Young Voters and the Web of Politics 2004: The Youth Political Web Sphere Comes of Age

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ABSTRACT

This project involves a network-analysis of nonpartisan youth electoral engagement websites, plus some analysis of sites created by campaigns and parties. With regard to the nonpartisan sites, three trends stood out as the most promising. First, the size of the youth engagement web sphere has grown dramatically. In 2002, Bennett and Xenos were only able to identify 22 sites; repeating the same techniques in the 2004 cycle yielded a list of 35, as many new organizations and websites offered political commentary and information in a youth-targeted format. Second, in 2004 youth political websites showed marked increases in the amount of political information and issue discussion, as well as the use of interactive features unique to web communication. A few used features similar to those found on more popular dating and social networking websites to help connect younger citizens with those sharing common interests and preferences. Third, and most notable, this analysis of linking practices among youth political websites revealed a much more densely networked environment than Bennett and Xenos found in their prior investigations. Many youth-oriented political websites are making a concerted effort to include more, and more prominently placed links to other organizations working toward the common goal of greater civic and political involvement among American youth.

With regard to campaign and party websites, the data were quite limited, but available evidence suggests moderate and predictable levels of development in issues-content and features, and no substantial changes overall in terms of efforts to reach out to younger voters through web communication. According to other recent research, only 8% of all campaign sites in 2004 featured an appeal to younger voters. Political party websites, however, did feature youth-targeted content at a non-trivial rate of 27%, suggesting that mainstream political actors may be moving toward greater efforts to communicate through the web with its most avid and savvy users.

During the 2004 election cycle, Americans witnessed many exciting developments with respect to political uses of the internet, as well as youth political engagement and participation. During the months preceding the Democratic primaries, Howard Dean and his campaign staff pioneered new ways of integrating the unique resources of the internet into their campaign strategy, presenting an alternative to the traditional "war room" campaign in the form of what has been termed the new "networked campaign" model (Iozzi and Bennett 2003). By the start of the general election both major party candidates for president were fielding sophisticated campaign websites that supplemented traditional campaign website fare, such as candidate biographies and issue statements, with newer features like blogs and greater use of multimedia and other interactive techniques (Williams et al. 2005). What is more, online political information also broke into the mainstream media audience in 2004. An estimated 75 million Americans, representing 37 percent of the adult population and over half of American internet users, went online to get information about the campaigns and engage in the political process; a substantial number, 20 million, were using the internet to monitor campaign developments *daily* up to the close of the election (Rainie, Cornfield and Horrigan 2005). Although these trends have been evident for some time, it is clear that the 2004 cycle was one in which the internet confidently secured its place in American electoral politics.

During the same election cycle, some other interesting patterns of growth were also apparent. For one thing, younger Americans, long noted for their lack of interest in or attention to politics, were surprisingly engaged in the 2004 presidential contest. In particular, during the 2004 campaigns, younger Americans showed marked increases in reading news of the election, talking about it with others, and thinking about the election and how the outcome might affect them (Andolina and Jenkins 2004). Indeed, an MTV/CIRCLE poll conducted at the height of the campaign found four fifths of young voters were paying attention to the campaign ("The 2004 Presidential Campaign and Young Voters," CIRCLE Fact Sheet 2004). Perhaps most significantly, younger voters also turned out to the polls in record numbers not seen since Bill Clinton was first elected in 1992. Although at the close of the election many commentators were quick to point out that the overall proportion of votes cast by younger Americans remained unchanged in 2004 (at around 17%, the same as in 2000), subsequent research has revealed that there were indeed significant increases in the proportion of young citizens that participated in the election. Estimates based on exit-polls from the 2004 elections suggest that over half of the eligible population under 30 voted in the election, and that approximately 42.3% of 18-24 year-olds voted in 2004, up from 36.5% in 2000 ("Youth Voting in the 2004 Election," CIRCLE Fact Sheet 2004). Although accompanied, and somewhat obscured, by increases in turnout among all age groups, these numbers reflect the highest rates of youth turnout and political engagement in a decade (Lopez 2004).

