Obama, Interactivity and the Millennials: A Case Study

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by

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Table of Contents

List of Tables

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Introduction

Traditionally, voters under 30 years old are the poster children for falling rates of

civic engagement and political participation, despite the fact they are often "excluded

from the public discourses of government, policy arenas and elections" (Bennett, 2008, p.

13). As the first generation to grow up in "a world saturated with networks of

information, digital devices, and the promise of perpetual connectivity" (Montgomery,

2008, p. 1) they traditionally are under-engaged politically on the ground, but are

arguably engaged online (Xenos and Foot, 2008). They are considered "Net natives"

(Brown, as cited in Montgomery, 2008, p. 1) who do not "just go online; they 'live

online'." They are part of a generation that has shifted from the broad influence of

groups to individuals "more responsible for the production and management of their own

social and political identities" (Bennett, p.13, 2008). Many hope that the promise of the

Internet has the potential to boost electoral participation among these potential young

voters, but a "yawning generation gap" (Xenos and Foot, 2008, p. 52) has existed

between Web practitioners (particularly political campaigns and candidates) and what

young voters expect from the Internet.

Winograd and Hais (2008) suggested "it is critical that we understand the

technological changes that are creating new conditions for economic and political success

and the very interrelated way in which the new Millennial Generation [sic] thinks and

behaves" (p. xii). Nowhere has this been more apparent than in the 2008 Democratic

presidential primary and subsequent campaign for the presidency, where now-President

Barack Obama capitalized on the unique strengths of Internet campaigning to leverage

the way Americans under 30, known as the Millennials, Generation Y, or Generation Next, expect to interact with candidates.

By using "interactive" features with specific appeal like text messaging, social networking, e-mail messaging and videos for everything from grassroots organizing to fundraising, Obama redefined the use of the Web for campaigning and strongly appealed to the age group with the highest level of political involvement on the Web (Smith, 2009, p. 20), a generation that feels "their personalized expectations of politics are perfectly reasonable (reflecting who they are) and often find that politics and politicians either ignore them or are far off the mark in their communication appeals" (Bennett, 2008, p. 13). Obama's candidacy and campaign, called "Organizing for America", arguably helped reinvigorate this often unpredictable and unreliable group of young voters, making them a force to be reckoned with in the 2008 presidential campaign, the same force that helped him defeat Hillary Clinton for the Democratic party nomination, and trump Republican Senator John McCain in the general election to become the 44th President of the United States.

Rather than use his Internet presence to rehash campaign information, Obama transformed the dynamic of online campaigning into an interactive conversation, one that felt comfortable and familiar to young voters who spend large amounts of time in social networking environments like Facebook (Kohut et al., 2008), but do not always feel that "citizenship is a matter of duty and obligation" (Bennett, 2008, p. 14). Even though earlier campaigns had begun to use more interactive techniques to campaign online, the Obama campaign took its use of interactivity to much higher levels, and continually added features to its Web campaign to attract participants. Additionally, Obama took his

online campaigning beyond his campaign website, reaching out to Millennials "where they live," on Facebook, MySpace, Twitter, on their cell phones, Blackberries and on other social networks. It is important to note these were voluntary "opt-ins," creating a captive audience for communication with the Obama campaign.

In 2008, an estimated 23 million Millennials voted in the presidential election, nearly 53 percent of those eligible and an increase of between three and four percent, or 3.4 million from 2004. Overwhelmingly, they voted for Barack Obama and were his strongest supporters, crossing racial and partisan lines in large numbers to do so (*Young voters in,* 2008, p. 3).

Research has shown that candidates with interactive websites "may be able to enhance users' perceptions of their sensitivity, responsiveness, and trustworthiness (Sundar, as cited in Williams, Trammell, Postelnicu, Landreville, & Martin, 2005, p. 178). But definitions for "interactivity" and all it entails remain murky, conceptually unclear, and often vague. Like the strands of a bird's nest, the many facets of interactivity explored by researchers are entwined and interrelated, but there is no clearly delineated thread running through.

Only a handful of analytical research is available that considers the influence interactivity has on young voters, particularly when examining the relatively new uses of social networks like Facebook and Web 2.0 features like blogs and text messaging (Xenos and Foot, 2008), and how they are incorporated into campaigns. Facebook launched to a limited number of users in 2004.

This case study of the Obama Internet campaign for the presidency and its relationship with young voters will explain the traits commonly linked to the Millennial

generation, determine how this generation relates to the Internet and what its expectations of interactivity are, with a focus on political activity. An examination of earlier political campaigns and how they used interactivity will be explored. The concept of interactivity will be explored from a research standpoint and the main types of interactivity will be described: feature-based, contingency (message-based) and perceptual. Some of the individual traits and properties exhibited by each type of interactivity will be discussed, along with the types of communication each type of interactivity fosters.

How did Obama's campaign use interactivity, and which traits had the most potential to attract Millennials? Was this use effective or ineffective? How did the campaign use interactive mobile devices, internal and external social networks and online video, and how did it affect young voters? This in-depth, detailed investigation of Obama's campaign online will determine its uses of interactivity and its potential ability to mobilize Millennials to vote for him. Finally, recommendations for effective interactive features will be made for future campaigns to use to enlist young voters.

Literature Review

Generational researchers Neil Howe and William Strauss (2000) define a generation as "a society-wide peer group, born over a period roughly the same length as the passage from youth to adulthood … who collectively possess a common persona" (p. 40), but depending on who is doing the research, the boundaries that define the Millennials are somewhat indistinct and approximate.

The Center for Information and Research on Civic Learning and Engagement (CIRCLE) maintained that the Millennial generation consists of those born between 1985 and 2004, mostly to *Baby Boomers* born from 1946 to 1964 (U.S. Department of

Commerce, 2002, p. 58), and *Generation Jones* parents born from 1954 to 1965, including Obama and 53 other million Americans (Pontell, 2009) In a report dealing with the Millennial generation, CIRCLE loosely describes them as those born after 1982, mostly by discussing their first voting experiences in 2000 — it consistently refers to Millennials in the political process as those "under 30" (Levine, Flanagan & Gallay, 2009). Howe and Strauss (2000) define the Millennials as those born between 1982 and 2004, calling them the "'Babies on Board' of the early Reagan years, the 'Have You Hugged Your Child Today?' sixth graders of the Clinton years, the teens of Columbine, and, … the much touted high school Class of 2000" (p. 4).

A study conducted in 2006 by the Pew Internet & American Life Project defined Generation Next as those between 18 and 25 years old, which means they were born between 1981 and 1988. At the time of the election, they were from 20 to 27 years old (*How young people*, 2007). In 2009, Pew researchers expanded the age range without explanation, saying members of Generation Next were born between 1977 and 1990, making them from 19 to 32 years old (Table 1). At the time of the 2008 election, they would have ranged from 18 to 31 years of age. Pew (*Millennials: A portrait*, 2010) shifted its definition again in a 2010 report, defining Generation Next as those from 18-29 years old in 2009, which means they were born between 1980 and 1991.

The term Millennials appears to have originated when it was selected as the top choice in an online poll of several thousand people conducted by ABC World News Tonight in December of 1997. The second-most-popular choice in the survey was "don't label us" (Howe & Strauss, 2000, p. 6). Among other suggestions were "Generation Y (or Why?)," "Echo Boom", and "Generation Next." They are characterized as having a

"great deal of experience volunteering (mostly face-to-face and local) and … believe in their obligation to work together with others on social issues" (Kiesa, et al., 2007, p. 6). They are less individualist and cynical than Generation X (those born anywhere between 1965 and 1985, depending on who is defining the generation) — Connery (2008) said "they may be the most civic-minded generation since the much-celebrated GI "Greatest" Generation of World War II" (p. 11). They are "more numerous, more affluent, better educated and more ethnically diverse" (Howe and Strauss, 2000, p. 4) than any other preceding generation, and are "the most tolerant of any generation on social issues such as immigration, race and homosexuality" (*How young people*, 2007, p. 1).

They are more technologically oriented than prior generations, relying on e-mail, text messaging and instant messaging "to keep them in constant contact with friends" (*How young people*, 2007, p. 2). A majority use and communicate through social networking sites like MySpace and Facebook, and are likely to say these technologies make "it easier for them to make new friends and help them to stay close to old friends and family" (*How young people*, 2007, p. 2).

Their relationship to government and politics is complex. Millennials perceive politics as a mostly polarized debate with little room for compromise. "They don't trust 'spin' from partisan sources, yet they see the potential of 'politics as a vehicle for change, albeit an inefficient and difficult one'" (Kiesa, et al., 2006, p. 9). They do not want to feel manipulated by those in power, and often seek out information from trusted sources like family and friends, and use it to make their decisions (Kiesa, et al., 2006). "They want political leaders to be positive, to address real problems, and to call on all Americans to be constructively involved" (*Young voters turn out*, 2008, para. 3).

Bennett (2008) maintains that most young voters have shifted from the past's "dutiful citizen model" where citizenship is a duty and obligation, to an "actualizing citizenship model," that favors "loosely networked activism to address issues that reflect personal activism" (p. 14). Historically, young people have not been reliable voters, and are not always motivated to show up at the polls; in past elections, they have "disconnected from conventional politics and government in alarming numbers" (Bennett, 2008, p. 1). In 1996, only 39.6 percent of voters under 30 voted in the presidential election, the lowest numbers since 18 year olds were given the right to vote in 1971 (The Center for Information and Research on Civic Learning and Engagement, 2009).

But the number of voters under 30 increased dramatically in the 2008 primary and caucus season, and many pundits predicted a record-setting turnout for the general election.

In the United States, 18 to 29 year olds make up 22 percent of the population eligible to vote (Marcelo & Kirby, 2008). National youth voter turnout for the 2008 primary and caucus season rose to 17 percent from nine percent in 2000 (Kirby et al., 2008). In Ohio, 25 percent of eligible voters under 30 voted in the May 3 primary, up 10 percent from 2000 (Kirby et al., 2008). In the Iowa caucuses, turnout more than tripled compared to 2004, but was still a low 13 percent, and 43 percent of New Hampshire's young people voted, a gain of 15 percent from 2000 (The Center for Information and Research on Civic Learning and Engagement, 2008).

Young voter affiliations shifted from an almost even split between Republicans and Democrats in 2002 to a strong Democratic majority preference of 58 percent to 33

percent among today's Millennials (*How young people*, 2007), who grew up in the era of

George W. Bush, "just as the previous generation of young people who grew up in the

Reagan years — Generation X — fueled the Republican surge of the mid-1990's"

(Keeter, Horowitz & Tyson, 2008, para. 1). They are now the largest Democratic age

group.

One explanation is the Millennials have "come of age at a time of closely

contested national elections, ideological polarization, terrorist attacks, and war. The

parties and other groups are making deliberate efforts to mobilize young people to vote

and to participate in other ways" (Kiesa, et al., 2006, p. 13). Millennials have more

structured opportunities to engage in community service and are presented with more

messages about the importance of civic participation. Around 2000, many of the

organizations that were concerned about youth civic engagement, like Rock The Vote,

broadened their attention from volunteering or community service to politics, and

indicators of youth political engagement — such as voting — began to increase.

A survey by Rock The Vote (*Findings from a nationwide*, 2008) found the

Millennials were most worried about jobs and the economy, in addition to the war in Iraq,

health care, and education and college costs.

According to a survey conducted by the Pew Research Center (Kohut et al.) in

2008:

• 27 percent of those from 18-29 years old got campaign information from social

network sites (para. 7).

• 67 percent of those 18-29 years old use social network sites (Social networking

sites section, para. 2).

• 41 percent of those 18-29 years old watched candidate speeches, interviews, commercials or debates online (See it now section, para. 2).

• They are the most likely group to receive campaign and election information via the Internet, with 42 percent saying they "regularly learn about the campaign from the internet [sic]," more than from any other news source (para. 1).

Considering Millennials make up 30 percent of the adult Internet population (*How young people*, 2009), it logically behooves candidates to appeal to young voters via the Internet as a force to be reckoned with, and meet their expectations of being a part of the conversation.

Many who study the Internet hoped it would usher in "a new era of politics where traditional power structures will wither and mass public participation will flourish (Ferber, Foltz, & Pugliese, 2007, p. 392). Most see this concept as a work in progress, and call it "cyberdemocracy" or "e-democracy." Its proponents maintain the Web can provide two key components needed by citizens in a democracy: access to unlimited information and open forums that provide thoughtful deliberation (Ferber et al., 2007).

