party supporters. This study reported above that third party supporters/voters were more likely to log on to candidate Web sites than major party supporters/voters. Therefore, third party supporters/voters are expected to appreciate the Internet over the traditional media more than major party supporters. All of the four indexes—Candidate, News, Television, and Newspaper—were used to test the difference between these two groups.

Table 14 shows the mean values of these gratification indexes by major party supporters/voters and third party supporters/voters. The difference of each gratifications index between the major party supporters and third party supporters was assessed by t-test. All t-values were below significant level. Contrary to the expectation, there was no significant difference in terms of gratifications between major party supporters/voters and third party supporters/voters.

**Table 13: Regression Analysis Results Indicating Impact of Gratifications on
Candidate and News Web Site Use**

Candidate Web Site Use				
	<i>R</i>	<i>R</i> ²	β	<i>p</i>
	.156	.024		.006
Candidate Web Index (Factor 1)			.126	.006
$F(1, 304) = 7.58, p < .01$				
News Web Site Use				
	.288	.083		.000
Online Hour (hours)			.247	.000
News Web Index (Factor 2)			.100	.080
$F(2, 334) = 13.69, p < .001$				

Table 14: Index Means and Major Party Candidate Supporters/Voters v. Third Party Candidate Supporters/Voters

	Major Party Supporters <i>M (SD)</i>	Third Party Supporters <i>M (SD)</i>	Major Party Voters <i>M (SD)</i>	Third Party Voters <i>M (SD)</i>
Candidate Index	2.29 (1.14) <i>t = .86, df = 262, ns</i>	2.02 (1.16)	2.30 (1.17) <i>t = .36, df = 210, ns</i>	2.40 (1.26)
News Web Index	2.54 (1.11) <i>t = .23, df = 264, ns</i>	2.61 (1.10)	2.57 (1.12) <i>t = .77, df = 211, ns</i>	2.76 (1.10)
Television Index	3.66 (.90) <i>t = .76, df = 262, ns</i>	3.47 (.98)	3.61 (.92) <i>t = .128, df = 209, ns</i>	3.34 (.89)
Newspaper Index	3.41 (.87) <i>t = .71, df = 262, ns</i>	3.58 (.63)	3.43 (.84) <i>t = .11, df = 208, ns</i>	3.41 (.94)

Summary of Results

H1: A person logs on to one's preferred candidate's campaign Web site more often than the other candidate sites.

Findings: The tendency of selective exposure to preferred candidate Web sites was generally observed in respondent's Web use patterns. H1 was generally supported.

H2: The stronger the endorsement for a candidate a person has, the more likely and frequently a person logs on to the candidate Web site.

Findings: Strong supporters were more frequently and likely to log on to their preferred candidate Web sites than weak and middle supporters. Respondents logged on to their preferred candidate Web sites according to not only whether or not they endorse the candidates but also how much they endorse the candidates. H2 was supported.

H3: The more a person logs on to the preferred candidate Web site, the stronger one's endorsement for the candidate will become.

Findings: The analysis could not confirm that the exposure to preferred candidate Web sites strengthened respondents' endorsement for the candidates at Time 2. Although it observed a weak indication of the reinforcement effect among Nader voters, causal inferences cannot be drawn from the finding. Hypothesis 3 was not supported.

RQ1: Is there any relationship between logging on to candidate Web sites (or news Web sites) and reported voting?

Findings: Users of candidate Web sites and news Web sites were more likely to vote than non-users. This tendency held after controlling for other media consumption

and demographic variables. The result indicates that exposure to online information sources about the presidential election motivates respondents to vote, and the effect of candidate Web sites on voting is stronger than that of news Web sites.

RQ2: Are third party candidate supporters more likely than major party candidate supporters to log on to candidate Web sites and news Web sites?

Findings: Third party supporters/voters were more likely to use candidate Web sites than major party supporters/voters. In terms of news Web site use, on the other hand, there is no difference at least statistically between third party endorsers and major party endorsers. The results suggest that a difference exists between third party endorses' use of candidate Web sites and their use of news Web sites.

RQ3: What gratifications do individuals seek from online campaign Web sites?

Findings: Respondents did not seek any specific gratifications from candidate Web sites and news Web sites, rather they regarded each gratifications item as similar within each medium.

RQ4: Are there any differences in gratifications people seek from Web sites and other information sources?

Findings: Respondents clearly distinguished the online media from the old media. Their gratifications for political information sources are in the following rank order: television news, newspapers, news Web sites and candidate Web site.

RQ5: Is the Internet an alternative to traditional media?

Findings: The online media did not become functional alternatives to the old media yet because (1) respondents did not regard the online media as gratifying as the old

media and (2) interchangeability among these four information sources was not observed.

RQ6: Are the uses and gratifications for Web use a predictor for online use?

Findings: Gratifications indexes for the four information media are correlated with corresponding media, which means that these indexes are reliable predictors not only for the online media use but also the old media use.

RQ7: Is there any difference in Internet uses and gratifications between major party supporters and third party supporters?

Findings: There was no significant difference in terms of gratifications between major party supporters/voters and third party supporters/voters.

CHAPTER V

DISCUSSION

Possible Impact on Voting Behavior

This study presented new and different empirical evidence that candidate Web site use and news Web site use, as opposed to traditional media use, are significant predictors for the higher probability of voting, as Charts 7 and 8 clearly demonstrated. Past research found that the use of the traditional media such as viewing television and reading newspapers is an indicator of higher voting turnout. However, the effects of television news and newspapers on voting were partialled out after controlling for the use of candidate Web sites and news Web sites. This result has an important implication: Web site use for political purposes may have a tremendous impact on voting and the influence of the traditional media on voting may be fading away in the Internet age.

