PROJECT FOR EXCELLENCE IN JOURNALISM

McCain vs. Obama on the Web:
A Study of the Presidential Candidate Web Sites

Many observers have suggested the 2008 presidential campaign was the first Internet election, in which campaigns and citizens would make extensive use of the Web for organizing, fund-raising, networking, and announcing news.

With roughly seven weeks left in the final phase of the campaign, how are the campaigns using the Web? How developed are their Web campaigns? Which candidate has the edge online, and how so?

A new study by the Pew Research Center's Project for Excellence in Journalism finds both campaigns' official sites are now quite advanced beyond anything we saw in previous years. For much of the campaign, Obama enjoyed a clear advantage in the new medium. Yet in the last few weeks, much as presidential preference polls have tightened, the McCain campaign has narrowed the gap online, substantially adding features and content since his nomination at the Republican Convention. New features, such as a social networking component, now rivals Obama's. Nonetheless, entering the last turn in the race, Obama's online social network of registered users is more than five times larger than McCain's, according the sites' own accounting, and his site draws almost three times as many unique visitors each week.

Among the study's findings:

- Since the Republican National Convention, the official McCain Web site, www.johnmccain.com, has substantially improved its customization and socialization tools to encourage online networking with fellow supporters and offline grassroots activity. Despite this, it still lags behind Obama's site in various ways.

- Obama's Web site, www.barackobama.com, makes it much easier for supporters to take action. They can receive up-to-the-minute campaign news, pick up talking points, download campaign posters and flyers, make computer-assisted phone calls to undecided voters in swing states, and map out door-to-door canvassing operations in their area.

- Even after the McCain enhancements, Obama has more MySpace friends by a nearly 6-to-1 margin, more Facebook supporters by more than a 5-to-1 margin, twice as many videos posted to his official YouTube channel, and has more

YouTube channel subscribers, by an 11-to-1 margin.

- Obama's site links to mainstream media news stories about his candidacy more frequently than does McCain's, which tends to bypass the mainstream media and link in its "news" section instead to campaign-generated press releases. That has ebbed somewhat recently, as the site has begun linking to news stories about Palin.

- The word "change"—the motto of the Obama campaign—is now less prominent on the information pages of the Obama site than on McCain's. On the Republican's site "change" is among the top 20 most frequently used words.

- The Obama Web site provides far more text than McCain's, by virtue of the extensive archive of Obama's speeches (in August alone, 50,676 words on Obama's Web site versus 21,021 on McCain's). If you take speeches by both candidates out of the mix, Obama's site still features more words than McCain's, but they are closer.

- The McCain campaign has fully integrated his vice presidential pick, Sarah Palin—both textually and visually—into the Web site's home page, while the Obama home page denotes his vice presidential pick, Joe Biden, much less prominently.

Aside from any differences in design and functionality, the Obama Web site has attracted many more users than McCain's site. According to Hitwise, an Internet usage research company, the Obama Web site attracted a 72% share of visits to the two presidential Web sites for the week ending August 30, compared to 28% for McCain's. Those percentages are consistent with the traffic between the two sites since June 28, when Hitwise began measuring usage of the presidential candidate Web sites.

These are among of the findings of a multi-stage study of candidate Web sites in the 2008 presidential campaign. The Project, which is part of the Pew Research Center in Washington, D.C., and is funded by the Pew Charitable Trusts, first audited the campaign Web sites in July 2007 during the early phase of the race. That initial study examined Web sites of the 19 announced presidential candidates. In that analysis, we found highly interactive communities but also some stark differences among the candidate sites, with Democrat Barack Obama's emerging as one of the most advanced and Republican John McCain's lagging far behind.

The Project re-examined the McCain and Obama Web sites in August and again September of 2008—before and after the national political conventions—deepening the original examination to include archived speeches, issue position pages, social network activity and new tools of engagement.

I.   ENGAGEMENT AND PARTICIPATION

During the primary-election examination, the Obama Web site focused heavily—more than that of any other candidate from either party—on engaging supporters and motivating them to turn their enthusiasm into on-the-ground, grassroots activities.

Since the primary season, the Obama campaign has managed to stay more than a few steps ahead of the McCain campaign on both counts. But now the McCain campaign has taken steps to close the gap. It has redesigned his Web site to add more information, more customization tools, and advanced social networking capabilities.

To measure how much the Web sites allowed users to engage and participate online, PEJ analyzed the sites on the basis of four general elements: What interactive features were present that allowed users to engage or converse with the campaign? How much customization was there to enable users to shape their Web experiences? What information delivery tools existed to allow users to easily access campaign updates? And to what extent did the Web sites facilitate grassroots activities such as donating and raising money, hosting gatherings, registering voters, making campaign calls, and canvassing door-to-door?

Engagement

Both campaign Web sites offer two ways of facilitating user engagement—allowing people to communicate with the campaign, personalize their own pages, and sign up to receive information updates.

For most of the summer, however, many of these features on the McCain site were not yet operational. They are now up and running.

The Obama customization page, "MyBarackObama" or "MyBO," has been extensive and active for months. Users can set up their own "dashboard" home page which closely resembles a Facebook page. They can post a profile, write a personal blog and link to their favorite Obama-related groups or individuals in their "network" of fellow Obama supporters.