Political campaigns online are a work in progress as well; their contribution to "cyberdemocracy" remains unclear, and the initial optimism has lessened. Foot and Schneider (2006) define Web campaigning as " those activities with political objectives that are manifested in, inscribed on, and enabled through the World Wide Web" (p. 4), and visualize the singular campaign website as part of a larger "Web sphere" (Foot & Schneider, 2006, p. 23) that extends beyond the site itself. Many early campaign websites lacked a "clear rationale for their online activities, other than maintaining an image of professionalism and being seen as up-to-date" (Gibson & Ward, 2000, p. 302). But many

groups, particularly those with a "smaller resource base and very limited exposure" (Gibson & Ward, 2000, p. 302) in the media [sic], saw the "wide reach, high volume, and relatively low cost of this media, along with its lack of external editing, as a superb way of communicating their message to potential voters" (Gibson & Ward, 2000, p. 302). Holdren (as cited in Soon & Choi, 2002) also noted the interactive potential of the Internet, and the attractiveness of its capacity to involve voters in the process. There is also an acknowledgement of the Internet's ability to guard against "discrimination based on sex, race or age by providing structural protection of these characteristics through anonymity" (Sparks, as cited in Tedesco, 2007, p. 1184).

In 1992, Bill Clinton's campaign used the Internet "to create discussion groups among elite supporters and email (sic), to a limited extent, as a campaign communication medium" (Casey, as cited in Foot & Schneider, 2006, p. 8). California Senator Dianne Feinstein is credited with launching the first campaign website in 1994 (Xenos & Foot, 2008, p. 57), but Web campaigning in earnest did not begin until 1996, when "both major party and several minor party presidential candidates had Websites [sic], as well as nearly half of the Senate and about 15 percent of the House candidates" (D'Alessio; Kamarck, as cited in Foot & Schneider, 2006, p. 8). Most of these early sites contained information that traditionally had been provided in printed campaign brochures, often called "brochure-ware" (Foot & Schneider, 2006), and did not take advantage of the Web's potential.

In fact, Stromer-Galley (2000) found that, in the 1996 and 1998 campaigns, candidates were reluctant to use interactive features, like blogs, because they feared they would lose control over their site content and "over the communication situation in

general" (p. 124). Campaign websites were seen "as a gimmick or, at best, an ancillary to 'real' campaigning" (Foot & Schneider, 2006, p. 9) and most candidates thought that merely being on the Web, or demonstrating some knowledge of the Internet, was what constituted Web campaigning (Foot & Schneider, 2006).

The 2000 election season saw an expansion of features available on candidate websites, and all of the major party candidates established their online presences early in the campaign cycle. Candidates began to view their websites as part of their campaign strategies, and became convinced that they could help them win over voters. John McCain showed the early potential of fundraising online by collecting more than $2 million in the four days following his upset win in the New Hampshire primary (Rapaport, 2000). They saw that the "Internet's capacity for near instantaneous, two-way, decentralized communication **...** made cyberspace a potentially attractive site for extended informal political deliberation" (Dahlberg as cited in Janack, 2006, p. 283).

Campaign 2004: A change in the online landscape

In the presidential campaign of 2004, campaign sites began changing from "top-down" in approach to "peer-to-peer" citizen models that spoke to constituencies and began to create online communities that took advantage of the Internet's interactive potential. Howard Dean's online presidential campaign in 2004 was credited with legitimizing him as a candidate. *Blog for America*, the first-ever presidential campaign blog, became the "nerve center" (Trippi, 2004, p.141) of the Dean campaign and altered the landscape of the political Internet by using a grassroots effort to mobilize groups never before politically active (Trippi, 2004).

A Weblog, or "blog" for short, is a website, or portion of a website that is much like a diary. It is:

> updated on a daily or very frequent basis with new information about a particular subject or range of subjects. The information can be written by the site owner, gleaned from other Web sites [sic] or other sources, or contributed by users." (SearchWebServices.com, 2005, via Janack, 2006, p. 286)

Because of its features, like real-time discussion boards and reader comments, a blog can "afford considerable deliberative potential" (Janack, 2006, p. 286). *Blog for America* allowed "citizens to post thoughts, questions, comments, arguments, and suggestions relatively unhindered by the campaign apparatus" (Janack, 2006, p. 286). The addition of blogs to campaign websites began the "strategic move to reach out to young people" (Sweetser Trammell, 2007, p. 1256), since this form of Web communication is popular with those under 30.

Iozzi and Bennett (as cited in Xenos & Foot, 2008) documented how the Dean campaign represented "a pioneering qualitative shift in American campaigning away from the traditional 'War Room' style (which places a premium on message control) and toward a more fluid and dynamic 'networked' style of campaigning" (p. 66). Dean started the transition of campaigns from those run traditionally in an administrative manner, to those organized to empower at the grassroots level.

Of the 10 Democrats running in the 2004 primary season, Dean used the largest number of "features on his blog by letting visitors comment on blog posts and subscribe to the blog through syndication (RSS, XML)" (Williams, et al., 2005, p. 180). He also linked to outside discussions, categorized the posts by subject matter, and posted links

and information to other sites, and posted trackback data containing links and information to other sites linking to Dean's blog. Trackbacks are used to notify bloggers when another blogger has referenced one of their posts, and can create links between the related blog posts.

Through its blog, "the Dean campaign demonstrated, on a national level, how a political organization could use the Web as the platform for a large-scale national movement" (Trippi, 2004, as cited in Foot & Schneider, 2006) and moved some from "thinking of the Web as an electronic brochure to viewing it as an electronic headquarters" (Foot & Schneider, 2006, p. 10). Opening the campaign website to outside comments may have meant a loss of some control over the site content, but it meant Dean's supporters felt a sense of "participation and belonging" (Janack, 2006, p. 288) because of the human interaction and interpersonal communication allowed. As a result, Dean outstripped his opponents in fundraising, raising millions of dollars more. Interestingly, Janack's (2006) study found that Dean's campaign, while not openly regulating the Web discussion, urged its supporters to ignore or attack disagreeable or inflammatory postings on the blog, quelling true discussion and debate.

"Meet Up" became an online force during the 2004 primary season, as well, and while Dean is credited with "transitioning the Meet Up network into a political mobilizing site…half of the 11 candidate (Web) sites [sic] also linked externally to Meet Up" (Williams et al., 2005, p. 181), including the campaign of George W. Bush. The non-profit enabled people in the same geographic area with the same interests to hook up and organize political events (Williams et al., 2005).

The campaign of 2004 also marked a rise in the overall use of the Internet to get information about political campaigns, leading the Pew Research Center to proclaim that "the Internet had become an essential part of American politics" (Rainie, Horrigan & Cornfield, 2005, para. 1) with 37 percent of adults and 61 percent of those online using the Internet to "get political news and information, discuss candidates and debate issues in emails (sic), or participate directly in the political process by volunteering or giving contributions to candidates" (Rainie et al., 2005, para. 1).

By 2006, use of the Internet had again grown dramatically, and candidates were beginning to realize "just how powerful interactive techniques [can] be in extending the reach of campaigns to new audiences and giving voters control over how they cast their votes" (Reich & Solomon, 2007, p. 39). Thanks to the advent of YouTube in 2005, video and online audio became commonly used to communicate campaign messages, from candidates and from the public. Most infamously, U.S. Sen. George Allen of Virginia was defeated for re-election after a video showed him uttering a racial slur. After it was posted on Google Video and YouTube, it received millions of views.

Republicans used the online "Precinct Organizer" tool in 2006, providing volunteers with talking points, e-mail addresses and maps to target households (Reich & Solomon, 2007). According to a study by the Bivings group (2006), 97 percent of Senate candidates had live websites compared to 55 percent in 2002. And, "the number of Americans who got most of their information about the 2006 campaign on the internet [sic] doubled from the most recent mid-term election in 2002 (Rainie & Horrigan, 2007, p. i). Among broadband users under 36 years old, the Internet became a more important source of political news than newspapers (Rainie & Horrigan, 2007, p. vi).

The use of social networks as campaign tools grew in 2006. Facebook, which had launched in 2004 to a limited audience, "created entries for all U.S. congressional and gubernatorial candidates, which the candidates could personalize" (Williams and Gulati, 2007, p. 3).

In the election of 2008, some maintained the "biggest role for the Internet has involved raising money" (Gomes, 2007, para. 3), and that "all the candidates have learned that putting a 'give money' button on the home page of their Web sites [sic] usually is both cheaper and more effective than mass mailings or 800 numbers" (Gomes, 2007, para. 3). But fundraising was only one of the major changes campaigns underwent, and the presidential primaries and general election of 2008 found the Internet at the forefront of campaigning for the first time.

Campaign 2008: Social networks on the rise

Pew researchers found that Internet usage related to political campaigns continued to rise in the campaign of 2008, with some added wrinkles. Hillary Clinton used her campaign's website to announce her candidacy by video (Gomes, 2007). Internet usage to access campaign information went up to 40 percent of Americans, with an additional six percent using e-mail or cell phone text messaging. Online political videos like those on YouTube came of age, with 35 percent of Americans saying they watched them, triple the number in 2004. While no actual poll was done in November 2008, the upward trend of 18-29 year olds watching online video was somewhere between 80 and 90 percent ("Your Other Tube", 2009). As of June 2008, six percent made online campaign contributions, compared with two percent in the 2004 campaign. Social networking sites like Facebook and MySpace were used by 10 percent to gather information or become

involved in campaigns (Smith & Rainie, 2009). Twitter, which allows for short messages known as "tweets" online that can be subscribed to by "followers" and is sometimes called a "microblog," was one of the newer online phenomena during the election, and was used most by young adults as well, although its median age was higher than MySpace. Its users tended to use more mobile devices than the general Internet population (Fox, Zickuhr & Smith, 2009).

Social networking sites are especially key to young voters' online political experiences, since "66 percent of internet [sic] users under the age of 30 have a social networking profile, and half of young profile owners use social networking sites to get or share information about the candidates and the campaign" (Smith & Rainie, 2009, p. ii). According to Pew, Obama's supporters stand out in several key online categories, when compared to the supporters of Hillary Clinton and John McCain:

• 74 percent of Obama supporters on the Web have gotten political news and information online, compared with 57 percent of online Clinton supporters.

• 65 percent of Internet users who support Obama get their political news and information online, compared to 56 percent for Republican John McCain.

• Obama supporters used online video and social networking sites and were more active in other online campaign activities, like making online campaign contributions and signing petitions than Clinton and McCain supporters (Smith & Rainie, 2008, p. iii).

Web 2.0 is a somewhat vague concept credited to Tim O'Reilly from O'Reilly Media and often involves: blogging; social networking; video-sharing sites like YouTube; photo-sharing sites like Flickr; wikis, which are websites that allow multiple users to create and easily share information; mashups, which are websites or applications

that use and combine data from multiple sources to create something new; Web-based applications. As the idea of "Web 2.0" continues to evolve and develop, candidate websites are more and more interactive, generating e-mail supporter lists, using video, linking to other sites, and blogging. They are designed more and more to start conversations, or to have supporters and those who are undecided join in the discussion. And, the campaigns they are associated with are more commonly reaching out beyond the traditional campaign website.

"Unlike traditional mass media which represents a one-to-many communication model, the Web represents both many-to-one and many-to-many models. Many individual consumers can initiate communication to the same web site [sic] at the same time" (Ha & James, 1998, p. 457). Scholars agreed "there was the potential for the Internet to bypass the one-way hierarchical flow of controlled political media" (Hacker; Rheingold, as cited in Tedesco, 2007, p. 1184).

Politicians are using the Internet more, in part, because they can pick the setting for the conversation, and control their message by talking straight to voters without the gate-keeping function of traditional media. Using the Web automatically appeals to younger voters and potential young voters, is much less expensive than advertising in traditional media such as television, and has an intimate, "eye-to-eye" quality.

Research is just beginning to emerge relevant to the impact of social networks on political campaigns, and particularly their impact on young voter behavior. Among young adults, we know their engagement with social networking sites is a "key component of the online political experience." (Smith & Rainie, 2008, p. ii) We also know:

1. 32 percent of all 18- to 29-year-olds have used a social networking site for political reasons, compared to only 10% of the overall U.S. population.

2. 42 percent of those who have created social networking profiles say the internet [sic] has helped them feel more personally connected to their candidate or the campaign, compared with 23 percent of non-profile-creators.

3. 30 percent of profile creators agree with the statement, "I would not be as involved in this campaign as much if it weren't for the [Internet]." That compares to 19 percent of non-profile-creators (Smith & Rainie, 2008).

Results of research on the 2006 House races (Williams & Gulati, 2007) found social networking sites, particularly Facebook, can impact final vote percentages, especially for open-seat elections such as the 2008 presidential race. "Candidates who doubled the number of supporters (i.e., increased their support by 100%) increased their final vote share by 3 [percent]. Simultaneously, candidates running against challengers who doubled the number of their supporters saw their vote share decrease by 2.4 [percent]" (Williams & Gulati, 2007, p. 17).