The results in uses and gratifications seem to contradict this possible effect of the Web sites. The findings of this study demonstrated that respondents' gratifications for the online information sources were ranked after newspapers and television news programs. While television news programs and newspapers generally gratified respondents much more than candidate Web sites and news Web sites did, these traditional media were not found to have effects on voting turnout in this study. This complicated relationship between the media, gratifications, and voting likelihood raises a question: Why is it that, despite that these online media were predictors for voting, candidate Web sites and news Web sites did not gratify respondents as much as the traditional media did?

This study did not verify cause and effect evidence that logging on to the Web sites actually led respondents to the polls. It is entirely possible that respondents who

have already decided to vote are more likely to log on to the Web sites than those less determined, i.e., the pre-determination proposition. If the pre-determination proposition is right, the decision to vote should nullify the online media's effects on voting turnout in a multivariate analysis; however, the proposition could not invalidate the possibility that the Web site use has an impact on higher voting. Another multiple logit regression analysis was conducted by including the "pre-determination variable" (Time 1 decision to vote for a candidate: coded 0 for No, 1 for Yes) as well as these online media use as independent variables. The result demonstrated that candidate Web sites and news Web sites still have significant impacts on the higher probability of voting after controlling for "pre-determination."

A plausible mechanism of the Web site impact on voting resides in Web sites' uniqueness: the Web sites can (1) provide consonant content for visitors and (2) give them a sense of community. First, you can selectively choose what you want to see and/or read through the Internet. Thus, it is quite possible that you can obtain content online which is consistent with your ideas. A candidate Web site is a good example. The Web site provides only positive information about the candidate. All the information on the Web site is designed to affirm the strength and superiority of the candidate over other candidates. Second, a candidate Web site, or any Web site designed for specific types of people can give visitors a sense of community (for example, Rheingold, 1999). Sense of community can be defined as a feeling of being part of the community and a feeling of sharing common interests with community members. However, the traditional media such as television, radio and newspapers are not structured to bring about a sense of community because of one-way, top-down communication (Rucinski, 1991). People can virtually visit a community on the Web or even become a member of

the cyber community not only by communicating and interacting with each other but also by tailored content of Web sites for specific visitors.

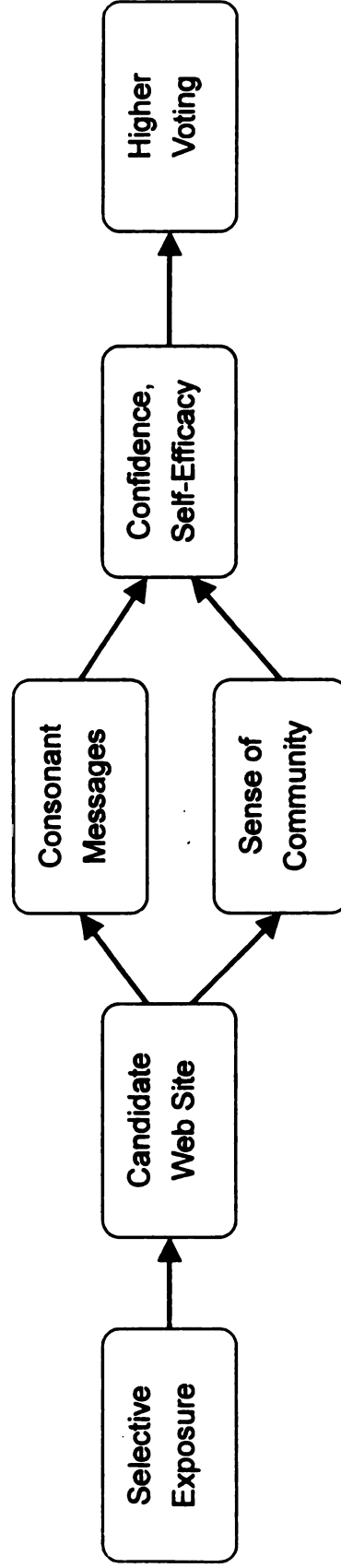
Cyber Motivation Hypothesis

Synthesizing these two elements, I would like to propose *the cyber motivation hypothesis* which posits that (1) selective exposure to consonant messages on a Web site enhances confidence, or self efficacy, (2) the Web site offers a sense of community which enhances self-efficacy, and (3) the obtained and enhanced self-efficacy eventually affects voting behavior, i.e., motivates people to vote. The mechanism of how this model works is elaborated as follows.

After people selectively expose themselves to ideas and messages consistent with their own, they feel reaffirmed and then their commitment is strengthened. The confirmation eventually enhances their confidence about what they will actually do. This confidence in behavior is known as self-efficacy, which refers to the confidence people have in their ability to do what they want (Bandura, 1986), and it is a pivotal factor of behavior change and action (Maibach & Cotton, 1995). In addition, a community can provide efficacy information which can have a strong impact on the community members' efficacy beliefs. This is called "vicarious efficacy information" (Maibach & Cotton, 1995, p. 48). Thus, visitors to a specific Web site could enhance self-efficacy by the "double dose" of efficacy boosters: (1) selective exposure to consonant messages and (2) feeling a sense of community. Subsequently, the outcome of enhanced self-efficacy motivates them to take action. The cyber motivation hypothesis refers to this series of effects from cognition, to attitude and finally to behavior (see Figure 1).

Let's apply this hypothesis to the case of candidate Web sites. First, voters selectively expose themselves to a preferred candidate Web site. Then, they will reaffirm

Figure 1: Selective Exposure and Web Sites' Booster Effect Model, Cyber Motivation Hypothesis



their belief or choice for the candidate by supporting messages and content on the Web site. At the same time, they will feel a sense of community there because the site is structured for a specific purpose and people. Consequently, they will become more self-efficacious by the double dose of these efficacy boosters and motivated to take a action, thus voting for the candidate.

The cyber motivation hypothesis does not try to invalidate the antithetical proposition, namely, the pre-determination proposition. It is rational that both mechanisms influence each other: those who have already determined to vote may be further motivated by boosting self-efficacy. Without any empirical evidence, however, it is safe to say that these two mechanisms, the pre-determination and the cyber motivation, influence and interact with each other to raise the possibility of voting.