Against the backdrop of these developments, in this report we revisit questions concerning the extent to which increased use of the internet by a variety of political actors and organizations may create opportunities for revitalizing civic participation among our youngest citizens, who continue to be among the most avid and savvy users of internet technology. Specifically, we focus on what we refer to as the Electoral Web Sphere (comprised of campaign websites produced by candidates) and what we call the Youth Engagement Web Sphere (comprised of non-campaign political engagement and voting sites explicitly targeted at younger age groups), following the conceptualization of Web sphere analysis offered by Foot and Schneider (2002).

At the intersection of the major trends of 2004 just mentioned, survey research has also revealed that during the most recent U.S. presidential campaigns, 28% of 18-29 year-olds were getting *most* of their information about the election from the internet, up from 22% in 2000, and a higher proportion than any other age-group (Pew Research Center 2004). To be clear, the point is not to

attribute the recent upsurges in youth political participation to greater and more sophisticated use of the internet by political candidates and other organizations. Such historic developments, though certainly in part the result of efforts involving internet communications and infrastructure, can only come about through comprehensive and diligent efforts on a multitude of fronts and thus any simple causal interpretation is surely elusive. Rather, our more limited goal in the present study is to chart the major developments in the online political information environment available to young voters since we last studied these phenomena on the heels of the 2002 midterm elections (Bennett and Xenos 2004). Given the increasing rate with which younger voters are going online to engage with the political world, this report seeks to assess what they will find when they get there, and how it has changed since our last assessment.

To identify what we believed would be the most interesting developments since our previous study we gathered and drew upon a variety of new data. To document changes in the youth engagement web sphere, we selected and archived 35 youth political websites (e.g. Rock the Vote, the New Voters Project), and replicated our prior analysis of such websites in 2002, cataloguing the political content and features found on each. To explore changes in the wider electoral web sphere, we rely on data gathered by researchers at Webarchivist.org as part of their study of the use of the internet in campaigns and elections held in 20 countries in 2004 (Foot, Schneider, and Dougherty 2005). Finally, using the iCrawler tool developed by Richard Rogers (2001), we also gathered data concerning the network properties of the youth engagement web sphere during the height of the 2004 election season, to produce a comparison point for highlighting changes in these areas since the 2002 midterms.

Our findings suggest that the period between the U.S. elections of 2002 and 2004 was definitely one of significant growth in political information and resources on the internet that were targeted at, and otherwise available to, younger voters. Although there were areas in which our findings were not entirely positive – for example, mainstream political actors continued to only infrequently communicate direct or indirect appeals to young people through their websites, and a number of youth political websites still do not offer ready links to voter registration materials – for the most part the data reveal very substantial developments in the richness of information and participation options available to young citizens through the internet over the past few years.

Three trends stood out as the most significant in terms of increased potential for the web to serve as a key pathway into the political arena for younger citizens. First, the size of the youth engagement web sphere has grown dramatically. In our analysis of youth political websites in the 2002 cycle we were only able to identify 22 such sites; as noted above, repeating the same site identification techniques in the 2004 cycle yielded a list of 35, as many new organizations and websites offering political commentary and information in a youth-targeted format emerged on the scene. Second, in 2004 youth political websites also showed marked increases in the amount of political information and issue discussion, as well as the use of interactive features unique to web communication. Third, and most notable, our recent analyses of linking practices among youth political websites revealed a much more densely networked environment than we found in our prior investigations, where visitors to almost any given youth political website can readily navigate to other sites within the youth engagement web sphere, or outward to more broadly-focused media and political websites.

We begin our presentation and discussion of these findings with a brief review of the key results of our study of online political resources for younger voters in the 2002 U.S. elections, and a discussion of the research questions we brought to our most recent set of investigations. Second, we re-introduce the principal methods we used to approach these questions and the data used in the present study. This discussion will provide a working knowledge of the techniques employed

here, although a more detailed discussion of some dimensions of the research is contained in the original report (Bennett and Xenos 2004). Following this, we present our findings as they compare to those from 2002 election cycle, beginning with changes in features and content within the youth engagement web sphere, moving to similar comparisons between the 2002 and 2004 electoral web spheres, and finally our data on the changing network properties and linking practices of these websites. We conclude with a discussion of the "best practices" we observed within the youth engagement and electoral web spheres in 2004, as well a consideration of possible research questions for future research on the political information and engagement environment available to young voters online.