Facebook may not be directly responsible for the voter turnout, though, particularly given young voters' penchant for not going to the polls. A direct relationship between support on social media sites and votes may point out that Facebook is capturing the underlying enthusiasm and support for a candidate; that those who are more enthusiastic might be more willing to publicize their support; that Facebook supporters are indicative of how effective grassroots organization online has transformed to offline volunteers and advocates; active engagement by a candidate and a well-maintained site

can make the candidate more accessible and seem more authentic (Williams & Gulati, 2007).

Interactivity and new media

"Interactivity is generally considered to be a central characteristic of new media" (McMillan, 2002b, p. 1), as well as its most distinctive advantage. But definitions of interactivity in mediated communication settings cover a broad and often complex range of concepts, and research has shown "it means different things to different people in different contexts" (McMillan, 2002b, p. 1). Ferber views it "as a trendy term that is frequently used in a positive, yet often vague, manner." (Ferber et al., 2007, p. 392) And while researchers often find agreement on the basic tenets of interactivity, Kiousis (2002) observed "the components and features that comprise the various definitions can lead to great discrepancies in scholarly output" (p. 357).

Wu (2006) observed "there are as many definitions of interactivity as the number of researchers studying interactivity" (p. 88), and Sundar found the following:

Various definitions and multi-dimensional models have been proposed but current approaches attempt to either mix structural characteristics of media systems, message exchanges, and user perceptions into a single multidimensional construct, or identify one of these factors as the central locus of interactivity (Sundar, as cited in Bucy & Chen-Chao, 2007, p. 647).

And Kiousis (2002) found "any literature review of interactivity is cumbersome because of the vast implicit and explicit definitions prepared by researchers from many different academic and professional perspectives" (p. 357).

Over time, research has moved toward defining and measuring interactivity using three main criteria, or combinations thereof:

1. Contingency-based or message-based, where messages are interrelated, communication roles are interchangeable and communicants need to respond to one another (Sundar, Kalyanaraman, & Brown, 2003, p. 34).

2. Feature-based, or defined by the technical characteristics of the website and how "many numbers and types of interface affordances … available for users to interface with" (Song & Bucy, 2007, p. 32). Also called the functional view.

3. Perception-based, which relies on whether users perceive the website is interactive (McMillan, Hoy, Kim, & McMahan, 2008; Song & Bucy, 2007).

Most early interactivity research focused on the technical features of websites, such as hyperlinks and search functions, sometimes in exclusion of anything else, and suggested that higher the number of elements deemed interactive, the higher the level of interactivity (Song & Zinkhan, 2008). Later studies became based more strongly in user perceptions of website interactivity — researchers argued "the mere presence or absence of certain features matters only if these features affect how consumers navigate and use the site" (Lee et al., as cited in Song and Zinkhan, 2008). And Song and Bucy (2007) made clear: both technological features of a medium and the way messages are exchanged may influence perceptions of interactivity (p. 32).

Message-based or contingency interactivity

Most research on interactivity includes a review of Rafaeli's work in 1988, and his later work with Sudweeks in 1997, which laid groundwork defining one form of

interactivity that comes from a message-centered, interpersonal communication

perspective rather than a feature-based or perceptual one. They described it as "the extent

to which messages in a sequence relate to each other, and especially the extent to which

later messages recount the relatedness of earlier messages" (Rafaeli & Sudweeks, 1997,

p. 3), so interactive communication from Rafaeli's point of view has a high degree of

responsiveness and reflexivity; message transactions are comparable to those of

interpersonal communication (Kiousis, 2002). Rafaeli (1988) viewed interactivity as a

concept that lacked a full definition, saying that it appeared valid on its face, but was not

explained well, had "little consensus" (p. 110) in meaning and had only recently begun to

have empirical verification.

In fitting with Rafaeli's view, Hacker (as cited in Oblak, 2003) observed:

Sending e-mail notes to President Clinton is not interactive. Nor is getting a form

letter stating that the President is glad to hear from you. Receiving a personal note

(or other forms of message) in which answers are given to questions and

responses are made directly to assertions is interactive (Political participation

section, para. 22).

Interactivity varies along a continuum (Rafaeli, 1988) with one-way

communication like radio and television at one end, and "reactive" two-way

communication at the other. Fully interactive communication requires that "later

messages in any sequence take into account not just messages that preceded them, but

also the manner in which previous messages were reactive" (Rafaeli, 1988, p. 3). This

interconnected relationship among exchanged messages is known as "third-order

dependency" (Kiousis, 2002, p. 360), and when it is exhibited within a system, the

system is considered interactive by researchers adopting this point of view (Kiousis, 2002).

Song and Bucy (2007) argue, though, that just because messages are exchanged does not mean that any meaning is exchanged, and that in this approach, messages provide the only proof of interactivity. Song, Bucy and Rafaeli view interactivity from a process-based viewpoint, where users must actually use the features of a website (i.e.: send messages) for interactivity to take place. Song and Bucy (2007) also maintained that:

> Since a medium's interactive features (or affordances) do not evoke the same degree of perceived interactivity in all users, it is important to distinguish, both conceptually and empirically, between objective aspects of interactivity that are embedded in media systems from perceptual aspects of interactivity, which are psychologically experienced by users. (p. 44)

Feature-based interactivity theories

One of the most prolific researchers of interactivity is the University of Tennessee's Sally McMillan, who has presented a number of studies to develop more precise definitions of the concept, mostly through evaluating the common characteristics of technical features. She posited a four-part model of interactivity that looked closely at the dimensions of direction of communication and receiver control as they relate to one- and two-way communication (McMillan, 2002a). Ferber (2007) amended and modified McMillan's four-part model, increasing the parts to six, and used it to assess political websites' "progress toward the ideals of cyberdemocracy" (p. 391). He maintained his changes "should make provision for not just two-way communication but three-way

communication aimed at influencing other parties or, in other words, providing a

mechanism for public deliberation" (Ferber, 2007, p. 392). Ferber's model allows for

multiple parties to join the conversation, and better accommodates new Web technologies

like social networking and the conversations that can take place in comment areas. He

lamented, however, "both parties focused their sites toward fundraising and empowering

the party faithful and not on creating a platform for any significant deliberation or debate

of issues" (Ferber, 2007, p. 398).

McMillan (2002b) defined types of feature-based interactivity as user-to-user,

user-to-documents, and user-to-system, and saw them as a way to "provide a basic

framework for investigation of the past, present, and future of interactivity" (p. 5). This

three-dimensional construct, she said, "seems to encompass the primary literature on

interactivity in new media." In her later research, she examined a multi-dimension

construct more applicable to new media where the three traditions are renamed human-to-

human, human-to-computer and human-to-content interactivity (McMillan et al., 2008, p.

796).

Human-to-human interactivity is dialogic in nature (Tedesco, 2007, p. 1184), and

"focuses on ways that individuals interact with each other through computers" (McMillan

et al., 2008, p. 797) via features like email (sic) links and "contact us" pages. It was the

second-most common form of interaction found by McMillan. Human-to-content

interactivity takes two forms (McMillan et al., 2008, 796): content contributions to the

website, typically through uploading photos, videos or posting comments, or the dynamic

response of content to individual actions, like requesting that a site be displayed in

Spanish, rather than English. Lastly, human-to-computer interactivity focuses on

navigation, transactions and actions, and is the dominant form of interaction McMillan (2008) found in her research. There is no explanation of where conversations that take place within blog comments would fit – they constitute human-to-human and human-to-content forms of interactivity. There is also no mention of how social networking fits or would apply within these types of interactivity.

Steuer (1992), another prominent researcher, differs from Rafaeli's message-based or mediated view of interactivity, basing his interpretation on a more mechanical, featured-based view that "focuses on properties of the mediated environment and relationship of individuals to that environment" (p. 13). Ultimately, the user has control. He views interactivity as "the degree to which users of a medium can influence the form or content of the mediated environment in real time" (Steuer, 1992, p.10) and highlights the variables of:

1. Speed of interaction, or response time, where real-time interaction "clearly represents the highest possible value for this variable" (Steuer, 1992, p. 15).

2. Range, which refers to the number of actions one has available on the website at any given time.

3. Mapping, "or how similar the controls and manipulation in the mediated environment are to controls and manipulation in a real environment" (as cited in Coyle & Thorson, 2001, p. 67). An example of this would be the expectation of how a steering wheel, when turned to the right, turns the car to the right. Essentially, actions are followed by appropriate and expected

reactions from the medium (Coyle and Thorson, 2001; Steuer, 1992; Wu, 2006).

Continuing in the technical or feature-oriented vein, Coyle and Thorson (2001), using Steuer's (1992) interactivity definition, theorized that a website described as interactive should "have good mapping, quick transitions between a user's input and resulting actions, and a range of ways to manipulate the content" (Coyle &Thorson, 2001, p. 67). Applying Steuer's explanation of telepresence, which is "the ability of a medium to form an environment that, in the minds of communication participants, takes precedence over actual physical environments" (Steuer, 1992, as cited by Kiousis, 2002, p. 373), they conclude that high states of interactivity on a website should create an experience similar to a real one that is not computer mediated.

Carrie Heeter (1989), in an attempt to synthesize earlier research on interactivity in new technologies, posited an early, six-dimensional definition of interactivity, which includes the following features, and proposed that communication must be re-conceptualized to accommodate new media. She proposed the following ways to describe interactivity:

1. Complexity of choices available, also called selectivity, which "is concerned with the extent to which users are provided with a choice of available information." (p. 222)

2. The amount of effort users must exert to access information.

3. The degree to which the medium can respond to the user.

4. Monitoring of information use (when a system can track users, for example).

5. The degree to which users can add information that a mass, undifferentiated

audience can access.

6. Facilitation of interpersonal communication between specific users.

Perceptual interactivity theories

Wu (2006) found a complex relationship between what he called actual and perceived interactivity and the viewer's attitude toward a website. "Interactivity is comprehended as a variable that can dwell within individuals' minds" (Kiousis, 2002, p. 361). McMillan also found a correlation between the perceived activity of a site and the viewer's attitude and level of involvement toward the subject of the site, and concluded perceptions of interactivity "may reside primarily in the eye of the beholder" (McMillan, 2000), and suggested that the best way to have an interactive website is to make sure to get the right "eyes" on it.

Song and Zinkhan (2008) found a linear relationship between the level of message personalization and the perception of interactivity and site effectiveness. They also found that the more personal the messages on a site, the more strongly the predictors of its interactivity.

Combination interactivity theories

Often, perceptual interactivity is part of theories that could include mechanical features and/or message exchange. Louisa Ha and E. Lincoln James' (1998) perception of interactivity combines interpersonal communication with mechanically based features, and also used a multi-dimensional approach. They identified five dimensions or traits of interactivity: playfulness, choice, connectedness, information collection, (which some would call reverse interactivity) and reciprocal communication, and "proposed that interactivity be defined as the extent to which the communicator and the audience

respond to each others' communication need" (p. 456). They dismissed Steuer, Rafaeli and Sudweeks' "real time" or synchronous qualification of interactivity, pointing out that different people use the Web for different purposes, and not all may be interested in immediate, two-way communication.

In their study, they examined business websites to determine which of their dimensions were in use, and sorted the features into two categories:

1. High-interactivity features that involve direct, two-way communication between audience and source. Information collection would be an example of this, where the audience must be willing to provide information, or information is automatically recorded. Reciprocal communication would be another example.

2. Audience-oriented interactivity, where the audience directs the communication and the website provides the functionality to meet the audience's needs. Playfulness (games and puzzles, Q&As), choice (the ability to navigate the site in an unrestrained manner) and connectedness (hyperlinking) would fall into this category (Ha & James, 1998).

Kiousis (2002) synthesized a definition for interactivity as the "degree to which a communication technology can create a mediated environment in which participants can communicate (one-to-one, one-to-many, and many-to-many), both synchronously and asynchronously" (p. 372), and, much like Rafaeli's view, "participate in reciprocal message exchanges (third-order dependency)" (p. 372). He also defines a perceptual component to interactivity, where users "perceive the experience as a simulation of interpersonal communication and increase their awareness of telepresence" (Kiousis, 2002, p. 372).

He pinpointed basic assumptions about interactivity, like its association with new communication technologies, and that the "level of interactivity varies across media, usually anchored in its ability to facilitate interactions similar to interpersonal communication" (Kiousis, 2002, p. 356). His work incorporated many of the traits of interactivity found in prior studies, blending them into a more concise framework, but set certain boundaries, like including all forms of technology but clearly insisting the communication had to be mediated. He excludes "pure" interpersonal communication, since the concept of interactivity is so closely tied to technology, and includes asynchronous and synchronous communication; the presence of both is thought to be "truly interactive" and encompasses the idea of timing flexibility.