A Sample "MyBO" Page
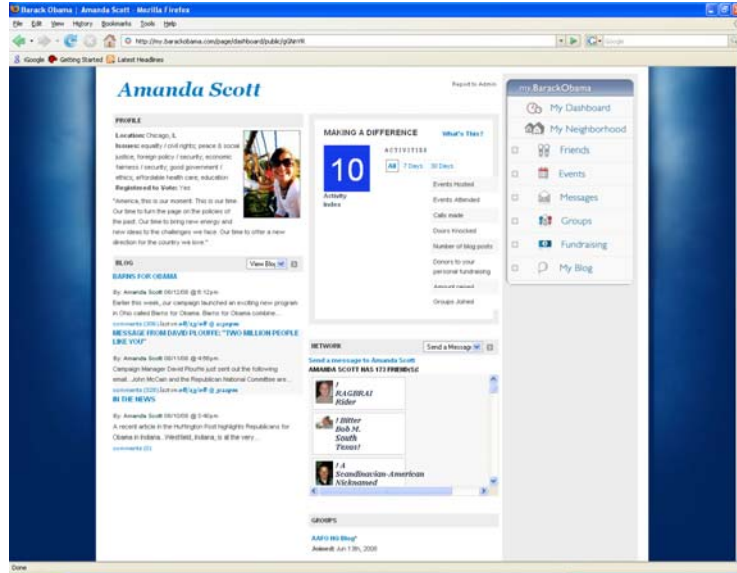
The McCain Web site offers customization tools through "McCainSpace," a feature advertised as early as 2007 but not fully functioning until August of 2008. As late as August 1, the only option was to create a personal page—and even that was still not really working. That page displayed only a generic note that the page was "under construction" and they would notify us when it went live. PEJ was notified on August 28.

As that page went live, McCainSpace also launched additional customization features. Users can now post McCain videos, pictures and blogs to their home pages, and with a few clicks send any of that material out to users of 25 different social networking sites.

"McCainSpace" Page—August 1, 2008
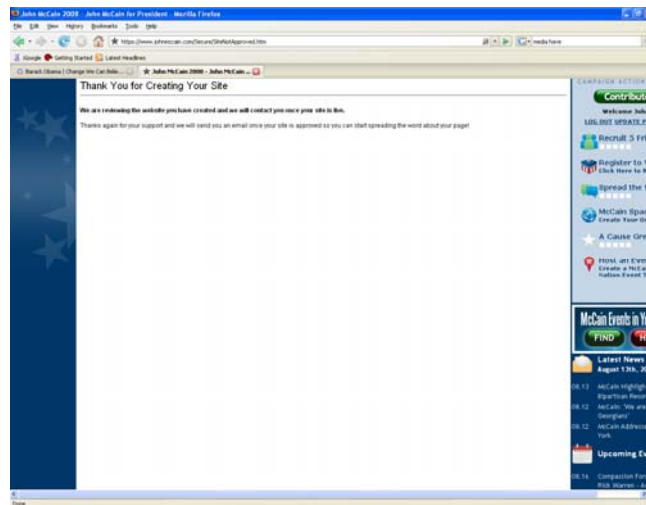
"McCainSpace" Page – September 9, 2008

Both candidate Web sites offer targeted information to people of different demographic groups. Here again, the McCain campaign gained ground between August and September. The dropdown menus from the "People" link atop the Obama home page features a menu of 20 different demographic groups, four of which have been added since early August. The McCain site (he uses the term "coalitions" instead of "people") links to 17 groups, but 11 of those were added in recent weeks.

Engaging Demographic Groups

Black-colored groups existed on August 8, 2008. Red groups were added since then.

	Obama	McCain
African Americans	X	X
Americans Abroad	X	
Americans with Disabilities	X	X
Arab Americans	X	X
Asians & Pacific Islanders	X	X
Bipartisans (Citizens for McCain)		X
Catholics		X
Environmentalists / Environmental Stewardship Coalition	X	X
People of Faith	X	
Future Leaders (25 to 45)		X
Generation "O" (25 to 35)	X	
Health Care Professionals		X
Jewish Americans / Jewish Advisory Coalition	X	X
Kids (Under 18)	X	
Labor	X	
Latinos / Hispanics	X	X
Lawyers		X
Lebanese Americans		X
Lesbian, Gay, Bisexual, Transgender	X	
Native Americans	X	
Racing Fans		X
Republicans for Obama	X	
Rural Americans	X	
Seniors	X	
Small Business Leaders		X
Sportsmen		X
Students	X	
Veterans	X	X
Women	X	X

Source: PEJ research of candidate Web sites, August 8 and September 9, 2008

Web Site Engagement Tools:
Conversation and Customization Summary

	2007		August 2008		September 2008	
	Obama	McCain	Obama	McCain	Obama	McCain
Conversation and customization						
Blog commenting	Y	Y	Unchanged	Unchanged	Unchanged	Unchanged
"My" customization	Y	Y	Enhanced	Enhanced	Unchanged	Enhanced
User-created blogs	Y	N	Unchanged	Unchanged	Unchanged	Launched
Demographic groups	Y	N	Enhanced	Launched	Enhanced	Enhanced

Finally, both Web sites offer RSS feeds and let users sign up to e-mail updates. Since the primary season, Obama has added mobile phone text updates to his list of delivery options. The campaign, not entirely successfully, attempted to use this to announce

Obama's vice presidential pick, offering users an opportunity to become "the first to know" about the news.