YOUNG VOTERS AND THE INTERNET IN 2002

Overall, our conclusions concerning the state of online political resources targeted and available to younger voters in 2002 were somewhat mixed (Bennett and Xenos 2004). Though we found a variety of novel and exciting examples of the potential of the internet as a powerful tool for attracting younger citizens to politics and helping them engage with the electoral process, most often we saw these potentials unrealized on the majority of the sites we studied. Examining the issues content and features present in the youth engagement and electoral web spheres, as well as the linking practices of sites in the youth sphere led us to a number of findings; in light of the newer data we will present later, three patterns in the findings from the 2002 cycle are worth reviewing here. First, we found that youth political websites were much more likely to take greater advantage of the unique features of internet communication, through the use of interactive features and more sophisticated site design. However, less than half of the youth sites we studied featured pages dedicated to presentation of information on a menu of political issues. For example, youth sites were much more likely than those of the candidates in our study to use features such as multimedia content, message boards or blogs, interactive polls, and site logins. At the same time, only 8 out of 22 youth sites we coded featured a section devoted to discussion of political issues, and only one quarter featured information specifically related to the 2002 elections on their sites (though substantially more, 84% featured links to such information). Thus, in broad terms we found the youth engagement web sphere to be feature rich, but in some respects less extensive in terms of the provision of political issue content.

With respect to candidate sites in the electoral web sphere we analyzed in 2002, we found a nearly opposite pattern, with an additional wrinkle. As noted, candidate sites in 2002 were much less likely to use interactive web features. For example, only 35% of the candidate sites we examined featured signups for email updates. We found multimedia content on only 8% of candidate sites in our sample, message boards or blogs, and interactive polls on only 5%, and login features were almost entirely absent, found on only 0.2% of the sites coded. Conversely, candidate sites are known for their high levels of issue content; researchers estimate that over 80% of candidate sites in the 2002 elections featured issues sections (Foot, Xenos and Schnieder 2003, Xenos and Foot 2005). However, despite the fact that at the time of the 2002 elections a significant number of younger voters were turning to the internet for political information, we found that candidates made surprisingly few direct or indirect appeals to younger voters through their web communications. To illustrate this, we coded candidate issue discourse for appeals to younger voters, as well as for appeals to another age-based demographic group, senior citizens. To be sure, some issues, such as prescription drug coverage, more easily lend themselves to a senior, rather than a younger framing. However, even on issues where appeals to younger voters are somewhat obvious, such as social security and national security/terrorism, we found candidates several times more likely to include direct and indirect references to senior citizens than to young people.

A third finding from our initial report that will

help contextualize the present data concerns the structural qualities of the youth engagement web sphere. Using the iCrawler tool (see www.govcom.org for more information), we performed co-link analysis on the sites in the youth engagement web sphere, exploring the common links among them and the broader network of websites within which the youth sites were located. As a point of comparison, we examined these results alongside similar analyses of other types of political sites working toward a common goal. Based on these comparisons, we concluded that the youth engagement web sphere had yet to utilize the networking and coordination capacities of web communication to the extent that other kinds of political organizations had by 2002, leaving substantial potentials for creating a more vibrant online political communication environment for young voters unrealized. Indeed, the network maps produced from these analyses revealed a number of sites that stood as isolated locations, with relatively few links out to other youth political websites or the broader political web sphere.

UPDATED ANALYSIS

To document new developments in these areas, we drew on a variety of data collected during the 2004 U.S. election cycle. Where possible, we replicated the data collection and coding strategies used in the original report exactly. In other cases, we used the most equivalent data available to create points of comparison.