Selective Exposure to Candidate Web Sites

The findings regarding selective exposure generally confirmed respondents' tendency toward preferred candidate Web sites. In addition, this tendency becomes stronger as the strength of respondents' support for the candidates increases. Thus, it can be concluded that the strength degree of pre-disposition determines the degree of the selective exposure to candidate Web sites. This is an important finding, but not a surprising one, which provides the literature with a piece of empirical evidence for the selective exposure theory in the Internet age. The findings also confirmed a characteristic of the Internet: information on Web sites is the "pull" variety, i.e., the selection of online information is in the users' hands.

Even though the tendency toward selective exposure was confirmed, the results suggest that selective exposure to a preferred candidate Web site did not boost respon-

dents' endorsement for the candidate. Of course, this does not necessarily mean that selective exposure cannot boost the degree of support, but it means that this study could not find any evidence which indicates a booster effect of Web site exposure on endorsement degree. In fact, the findings on voting behavior and selective exposure infer that the use of candidate Web sites has a boosting effect on endorsement.

This study found a possible correlation between the support increase/decrease from Time 1 to Time 2 and the frequency of candidate Web site use among Nader supporters ($r = .53$). The association was not statistically significant due to the small sample size. However, considering that (1) information about third party candidates is scarce in the main stream media and then (2) third party supporters are more likely to use candidate Web sites than major party supporters are, there is a possibility that third party supporters increased their endorsement at least partly by the exposure to candidate Web sites. Thus, the possibility of the boosting effect by selective exposure should not be eliminated because this sample size was not large enough.

In the selective exposure section, there is a mixed finding which should be interpreted in the context of the presidential election 2000. While selective exposure was generally supported by the results, Nader supporters were somewhat ambivalent toward the use of the Nader and Gore Web sites. In terms of frequency, Nader supporters visited the Nader Web site (1.47 times) more often than the other sites (.94 times for Gore's and .59 times for Bush's). However, in terms of probability, they were almost equally likely to log on to the Nader site and the Gore site (47.1 % and 41.2 %, respectively) while less likely to log on to the Bush site (29.4 %). This seems to be consistent with the often-reported news story that Nader supporters and Gore supporters, not Bush supporters, somewhat overlapped. Nader supporters may not have been able to make a de-

cision about which candidate, Gore or Nader, they would vote for during the election campaign. Thus, it could be said that the close probabilities are attributable to this indecisiveness.

The descriptive statistics in the selective exposure section showed that Bush supporters used Web sites less than the other candidate supporters did. A plausible interpretation is that while Gore and Nader supporters tend to be Internet savvy, Bush supporters are less likely to use the Internet. A statistical analysis was conducted to test whether or not Gore and Nader supporters were more likely to log on to candidate Web sites than Bush supporters. In terms of probability, 65% of Nader supporters and 36% of Gore supporters used any candidate Web sites while 27% of Bush supporters did so ($\chi^2 = 10.29, p < .01$). In terms of frequency, Nader supporters used any candidate Web sites 3 times throughout the campaign, while Gore supporters did so 2.03 times and Bush supporters 1.50 times. While the difference in frequency is substantive, it was not statistically significant ($F [2, 219] = 1.40, ns.$) because the standard deviations of logging on frequency are huge. The results are not outright, however, party identification might be a factor to determine the use of candidate Web sites among respondents.

Third Party Supporters' Web Use

This study found that third party supporters, Nader supporters in this study, were more likely to log on to candidate Web sites than major party supporters. Third party supporters' greater use of candidate Web sites seems to be attributable to a feature of the Internet: people can obtain what they want to see and hear on the Internet. On the other hand, there was no significant difference in terms of news Web site use between third party supporters and major party supporters. This finding raises a question: Why is it

that the difference between third party and major party supporters was observed only in the use of candidate Web sites?

One plausible interpretation is that information content on news Web sites is nearly identical with that in the traditional media because almost all news Web sites are run by and/or provided with news content by their “parents,” major news organizations. For this reason, it is probably difficult for third party supporters to obtain information about third party candidates through online news sites, but it is easy through the candidate Web site. Thus, it can be said that Nader supporters logged on to candidate Web site out of necessity.

Another interpretation may be that third party supporters as a whole are more likely to be “Internet geeks,” or in politically correct language, Internet savvy. However, according to the data, this interpretation does not seem to be legitimate. The differences in terms of overall consumption on the Internet between major party supporters/voters and third party supporters/voters were quite similar. At Time 1, third party supporters spent an average of 9.81 hours ($SD = 8.80$) online a week while major party supporters 10.12 hours ($SD = 9.22$). At Time 2, third party voters went online an average of 11.05 hours ($SD = 11.50$) while major party voters 10.22 hours ($SD = 8.89$). These differences are not statistically significant (the former: $t = .13$, *ns*; the latter: $t = .40$, *ns*). Thus, as stated above, third party supporters/voters seem to need to log on specifically to candidate Web sites.

Media Specific Uses and Gratifications

Contrary to the findings in previous studies, respondents’ uses and gratifications about political information sources are very media specific. The magnitude of the grati-

fications for each medium demonstrated the rank order among the media in terms of political information sources. Television news programs gratified respondents most, followed by newspapers. On the other hand, online information sources such as candidate Web sites and news Web sites were least appreciated. This finding casts doubt on what has been taken for granted in uses and gratifications research, i.e., non-media specific nature of uses and gratifications in political information sources. Perhaps the new media environment with the advent of the Internet is responsible for the media specific nature of uses and gratifications in a way that each medium found a "niche" for itself.