In operationalizing the concept, he identifies three primary traits of interactivity: Structure of the technology, communication context and user perception (Kiousis, 2002). Each can be broken down into closely associated qualities gleaned from the literature that can be used to estimate high or low levels of interactivity, like speed, third-order dependency and range. The traits are equally important, in Kiousis' view, and must be considered together to get a full view of interactivity, although individual facets may be examined and "scholars can be as specific or general as needed in their inquiries" (p. 379).

Kiousis (2002) also argued "some consensus can be reached concerning the chief ingredients of an interactive experience" (p. 368), which would include:

1. Two-way or multi-way communication, usually through a mediated channel.

2. Interchangeable roles between the sender and receiver.

3. At least some third-order dependency between participants.

4. Communicators can be human or machine, often contingent upon whether they can function as both senders and receivers.

5. Individuals should be able to manipulate the content, form, and pace of a mediated environment in some way.

6. Users should be able to perceive differences in levels of interactive experiences (Kiousis, 2002).

Bucy and Chen-Chao (2007) found the degree of the interactivity, or "the strength of the media stimulus, varies quantitatively in terms of the number of different attributes and qualitatively in terms of their capacity to engage users. The greater the two indicators, the higher the presumed level of interactivity" (p. 656). But they also stressed that for interaction to occur, there must be use of the interactive attributes, and that there was a perceptual or behavioral component involved. They found that one's level of experience and proficiency in using the Internet, or one's level of self-efficacy, could moderate the influence of interactivity; experience levels could help to explain why "the same media stimulus can have differential effects on different users" (p. 666).

Interactivity in political campaigns

Most assessments of interactivity uses in political campaigns focus strongly on feature-based or objective interactivity. Many studies delve more deeply into McMillan's early descriptions of the traditional types of interactivity — user to user, user to system, and user to document (McMillan, 2002b) — which she later described as human to human, human to computer and human to content.

Stromer-Galley (2000), in applying interactivity concepts to political websites, distinguished two forms of interaction: computer-mediated human interaction, which

follows Rafaeli's (1988) model of responsive, reciprocal communication between a sender and a receiver who have equal standing and McMillan's (2002b) description of human-to-human interactivity; and media interaction, where "users can interact with the medium through hyperlinks, filling out electronic surveys, downloading information, watching streaming audio and video, playing games, even purchasing goods and services — without ever directly communicating with another person" (p. 118). McMillan would call this type of interactivity human to computer. It is transactional in nature and no real conversation or reciprocal communication with a human being takes place.

Stromer-Galley (2000) found that political websites used media interactive capabilities and tended to ignore human communication because "they are burdensome to the campaign, candidates risk losing control of the communication environment, and they no longer can provide ambiguous campaign discourse" (p. 122). For example, Presidential candidate Bob Dole's site had no e-mail address; campaign workers thought that e-mail and bulletin boards would not help win the campaign and would be too demanding of resources. Campaign websites were primarily intended "to provide information about the candidate —controlled, highly crafted information, similar to a campaign brochure or a television advertisement. A second use is more novel: to provide a façade of interaction with the campaign and the candidate through media interaction" (Stromer-Galley, 2000, p. 127).

Endres and Warnick (2004) used college students to explore interactivity on campaign websites, and posited a "new," rhetorical interactivity framework they theorized acted as a substitute for user-to-user interactivity called text-based interactivity. Its traits include use of active versus passive voice, the practice of directly addressing

readers and viewers in the 1st and 2nd person, using first names of the candidates (Barack instead of Obama, for example), captioned photographs and "accessible style and design" (p. 326). Logically, a description of text-based interactivity today would include videos, since "elements of text-based interactivity are designed to emulate face-to-face dialogue between Web users, the candidate, and campaign members" (Endres & Warnick, 2004, p. 326), and communicate a "sense of engaging presence to site visitors" (Warnick, Xenos, Endres, & Gastil, 2005, p. 2).

They also identified a form of what they called "actual interactivity" (Endres & Warnick, 2004, p. 330), and gave it a more formal name of campaign-to-user or user-to-campaign interactivity, which could include features, among others, like online polls, event postings, contribute, volunteer, and contact links (Endres & Warnick, 2004). It includes "any feature that enables campaigns and users to communicate with each other, or which provides the potential to do so" (Endres & Warnick, 2004, p. 325), and found that it often complemented text-based interactivity to create an engaging and highly interactive website that "welcomes, engages, and invites users to come back" (Endres & Warnick, 2004, p. 338).

Campaign websites using text-based interactivity "possess characteristics that open deliberation and engage the user" (Endres and Warnick, 2004, p. 327), and tend to be dialogic in nature, rather than monologic. They also make site users feel like the candidate is "less remote and more involved with the needs and interests of the constituency" (Endres & Warnick, 2004, p. 333). Complex sites high in text-based interactivity "may be more inclined to keep users interested and engaged in deliberation than sites low in text-based interactivity" (Endres & Warnick, 2004, p. 338).

Using three increasingly interactive websites depicting the same fictitious candidate viewed by college students, Sundar and his colleagues (2003) found the "interactivity of the Web site [sic] had an influence on participants' impression formation of the candidate as well as their levels of agreement with his positions on policy issues" (p. 47). Those impressions were mitigated somewhat by the levels of interactivity; moderate levels appear to enhance the candidates' character, while high levels appear to have little effect. Overall, the more links on a site, the more users perceived it to be interactive.

Other research has repeatedly demonstrated that exposure to candidate websites results in increased evaluations of the candidate and decreased cynicism on the part of the political participant (Tedesco, McKinney, & Kaid. 2007; Hansen & Benoit, 2002, as cited in Tedesco, 2007). Tedesco (2007) showed that increased interactivity exposure on websites not only significantly increased political information efficacy but also increased "the likelihood that participants will value voting as activity worth pursuing" (p. 1191) and demonstrate to young adults that their ideas are valued. "Clearly, interactivity is an important feature of young adults" (Tedesco, 2007, p. 1191) and allows them a means to "engage democracy" (Tedesco, 2007, p. 1191).

But technical features alone are not always enough, and do not always "guarantee a sense of genuine involvement, mutual understanding, and good relationships with political candidates. They can be augmented by other features, such as those described as text-based interactivity, which include "additional human touches or humanizing factors" (Soon and Choi, 2002, p. 39).

Xenos and Foot (2008) maintain that Web 2.0 applications, like blogs, social networking sites and other "collaboratively authored documents" (p. 57) — all examples of McMillan et al's (2008) human-to-content interactivity — offer "communicative, creative, and social uses" of the Internet that enable young people to create and share content (Fox et al., 2006, as cited in Xenos & Foot, 2008). This co-productive interactivity is "foundational to the way that young people, more than any other age group, engage with the Internet" (Xenos & Foot, 2008, p. 57).

Xenos and Foot (2008) distinguished between features on websites that adapted traditional campaigning to the Web and those they identified as "web [sic] campaigning, which uniquely tap the interactive and networking potentials of digital media" (p. 53). They also identified a "yawning generation gap between the web [sic] production practices of traditional political actors…and the preferences and expectations that today's young people bring to political cyberspace" (Xenos & Foot, 2008, p. 52), and "explore a variety of ways of thinking about one of the web's [sic] signature affordances, interactivity, as it relates to online politics and American youth" (Xenos & Foot, 2008, p. 53).

Their tabular analysis (Table 2) of the features employed by 1168 political campaign sites during the 2002 U.S. elections, along with another analysis of the same data by Foot, Schneider, Xenos and Dougherty (2009), found that most still followed a practice of adapting traditional campaigning to an online environment, much like Foot and Schneider's (2006) description of "brochure ware"; far fewer were employing "Web campaigning" with "production of elements that may have prototypes in traditional campaigning, but are uniquely or especially catalyzed by the Web" (Xenos & Foot, 2008,

p. 58). Xenos and Foot (2008) identified 15 specific "Web campaigning" features, from linking to external websites to online events, as the most likely to appeal to young voters, who are also the most likely to be receptive to political communication via the Internet. But because few of the sites in 2002 made use of the features, most of the "campaign sites come off more as static information booths than as dynamic places to connect, create and interact" (p. 59).

The interactive features chosen to represent "Web campaigning" are by no means complete, given they were compiled in 2002 before the explosion of the use of social networks like Facebook, mobile devices with text messaging capability and YouTube. But they provide an introduction or starting point for a more detailed analysis of the interactive features Obama's campaign used that had the potential to appeal to young voters.

Research questions

Specifically, two key questions derived from the review of literature guided this research, which examined the use of interactivity in the 2008 Obama campaign, the types of communication exhibited by the interactive features and those that showed potential to attract Millennials.

RQ 1: How did Obama use interactive features or traits in his online campaign?

An analysis of the features used in 2008, along with a comparison to the features used by political campaigns in 2002 was undertaken.

RQ 2: What types of communication did the interactive features used in the campaign exhibit, and which traits showed the most potential for the types of interactivity important to Millennials?

An expanded analysis of the nature of the interactive features from 2002 used in the 2008 Obama campaign was undertaken, including an analysis of the type of communication and its potential impact on the user.

Finally, a detailed analysis of all of the interactive features used by the Obama campaign was undertaken, along with an examination of each features' ability to co-author or change content, facilitate or control conversations, or facilitate the sharing and/or receiving of information. Each is a quality identified by researchers as important to Millennials as they interact online.

Methodology

This research proceeded using several methods of analysis in order to examine the research questions. First, a comprehensive description of the generational characteristics of Millennials was assembled, including an assessment of voting habits over the last several decades and trends in their use of the Internet to seek out information. An overview of how past political campaigns were conducted online was explored to see what interactive features and innovations were used in the past — archived campaign websites from prior to 2008 were examined for their use of interactive features, as well as the websites and online campaigns of the presidential candidates in 2008.

Since early interactivity theory primarily explored the number of links built into a website, a graphic representation of the home page of Obama's campaign website was made, showing its complexity and volume of content. A list of the Web campaigning features used by the Obama website was made, based on a page-by-page examination of the site and its links. That list of features was compared with the features identified by Xenos and Foot as those used in the 2002 congressional campaign (Table 2 and 3) to

determine if the Obama campaign had at least equaled previous campaigns in its level of interactivity.

New Web campaigning features used by the campaign were also identified, again by examining each page of the campaign website and its outgoing links, including those on YouTube, Facebook and Obama's mobile website. Each feature was evaluated for the type of interactivity it exhibited (human to computer, human to human, and human to content), its potential impact on the user based on its potential for interactivity (low, medium or high), and the level of communication it facilitated (1-way, 2-way, 3-way).

Particular attention was paid to those traits considered new in 2008 such as text messaging and the use of social networks. A separate examination of the interactive traits of Obama's internal social network, mybarackobama.com and iPhone application was undertaken, as well, again breaking down the features by the type of interactivity each represented, its potential impact on the user and the type of communication it exhibited.

Interactive features used by the Obama campaign were examined, listed and analyzed, including those outside the campaign website, such as those on YouTube and Facebook, along with the features offered on Obama's mobile website. As a research tool, a subscription to the Obama campaign's e-mail alerts was obtained and monitored throughout the last months of the campaign, along with a subscription to its text messages. A profile was created to use and explore the MyBarackObama.com internal social network created by the Obama campaign. Obama's Twitter messages were examined after he won the Democratic nomination for the presidency in early June 2008. Because Twitter keeps a running list of each tweet posted newest to oldest, several months of tweets were visible.

Eventually, the tweets "expired" and were no longer viewable in their original forms — interestingly, the Obama campaign has recreated tweets on the Obama 2012 campaign account, but they don't match the original tweets from the 2008 campaign.

A bi-weekly examination of the Obama campaign website was undertaken to look for new interactive features as they were added, so that the changes could be documented and included among the older features. An archive copy of the site was created using software called BlueCrab, in order to freeze the site the day before the presidential election and provide the ability to check and recheck its interactive features.

An examination of prior research was used to assemble a list of the interactive traits deemed most important to Millennials (Tedesco, 2007; Bennett & Xenos, 2007; Xenos & Foot, 2008) including young voters' desire to:

1. Co-author or change content

2. Share and receive information — the function of receiving is not activated by the Millennial and is more active then simply linking to content

3. Have conversations and to have questions answered directly, in a personal way

All are the attributes of the Internet most valued by young voters, according to researchers, and those website traits considered most able to reproduce two-way and three-way communication, which would increase their potential for interactivity. Each interactive feature identified as one used by the Obama campaign was examined to see if it exhibited any of these characteristics.

This case study examined questions related to Obama's use of online interactivity in his 2008 presidential campaign and whether those interactive features exhibited

attributes potentially attractive to Millennials. Since the Obama campaign deals with "contemporary phenomenon within its real-life context" (Yin, 2003, p. 13), and there was little or no control of behavioral events (Yin, 2003) at the time the research was taking place, a descriptive case study offers a tool to help examine the linkage between Obama's use of interactivity and its relationship to his success with young voters.