With respect to the youth engagement web sphere, we again began with a process of site identification. The first step in this process consisted of a series of Google searches using descriptors such as "youth," "political," "politics," "elections," "citizenship," and "civic." These searches generated a preliminary list of websites, or "seed list," which was then fed into the iCrawler network analysis tool for an automated analysis of related websites. The iCrawler performs co-link analysis, identifying sites that share links with more than one of the original seed list sites, and repeating this process as the network grows for multiple iterations. Sorting through the sites returned from this iterative process – with the goal of identifying portal sites focusing generally on political issues and oriented toward18-24 year-olds – led us to a final list of sites we believe to represent the youth engagement web sphere circa 2004. This final list included 35 sites and is detailed in Appendix A.

Once the youth engagement web sphere sites were identified, we archived them using Teleport Pro, an application that creates a fully interactive archival copy of web materials one can store on a hard-drive or other medium. All sites were archived during the final weeks of the campaign in order to capture them at their most active, and provide a stable basis for later content analysis. Copies of these archival documents are available from the authors.

Once archived, the sites of the youth engagement web sphere were subjected to thorough content analysis. The coding scheme was virtually identical to that used in our study of the 2002 youth engagement web sphere, and we were also able to use many of the same coders to produce the data. Overall, the coding scheme has two foci. First, it probes for the presence or absence of content related to 16 distinct political issues. The original list was developed on the basis of "most important problem" polling data, collected during the 2002 cycle. In order to preserve the comparability of data, we used the same list of issues in the 2004 coding. The other focus of the coding scheme is on the technical (e.g. multimedia content, photos) and substantive (e.g. voter registration materials, news or press releases) features found on the sites. In all, the coding scheme taps the presence of 15 distinct features. A complete list of the issues and features included in the coding scheme is found in Table 1. Overall, the inter-coder reliability of this coding scheme falls within the acceptable range (Cohen's Kappa=.79).

Unfortunately, we were unable to replicate our earlier efforts with respect to the electoral web sphere in 2004. In the prior study, we were able to obtain access to archival copies of the full slate

TABLE 1. ISSUES AND FEATURES CODED IN THE YOUTH ENGAGEMENT WEB SPHERE

Issues	Features
Education	Voter Registration
Health Care	News/Press Releases
National Security/Terrorism	Photos
Taxes/Government Spending	Endorsements
Economy/Jobs	Email Signup
Social Security	Contact Officials
Environment	Participation/Mobilization
Gun Control	Multimedia Content
Crime/Violence	Send Links
Abortion	Message Board or Blog
Campaign Finance Reform	Interactive Polls
Minority Rights/Recognition	Contact Media
Politics/Government Changes	Personal Login
Censorship/Free Expression	Onsite Information on the 2002 Elections
National Debt	Links to Information on the 2002 Elections
Gay Rights	

of House, Senate, and Gubernatorial campaign websites fielded by candidates in the 2002 cycle (available through PoliticalWeb.info and the Library of Congress), and subject a sample of those websites to a coding scheme similar to that used for the youth websites. These archives were not updated for the 2004 U.S. elections, and creating our own archive as we did with the youth websites proved cost-prohibitive.

In order to monitor changes in the electoral web sphere between 2002 and 2004, we therefore draw upon findings produced by Kirsten Foot and her collaborators as part of their analysis of online campaigning internationally in 2004 (Foot, Schneider, and Dougherty 2005). As part of their study, they coded nearly 100 websites from the 2004 U.S. elections, including sites produced by candidates, political parties, media outlets, civic organizations, and other individuals and groups. These data include documentation of features used on these sites as well as an additional coding item, for which we are quite grateful, tapping the presence of direct or indirect appeals to younger voters on the sites. More detailed discussion concerning the collection of these data can be found in Foot, Schneider, and Dougherty 2005).

To monitor changes in the network properties of the sites within the youth engagement web sphere, however, we were again able to replicate our original data-gathering and analysis techniques. As before, we approached questions concerning the network properties of sites within the youth engagement web sphere in a manner similar to the ways other researchers have explored networks of websites organized around a common political goal, or political issue (e.g. Rogers and Ben-David 1998, Rogers and Marres 2000). Broadly stated, this process can be understood as one in which the co-link analyses produced by the iCrawler tool are used to identify the key players active in a given political or social realm, and how those players relate to one another through hyperlinks.