Past studies that found non-media specific nature of political information gratifications were conducted when the media meant newspaper, radio and television, i.e., before the inception of the Internet. Media variety in the past was not as varied as it is now. Today, the Internet has established a foothold in the media environment and is becoming as an important medium as the traditional media. For example, in terms of time spent on each medium, respondents went online an average of 10 hours a week, while they spent only a fifth or less of the time on the other media such as television and newspaper. The Internet was the most extensively used medium by respondents, although this does not necessarily mean that they used candidate Web sites and news Web sites as much as they used the Internet as a whole. The clear rank order, then, may be attributed to distinct characteristics of the old media and the new media. The differences are evident because (1) the Internet is a "pull" medium while the old media are "push" media and (2) the Internet is the latest addition to the media environment so that its newness can draw more attention. Thus, for these reasons, respondents may have been able to distinguish and rank-order candidate Web sites, news Web sites, television news programs and newspapers.

The results also indicated that the old media are still important political information sources for respondents regardless of gratifications categories. However, considering that candidate Web sites and news Web sites appeared to have had an impact on voting, it would be wrong to conclude that the online media are trivial merely because they were ranked as distant third and fourth places.

The online media's lower gratifications could be attributed to the fact that only a few respondents logged on to the Web sites. The overall gratification levels for the online media (Candidate Index and News Web Index) were low because these indexes were the mean values of all respondents. Specifically, of all respondents at Time 1, only 41 of them actually logged on to a candidate Web site(s). Not surprisingly, the candidate Web site users' gratifications level is greater than that of non-users. Their gratifications for candidate Web sites (Candidate Index) is 3.0 compared with 2.12 of those who did not use, and this difference is statistically significant ($t = 4.79, p < .001$). As presidential candidates will probably utilize the Internet to construct more attractive Web sites in the 2004 election and as more people use candidate Web sites, the level of gratifications for candidate Web sites is expected to go up.

Overall lower gratifications levels for the online media were at least partly explained by the small number of users. However, there remains a question which is not explained for this reason: even though candidate Web sites and news Web sites have a unique feature of interactivity, these Internet media were rated lower even in the interactive items than television news programs and newspapers which do not have that function. For example, candidate Web sites have such interactive features as "real time question and answer" and "email or contact us." So it had been expected that candidate Web sites would have been rated highest in the interactive gratifications items or at least

as high as the other media. Contrary to the expectation, it was found that candidate Web sites were perceived as the least gratifying political information source even in the interactive items. Aside from the small number of users, the result suggested that these interactive functions failed to make respondents feel like they really interacted with the candidate.

The reason that candidate Web sites were least gratifying could also be explained by skepticism about the sites. Respondents may be doubtful about or even distrust that the candidate would read and respond himself. Thus, while the interactive function can provide them with quick response and feedback online, people may feel deceived or suspicious that the staff members respond rather than the candidate (Park & Choi, 2001). In this way, skepticism about the reality of interactivity may have nullified the Internet's unique interactive function. Another interpretation is that respondents did not regard these interactive features as interactive after all. Generally speaking, such functions as "real time question and answer," "chat room" and "online contribution" are technically labeled as interactive features; however, there may be a gap in terms of the definitions of "interactive features" between respondents' conception of interactive features and general labeling of interactive features. Thus, it can be said that the Internet still has a long way to go for its interactive features to be actually regarded as interactive.

CHAPTER VI

CONCLUSION

Contributions and Appropriateness

New technologies have continuously brought new channels of political communication to us. Originally in U.S. political campaigns, the media meant print materials, such as newspapers and flyers. Later, magazines, radio news and advertising joined the campaign media. Television played a significant role in the modern campaign in the second half of the 20th century. Now the latest technology in political communication is the Internet, which has made interactive online campaigning possible. As television has changed the political process in the modern election campaign, the Internet is expected to change the political process and play as significant or even a more significant role in election campaigns than television (for example, Morris, 1999).

Interestingly, little was actually known about how and why voters use Web sites to retrieve political information and to interact with candidates. This dissertation was inspired by this lack of knowledge. I started this dissertation to fill the void of understanding by conducting a panel survey which could capture a longitudinal glimpse of voters and verify any possible cause and effect relationships. The two-wave panel survey was conducted at universities in Michigan, Missouri and Texas between September and November 2000. A total of 325 college students participated both in Time 1 and Time 2. Ideally speaking, the number of respondents may not be enough for the study of a presidential election because this topic is the central focus on American political behavior (Cavanaugh, 1995). However, considering most social science research including political communication has been done with one-time measurement, the panel-survey

probably compensated for the shortage.

The dissertation has documented five major findings: (1) a potential for Web sites to enhance the probability of voting turnout, (2) respondents' tendency of selective exposure toward preferred candidate Web sites, (3) third party supporters' dependency on candidate Web sites, (4) the media-specific nature of political uses and gratifications and (5) respondents' tendency to be more gratified by the traditional media than by the online media.

The first major finding provided empirical evidence contrary to what had been found in the previous studies, i.e., the online media were predictors for voting turnout while the traditional media were not. This finding allowed me to construct the cyber motivation hypothesis, which posits that the Web's efficacy boosting roles eventually enhance the likelihood of voting. The second major finding also includes evidence that the degree of preference for a candidate corresponded to the degree of selective exposure. While this study could not confirm the cause and effect relationship that selective exposure actually boosts the degree of endorsement, this evidence is another major finding.

The third should be regarded as good news for an ideal form of democracy in which everybody has an equal opportunity for political information regardless of political identifications. Third party supporters' tendency toward Web sites could be interpreted as a way that they can obtain precious political information about their candidates, which is otherwise difficult to get. From a different viewpoint, the Internet can be seen as a provider of the equal information means for third party supporters because, on the Internet, every candidate can have the same opportunity to present information for voters everywhere.

The fourth and fifth findings about uses and gratifications provided important

empirical evidence in the Internet age. The former finding demonstrated that respondents distinguished each medium as a political information source and also indicated that each medium in the Internet age has a niche for itself. The latter finding represented the low overall status of Web sites, especially candidate Web sites, in the presidential election 2000. The status of Web sites as a political information source in the presidential election 2004 depends both on how much candidate campaign camps exploit the Internet and how much voters utilize the Web for political information sources. For a comparison, this study provided an essential benchmark with which the gratifications status for the Web sites can be measured in future research.