Results

Visually, the "home page" of www.barackobama.com is a study in patriotism with red, white and blue the only design colors used on the site, except for black text. The title at the top of the browser says "Organizing for America | BarackObama.com"; one of the first items displayed is Obama's quote speaking directly to the visitor: "I'm asking you to believe. Not just in my ability to bring about real change in Washington … I'm asking you to believe in yours" (Obama, 2008a). It is a strong example of text-based interactivity (Endres & Warnick, 2004), where Obama directly and personally addresses his site's visitors, a trait that would directly appeal to Millennials and sets the innovative tone for the larger website that follows. Obama used first-person address throughout the site, extending "a welcome greeting, to treat users as respected visitors, [and] to communicate directly", guidelines issued by the Institute for Politics, Democracy, and the Internet in *Online Campaigning 2002: A Primer* (as cited in Endres & Warnick, 2004, p. 326), as ways to strategically use the Internet in campaigns.

The home page is also the entryway to a complex, innovative, and large campaign website (Figure 1), with more than 35 separate links to features and information, and more than 100 separate internal pages. Early interactivity research dealt mostly with hyperlinking and the number of links a website featured. The more links, it was

theorized, the more interactive the website (Song & Zinkhan, 2008). By that standard, Obama's campaign would be deemed highly interactive and engaging.

But definitions of interactivity have grown more complex with time and moved beyond a website's home page and hyperlinks to include social networks and mobile communication devices. And, the interactive expectations of the Millennials, in particular, are specific and extensive.

Research Question 1 asked how Obama used interactivity in his online campaigning. An examination of all the interactive features put into play by Obama was undertaken, beginning with a baseline comparison of the 2008 Obama campaign to the 2002 Xenos and Foot list of "web [sic] campaigning" features (Table 3). Not surprisingly, given the six years that had passed allowing for new Web technologies and techniques to emerge, Obama's campaign uses 13 of the 15 items listed.

New Web campaigning features used by the Obama campaign, not used in 2002, were identified and tallied as well (Table 4). The use of interactive features increased dramatically; 27 individual new features were identified on the main website and included such complex features as sign-ups to receive text messages, interactive maps, tax calculators and the ability to contact donors who matched others' contributions. Features from 2002 were typically more simple, and included links to other websites, a site search engine, and visitor comments.

The internal social network MyBarackObama.com, which allowed supporters to create their own network of other campaign supporters, an iPod application that facilitated personal campaign communication, and a WAP (Wireless Access Protocol) mobile website that allowed supporters to access campaign information from their

Internet-capable cell phones also added numerous interactive features to the campaign from within each component's functionality. A separate evaluation of each segment's interactivity was prepared, which showed MyBarackObama.com offered 21 separate interactive features (Table 5), the iPhone/iTouch app offered seven (Table 6) and the mobile website offered eight (Table 7).

In all, the Obama campaign added 36 interactive features through the addition of the three separate components, for a total of 63 new features used by the entire online campaign in 2008. If the 13 traits are added in from the 2002 comparison, Obama used at least 76 interactive features in his online campaigning, more than five times the original 15 identified as being used by campaigns in 2002.

An expanded analysis (Table 8) of the nature of the interactive features from 2002 used in the 2008 Obama campaign will begin to address Research Question 2, and evaluate the types of communication fostered by the interactive features, and which traits showed the most potential for interactivity.

In their original survey, Xenos and Foot did not analyze the nature of interactivity or examine the different kinds of interactivity represented by their "web [sic] campaigning" features. They presumed, because the features were not used in traditional campaigns, that they were inherently interactive online. And because the features were online and interactive, it seemed reasonable they would be attractive to young voters.

Returning to Rafaeli's (1988) early interactivity definitions, where reciprocal communication was considered to be more interactive than other forms of communication, and other models where communication was considered to be interactive

the more closely it resembled interpersonal communication, early campaign efforts were arguably of limited appeal to Millennials.

All interactive features in use in 2008 were listed and categorized using McMillan's model, which found interactivity will conform to at least one of three types: human to content, human to human, or human to computer (McMillan et al., 2008, p. 796). Where it is more applicable, Endres and Warnick's model (2004) for text-based interactivity, more specifically used to identify some types of interactivity used in campaigns, is substituted for human-to-human interactivity. Based on the type of interactivity, and the kind of communication fostered, each feature was rated low, medium or high for its potential impact on the user.

 Of the 13 traits Obama used from the 2002 campaigns, nearly half (46 percent) have medium-high potential for interactivity, in part because of the presence of text-based interactivity in the use of promotional or event videos, campaign advertisements and photographs. Reciprocal communication is unlikely to result from some of these features, but their impact will remain high since they create the perception of human–to-human communication. (Table 8)

Examining Obama's use of additional interactive Web campaigning features in 2008, (Table 4) 14 examples of human-to-computer interactivity are present, more than human-to-content or human-to-human types, which follows McMillan's finding that human-to-computer types of interactivity are the most commonly present on the Web. Seven examples of human-to-content interactivity are present, along with four examples of human-to-human interactivity and one text-based example. Again, nearly half of the new interactive features found on the main website exhibit medium to high interactivity,

and the overall number of higher interactivity features has increased. The six Web campaigning features listed in the 2002 comparison with medium-high impact, added to the 12 new features from 2008, means a total of 18 medium- to high- potential interactive features are now in place for potential use by Millennials.

The internal social network, MyBarackObama.com, functions as a separate, though affiliated, website to BarackObama.com and exhibits 21 interactive features (Table 5) of its own — 14 of these show medium- to high-potential interactive features (66 percent). Unlike the main website though, the social network is equally split into thirds between the three types of interactivity, rather than showing a predominance toward human to computer. This is a shift in the norm found by McMillan, where human to computer was the most common kind of interactivity found in websites.

An iPhone/iTouch application (Table 6) added to the website late in the campaign allowed for interactivity away from the main website, with seven specific features offered. Of those, five had potentially medium to high impact (71 percent). A mobile website accessible from Internet-capable phones also allowed for portable interactivity, with eight interactive features offered. Because the mobile website is a simpler, more compact version of the main Obama website, one would surmise the features are redundant. That is not completely the case; the site allows more for interaction with the main site via linking and adds some key, mobile-friendly features like video downloads and the ability to share information with friends. It also adds another eight interactive features to the campaign effort, with six exhibiting medium-high potential impact (75 percent).

Research Question 2 asked what types of communication were evident in the interactive features used in the campaign, and which traits in the online campaign showed the most potential for interactivity and the most potential for appealing to the Millennials.

Xenos and Foot (2008) stressed that, since Millennials are the most savvy Web users, they are not attracted by largely transactional types of interactivity like human to computer (p. 64), but instead are most lured by types of interactivity which empower them to be co-productive, like human to content.

Many of the interactive features used by the Obama campaign are simple and transactional in nature, and do not immediately offer enough potential to meet the characteristics desired by young voters. Many require that a form or template be filled out, but the resulting communication is automated, mechanized and impersonal.

But a comprehensive evaluation of each of the 76 interactive features used by the Obama campaign resulted in 38 individual traits (50 percent) with the potential to exhibit special appeal to young voters (Table 9). Sixteen of the features gave supporters the ability to co-author or change the content on the website, 28 enabled conversations and 16 allowed users to share or receive information. Many of the features showed a combination of desirable traits, with four combining the ability to change content and have conversations; eleven traits facilitated conversations and the sharing and receiving of information. Three traits offered the ability to make use of all the characteristics most sought by the Millennials; for example, the ability of supporters to blog allowed them to change and co-author content, share information with readers of the blog through posts or by sharing one of the blog posts, and to have a conversation with readers through the comment feature on the blog.

Discussion

In this case study, an understanding of who makes up the generational group known as the Millennials is developed, along with an overview of interactivity theory. By using a combination of McMillan's three-dimensional construct to define types of interactivity (human to computer, human to human, and human to content), assessing each type's potential for reciprocal communication, and defining what Millennials expect from the Web, one can, in a repeatable analysis, discover if an online campaign has features which have the potential to appeal to Millennials.

Obama presented himself differently from candidates of the past. "In 2004, Wired magazine's Chris Anderson asserted that the Internet enables companies to capture and monetize the attention of thousands and millions of users, instead of monetizing the attention of a few large users" (Garcia, 2008, para. 4). Anderson's idea has since become know as the "Long Tail" theory — it runs counter to traditional campaigning, which often leverages a small group of mostly large donors and supporters over and over.

Obama managed the head, raising as much money from large donors as John McCain, but his campaign's strength was in its ability to rally a motley crew of individual, grassroots supporters, including a record number of young voters, and creatively and comprehensively take advantage of the interactive strengths and tools of the Internet from within his campaign and without.

Obama was the first to use text messaging and mobile phone technology to reach beyond the limits of previous campaigns. His extensive use of video, while not interactive on its face, became a way to engage young people — who used YouTube

most extensively — as they shared the video with their friends and used the interactive

tools on YouTube to weigh in with their comments and opinions.

If there was any question young voters were a force in the 2008 presidential

campaign, Barack Obama himself dispelled any doubt when he acknowledged the role of

young voters in his presidential victory. During his election night acceptance speech at

Grant Park in Chicago, Obama said his campaign "grew strength from the young people

who rejected the myth of their generation's apathy, who left their homes and their

families for jobs with little pay and less sleep" (Obama, 2008b, para. 12).

It is a fact that young voters turned out in record numbers. But the question for

this analysis is whether Obama's use of interactivity and the types of communication it

fostered created an online environment with the potential to attract and engage them.

Comparing Obama's campaign to Xenos and Foot's research from 2002, along

with Foot, Schneider, Xenos and Dougherty's research in 2009, which examined 1168

mid-term congressional campaign websites, Obama's campaign enhanced its use of

interactivity in two main ways: by increasing the frequency of its use overall, on and off

the campaign website, and by increasing the number of interactive features with the

specific traits attractive to Millennials.

Of the features used in the 2002 campaigns, only six traits showed the potential to

appeal to Millennials. As a percentage, though, those six traits represented almost half of

the interactivity of the simply constructed and unsophisticated early campaign websites.

This study identified 38 interactive traits used by the Obama campaign in 2008, many of

them much more complex than those used in 2002, to appeal to young voters. Again,

these features represent about half of the interactive traits used in the campaign that have

the potential to appeal to Millennials. But the added 32 incidents of interactivity mean young voters have many more opportunities and choices to engage with the campaign by creating content, having conversations and sharing and receiving information from within the campaign and without. Of these, 18 of the traits show more than one of these characteristics, while three show all of the traits that appeal to young voters, raising the likelihood they will have a positive affect on their vote.

Specifically, the Obama campaign used MyBarackObama.com to allow supporters to customize their experience, connect with local groups, raise money by donating themselves or inviting friends to donate, blog, and host local events themselves. Text messages sent by the campaign urged supporters to donate money and view live, streaming videos online during campaign events. Customizable maps from Yahoo! allowed users to find polling sites, individual state blogs, and local campaign offices.

The campaign's iPhone and iTouch applications allowed users mobile access to campaign information, including a locator for the local Obama headquarters, information about local campaign events, a way to check the supporter's ranking in making calls for the campaign, and a player to watch video or browse photos. Its mobile website also allowed viewers to reach a simplified version of the campaign website while they were out and about, but with features that might appeal to young voters, like sharing information with friends, downloading wallpapers or downloading ringtones with Obama's voice.

Further research is needed to determine which of the campaign features were actually used by young voters, or if they came to the campaign's website in great numbers. Given that the Millennials have grown up on the Web and use social networks

— in 2008, 33 percent of young people who owned a social networking profile got political information via their profile — watch more online video, and spend more time on the Internet in general than any other age group, it may be prudent to believe social networks are the best avenue to capture the group's attention and drive it to campaign information.

Because Millennials did not have to directly visit the Obama campaign site, but could "follow" or "friend" it via social media, the campaign's ability to contact them passively and at will was greatly enhanced. Plus, since social media is an "opt in" phenomenon, followers have already expressed an interest and may be more likely to be receptive to a given message from the campaign. The campaign's use of at least 16 external social networks allowed friends to share political information without leaving the network in which they were comfortable.

New research indicates that while large numbers of Facebook friends may not be directly responsible for more votes for a candidate, it points to a community of interest that is involved and active and "demonstrates the social network support, on Facebook specifically, constitutes an indicator of candidate viability of significant importance … even more so for the youngest age demographic" (Williams & Gulati, 2008, p.19).

Millennials also get more political information via the Internet than anyone else. They have "personalized expectations" (Bennett, 2008) of politics, and expect to be able to contribute to both the conversation and the content. Then, they share it with their friends, much as they do everything else. In particular, Obama's supporters were more engaged in all aspects of Internet campaign use when compared to Hillary Clinton and John McCain's supporters.