To make the data comparable, in our most recent round of analyses, we fed our list of the 2004 youth engagement web sphere actors into the iCrawler using parameters identical to those used in our previous investigations.

Together, these new data enable us to identify the principal areas of growth and stability in the political information environment available to younger voters through the web between the last two U.S. election cycles. We now turn to a discussion of the major findings.

FINDINGS

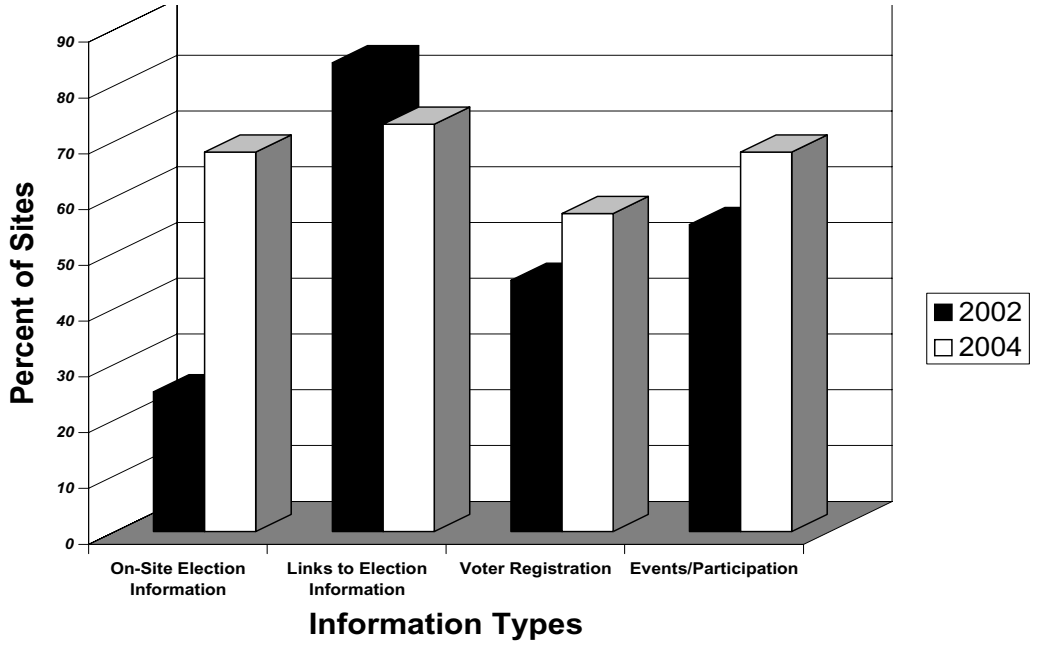
On the whole, we find that the political information and resources targeted and available to younger voters on the internet in the 2004 U.S. election cycle were substantially more helpful than those observed in 2002. In particular, we found significant growth and development in the youth engagement web sphere. This not only came in the form of more sites (35 identified in 2004, as compared to only 22 in 2002), but also in the form of more information and discussion of political issues and greater sophistication in site features. We also found a much healthier network of sites within the youth engagement web sphere, with much greater linking between and among youth oriented political websites and greater roles played by youth websites in forging pathways from the youth engagement sphere out to the broader electoral web sphere. There were also modest but discernable areas of improvement in the electoral web sphere itself.

THE YOUTH ENGAGEMENT WEB SPHERE COMES OF AGE

As noted earlier, on the surface the most observable change in the youth engagement web sphere in 2004 was its marked increase in size, from 22 to 35 identifiable actors. Probing deeper into the data produced from our content analysis of these sites, however, shows that there was also much more issue content and greater sophistication in terms of the interactive features deployed in the web sphere as a whole. Consider first that whereas we only detected pages devoted to presenting information on a menu of political issues within 8 of the 22 sites in our original study, we found discussion of specific political issues on close to two-thirds of the 35 youth political websites identified in our 2004 analyses. Additionally, further comparisons of the sites from 2004 with those of 2002, revealed greater levels of general information about the current elections, greater provision of information on voter registration, and greater levels of information about actual offline political events and opportunities for political participation. Especially noteworthy is the shift *away* from providing specific information about the elections through links to third-party sites like the one produced by League of Women Voters, and *toward* the provision of election information on-site, in a context more directly targeted toward younger voters. These areas of growth, and the conversion of election information transmission from off-site links to on-site content, are graphically illustrated in Figure 1.