Neither candidate offers podcasts of campaign information, something only a few candidates offered during the primary season.

Web Site Engagement Tools: Information Delivery Summary						
	2007		August 2008		September 2008	
	McCain	Obama	McCain	Obama	McCain	Obama
Information delivery						
RSS	Y	Y	Unchanged	Unchanged	Unchanged	Unchanged
Podcasts	N	N	Unchanged	Unchanged	Unchanged	Unchanged
Email updates	Y	Y	Unchanged	Unchanged	Unchanged	Unchanged
Mobile updates	N	N	Unchanged	**Launched**	Unchanged	Unchanged
Search capability	Y	N	Unchanged	Unchanged	Unchanged	Unchanged

Source: PEJ research of candidate Web sites, August 8 and September 9, 2008.

Participation and Grassroots Activity

Both candidate Web sites have encouraged users to volunteer their labor, with tools allowing users to register to vote and organize meetings with neighbors. But Obama's Web site does so in a way that is more comprehensive, more sophisticated and easier to use than McCain's.

Number of Web-based Tools that Facilitate Grassroots Activities
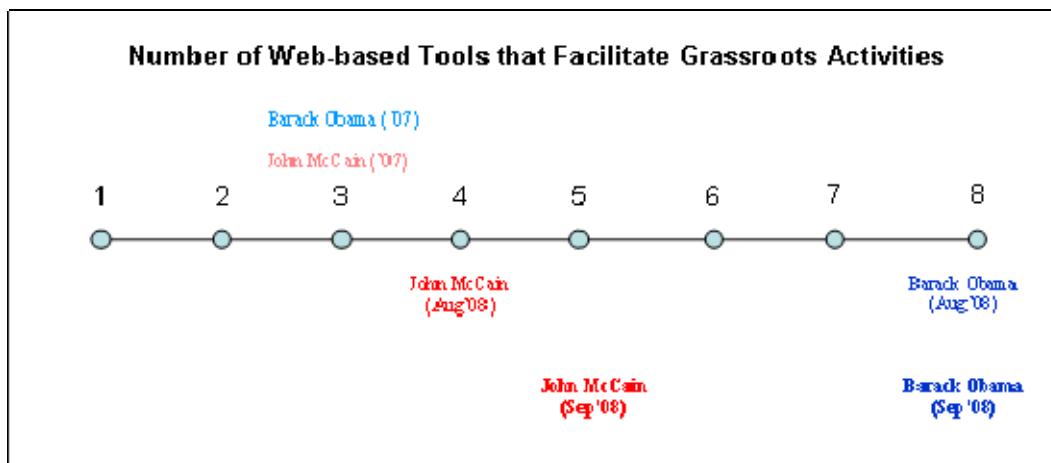
My.barackobama.com (MyBO), allows users to join groups, connect with other users, plan events, raise money and volunteer. And one new element in particular stands out: a dynamic Web-based phone banking tool.

This tool allows a user to—with only a few mouse clicks—make phone calls from their homes to undecided voters in key swing states using campaign-generated scripts. The scripts even change and adapt as the call progresses, depending on how voters respond to

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questions. The web page then allows volunteers to record and save the responses into the Obama database

Obama's Phone-banking Tool
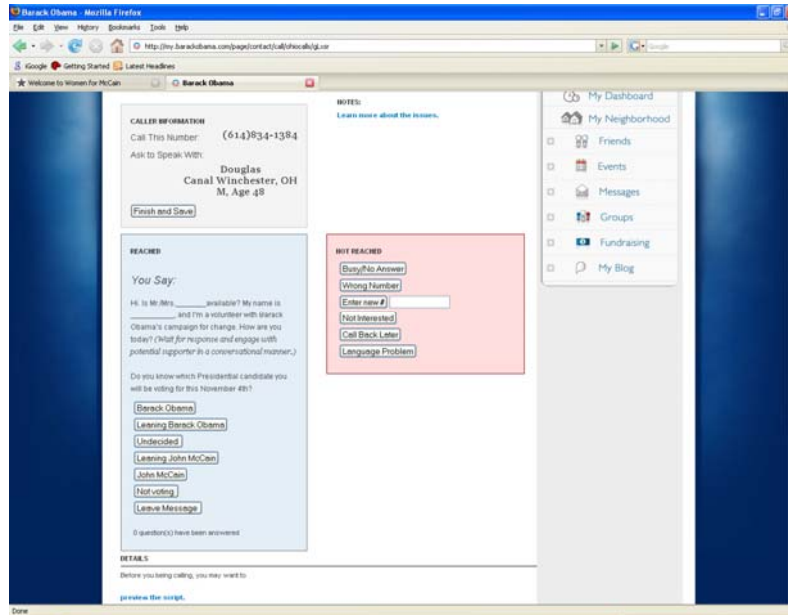
As the intro language reads: "My.barackobama.com gives you the power to make a difference in this election. With the ability to create your own groups, organize your own events, and write your own blogs, you have the basic tools for grassroots organizing at your fingertips. Now all you have to do is use them effectively."