Interactivity theory remains a mash-up of ideas, and most researchers examine specific functionalities or types of interactivity, but there are some commonalities that can be identified. For any website to have interactive potential, it must have some mechanical, technical features that facilitate communication. In Obama's case, those features can be assessed for their appeal to Millennials based on their interactive potential to foster complex communication, how closely it approaches interpersonal communication and the users' ability to change the sites' content. For that potential to be reached, site visitors must actually make use of the mechanical features, which cannot be guaranteed. Even then, each user's experience will be different, since interactivity also has a perceptual component. And, as websites continue to evolve, so will the various definitions and manifestations of interactivity.

After a thorough analysis of its features, it is apparent Obama's campaign offered visitors myriad opportunities for a high-level interactive experience, from its internal social network MyBO.com, to the comment feature on its blog, to its groundbreaking use of mobile communication devices and social media.

Obama was the first to use text messaging and mobile phone technology to reach beyond the limits of previous campaigns. It created the potential for him to cross paths with Millennials who might have had no interest in looking at the campaign site, and meet them on the devices they used the most extensively to communicate with their friends and family. His extensive use of video, while not interactive on its face, became a way to engage young people — who use YouTube most extensively — as they shared the video with their friends and used the interactive tools on YouTube to weigh in with their comments and opinions.

Further research will be necessary to see which features are the most appealing to young voters, which features they actually use and to rule out other factors that may have influenced their vote. And, as that research is being completed, new interactive features of more and more complexity, on site and off, will have been developed, just as iPhone apps came into use midway through the campaign.

Interactivity research has shown it can enhance the viewer's perception of a candidate and increase agreement with his policies, as well as increase general political efficacy (Sundar, Kalyanaraman, & Brown, 2003; Tedesco, 2007). Obama's campaign offered numerous interactive opportunities, on site and off.

Obama changed the nature of online campaigning; the techniques used by his campaign eclipsed prior campaigns online, particularly in his presence on social networks that were not part of his website, most notably Facebook, Twitter and YouTube, and in his use of mobile devices like cell phones.

And he has raised the bar for future campaigns to find an optimal mix of interactivity that appeals to and attracts Millennials, as well as other potential voters. The increased use of smart phones and tablets utilizing different platforms and video formats creates more programming challenges and questions about the most productive ways to reach voters. The dedicated apps utilized on smartphones require conceptualization and development, at potentially significant cost, but since 83 percent of American young people (*Mobile youth around,* 2010) use "advanced data" on their smartphones, and the number of young people with smartphones is rapidly increasing, campaigns will have little choice but to enter the mobile app environment.

The increased use of social networking by older voters creates an opportunity to reach them passively through family and friends, but risks blurring the message to younger voters. New forms of social media, like FourSquare, emerge every day, and other, older forms disappear, making it difficult for campaigns to decide where they need to have a presence or not, and whether or not young voters will be interested. Currently, the Obama campaign website is connected to only 10 outside social media sites, compared to 16 during the 2008 campaign.

More sophisticated uses of data mapping and mining will be in greater use, in order to compare and connect voters with similar interests in the same communities, and to see whom the campaign has engaged. It will also give campaigns unprecedented ability to analyze the demographics of visitors to their online campaigns. And, given Obama's success in 2008, competing campaigns in 2012 will better understand the value of interactive campaigning and attempt to stay current on the newest features as they try to communicate directly with young voters.

Campaign experts agree that Obama was the right candidate at the right time with the right message — without that, Millennials would not have paid attention to him no matter what kind of campaign he ran. But even if he appeared to be a desirable candidate to young voters, Obama also had to meet their interactive expectations head on, and reach out in almost every possible way to them. They preferred him to John McCain by 66 percent to 32 percent — an unprecedented gap in presidential choice by age (*Preliminary CIRCLE Projection*, 2008, para. 2).

Table 1

Generations Explained

Generation Name*	Birth Years, Ages in 2009	Percent Total Adult Population	Percent Internet-using Population
Gen Y (Millennials)	Born 1977-1990, Ages 18-32	26 Percent	30 Percent
Gen X	Born 1965-1976, Ages 33-44	20 Percent	23 Percent
Younger Boomers	Born 1955-1964, Ages 45-54	20 Percent	22 Percent
Older Boomers	Born 1946-1954, Ages 55-63	13 Percent	13 Percent
Silent Generation	Born 1937-1945, Ages 64-72	9 Percent	7 Percent
G.I. Generation	Born -1936, Age 73+	9 Percent	4 Percent

Note. N=2,253 total adults, and margin of error is +-2 percent. N=1,650 total Internet users, and margin of error is +-3 percent. Adapted from Pew Internet & American Life Project survey. 2008.

[a]All generation labels used, with the exception of Younger- and Older- Boomers, are the names conventionalized by *Generations: The history of America's future, 1584 to 2069,* by N. Howe and W. Strauss, 1992, Quill William/Morrow. As for Younger Boomers and Older Boomers, research suggests the two decades of Baby Boomers are different enough to merit being divided into distinct generation groups.

Table 2

Campaigns' Web Practices in the 2002 U.S. Elections

Feature	Sites with Feature Number	Percent	N*
Adapting traditional campaigning to the Web	1168	100	1168
Campaign website	965	92	1045
Candidate biography	936	90	1045
Issue positions	491	83	589
Campaign contact information	851	81	1045
E-mail address	851	81	1045
Donation information	837	80	1044
Campaign news	427	73	589
Signup to volunteer	721	69	1044
Online donations	321	55	589
Sign up to receive e-mail	429	41	1044
Campaign calendar	352	34	1044
Voter registration information	321	31	1044
Endorsements	154	26	589
Information about sending letters to the editor	29	5	589
Web campaigning			
Links to external websites	634	76	831
Photos of campaign events	250	42	589
Campaign advertisements	109	19	589
Send links from site	87	10	865

Web toolkits	80	9	858
Audio or video materials	52	9	589
Electronic paraphernalia (??)	79	9	865
Site search engine	68	8	858
Text of speeches	49	8	589
Pop-up windows	55	6	865
Online polls	41	5	865
Online letters to editors	25	3	865
Visitor comments	20	2	865
Interactive calendar	2	<1	589
Online events	3	<1	865

Note. Adapted from "Not Your Father's Internet: The Generation Gap in Online Politics," by M. Xenos and K. Foot, 2008, in W. L. Bennett (Ed.) *Civic life online: Learning how digital media can engage youth*. Cambridge, MA: The MIT Press. doi: 10.1162/dmal.9780262524827.051

Table 3

Comparison of 2008 Obama Online Campaign Web-to-Web Campaigning Features Used in 2002

Web campaigning feature	Number of 2002 sites with feature	Obama in 2008
Links to external websites	634	Yes
Photos of campaign events	250	Yes
Campaign advertisements	109	Yes
Send links from site	87	Yes
Web toolkits	80	Yes
Audio or video materials	52	Yes
Electronic paraphernalia	79	Yes
Site search engine	68	No
Text of speeches	49	Yes
Pop-up windows	55	Yes
Online polls	41	No
Online letters to editors	25	Yes
Visitor comments	20	Yes
Interactive calendar	2	Yes
Online event	3	Yes

Table 4

2008 Obama New Web Campaigning Features

Web campaigning features	Type(s) of interactivity	Potential impact	Type of communication
Embed content on other sites, like YouTube	Human to computer	Low	1-way
Find your polling location database	Human to computer	Low	1-way
Online store/ Obama merchandise	Human to computer	Low	1-way
Interactive Yahoo! maps showing campaign office locations by state	Human to computer	Low	1-way
Request a ride forms to get to the polls	Human to computer	Low	1-way
Links to each state's online applications and information about absentee ballots	Human to computer	Low	1-way
Links to each state's online information about voter registration	Human to computer	Low	1-way
Mobile website*	Human to computer	Low	2-way
Interactive maps showing, by state, McCain's negative campaigning sites	Human to computer	Low	1-way
Tax cut calculator	Human to computer	Low	1-way
Online volunteer sign up	Human to computer	Low	1-way
Volunteer for voter protection duty at polls	Human to computer	Low	1-way
Prize raffles for donations	Human to computer	Low	1-way
iPod application*	Human to computer	Low	1-way
Ability to create personal accounts with log-in, password and profile	Human to content	Medium-High	1-way

Supporter blogging	Human to content	Medium - High	2- or 3-way
Voter protection center for reporting problems with voting and voter registration	Human to content	Medium	1-way
Individual state blogs	Human to content	Medium	2- or 3-way
Spanish-speaking site	Human to content	Medium	1-way
Share your voter story	Human to content	Medium	1- or 2-way
Creation of personal campaign social network, MyBarackObama.com*	Human to content	Medium	2- or 3-way
Text messaging	Human to human	High	2- or 3-way
Communication through 16 social networking sites**	Human to human	High	2- or 3-way
Invite friends to donate	Human to human	High	2- or 3-way
Donor response match (contact the person who matched your campaign donation) "Grassroots match"	Human to human	High	3-way
Use of direct address	Text-based	High	1-way

Note. See more detailed breakout of interactive features.

[a]Sites include Facebook, MySpace, YouTube, Flickr, Digg, Twitter, Eventful, LinkedIn, BlackPlanet, Faithbase, Eons, Glee, MiGente, MyBatanga, AsianAve and DNC Partybuilder.

Table 5

Type of interactivity, Type of Communication, and Potential impact on Millennials, of Obama's 2008 Web Campaigning Features Similar to Those Used in 2002

Web campaigning feature	Type(s) of interactivity	Type of communication	Potential impact
Links to external websites	Human to computer	1-way	Low
Send links from site	Human to computer	1-way	Low
Web toolkits	Human to computer	1-way	Low
Downloadable electronic campaign paraphernalia	Human to computer	1-way	Low
Text of speeches	Human to computer	1-way	Low
Pop-up windows	Human to computer	1-way	Low
Online letters to editors	Human to computer	1-way	Low
Visitor comments	Human to content	2- or 3-way	High
Interactive calendar	Human to content	1-way or 2-way	Medium-High
Photos of campaign events	Text-based	1-way	High
Campaign advertisements	Text-based	1-way	High
Audio or video materials	Text-based	1-way	High
Online events (live chats)	Human to human	2-way or 3-way	High

Table 6

Additional Interactive Web Campaigning Features of the Internal Social Network, MyBarackObama.com

Features	Type(s) of interactivity	Potential impact	Type(s) of communication
Recruitment for general, active calling campaigns, called "neighbor to neighbor"	Human to computer	Low	1-way
Recruitment for letter-writing campaigns	Human to computer	Low	1-way
Build personal e-mail networks	Human to computer	Low	Low
Find and join others' campaign events	Human to computer	Low	1-way
Facebook connect	Human to computer	Low	1-way
Downloadable guides/ tip sheets	Human to computer	Low	1-way
Tutorial on myBO.com	Human to computer	Low	1-way
Ability to post profile photograph	Human to content	Medium	1-way
Personal profile	Human to content	Medium	1-way
Ability to edit profile settings, including issues important to the participant, and an opportunity to tell the campaign "your story"	Human to content	Medium	1-way
Personal blog within social network (separate from the main campaign blog)	Human to content	Medium to high	2- or 3-way
Activity index scores based on how much supporter does for the campaign - "social karma" point system	Human to content	Medium	2-way

Build personal online fundraising page	Human to content	Medium	1-way
Build/ create personal campaign events	Human to content	High	1-way
Build personal network of friends by inviting others	Human to human	High	2- or 3-way
Join other friend networks by invitation	Human to human	High	2- or 3-way
Invitations to other local campaign events based on your personal profile information	Human to human	High	2-way
Ability to join multiple groups of "people like me" within the campaign	Human to human	High	2- or 3-way
Action center links to volunteer campaign help: calling anyone, calling people you know, working on your own	Human to human	High	2- or 3-way
Live video streams from campaign events	Text based	Medium	2-way
Instructional videos for volunteers	Text based	Medium	2-way

Table 7

Interactive Web Campaigning Features of the Obama Campaign's iPhone and iTouch Application

Features	Type(s) of interactivity	Potential impact	Type(s) of communication
Find your local Obama HQ	Human to computer	Low	1-way
Search for local campaign events; get maps and directions	Human to computer	Low	1-way
Check call stats to see where you rank nationally (social karma point system)	Human to content	Medium	2-way
Call friends to talk about the campaign; contacts are organized by priority, depending on the needs of the campaign	Human to human	High	2- or 3-way
Receive updates via text or e-mail	Human to human	High	2- and 3-way
Share local campaign events via e-mail	Human to human	High	2- or 3-way
Watch videos and browse photos from the campaign	Text based	Medium	1-way