Alongside the growth and development of issues discussion and political information provided on youth engagement websites from 2002 to 2004, we also found substantial gains in the presence

FIGURE 1. POLITICAL INFORMATION PROVIDED ON YOUTH POLITICAL WEBSITES, 2002-2004



NOTE: *N* for 2002 sites=22, *N* for 2004 sites=35)

of interactive features unique to online communication. Although there were declines in two features – the use of interactive opinion polls and pages providing interactive forms that enable site visitors to contact elected officials – overall we see a steady, and in some cases marked increase in the presence of a variety of web-exclusive communication techniques. The most common features found on youth sites in 2004 were signup forms for email updates, which alert visitors to new site content, news/press release pages, often highlighting events and issues of unique concern to younger voters, and photos, which often help young voters to identify with the producers of a given website. These three features were found on 81%, 86%, and 83% of the youth political sites we coded, respectively. As in the broader world of internet communication, there were also marked gains in the presence of message boards or blogs on youth political websites in 2004, representing a 70% increase over their prevalence in the 2004 cycle. The proportion of youth political websites coded positive for all features included in our analysis, as well as the percentage growth (or decline) for each feature across the two time points are shown in Figures 2 and 3.

FIGURE 2. FEATURES ON YOUTH POLITICAL WEBSITES: 2002-2004

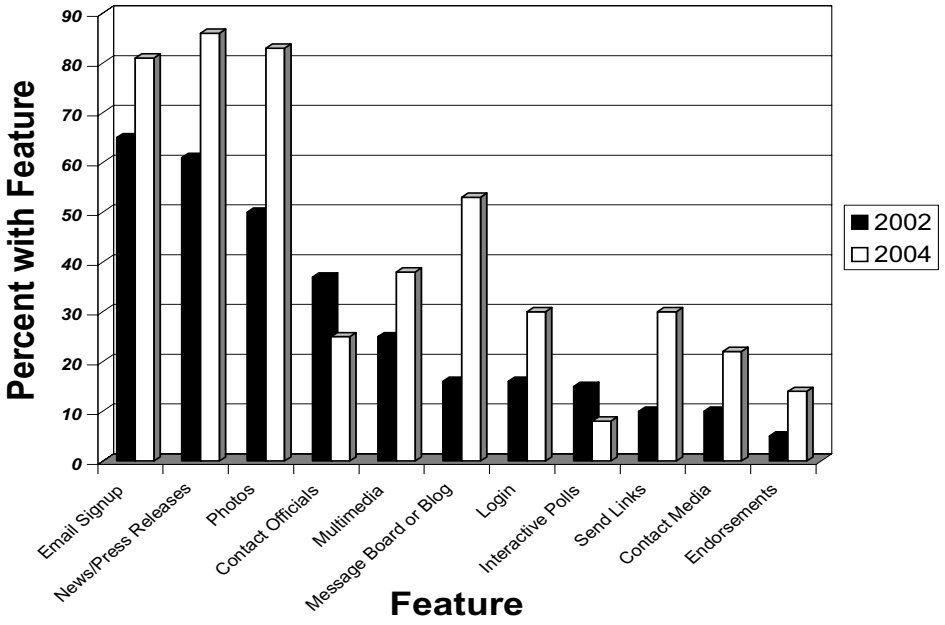
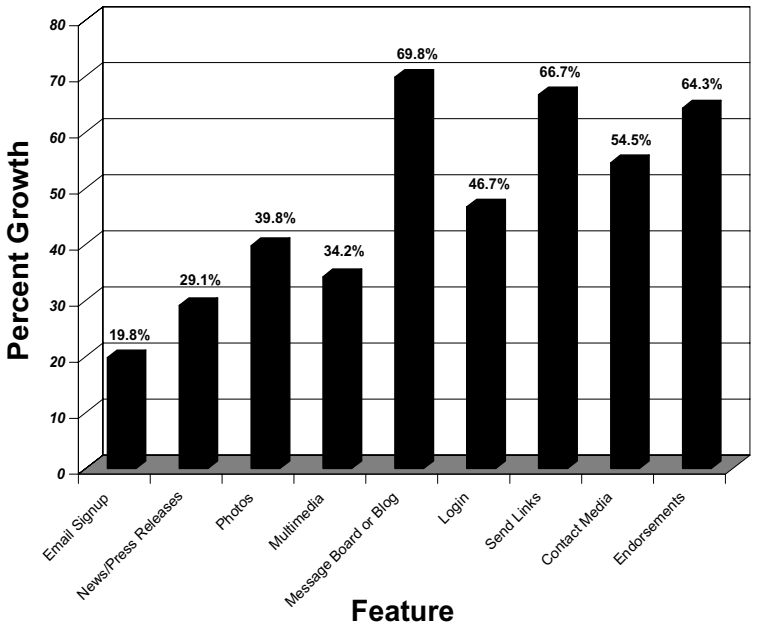