The above findings as a whole shed light on the online media's roles in the Internet age presidential election. Therefore, these findings augmented the theoretical scope on the Web sites and helped understand the mechanism of selective exposure and its possible consequence on voting turnout. They also can help improve presidential candidate Web sites by providing new empirical evidence. Together, these are the major contributions to the literature.

This dissertation employed selective exposure and uses and gratifications paradigms because the combination was judged most appropriate for the examination of cyber campaigning from the perspective of voters. One of the reasons for the choice is that uses and gratifications incorporates audience motivation and behavior for a specific media use. That information on the Web is "pull" is the reason for the choice of selective exposure and should have important implications in an election campaign.

The other reason for the choice is that it is important to study the differences between online campaigning and traditional campaigning. Uses and gratifications could distinguish voters' choice of the Internet from that of traditional channels because studies

using the theory can include both the Internet and traditional channels as variables. As presented, the results clearly distinguished the difference between candidate Web sites, news Web sites, television news programs and newspapers. Thus, it can be said that the approach this dissertation took was successful in producing expected and necessary data.

Implications on Presidential Election Campaigning

This dissertation presented an important implication for future presidential elections: Web site use may have a tremendous impact on voting turnout. It also demonstrated the characteristics of candidate Web site visitors: the visitors are more likely to be supporters. How can these aspects be utilized in a presidential election campaign and why?

The most important roles of candidate Web sites is to get visitors to decide to vote for the candidate (Reavy, 1999). The tendency toward selective exposure will provide presidential election campaign management with an important clue about candidate Web site visitors—that they are most likely those who already endorse the candidate. Thus, Web masters for presidential elections are able to customize the content of the Web sites to target their audience. Targeting the audience is very important when making Web sites because effective content leading to behavioral decision-making differs significantly according to where the audience stands, in terms of what stage they are in (DiClemente & Prochaska, 1985; Prochaska, DiClemente, & Norcross, 1992).

According to the stage theory, there are three ranked stages leading to action: pre-contemplative, contemplative, and preparation (Holtgrave, Tinsley & Kay, 1995). Pre-contemplative refers to the first stage, at which one does not yet recognize the need to take an action. In the next stage, contemplative, one seriously thinks about the action.

In preparation, the last stage prior to the action, one is prepared for the action. This study's findings suggest that those who visit candidate Web sites are more likely to have considered voting for (contemplative stage) or have already decided to vote for a candidate (preparation stage). Since those in the preparation stage have already decided to vote, Web masters may not need to target Web visitors in this stage. The logical target audience, then, is visitors in the contemplative stage. Web masters can construct effective sites to advance the audience from the contemplative stage to the preparation stage (see Holtgrave, Tinsley & Kay, 1995 for effective message/content construction).

Should Ralph Nader run for the presidency in 2004, the Green Party campaign camp should utilize the Internet as much as possible. His supporters were found to log on more to his campaign Web site than other candidates' supporters, whereas they were not necessarily heavy Internet users. Considering that the news organizations seldom covered Nader and that the Nader Web site was one of a small number of information sources for Nader supporters, the relative importance of the Web site outweighs that of major party candidates.

It should be noted that a third party candidate and a major party candidate are all equal in cyberspace, at least technically, with the same large potential audience. In fact, contrary to what it should be, the Nader Web site was the least "information rich" one compared to those of Bush and Gore as demonstrated in Chapter I. A third party campaign camp cannot afford to lose supporters/voters who could be obtained through the construction of a good Web site. Regardless of the Nader campaign camp's lack of financial resources to build a sophisticated Web site or indifference in the Internet itself, it is a logical step to provide sufficient information for his information-poor supporters.

Limitations and Recommendations

The findings of this dissertation, however, should be further confirmed by empirical evidence from a variety of demographic groups in the coming election. First, respondents participated in this study were all college students. Respondents provided neither a sufficient representation of the U.S. citizen nor of the general population. Even though this participant category has an advantage over other demographic groups because they are all wired, the results obtained from the demographic group should be understood with caution.

Although this study successfully administered the panel survey to examine the long-term effects of Web sites, no such panel study is problem-free. For example, this panel study surveyed respondents twice, Time 1 in September and Time 2 in November. Data which might have been obtained before Time 1 and in between Time 1 and Time 2 may provide more insightful and useful results leading to cause and effect evidence. Accordingly, in such cases, these effects may be lost or misinterpreted.

Further, the number of respondents was another shortcoming, especially for the analysis about third party supporters/voters. Since respondents identified as third party supporters/voters consisted only a small portion of the total respondents, the shortcoming consistently plagued the analyses. For example, this study found a possible correlation between the support increase/decrease from Time 1 to Time 2 and the frequency of candidate Web site use among Nader supporters. While the correlation was substantive, it was not statistically significant due to the small sample size. Thus, the boosting effect of selective exposure among third party supporters should be investigated again by future research with an adequate number of subjects.

Lastly, considering ever changing features of the Internet and the media envi-

ronment as a whole, the findings in the present dissertation may not be applicable in the next presidential election 2004. It is predicted that the online media will play more significant roles in the election. How much more of a role will the online media play? No one knows what the exact structure of the media environment will become or how the online media will have evolved in 2004. The Internet itself is transfiguring itself from a simple interactive medium to 3D (three dimensional) and virtual reality-capable medium. As the characteristics of the Internet will transform, the way people use it will surely change. The Internet may become equivalent to the regular media or even ascend to the throne which television now holds, as television took away the status in election campaigns from newspapers in the past. It is necessary for researchers to constantly update the roles of the Internet in presidential election campaigns.

APPENDICES

Appendix A

Time 1 Survey: Information Use on the US Presidential Election 2000

This questionnaire asks you how you use information sources to make voting decisions in the Presidential Election 2000. It takes a few minutes to complete this questionnaire. You will be asked again to take a similar questionnaire for comparison purposes in November, after the presidential election. This questionnaire asks you to write your name, however, your response will be completely confidential. The participation of this survey is voluntary. You indicate your voluntary agreement to participate by completing and returning this questionnaire.