Table 8

Interactive Web campaigning features of the Obama campaign's wireless mobile (WAP) website

Feature	Type(s) of interactivity	Potential impact	Type(s) of communication
Links to website information	Human to computer	Low	1-way
Receive white papers via e-mail	Human to computer	Low	1-way
Download wallpapers	Human to content	Medium	1-way
Share information with friends	Human to human	High	2- or 3-way
Recruit friends to Obama mobile	Human to human	High	2- or 3-way
Receive updates via text	Human to human	High	2- or 3-way
Download videos	Text based	Medium	1-way
Download ringtones with Obama's voice	Text based	Medium	1-way

Note. WAP = Wireless Application Protocol

Table 9

Interactive Traits with Special Appeal to Millennials

Features	Type(s) of interactivity	Type(s) of communication	Qualities important to Millennials		
			Co-author or change content	Have conversations	Share or receive information
Embed content on other sites, like YouTube	Human to computer	1-way	X		
Interactive calendar	Human to content	1- or 2-way	X		
Ability to create personal accounts with log-in, password and profile	Human to content	1-way	X		
Voter protection center for reporting problems with voting and voter registration	Human to content	1-way	X		
Spanish-speaking site	Human to content	1-way	X		
Creation of personal campaign social network, MyBarackObama.com*	Human to content	2- or 3-way	X		
Ability to post profile photograph	Human to content	1-way	X		
Activity index scores based on how much supporter does for the campaign	Human to content	2-way	X		
Download wallpapers	Human to content	1-way	X		
Personal blog within social network (separate from the main campaign blog)	Human to content	2- or 3-way		X	

Photos of campaign events	Text-based	1-way		X	
Campaign advertisements	Text-based	1-way		X	
Audio or video materials	Text-based	1-way		X	
Use of direct address	Text-based	1-way		X	
Live video streams from campaign events	Text-based	2-way		X	
Instructional videos for volunteers	Text-based	2-way		X	
Watch videos and browse photos from the campaign	Text-based	1-way		X	
Donor response match (contact the person who matched your campaign donation	Human to human	3-way		X	
Text messaging	Human to human	2- or 3-way		X	
Send links from site	Human to computer	1-way			X
Receive updates via e-mail	Human to human	2- and 3-way			X
Build/ create personal campaign events	Human to content	1-way	X	X	
Download videos	Text based	1-way	X	X	
Download ringtones with Obama's voice	Text based	1-way	X	X	
Build personal online fundraising page	Human to content	1-way	X	X	
Online events (live chats)	Human to human	2-way or 3-way		X	X
Communication through 16 social networking sites	Human to human	2- or 3-way		X	X

Invite friends to donate	Human to human	2- or 3-way		X	X
Invitations to other local campaign events based on your personal profile information	Human to human	2-way		X	X
Ability to join multiple groups of "people like me" within the campaign	Human to human	2- or 3-way		X	X
Action center links to volunteer campaign help: calling anyone, calling people you know, working on your own	Human to human	2- or 3-way		X	X
Call friends to talk about the campaign; contacts are organized by priority, depending on the needs of the campaign	Human to human	2- or 3-way		X	X
Share local campaign events via e-mail	Human to human	2- or 3-way		X	X
Share information with friends	Human to human	2- or 3-way		X	X
Recruit friends to Obama mobile	Human to human	2- or 3-way		X	X
Receive updates via text	Human to human	2- or 3-way		X	X
Individual state blogs (contributors)	Human to content	2- or 3-way	X	X	X
Visitor comments	Human to content	2- or 3-way	X	X	X
Supporter blogging	Human to content	2- or 3-way	X	X	X
		Totals	16	28	16

Figure 1.

Site Map Including Links from the Campaign Home Page of Barack Obama, Organizing for America

http://my.barackobama.com/page/content/actioncenter

action center

donate

home

en espanol

last chance
donate/tshirt

Barack TV

Obama mobile
text hope to
62262

vote for change
http://www.voteforchange.com/

http://truth.voteforchange.com/

vote for change/
voter protection center

http://truth.voteforchange.com/

vote for change/
voter protection center

Obama store

Obama events

Obama news

Obama blog

Issues
* Civil Rights
* Defense
* Disabilities
* Economy
* Education
* Energy & Environment
* Ethics
* Faith
* Family
* Fiscal
* Foreign Policy
* Healthcare
* Homeland Security
* Immigration
* Iraq
* Poverty
* Rural
* Service
* Seniors & Social Security
* Taxes
* Technology
* Urban Policy
* Veterans
* Women
* Additional Issues 25

last chance
to donate
https://donate.barackobama.com/page/
contribute/standardmagnet?source=mainnav_bt_nsu_lctd

make calls

select the state
you'd like to
call

mybaracko-
bama
http://my.bara
ckobama.com/
page/dashboa
rd/private.com

Obama everywhere

Facebook   Black Planet
MySpace   Faithbase
YouTube   Eons
Flickr   Glee
Digg   MiGente
Twitter   MyBatanga
Eventful   Asian Ave
LinkedIn   DNC PartyBuilder

Obama map
* Alabama   * Montana
* Alaska   * Nebraska
* American Samoa   * Nevada
* Arizona   * New Hampshire
* Arkansas   * New Jersey
* California   * New Mexico
* Colorado   * New York
* Connecticut   * North Carolina
* Delaware   * North Dakota
* District of Columbia * Ohio
* Florida   * Oklahoma
* Georgia   * Oregon
* Guam   * Pennsylvania
* Hawaii   * Puerto Rico
* Idaho   * Rhode Island
* Illinois   * South Carolina
* Indiana   * South Dakota
* Iowa   * Tennessee
* Kansas   * Texas
* Kentucky   * Utah
* Louisiana   * Vermont
* Maine   * Virgin Islands
* Maryland   * Virginia
* Massachusetts   * Washington
* Michigan   * West Virginia
* Minnesota   * Wisconsin
* Mississippi   * Wyoming
* Missouri   55

References

Abroms, L., & Craig Lefebvre, R. (2009). Obama's wired campaign: Lessons for public health communication. *Journal of Health Communication*, *14*(5), 415-423. doi:10.1080/10810730903033000.

Barack Obama. (2007a, May 28). Adam. [Facebook update]. Retrieved from http://www.facebook.com/home.php?#/barackobama?ref=ts

Barack Obama. (2007b, May 30). Tony, Thea, and Jordan. [Facebook update]. Retrieved from http://www.facebook.com/home.php?#/barackobama?ref=ts

Bennett, W. L. (2008). Changing citizenship in the digital age. In W. L. Bennett (Ed.), *Civic life online: Learning how digital media can engage youth* (pp. 1-24). Cambridge, MA: The MIT Press. doi: 10.1162/dmal.9780262524827.001

Bennett, W.L., & Xenos, M. (2004). Young voters and the web of politics: Pathways to participation in the youth engagement and electoral campaign web spheres; working paper 20. Retrieved from http://www.civicyouth.org/PopUps/WorkingPapers/WP20BennettExecSumm.pdf

Bennett, W.L., & Xenos, M. (2007). The disconnection in online politics: The youth political Web sphere and U.S. election sites, 2002-2004. *Information, Communication & Society*, *10*(4), 443-464. doi: 10.1080/13691180701559897

Berg, J. (2008). Reaching voters on the go. *Campaigns & Elections*, *29*(10), 50. Retrieved from Academic Search Complete database.

Boyd, D. M., & Ellison, N. B. (2007). Social network sites: Definition, history, and scholarship. [Electronic version] *Journal of Computer-Mediated Communication*, *13*(1), article 11. Retrieved from http://jcmc.indiana.edu/vol13/issue1/boyd.ellison.html

Bucy, E., & Chen-Chao, T. (2007). The mediated moderation model of interactivity. *Media Psychology*, *9*(3), 647-672. doi:10.1080/15213260701283269

Connery, M. (2008). *Youth to power: How today's young voters are building tomorrow's progressive majority*. Brooklyn, New York: Ig Publishing.

Coyle, J., & Thorson, E. (2001). The effects of progressive levels of interactivity and vividness in Web marketing sites. *Journal of Advertising*, *30*(3), 65-77. Retrieved from Business Source Complete database.

Dale, A. L. and Strauss, A. B. (2007, April). *Text messaging as a youth mobilization tool: An experiment with a post-treatment survey*. Paper presented at the annual meeting of the Midwest Political Science Association, Palmer House Hotel,

Chicago, IL. Retrieved from
http://www.allacademic.com/meta/p199097_index.html

Endres, D., & Warnick, B. (2004). Text-based interactivity in candidate campaign Web sites: A case study from the 2002 elections. *Western Journal of Communication*, *68*, 322-342. Retrieved from EBSCOhost.

Ferber, P., Foltz, F., & Pugliese, R. (2007, October). Cyberdemocracy and online politics: A new model of interactivity. *Bulletin of Science, Technology & Society, 27*(5), 391-400. doi: 10.1177/0270467607304559

Findings from a nationwide survey of 18-29 year-olds (2008, September). Retrieved from Rock the Vote website: http://www.rockthevote.com/assets/publications/research/sept-2008-poll-powerpoint.ppt

Foot, K., & Schneider, S. (2006). *Web campaigning*. Cambridge, MA: The MIT Press.

Foot, K., Schneider, S., Xenos, M., & Dougherty, M. (2009). Candidates' Web practices in the 2002 U.**S.** House**,** Senate, and gubernatorial elections. *Journal of Political Marketing, 8*(2), 147-167. doi: 10.1080/15377850902813519

Fox, S., Zickuhr, K., & Smith, A. (2009, October). *Twitter and status updating*. Retrieved from The Pew Internet & American Life Project website: http://www.pewinternet.org/Experts/~/link.aspx?_id=6C747837133C4A54A4D03 51E2683478B&_z=z

Garcia, I. (2008, February 12). Barack Obama and the long tail of politics [Web log message]. Posted to http://cdblog.centraldesktop.com/cgi-bin/mt/mt-search.cgi?search=chris+anderson+longtail+obama&IncludeBlogs=1

Gibson, R., & Ward, S. (2000). A proposed methodology for studying the function and effectiveness of party and candidate Web sites. *Social Science Computer Review, 18*(3), 301-319. Retrieved from EBSCOhost.

Gomes, L. (2007, April 11). Political candidates have invaded the Web and tamed the blogs. *The Wall Street Journal*. Retrieved from http://proquest.umi.com.ezproxy.lib.ucalgary.ca/pqdweb?did=1252695651&sid=1 &Fmt=3&clientId=12303&RQT=309&VName=PQD

Greenwood, B. (2009). Pew surveys tackle Internet's future, online politics' present. *Information Today, 26*(3), 14. Retrieved from Academic Search Complete database.

Ha, L., & James, E. L. (1998). Interactivity reexamined: A baseline analysis of early business Web sites [sic]. *Journal of Broadcasting and Electronic Media, 42*(4),

457-474. Retrieved from Communication & Mass Media Complete database.

Heeter, C. (1989). Implications of new interactive technologies for conceptualizing communication. In J.L. Salvaggio & J. Bryant (Eds.) *Media use in the information age: Emerging patterns of adoption and consumer use* (pp. 217-35). Hillsdale, NJ: Lawrence Erlbaum.

How Obama used social networking tools to win. (2009, July 10). Retrieved from http://knowledge.insead.edu/contents/HowObamausedsocialnetworkingtowin090709.cfm

How young people view their lives, futures and politics: A portrait of generation next. (2007). Retrieved November 4, 2009 from Pew Research Center for The People & The Press website: http://people-press.org/report/300/a-portrait-of-generation-next

Howe, N., & Strauss, W. (2000). *Millennials rising: The next great generation*. New York: Vintage Books.

Janack, J. (2006). Mediated citizenship and digital discipline: A rhetoric of control in a campaign blog. *Social Semiotics*, *16*(2), 283-301. doi:10.1080/10350330600664862.

Kauffman, L. & Relles, B. (Creators). Barelypolitical (Poster) (2007, June 13). I got a crush… on Obama [video]. Retrieved from http://www.youtube.com/watch?v=wKsoXHYICqU

Keeter, S., Horowitz, J. M., & Tyson, A. (2008). *Gen dems: The party's advantage among young voters widens*. Retrieved from Pew Research Center for the People & the Press website: http://pewresearch.org/pubs/813/gen-dems

Kiesa, A., Orlowski, A., Levine, P., Both, D., Kirby, E.H., Lopez, M. H., Marcelo, K. B. (2006, November). *Millennials talk politics: A study of college student political engagement*. Retrieved from The Center for Information and Research on Civic Learning & Engagement website: http://www.civicyouth.org/?page_id=250

Kiousis, S. (2002). Interactivity: a concept explication. *New Media & Society*, *4*(3), 355. Retrieved from SocINDEX with Full Text database.