FIGURE 3. GROWTH IN FEATURES ON YOUTH POLITICAL WEBSITES: 2002-2004

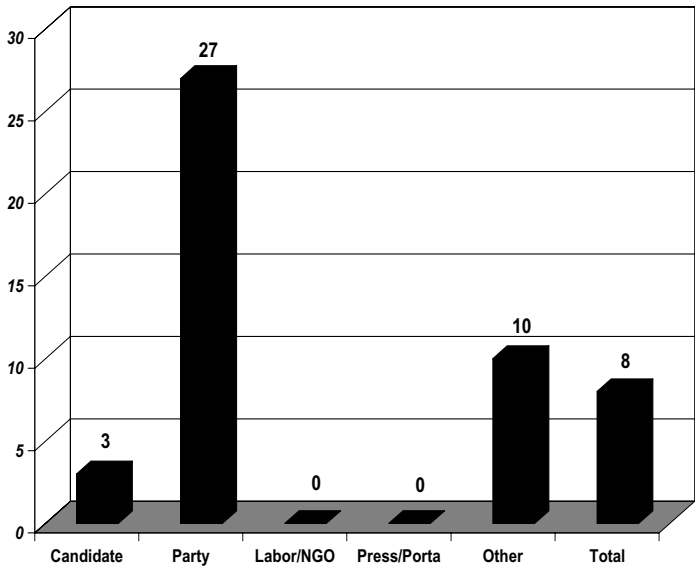


MODEST DEVELOPMENTS IN THE ELECTORAL WEB SPHERE

Although our data gathering efforts for the electoral web sphere in 2004 were quite limited, the data we were able to gather and examine suggest moderate and predictable levels of development in terms of issues content and features, and no substantial changes overall in terms of efforts to reach out to younger voters through web communication. To be sure, by the beginning of the general election season, the campaign websites of the two major party presidential candidates (John Kerry and George W. Bush) offered a full slate of interactive features, and included a number of pages devoted

to younger voters (see for example, the features catalogue listed at http://politicalweb.info). However, an examination of the broader electoral web sphere, including candidates for lesser offices as well as sites produced by other political and media actors, reveals a relatively stable communication environment between 2002 and 2004, as compared to the changes seen in the youth engagement web sphere. For example, the analyses of Foot et al. (2005) suggest comparable levels of issues discussion, and features such as email signup, multimedia content, and voter registration on candidate sites in 2004. Further,

FIGURE 4. YOUTH APPEALS ON SITES IN THE ELECTORAL WEB SPHERE, 2004



Source: Kirsten Foot et al.