The McCain site offers only the more basic grassroots functions and with some more difficulty for the user. Supporters are able to donate and raise money, create or find a local event, volunteer for the campaign, and share talking points with others. This was one area that saw little change from August to September.

One technique both campaigns employ is awarding "points" to users who engage in the most activities, providing supporters a measure of their impact on the campaign. McCain's Web site also posts a "leaderboard" that ranks the top activists of each week.

Grassroots Activity Tools

Grassroots activity	2007		August 2008		September 2008	
	Obama	McCain	Obama	McCain	Obama	McCain
Donate money	Y	Y	Unchanged	Unchanged	Unchanged	Unchanged
Host gatherings	Y	Y	Unchanged	Unchanged	Unchanged	Unchanged
Register to vote	Y	Y	Unchanged	Unchanged	Unchanged	Unchanged
Compete for points	N	N	**Launched**	**Launched**	Unchanged	Unchanged
Raise funds	N	N	**Launched**	**Launched**	Unchanged	Unchanged
Canvass undecideds	N	N	**Launched**	Unchanged	Unchanged	Unchanged
Resource library	N	N	**Launched**	Unchanged	Unchanged	Unchanged
Phone bank	N	N	**Launched**	Unchanged	Unchanged	Unchanged

Source: PEJ research of candidate Web sites, August 8 and September 9, 2008.

II.   SOCIAL NETWORKING

Social networking has become a prominent element on both candidates' campaigns. In the early primary season in 2007, PEJ found that 16 of the 19 candidate Web sites linked to or otherwise utilized MySpace or Facebook. And, in claiming the Democratic nomination, Obama announced that social networking was a major key to his success.[1]

In the general election battle, Obama's campaign has remained deeply active in the social networking world and has maintained dominance over McCain. Coming out of the Republican Convention, McCain has stepped up his presence in the social networking world, but there is still a long gap.

Candidates on Social Network Web Sites

	Obama	McCain
Facebook	X	X
Myspace	X	X
YouTube	X	X
Digg	X	X
Flickr	X	X
Twitter	X	
Eventful	X	
LinkedIn	X	X
BlackPlanet	X	
Faithbase	X	
Eons	X	
Glee	X	
MiGente	X	
MyBatanga	X	
AsianAve	X	

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[1] Chris Hughes, an original Facebook founder, joined the Obama campaign in early 2007 and engineered its media strategy, building online social networking tactics beyond personal computers and the Web to mobile devices and the offline world. Brian Stelter, "The Facebooker Who Friended Obama," New York Times, July 7, 2008.

McCain's Web site does not link to any social networking sites on its home page but maintains a presence on six: MySpace, Facebook, YouTube, Digg, Flickr and—added in September—LinkedIn. But is it up to supporters to find these pages on their own. The McCain Web site also recently added a tool that allows members of 27 different social networking sites to quickly forward Web content—text, photos, and video—to fellow social networkers.

In addition, unofficial, user-created groups that support for McCain exist on three other networking sites: BlackPlanet, targeted at the African American community, Faithbase, a Christian social networking site and Eons, which calls itself the online community for (baby) boomers.

MySpace and Facebook

A close look at listed MySpace "friends" and Facebook supporters on the popular social networking sites reveals the tremendous advantage established by Obama, despite recent steps by the McCain campaign at gaining ground.

As of early September, Obama has more than a 5-to-1 lead over McCain in number of friends. This is down from a 7-to-1 advantage a month earlier.

A larger social networking base gives the Obama campaign a more sizeable built-in audience of supporters for direct updates and appeals.

MySpace Friends/Facebook Supporters

	Obama	McCain	Biden	Palin
MySpace	510,799	87,852	13,981	7,268
Facebook	1,726,463	309,691	46,861	107,298

Source: PEJ count of friends/supporters on MySpace and Facebook as of September 9, 2008.

Barackobama.com adds one other social networking tool, a complement to the campaign-sponsored Web site fightthesmears.com, which was conceived to dispel misleading assertions about the candidate.[2] The official campaign site enlists supporters as fact-checkers, to dispel false assertions—once exclusively the domain of the press and campaigns.

YouTube

Similar to the lopsided social networking campaign, McCain's official YouTube channel as of August had fewer than a quarter as many videos as Obama's. The Obama channel also had about five times as many subscribers, and most telling, more users have visited Obama's YouTube channel page, by a staggering 11-to-1 margin.

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[2] Ibid.

Through a series of video ads painting Obama as an inexperienced "celebrity," McCain gained some ground on Obama in recent weeks, though it made little real dent in the Obama lead.

After the McCain campaign posted the videos "Celebrity," and "The One," which mocked the press and Obama, McCain's YouTube channel outpaced Obama's for seven straight days.[3] Since then, the numbers of new subscribers and videos watched on the McCain YouTube channel have grown at a higher rate than on the Obama channel. That has narrowed the gap of videos seen each day, however, only slightly.