* U.S. citizens only

1. Please print your name (For comparison purposes with the second questionnaire only. We will replace your name with case ID number. All completed questionnaires will be destroyed after the end of this project).

First _____ Last _____

2. Which candidate will you vote for if the election is held today? Circle one.

George W. Bush Al Gore Other (specify) _____ Neither

3. Please mark the degree of support for the candidate you selected in the above question.

If you chose "Neither" in question 2, skip this question.

A little Support (circle one) Strong Support
1 2 3 4 5

4. Please indicate your partisanship regardless of your candidate preference and official membership.

Democrat Republican Other (specify _____) Neither

5. Al Gore (www.algore2000.com), George W Bush (www.georgewbush.com) and other candidates have their official campaign web sites. Estimate how often you have visited to each candidate official web site. If you have not logged in to either candidate site, please write "0" in both.

Bush site _____ times Gore site _____ times
Other site (specify _____) _____ times

6. In order to obtain information about the presidential election 2000, estimate the total number of times you have spent to visit news web sites such as the New York Times (www.nyt.com) and CNN (www.cnn.com).

_____ times

7. In the last 7 days, estimate how much time you spent watching or reading the following news sources for any purpose.

Newspapers _____ hours
News magazines _____ hours

Television news programs _____ hours
 Internet news sites _____ hours
 Radio news (such as NPR) _____ hours

8. We want to find out why people use various political information sources for the presidential election. Here are some reasons that other people gave us for using particular information sources. Please indicate how much you agree or disagree with the following statements for each information source on a scale of 1 to 5, where 1 means strongly disagree and 5 means strongly agree.

Example

Let's take a statement "To see what kind of sports the candidates play, I use information from the following sources," as an example. If you strongly agree with "To see what kind of sports the candidates play" by using candidates' web sites, please circle 5, which means strongly agree. If you disagree with "To see what kind of sports the candidates play" by using news web sites, please circle 2, which means disagree.

"To see what kind of sports the candidates play, I use information from the following sources."

	<i>Strongly Disagree</i>		<i>(circle one)</i>		<i>Strongly Agree</i>
<i>Agree</i>					
Candidates' campaign web sites	1	2	3	4	5
News web sites	1	2	3	4	5

- 8a. "To see how the candidates stand on the issues, I use information from the following sources."

	<i>Strongly Disagree</i>		<i>(circle one)</i>		<i>Strongly Agree</i>
Candidates' campaign web sites	1	2	3	4	5
News web sites	1	2	3	4	5
Newspaper	1	2	3	4	5
Television news	1	2	3	4	5

- 8b. "To help me make up my mind on how to vote in the election, I use information from the following sources."

	<i>Strongly Disagree</i>		<i>(circle one)</i>		<i>Strongly Agree</i>
Candidates' campaign web sites	1	2	3	4	5
News web sites	1	2	3	4	5
Newspaper	1	2	3	4	5
Television news	1	2	3	4	5

- 8c. "To see what the candidates would do if elected, I use information from the following sources."

	<i>Strongly Disagree</i>		<i>(circle one)</i>	<i>Strongly Agree</i>	
Candidates' campaign web sites	1	2	3	4	5
News web sites	1	2	3	4	5
Newspaper	1	2	3	4	5
Television news	1	2	3	4	5

8d. "To judge what candidates are like, I use information from the following sources."

	<i>Strongly Disagree</i>		<i>(circle one)</i>	<i>Strongly Agree</i>	
Candidates' campaign web sites	1	2	3	4	5
News web sites	1	2	3	4	5
Newspaper	1	2	3	4	5
Television news	1	2	3	4	5

8e. "To remind me of my candidate's strong points, I use information from the following sources."

	<i>Strongly Disagree</i>		<i>(circle one)</i>	<i>Strongly Agree</i>	
Candidates' campaign web sites	1	2	3	4	5
News web sites	1	2	3	4	5
Newspaper	1	2	3	4	5
Television news	1	2	3	4	5

8f. "To get information which agrees with my positions, I use information from the following sources."

	<i>Strongly Disagree</i>		<i>(circle one)</i>	<i>Strongly Agree</i>	
Candidates' campaign web sites	1	2	3	4	5
News web sites	1	2	3	4	5
Newspaper	1	2	3	4	5
Television news	1	2	3	4	5

8g. "To use what I learn in politics, I use information from the following sources."

	<i>Strongly Disagree</i>		<i>(circle one)</i>	<i>Strongly Agree</i>	
Candidates' campaign web sites	1	2	3	4	5
News web sites	1	2	3	4	5
Newspaper	1	2	3	4	5
Television news	1	2	3	4	5

8h. "To give me something to talk about with other people, I use information from the following sources."

	<i>Strongly Disagree</i>		<i>(circle one)</i>	<i>Strongly Agree</i>	
Candidates' campaign web sites	1	2	3	4	5
News web sites	1	2	3	4	5
Newspaper	1	2	3	4	5
Television news	1	2	3	4	5

8i. "Because it is interactive, I use information from the following sources."

	<i>Strongly Disagree</i>		<i>(circle one)</i>	<i>Strongly Agree</i>	
Candidates' campaign web sites	1	2	3	4	5
News web sites	1	2	3	4	5
Newspaper	1	2	3	4	5
Television news	1	2	3	4	5

8j. "Because it gives me the control over what and when I want to use, I use information from the following sources."

	<i>Strongly Disagree</i>		<i>(circle one)</i>	<i>Strongly Agree</i>	
Candidates' campaign web sites	1	2	3	4	5
News web sites	1	2	3	4	5
Newspaper	1	2	3	4	5
Television news	1	2	3	4	5

8k. "To participate in the Presidential Election campaign, I use information from the following sources."