Kirby, E. H., & Kawashima-Ginsberg, K. (2009). Graph 1: Voter turnout by age, 1972-2008. In *The youth vote in 2008*. Retrieved from The Center for Information & Research on Civic Learning and Engagement website: http://www.civicyouth.org/PopUps/FactSheets/FS_youth_Voting_2008_updated_6.22.pdf

Kirby, E. H., Marcelo, K. B., Gillerman, J., & Linkins, S. (2008, June). *The youth vote in the 2008 primaries and caucuses*. Retrieved from The Center for Information and

Research on Civic Learning & Engagement website:
http://www.civicyouth.org/?p=302

Kohut, A., Keeter, S., Doherty, C., Dimock, M., Wike, R., Parker, K., …Tyson, A. (2008, January). *Internet's broader role in campaign 2008: Social networking and online videos take off*. Retrieved from Pew Research Center for the People & the Press website: http://people-press.org/report/384/

Levine, P., Flanagan, C., & Gallay, L. (2009). *The Millennial pendulum: A new generation of voters and the prospects for a political realignment*. Retrieved November 4, 2009 from New America Foundation website: http://www.newamerica.net/publications/policy/millennial_pendulum.

Marcelo, K. B., & Kirby, E.H. (2008, October). *Quick facts about U.S. young voters: The presidential election year 2008*. Retrieved from The Center for Information & Research on Civic Learning and Engagement website: http://www.civicyouth.org/?p=323

McGirt, E. (2009, March 17). How Chris Hughes helped launch Facebook and the Barack Obama campaign [Electronic version]. *Fast Company*. Retrieved from http://www.fastcompany.com/magazine/134/boy-wonder.html

McMillan, S. J. (2000). Interactivity is in the eye of the beholder: Function, perception, involvement, and attitude toward the Web site [sic]. In M. A. Shaver (Ed.), Proceedings of the 2000 Conference of the American Academy of Advertising (pp. 71-78). East Lansing, MI: Michigan State University.

McMillan, S. J. (2002a). A four-part model of cyber-interactivity: Some cyber-places are more interactive than others. *New Media & Society*, *4*(2), 271. Retrieved from Academic Search Complete database.

McMillan, S. J. (2002b). Exploring models of interactivity from multiple research traditions: Users, documents, and systems. In L. Lievrouw & S. Livingston (Eds.), *Handbook of new media* (pp.162-182). London: Sage. Retrieved from http://web.utk.edu/~sjmcmill/Research/research.htm

McMillan, S. J., Hoy, M. G., Kim, J., & McMahan, C. (2008). A multifaceted tool for a complex phenomenon: Coding Web-based interactivity as technologies for interaction evolve. *Journal of Computer-Mediated Communication, 13*. 794-826. doi:10.1111/j.1083-6101.2008.00420.x

Millennials: A portrait of generation next. Confident. Connected. Open to change. (2010, February). Retrieved March 15, 2011 from the Pew Research Center website: http://pewresearch.org/millennials/

Mobile youth around the world. (2010, December) *The Nielsen Company*. Retrieved

March 15, 2011 from http://www.nielsen.com/us/en/insights/reports-downloads/2010/mobile-youth-around-the-world.html?status=success

Montgomery, K. C. (2008). Youth and digital democracy: Intersections of practice, policy, and the marketplace. In W. Lance Bennett (Ed.), *Civic Life Online: Learning How Digital Media Can Engage Youth* (pp. 25-50). Cambridge, MA: The MIT Press. doi:10.1162/dmal.9780262524827.025

Obama, B. (2008a). *Organizing for America*. Retrieved from http://www.barackobama.com.

Obama, B. (2008b, November 4). Remarks of President-elect Barack Obama: Election Night. Retrieved from Organizing for America website: http://www.barackobama.com/2008/11/04/remarks_of_presidentelect_bara.php

Oblak, T. T. (2003). Boundaries of interactive public engagement: Political institutions and citizens in new political platforms. *Journal of Computer-Mediated Communication*, *8*(3), 1. Retrieved from EBSCOhost.

Pontell, J. (2009, January 27) Stuck in the middle. *USA Today*. Retrieved from http://www.usatoday.com/printedition/news/20090127/column27_st.art.htm

Preliminary CIRCLE projection: Youth voter turnout up. (2008, November 5*)*. Retrieved from The Center for Information and Research on Civic Learning and Engagement (CIRCLE) website: http://www.civicyouth.org/?p=322

Rafaeli, S. (1988). Interactivity: From new media to communication. In R.P. Hawkins, J.M. Wiemann, & S. Pingree (Eds.). *Advancing Communication Science: Merging Mass and Interpersonal Processes* (pp. 110–34). Newbury Park, CA: Sage Publications

Rafaeli, S., & Sudweeks, F. (1997). Networked interactivity. *Journal of Computer-Mediated Communication*, *2*(4). Retrieved from ERIC database.

Rainie, L., & Horrigan, J. (2007, January 17). *Election 2006 online*. Retrieved from The Pew Internet & American Life Project website: http://www.pewinternet.org/Reports/2007/Election-2006-Online.aspx

Rainie, L., Horrigan, J., & Cornfield, M. (2005, March 6). *The Internet and campaign 2004*. Retrieved from The Pew Internet & American Life Project website: http://pewinternet.org/Reports/2005/The-Internet-and-Campaign-2004.aspx

Rapaport, R. (2000, May 29). Net vs. Norm. *Forbes.com*. Retrieved from http://www.forbes.com/asap/2000/0529/053_print.html

Reich, B., & Solomon, D. (2007, February) 2006: Finally, campaigns plug in — for real. *Campaigns & Elections*. p. 39.

Sifry, M. (2008, October 24). How much is YouTube worth to Obama and McCain? In *TechPresident*. Retrieved from http://techpresident.com/node/6454

Smith, A. (April, 2009). *The Internet's role in campaign 2008*. Retrieved from The Pew Internet & American Life Project website: http://www.pewinternet.org/Reports/2009/6--The-Internets-Role-in-Campaign-2008.aspx

Smith, A., & Rainie, L. (2009, June 15). *The Internet and the 2008 election*. Retrieved from The Pew Internet & American Life Project website: http://www.pewinternet.org/Reports/2008/The-Internet-and-the-2008-Election.aspx

Song, I., & Bucy, E. P. (2007). Interactivity and political attitude formation: A mediation model of online information processing. *Journal of Information Technology & Politics*, *4*(2), 29-61. doi:10.1080/19331680802076082

Song, J., & Zinkhan, G. (2008). Determinants of perceived Web Site [sic] interactivity. *Journal of Marketing*, *72*(2), 99-113. Retrieved February 8, 2009 from Business Source Complete database.

Soon Park, H., & Marina Choi, S. (2002). Focus group interviews: The Internet as a political campaign medium. *Public Relations Quarterly*, *47*(4), 36. Retrieved from EBSCOhost.

Stelter, B. (2008, March 27). Finding political news online, young viewers pass it along [Electronic version]. *The New York Times*. Retrieved from LexisNexis Academic database.

Steuer, J. (1992). Defining virtual reality: Dimensions determining telepresence. *Journal of Communication*, *42*(4), 73. Retrieved February 8, 2009 from Humanities International Complete database.

Stromer-Galley, J. (2000). On-line interaction and why candidates avoid it. *Journal of Communication*, *50*(4), 111-132. Retrieved from EBSCOhost.

Stromer-Galley, J., & Foot, K. A. (2002). Citizen perceptions of online interactivity and implications for political campaign communication. *Journal of Computer-Mediated Communication*, *8*. http://jcmc.indiana.edu/vol8/issue1/stromerandfoot.html

Sundar, S., Kalyanaraman, S., & Brown, J. (2003). Explicating Web Site [sic] interactivity: impression formation effects in political campaign sites. *Communication Research*, *30*(1), 30-59. Retrieved from EBSCOhost.

Tedesco, J. C. (2006). Web interactivity and young adult political efficacy. In A. P. Williams & J. C. Tedesco (Eds.) *The Internet election: Perspectives on the web [sic] in campaign 2004* (pp. 187-202). Lanham, MD : Rowman & Littlefield.

Tedesco, J. C. (2007). Examining Internet interactivity effects on young adult political information efficacy. *American Behavioral Scientist*, *50*(9), 1183-1194. doi:10.1177/0002764207300041

Tedesco, J. C., McKinney, M. S., & Lee Kaid, L. (2007). On the young voters' agenda: Exploring issue salience during the 2004 presidential election. *American Behavioral Scientist*, *50*(9), 1290-1297. doi:10.1177/0002764207300042

The Center for Information and Research on Civic Learning & Engagement (CIRCLE). (2006, November 8,). *Youth voter turnout sharply up in 2006 midterm elections* [press release]. Retrieved from www.civicyouth.org/PopUps/PR midterm 06.pdf

The Center for Information and Research on Civic Learning and Engagement (CIRCLE). (2008, January 4). *Revised estimates show higher turnout than expected: Iowa youth turnout rate more than triples* [Press release]. Retrieved from http://www.pewtrusts.org/news_room_detail.aspx?id=33102

The Center for Information and Research on Civic Learning and Engagement (CIRCLE), (2009, April 28) *New census data confirm increase in youth voter turnout in 2008 election* [Press release]. Retrieved from http://www.civicyouth.org/PopUps/Census_Youth_Voter_2008.pdf

The Internet's role in political campaigns: Utilization by 2006 United States senatorial candidates. (2006, May 23). Retrieved from The Bivings Group website: http://www.bivingsreport.com/2006/the-internets-role-in-political-campaigns/

Trammell, K. D. Sweetser (2007). Candidate campaign blogs: directly reaching out to the youth vote. *American Behavioral Scientist*, *50*(9), 1255-1263. doi:10.1177/0002764207300052

Trippi, J. (2004). *The revolution will not be televised: Democracy, the Internet, and the overthrow of everything*. New York: Regan Books.

U.S. Department of Commerce. (2002). *Demographic trends in the 20th century: Census 2000 special reports*. Washington DC: Government Printing Office. Hobbs, F. & Stoops, N. Retrieved from http://factfinder.census.gov/jsp/saff/SAFFInfo.jsp?_pageId=gn8_refshelf&_submenuId=tools_2

Warnick, B., Xenos, M., Endres, D., and Gastil, J. (2005). Effects of campaign-to-user and text-based interactivity in political candidate campaign web sites [sic]. *Journal of Computer-Mediated Communication, 10*(3), article 5. Retrieved from http://jcmc.indiana.edu/vol10/issue3/warnick.html

Will.i.am. (Producer). (2008). *Yes we can: Barack Obama* [music video]. Retrieved August 5, 2009 from http://www.youtube.com/watch?v=jjXyqcx-mYY

Williams, A., Trammell, K. D., Postelnicu, M., Landreville, K. D., & Martin, J. D. (2005). Blogging and hyperlinking: use of the web to enhance viability during the 2004 U.S. campaign. *Journalism Studies, 6*(2), 177-186. doi:10.1080/14616700500057262

Williams, C. B., & Gulati, G. J. (2007, August). Social networks in political campaigns: Facebook and the 2006 midterm elections. Paper presented at the annual meeting of the American Political Science Association, Chicago, IL. Retrieved May 27, 2009 from http://www.allacademic.com/meta/p208735_index.html

Williams, C. B., & Gulati, G. J. (2008, March 4). The political impact of Facebook: Evidence from the 2006 midterm elections and 2008 nomination contest. In Christopher Winbush (Ed.), *Politics & Technology Review, March*, 11-21.

Winograd, M., and Hais, M. (2008). *Millennial makeover: MySpace, YouTube and the future of American politics*. New Brunswick, New Jersey and London: Rutgers University Press.

Wu, G. (2006). Conceptualizing and measuring the perceived interactivity of Websites [sic]. *Journal of Current Issues & Research in Advertising, 28*(1), 87-104. Retrieved from Business Source Complete database.

Xenos, M., & Foot, K. (2008). Not your father's Internet: The generation gap in online politics. In W. L. Bennett (Ed.) *Civic life online: Learning how digital media can engage youth* (pp. 51-70). Cambridge, MA: The MIT Press. doi: 10.1162/dmal.9780262524827.051

Yin, R. K. (2003). *Case study research: Design and methods (3rd ed.)*. Thousand Oaks: Sage.

Young voters in the 2008 presidential election (2008, November 24). Retrieved from The Center for Information and Research on Civic Learning and Engagement website: http://www.civicyouth.org/?p=324

Young voters turn out in Michigan primary (2008, January 16). Retrieved from The Pew Charitable Trusts website: http://www.pewtrusts.org/news_room_detail.aspx?id=33608

Your other tube: Audience for video sharing sites soars (2009, July 29). Retrieved from The Pew Research Center for The People & The Press website: http://pewresearch.org/pubs/1294/online-video-sharing-sites-use