Key YouTube Statistics

	August 2008		September 2008	
	Obama	McCain	Obama	McCain
Videos posted	1,111	245	1,239	260
Videos watched	21,012	9,078	24,686	9,900
Channel subscribers	69,616	12,471	83,324	17,817
Channel visitors	15,202,915	1,040,438	15,939,665	1,329,674

Source: YouTube, as of September 9, 2008.

But by all indications, Obama continues to be more prominent on YouTube. In absolute terms—number of channel visitors, new subscribers, videos watched and new videos posted—he continues to far outpace McCain.

III.   CANDIDATE SITES AS INFORMATION SOURCES

If part of the mission of the Web campaign is to offer your own message in place of or before the press corps, what information about the candidate, his background and policy stances do potential voters receive?

To get a sense of the content the candidates put up on their sites, PEJ extended its 2007 audit of candidate biographies to include four other elements as well, including issue pages, links to mainstream news media reports, press releases and videos.

Overall, we found that mainstream news plays only a supporting role to campaign-produced content. Press articles are mostly used to legitimize the candidates' policy positions, with negative or unrelated content removed. Instead, issue positions, speeches, videos—especially campaign ads—and biographies dominate.

The 'Newsroom'

How are these sites defining, categorizing and presenting "news" content?

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[3] Stephen Dinan, "McCain Takes Lead on YouTube Hits," The Washington Times, August 8, 2008.

Both sites have broadened the "news" category to include campaign-produced content, including press releases, blogs, speeches, videos, photo galleries and issue positions, with mainstream media articles often less prominent.

Based on PEJ's August 2008 content analysis, the McCain news section (In the News) is far more likely than the Obama site to use its own press releases for news posts rather than media reports. About 40% of the news posts on the McCain site were their own press releases versus just 12% on the Obama news page. The McCain home page also links to other campaign-produced media, including a "Weekly Radio Address" (digital streaming audio), and "Photos of the Week" taken mostly by campaign staff on the trail.

In contrast, the Obama home page news section (Obama News) usually links directly to mainstream media news excerpts from the home page. However, the blog section of his Web site (Obama Blog) is given prominence over the news section on the home page. Altogether, blog content makes up almost two-thirds of all news content on the home page, with a regular "Morning News" post containing a handful of excerpted articles from the mainstream.

Issues

The Issues sections of the Web sites are places where Obama and McCain promote their agendas directly. Obama gives positions on 23 separate issues, while McCain provides details on 17 issues.

Top Five Issues by Candidate

Obama		McCain	
Issue	**Word Count**	**Issue**	**Word Count**
Technology	5,270	National security	4,074
Family	3,298	Veterans	3,302
Urban policy	3,261	Technology	2,731
Health care	2,574	Judicial philosophy	1,677
Foreign policy	2,187	Health care	1,639

Source: PEJ research of candidate Web sites, August 8, 2008.

If priorities for leadership can be gleaned from the number of words devoted to each subject, Obama and McCain have starkly different agendas. McCain generally devotes more space to foreign policy and defense. For Obama, families and urban policy trumps foreign policy.

Each site offers some unique issue pages that appeal to their core constituencies. McCain, for his part, seeks to boost his conservative credentials with a G.O.P. membership that has been at times been critical of his campaign. In "Judicial Philosophy" McCain is critical of judges who "legislate from the bench." And, targeting social issues, McCain has a section on "Sanctity of Life," which favors overturning Roe v. Wade and on "Second Amendment," affirming his support for the rights of individuals to keep and bear arms.

Obama has an Issues section devoted to "Faith," which calls for "a deeper, more substantive discussion about the role of faith in American life."

McCain does have a page on his site detailing his stance on select issues compared with Obama, but this is not featured in the Issues section, and presents his own subjective characterizations of the Democrat's policies.[4]

The Issues pages showed only a few changes from August to September. The Obama Web site dropped seven topics—agriculture, arts, child advocacy, Katrina, science, sportsmen and transportation—merging agriculture with a topic page on rural policy and eliminating the rest. The McCain site added sections on education and technology.

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[4] The Decision Center. (http://www.johnmccain.com/decisioncenter/) Retrieved August 13, 2008.

Issues at a Glance

	Obama	McCain
Agricultural policies/Rural	X	X
Civil rights	X	
Defense	X	
Disabilities	X	
Economy	X	X
Education	X	X
Climate change/Energy/ Energy and the environment	X	X
Ethics/Ethics reform	X	X
Faith	X	
Family	X	
Fiscal	X	
Foreign policy	X	
Health care	X	X
National security/Homeland security	X	X
Immigration	X	X
Iraq	X	X
Judicial philosophy		X
National heritage		X
Poverty	X	
Sanctity of life		X
Second Amendment		X
Service	X	
Seniors and Social Security	X	
Space		X
Technology	X	X
Urban policy	X	
Veterans	X	X
Arts	X	
Child advocacy	X	
Katrina	X	
Science	X	
Sportsmen	X	
Transportation	X	

Source: PEJ research of candidate Web sites,
September 9, 2008. Red text demotes pages that were
on the sites as of August 8, 2008 but deleted since then.

Video

Both candidates use video content on their home pages. The McCain site regularly introduces Web and television ads on the main section of the home page, while Obama's branded channel "BarackTV" is a fixture on the right sidebar, and plays campaign ads, recent speeches and live streaming video from the campaign trail.