	<i>Strongly Disagree</i>		<i>(circle one)</i>	<i>Strongly Agree</i>	
Candidates' campaign web sites	1	2	3	4	5
News web sites	1	2	3	4	5
Newspaper	1	2	3	4	5
Television news	1	2	3	4	5

9. Do you have your own computer with Internet access? **Yes** **No**

10. How much time do you usually spend online per week? _____ hours

11. How comfortable are you in using a computer? (Circle one)

Very Uncomfortable *Very Comfortable*
1 2 3 4 5

12. How comfortable are you in using the Internet? (Circle one)

Very Uncomfortable *Very Comfortable*
1 2 3 4 5

13. Gender **Male** **Female**

14. Age _____ years old

15. Level (circle one)

Freshman **Sophomore** **Junior** **Senior** **Graduate**

16. Major (please print) _____

Thank you very much

Appendix B

Time 2 Survey: Information Use on the US Presidential Election 2000

This questionnaire asks you about voting decisions in the Presidential Election 2000. You are asked to write your name, however, your response will be completely confidential. The participation of this survey is voluntary. You indicate your voluntary agreement to participate by completing and returning this questionnaire.

* U.S. citizens only

1. Please print your name (For comparison purposes with the first questionnaire only. We will replace your name with case ID number. All completed questionnaires will be destroyed after the end of this project).

First _____ Last _____

2. Which candidate did you vote for on November 7? Please circle one.

George W. Bush Al Gore Other (specify _____) Did Not Vote

3. Please mark the degree of support for the candidate you selected in the above question. If you chose "Did not vote" in question 2, skip this question.

A little Support (circle one) Strong Support
1 2 3 4 5

4. Only for those who "Did Not Vote," which candidate would you have voted for if you had had a chance? And mark the degree of support for the candidate you selected here. If you actually voted, skip this question.

George W. Bush Al Gore Other (specify _____) Neither

A little Support (circle one) Strong Support
1 2 3 4 5

5. Al Gore (www.algore2000.com), George W Bush (www.georgewbush.com) and other candidates have their official campaign web sites. Estimate how often you have visited to each candidate official web site during the Presidential election campaign. If you have not logged in to either candidate site, please write "0" in both.

Bush site _____ times Gore site _____ times Other site (specify _____) _____ times

6. In order to obtain information about the presidential election 2000, estimate the total number of times you have spent to visit news web sites such as the New York Times (www.nyt.com) and CNN (www.cnn.com). _____ times Thank You!

Please Make Sure You Have Written Your Name on This Questionnaire

Appendix C

Code Book

Time 1 Survey Variables

NOTE: **Bold variable names** stand for original vs; *italic variable names* stand for recoded vs.

id Identification numbers of respondents
100s Saint Louis University
200s University of Texas, San Antonio (201-231=1)
300s MSU, ADV417
400s MSU, ADV473
500s MSU, COM3
600s MSU, JRN
700s- MSU, ISS225 (701-850=1)

panel Participation in the panel survey
0 = Time 1 and 2 only
1 = Time 1, 2 and 3

vote1
Which candidate will you vote for if the election is held today?
1 = Bush 2 = Gore 3 = Nader 4 = Other 5 = None

vote1x
1 = Nader 0 = Bush & Gore 9 = Missing (undecided & other third party)

vote1xx
1 = Third Party 0 = Bush & Gore 9 = Missing (undecided)

vote1y
1 = Any candidate 0 = Undecided 9 = Missing

votebng
1 = Bush 2 = Gore 3 = Nader 9 = All others

support1
Please mark the degree of support for the candidate you selected in the above question. If you chose "Neither" in question 2, skip this question.
1 = a little support to 5 = strong support

sup1_123 Supporters are divided into three sub-groups, weak (1 &2), middle (3), and strong supporters (4 &5).
1 = 1 &2 2 = 3 3 = 4 & 5

partisan
Please indicate your partisanship regardless of your candidate preference and official membership.
1 = Democrat 2 = Republican 3 = Green 4 = Other 4 = None

partix Partisan is divided into two categories:
1= partisan 0 = non-partisan

logbush1	Open-ended
loggore1	Open-ended
lognader1	Open-ended
logoth1	Open-ended

Al Gore (www.algore2000.com), George W Bush (www.georgewbush.com) and other candidates have their official campaign web sites. Estimate how often you have visited to each candidate official web site. If you have not logged in to either candidate site, please write "0" in both.

Log1

The aggregation of logbush1 through logoth1

Log1bi

Based on log1, whether or not one has logged in to any candidate site.

1 = at least 1 time 0 = Zero

lognews1	Open-ended
-----------------	------------

In order to obtain information about the presidential election 2000, estimate the total number of times you have spent to visit news web sites such as the New York Times (www.nyt.com) and CNN (www.cnn.com).

paperuse	Open-ended
magazuse	Open-ended
tvuse	Open-ended
netuse	Open-ended
radiouse	Open-ended

In the last 7 days, estimate how much time you spent watching or reading the following news sources for any purpose.

8a. "To see how the candidates stand on the issues, I use information from the following sources."

a_cand	1 – 5 Likert scale
a_web	1 – 5 Likert scale
a_paper	1 – 5 Likert scale
a_tv	1 – 5 Likert scale

8b. "To help me make up my mind on how to vote in the election, I use information from the following sources."

b_cand	1 – 5 Likert scale
b_web	1 – 5 Likert scale
b_paper	1 – 5 Likert scale
b_tv	1 – 5 Likert scale

8c. "To see what the candidates would do if elected, I use information from the following sources."

c_cand	1 – 5 Likert scale
c_web	1 – 5 Likert scale
c_paper	1 – 5 Likert scale
c_tv	1 – 5 Likert scale

8d. "To judge what candidates are like, I use information from the following sources."

d_cand	1 – 5 Likert scale
d_web	1 – 5 Likert scale

d_paper 1 – 5 Likert scale
d_tv 1 – 5 Likert scale

8e. "To remind me of my candidate's strong points, I use information from the following sources."