While video content varies from day-to-day, the Obama Web site utilizes video more regularly in various sections of the site than does the McCain site. Videos from the mainstream media, campaign and third-party sources (mostly volunteers) are a staple of the Obama blog, whereas video on the McCain Web site is generally confined to the home page, the Multimedia section and is select issue pages.

Spanish Translation

Both presidential candidates are in a pitched battle for Hispanic votes come November. Each candidate has a Spanish language version of his Web site, targeting Spanish-speaking eligible voters. So how do these Web sites compare with their English language counterparts?

On McCain's Spanish language Web site, the content is limited to the home page, biographies and synopses of issue positions. If a Spanish speaker wants to read more about an issue, he or she is directed to the full issues page on the English language site.

Obama's translated site is similarly sparse on issue positions, offering shorter summaries of the issue pieces than on the English language site. Both versions of Obama's Web site host a page devoted to Latinos (People). The coalition page provides a summary of Obama's positions on "Hispanic issues" in Spanish and a "Latino Blueprint for Change" in English.

One key substantive difference is the McCain campaign's treatment of immigration as an issue on Spanish language Web site. Border security is the main focus of McCain's summary position on both the English and Spanish pages, but the Spanish version is augmented by text that promotes the U.S. as a "gleaming city on the hill" and vows McCain will implement solutions that "combine compassion with the necessities of our economy."

IV. The V.P. Announcements

Sarah Palin

After the GOP convention, McCain's Web site fully integrated Sarah Palin into the home page—both visually and textually. Of the 17 pictures on the home page, nine feature Palin, and the two largest and most prominent photographs on the page feature Palin and McCain together. In the 12 days after Palin's announcement, almost 20 of the 40 news stories featured on McCain's Web site featured Palin.

The McCain Web site devotes a page to introducing Sarah Palin with three videos: a four-minute biographical piece, her remarks following McCain's VP announcement, and her speech to the Republican National Convention. The page also contains the text of her remarks the announcement of her selection.

Joe Biden

The Obama campaign incorporated its vice-presidential nominee Joe Biden into the Web site, but only to limited degree. Gone is the "Barack Obama: Change We Can Believe In" home page tagline, which was replaced by "Barack Obama and Joe Biden: The Change We Need." The main Web site banner also includes a photo of both men on the Democratic ticket.

The substantive changes to the Obama site are limited to the inclusion of the biographies of Biden and his wife Jill. The biography has two three sections, with an insert statement speaking to the candidate's character, a personal history and "key career accomplishments." The Obama blog also now features a "Road Blog" devoted to the VP hopeful's travels and events, including videos of speeches and town hall style talks.

V.   THE OTHER SIDE'S VP

Shortly after Obama announced Joe Biden as his running mate, the McCain Web site featured a page devoted to examining his record—including a section documenting Biden gaffes.

A prominent claim centered on remarks Biden made in 2007, when he was a candidate for the Democratic presidential nomination, when he asserted about Obama: "I think he can be ready, but right now I don't believe he is. The presidency is not something that lends itself to on-the-job training."

After the GOP convention, the site only retains "Joe Biden on Barack Obama," a video advertisement summarizing those claims. As of at least September 9, the page was not on the McCain Web site.

For its part, the Obama Web site generally avoids Palin on the main news elements of the site. The only video ad on Obama's YouTube site that addresses McCain's selection of Palin, "No Change," avoids criticism of the Alaska governor, and doesn't even mention the vice-presidential candidate by name. Unofficial community blogs written on my.barackobama.com by site users are the only places where Palin is criticized.

VI.   LANGUAGE

Amid the technology, what is it the two candidates are trying to project about themselves online?

To find out, PEJ combed through the text of the most universal and permanent sections of the sites—candidate biographies, issues and speeches.

In general, we found that Obama tends to stress domestic policy and the economy, while McCain focuses broadly on national security and his experience in the military and government.

Top Words

Obama (number of times used)	McCain (number of times used)
• America(n)(s) (35)	• America(n)'s) (27)
• Senat(e)(or) (25)	• Government (13)
• Economy (9)	• Believe(s) (9)
• Politics (9)	• Energy (8)
• Security (9)	• Country (7)

Source: PEJ research of candidate Web sites, August 8, 2008.

The Most Common Keywords (Minus Speeches)

The word 'America' (including 'American' and 'Americans') is the leading term on both sites, appearing a collective 63 times in the candidates' biography and issue sections alone. Obama's Web site employs the terms slightly more than McCain's (36 to 27 mentions), but it's important to note that the Republican uses fewer words altogether on his site and "America" is used more than twice as often as any other.[5]

A reference to Obama's brief Senate career is the No. 2 term in the biography and issues sections ("Senator" 15 times and "Senate" 10, second only to "America." The site refers to Obama as "Senator Obama" (14 times).

McCain's Web site, by contrast, refers to him as "Senator McCain" just 6 times. Instead, the site refers to the candidate as "John McCain" far more often—a total of 45 times.

"Change We Can Believe In" is the mantra of the Obama campaign, but the word "change" does not often appear inside the content pages. It appears at the top of every page as a quotation from Obama's stump speech. But it was not among the 20 most frequently used terms in our language search of biography and issues.

Instead, the word shows up as one of the most-used words of McCain's site (the site employs it six times). Two of the instances refer to the need to change the political culture in Washington, two refer to climate change, and the other two refer to his support for changing the course of Iraq War policy to include additional troops.

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[5] PEJ searched among 2,672 words on Obama's Web site, compared with 2,451 on McCain's.

Words Favored by One Candidate More Then the Other

Obama	McCain
• Rural	• Government
• Political	• Believes
• Children	• Country
• Families	• Iraq
• Help	• Service
	• Experience

Source: PEJ research of candidate Web sites, August 8, 2008.

The Obama Web site makes a special effort to appeal to rural voters. The Web site includes an entire issue section to the concerns of American farmers. The Web site also employs the word "rural" across different issue sections to stress common interests among urban and rural Americans. For example, in laying out his education plan, the Obama site reads "Obama believes that we must equip poor and struggling districts, both rural and urban, with the support and resources they need to provide disadvantaged students with an opportunity to reach their full potential."

"Government" is one of the McCain Web site's most-employed words. The references cluster around two themes—eliminating government waste and its size and reforming government in Washington to serve the public interest.

The Obama campaign uses the word "political" in two ways—to reinforce Obama's political experience, and to repeat his pledges to end the "politically charged" nature of Washington.

The McCain Web site indicates the perceived success of "the surge" in its use of the word "Iraq." Obama's site refers to Iraq mostly in the context of the candidate's position on ending U.S. military involvement there, but the term is not among those mostly frequently used.

McCain, in turn, makes little use of three terms that speak to domestic priorities: "children," "families" and "help."

The Obama Web site employs these terms most often in reference to ensuring middle-class economic security. The Democratic economic message centers around "working families," poverty and investments needed to strengthen the economy and "help" families and children in need. But Obama also highlights his support for a "family values" message about the importance of parenting and family in raising children.

McCain uses "service" and "experience" both to accentuate his military service, but also to turn his age into an advantage as a candidate with "experience" and the judgment necessary to make difficult decisions as president.

Speeches

Speeches comprise the single largest share of informational text on both candidates' Web sites, and most closely articulate the campaigns' boilerplate messages. Speeches are another medium where the candidate and campaign have tight control over content, message and tone. Speeches on Obama's site stretch as far back as 2002, when the one-time Illinois state senator gave remarks in opposition to going to war with Iraq. McCain's are more recent, from March 2008 to the present.

Through an examination of the most frequently used words in speeches archived on the candidates' Web sites as of August 6, 2008, PEJ found that Obama is more likely than McCain to address policy issues. The presumptive Democratic nominee focuses on energy, oil and jobs in 161 public addresses posted to his Web site.[6]

The Democrat encapsulates the message of "New Energy for America" in his speeches, sketching what he calls a "comprehensive" plan that includes energy rebates, getting off of foreign oil, creating "green jobs," and lastly, reducing greenhouse gas emissions.

Employment is the issue most often addressed by McCain in speeches, but by and large the Republican senator appeals to a perception of his supporters' patriotism, invoking "America" "American(s)" and "country" a combined total of 252 times in the course of 47 speeches.

Frequent Words in Speeches	
Obama N=20 48,004 words (number of times used)	McCain N=8 18,570 words (number of times used)
• Energy (175) • Years (159) • Oil (156) • America (153) • Job (150)	• Job (114) • Americans (77) • Country (76) • America (65) • Senator (55)

Source: PEJ research of candidate Web sites, August 5, 2008.
The top 2 words for both candidates were "I" and "Will."

The relationship among these words indicates a strong emphasis on McCain's own patriotism as well, perhaps in an attempt to draw a distinction from Obama, who has been the subject of rumors questioning the Illinois senator's "love of country" that have been distributed via e-mail and covered by the mainstream press.[7]

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[6] The terms "I" and "will" were the most frequently used words by both candidates. "I," "will," "years," and "Senator" also appear in this group. The terms "America," "energy," "oil," "job" and "country" appear frequently and relation to each other.

[7] "CNN report on "rumors" about Obama's patriotism did not mention efforts by Republicans to advance them," Media Matters, February 25, 2008.

Education is a less dominant, but recurring theme in speeches by McCain. "Education," "public," and "school" appear near each other in the text, and the three terms are used at about the same rate. These terms, on the other hand, do not appear in a search of the 20 most frequent terms used by Obama in speeches.

Methodology

Sites Studied

The Pew Research Center's Project for Excellence in Journalism analyzed the components of the campaign Web sites of presidential candidates John McCain (R) and Barack Obama (D).

John McCain (R) http://johnmccain.com/

Barack Obama (D) http://www.barackobama.com/

In addition to the Web sites as a whole, the Project conducted a text analysis of each candidate's biography, issues and speeches sections.

At each download, coders made an electronic copy of the home page, as some Web sites were not printer-friendly. Biographies, issues texts and speeches were copied and saved as Word documents.

Capture Timing

Web sites were initially coded on August 6, 2008. To compare results for accuracy each Web site was coded again on August 8, 2008, and over the course of a month tracked to make note of significant changes made. A final audit of both Web sites was conducted on September 9, 2008, following, after the national political conventions concluded.