e_cand 1 – 5 Likert scale
e_web 1 – 5 Likert scale
e_paper 1 – 5 Likert scale
e_tv 1 – 5 Likert scale

8f. "To get information which agrees with my positions, I use information from the following sources."

f_cand 1 – 5 Likert scale
f_web 1 – 5 Likert scale
f_paper 1 – 5 Likert scale
f_tv 1 – 5 Likert scale

8g. "To use what I learn in politics, I use information from the following sources."

g_cand 1 – 5 Likert scale
g_web 1 – 5 Likert scale
g_paper 1 – 5 Likert scale
g_tv 1 – 5 Likert scale

8h. "To give me something to talk about with other people, I use information from the following sources."

h_cand 1 – 5 Likert scale
h_web 1 – 5 Likert scale
h_paper 1 – 5 Likert scale
h_tv 1 – 5 Likert scale

8i. "Because it is interactive, I use information from the following sources."

i_cand 1 – 5 Likert scale
i_web 1 – 5 Likert scale
i_paper 1 – 5 Likert scale
i_tv 1 – 5 Likert scale

8j. "Because it gives me the control over what and when I want to use, I use information from the following sources."

j_cand 1 – 5 Likert scale
j_web 1 – 5 Likert scale
j_paper 1 – 5 Likert scale
j_tv 1 – 5 Likert scale

8k. "To participate in the Presidential Election campaign, I use information from the following sources."

k_cand
k_cand 1 – 5 Likert scale
k_web 1 – 5 Likert scale
k_paper 1 – 5 Likert scale
k_tv 1 – 5 Likert scale

own

Do you have your own computer with Internet access?

0 = No 1 = Yes

net_hour Open-ended
How much time do you usually spend online per week?
Duration of the Internet per week

computer 1 – 5 Likert scale
How comfortable are you in using a computer?
Computer comfortableness

internet 1 – 5 Likert scale
How comfortable are you in using the Internet?
Internet comfortableness

gender
0 = Female 1 = Male

age Open-ended

level
1= Freshman 2=Sophomore 3=Junior 4=Senor 5=Graduate

major
1 = Humanities 2 = social science 3 = science 4 = other 5 = non-preference

Time 2 Survey Variables

vote2
Which candidate did you vote for on November 7?
1 = Bush 2 = Gore 3 = Nader 4 = Other 5 = Did not

Vote2x
1 = Nader 0 = Bush & Gore 9 = Missing (undecided & other third party)

Vote2xx
1 = Third Party 0 = Bush & Gore 9 = Missing (undecided)

vote2y
1 = Any candidate 0 = Did not vote 9 = Missing

support2 1 – 5 Likert scale
Please mark the degree of support for the candidate you selected in the above question.

ifvote2
Only for those who "Did Not Vote," which candidate would you have voted for if you had had a chance?
1 = Bush 2 = Gore 3 = Nader 4 = Other 5 = None

ifsup2 1 – 5 Likert scale
And mark the degree of support for the candidate you selected here.

logbush2 Open-ended
loggore2 Open-ended
lognad2 Open-ended
logoth2 Open-ended

Al Gore (www.algore2000.com), George W Bush (www.georgewbush.com) and other candidates have their official campaign web sites. Estimate how often you have visited to each candidate official web site during the Presidential election campaign. If you have not logged in to either candidate site, please write "0" in both.

Log2

The aggregation of logbush2 through logoth2

Logb2bi

logg2bi

logn2bi

Base on longbush2, loggore2, and lognad2, these three variable are recoded into binary variables. 1 = logged on 0 = did not log

Log2bi

Based on log2, whether or not one has logged in to any candidate site.

1 = at least 1 time 0 = Zero

log2each Open-ended

Base on vote2bgn, log2each represents the number of logging on to the candidate web sites whom respondents voted for.

newslog2 Open-ended

In order to obtain information about the presidential election 2000, estimate the total number of times you have spent to visit news web sites such as the New York Times (www.nyt.com) and CNN (www.cnn.com).

nwlog2bi

Base on newslog2, binary variable

1= yes, logged on to news web sites 0 = no, did not log on to news web sites

conv1

Whether or not one converted from vote1 candidate to vote2 candidate.

1 = Bush -> Gore

2 = Bush -> Nader

3 = Bush -> Third

4 = Gore -> Bush

5 = Gore -> Nader

6 = Gore -> Third

7 = Nader -> Bush

8 = Nader -> Gore

9 = Nader -> Third

10= Third -> Bush

11 = Third -> Gore

12 = Third -> Nader

conv1bi

1 = converted 0 = did not convert

conv2

Whether or not one converted from vote1 candidate to ifvote2 candidate.

1 = Bush -> Gore
2 = Bush -> Nader
3 = Bush -> Third
4 = Gore -> Bush
5 = Gore -> Nader
6 = Gore -> Third
7 = Nader -> Bush
8 = Nader -> Gore
9 = Nader -> Third
10 = Third -> Bush
11 = Third -> Gore
12 = Third -> Nader

conv2bi

1 = converted 0 = did not convert

conv3

Whether or not one converted from vote1 candidate to vote2 or ifvote2 candidate.

1 = Bush -> Gore
2 = Bush -> Nader
3 = Bush -> Third
4 = Gore -> Bush
5 = Gore -> Nader
6 = Gore -> Third
7 = Nader -> Bush
8 = Nader -> Gore
9 = Nader -> Third
10 = Third -> Bush
11 = Third -> Gore
12 = Third -> Nader

conv3bi

1 = converted 0 = did not convert

sup1_2

The difference between support1 and support2, not including the scores of converts.

Positive sign = increased support

Negative sign = decreased support

0 = no change in support

9 = missing (did not vote, converts)

sup1_2x

1 = increased support

0 = decreased or unchanged support

9 = did not vote or convert

sup1_2y

1 = increased support

0 = decreased support

9 = unchanged support , did not vote or convert

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