The biography sections were downloaded and coded on August 6, 2008. They were also re-read during our second round of coding on August 8, 2008.

Coding Scheme and Procedure

Web site Analysis To create the coding scheme, we first worked to identify the different kinds of features available on a campaign Web site. These ranged from tools to organize fundraisers to candidate positions on the issues. We identified 22 different quantitative measures and developed those into a working codebook.

Coding was performed at the Project by two professional research analysts. The codebook contained a dictionary of coding variables, operational definitions, detailed instructions and examples. Excel coding sheets were designed and used consistently throughout the process. Meetings were held throughout to discuss questions, and monitor

consistency of coding. Where necessary, additional Web site captures took place to verify findings. Coders followed a series of standardized rules for coding and quantifying Web site features.

Certain variables merit an explanation of their working definition as applied in the coding scheme:

- Site customization—this variable looked at whether a visitor could tailor the home page/ Web site based on their personal preferences. This feature always required users to register, and included the ability to create and access personal profiles, personal messages, personal blogs and more.
- Demographic group pages—this variable measured whether the campaign Web site had a section of the site devoted to various demographic groups.
- User comments on campaign blogs—this variable identified whether campaign blogs permitted space for users to add their comments to the official campaign blog posts. We coded for presence of comments on the blog.
- Citizen-initiated blogs—in addition to the official campaign blog, several candidates provided a tool for users to establish their own blog to show their support for the candidate. These were coded as citizen-initiated blogs. We coded for the presence of citizen initiated blogs.
- Information delivery options—this variable was coded for presence of tools to deliver information directly to users. The dimensions were: RSS feeds, podcasts, e-mail updates, mobile updates, and search capability
- Grassroots activity—we coded for presence of options for grassroots activity. This variable had three dimensions: fundraising, organizing community events and voter registration information. We coded for presence of all three dimensions.
- Social Networking—we coded for the presence of "social networks" and also the number of social networks that a candidate displayed on his/her Web site (on the home page or elsewhere). They were embedded links that led the user to the candidates' profiles on respective external social networking Web sites such as MySpace, Facebook, Flickr or YouTube. Researchers also searched groups on various social networking Web sites including LinkedIn, MiGente, Asian Ave, Eons and BlackPlanet for the presence of official campaign groups.
- Newsroom—the section on the site that lists articles not authored by the campaign. These are predominantly articles about the candidate that appear in the mainstream media (including editorials) and appear as either links to an external site or the article as a whole with the source. If these sections included press releases by the campaign, they were counted as a separate variable. We coded for presence of a newsroom section, and also coded the total number of items in the archived section for the previous week.
- Spanish translation—we also coded for whether or not campaign Web sites offered an option to translate content into a second language. Spanish was the only language offered for such translations at the time of publication. It should be noted that this did not necessarily include a translation of all the content on the Web site. A professional research analyst fluent in Spanish compared the English and Spanish texts available.

Text Key Word Search: The program CatPac® was used to analyze the candidate biographies, issue positions and speeches. CatPac is a "self-organizing artificial neural network" that has been optimized for reading text (Doerfel and Barnett, 1999.) By assigning a neuron to each major word in the text, the program is able to identify the most important words in the text by measuring their frequency and co-occurrence.

CatPac also contains a default "exclude" file, which contains prepositions, articles, conjunctions and transitive verbs (such as 'and,' 'when,' 'he,' etc.) that do not bear any meaning and produce clutter within the text. Thus, when the analysis is carried out, these words are excluded by the program, so that they don't complicate the results.

Our sample consisted of the biographies, issues pages and speeches of both presidential candidates. Where text was presented on more than one page, it was combined into one text file, so that there was just one document for each type of text, for each candidate. These were then fed into the CatPac program.

Analysis

Rankings: In analyzing the data, there were three different areas in which we tallied results and ranked the various Web sites:

- Conversation and Customization: To gauge how the campaign Web sites were engaging visitors the Project assessed four variables: the degree of customization available, whether the campaign blogs allowed user comments, whether users could create their own blogs, and whether websites devoted special pages for demographic interest groups.
- Information Delivery: We looked at five variables to help gauge how candidates disseminated their content: e-mail updates, RSS (Real Simple Syndication) feeds, podcasts, mobile device delivery, search function a
- Grassroots activity:We examined the presence of tools to facilitate grassroots activities. We coded for presence of tools that allowed users to donate money, fundraise from others, host gatherings, register to vote, canvass door-to-door, telephone undecided voters, compete for "activity points" and use a resource library for campaign volunteers.

Research analysts tallied the scores (summing the variables) for each Web site within the two categories. Thus for each of the two categories, each Web site had a final score on a scale ranging between one and six.

Key Word Usage: Our text analysis had two inter-related components. The first was identifying and analyzing the most frequently used or top words in each biography, issue section and speeches section. These were spontaneously generated by the program. The number of most frequent words analyzed for the study was set at 15. Indeed, according to the program, in most studies the first 1% of the total number of words is sufficient for text-analysis. In this case, 15 words were more than 1% of the total text analyzed.

The search was run for both candidates. In our final analysis, we looked only at the top five words for individual candidates and the top five for the broader groups.