Foot et al's (2005) coding of the broader electoral web sphere in 2004 shows that the use of the web to reach out to younger voters by mainstream political actors continued to be quite sporadic, with only 8% of all sites featuring some type of appeal to younger voters. Political party websites, however, did feature youth-targeted content at a non-trivial rate of 27%, suggesting that mainstream political actors may be moving toward greater efforts to communicate through the web with its most avid and savvy users. The proportions of all types of sites in the electoral web sphere featuring election or political content targeted at 18-24 year-olds, are represented in Figure 4.

NETWORK PROPERTIES OF THE YOUTH ENGAGEMENT WEB SPHERE

As significant as some of the developments noted in the preceding sections may be, however, we believe our most interesting findings stem from analyses of the network properties of sites within the youth engagement web sphere in 2004, and the comparison of those findings with those obtained in the course of our earlier investigations. Overall, the pattern that emerges from our most recent analyses of the youth engagement web sphere using the iCrawler is that the online youth politics network has noticeably increased in size, scope, and utility, since our initial report. It is worth noting here that our earliest attempts to map the network of youth political websites in 2002 produced such a sparsely networked collection of sites as to make mapping difficult. Thus the specific comparisons drawn here in terms of network characteristics are based on data points from the summer of 2004 (just prior to the release of our original report) and the climax of the 2004 election season later that fall.

Table 2 reports some of the basic outlines of growth

TABLE 2. LINKS WITHIN THE YOUTH ENGAGEMENT WEB SPHERE - 2004

	1st Crawl July 2004			2nd Crawl November 2004		
	Full Network	Youth Sites Only	Mapped Sites Only	Full Network	Youth Sites Only	Mapped Sites Only
Number of Websites	126	37	50	137	51	60
Number of Links	977	132	173	1187	223	387

in web sphere size and linking patterns observed in data collected from both our initial crawl, and our most recent crawl from November 2004. In this table, the "Full Network" refers to all sites returned after a 2 iteration crawl, going 2 levels deep into each URL, including press sites, and sites of other political and non-political actors. "Youth Sites Only" refers to those sites within the network that were either part of our initially identified youth engagement web sphere, and in the case of the second crawl, youth sites that emerged at the height of the electoral season, after our coding efforts were already underway. "Mapped Sites Only" refers to only those sites rendered in the graphic maps presented in our initial report and later in the present report.

As is clear from these data, the growth and density of the Youth Political Web Sphere is unmistakable. Not only are there substantial gains in the number of youth political web sites that emerge from our co-link analysis, but as the final columns indicate, the appreciable gain in the size of the youth political web sphere is also accompanied by roughly double the number of links between sites, which enable users to more freely navigate the political

FIGURE 5. NETWORK MAP OF THE YOUTH ENGAGEMENT WEB SPHERE: JULY 2004

FIGURE 2. NETWORK MAP OF THE YOUTH ENGAGEMENT WEB SPHERE: NOVEMBER 2004

communication environment created by the youth political web sphere.

Two additional, more specific observations may also be made on the basis of our time-lapse view of the youth engagement network in 2004. First, in addition to more closely resembling the online networks surrounding other political groups and issues, we can also say that the youth engagement network appears to have followed a logical progression as political events related to the election drew closer, eventually reaching their peak just before Election Day. These developments, as well as the increases in size and density can be seen clearly in Figures 5 and 6, which are reproductions of the network maps produced by the iCrawler tool. (Live versions of the maps can be accessed upon request.)

In the months preceding the election, we see a relatively sparsely populated map of network actors. Relatively few of the sites comprising the youth engagement web sphere play a prominent role in the broader network, in terms of receiving links from other network nodes, or connecting disparate regions of the network together. By November, the network topography has become highly compact, with youth oriented political websites occupying central positions within the immediate network of websites, and node locations on the map rendered closer together, indicating greater ease in terms of navigating from node to node.

CONCLUSION

Overall, we were pleased to find that the array of resources and avenues to political participation targeted and available to the 22% of younger citizens who turned to the web for election information in the 2004 cycle was much more vibrant and useful than what we found in our analysis of the 2002 U.S. elections. First, we

found the youth engagement web sphere not only larger, but much richer in terms of political issues discussion and sophisticated use of the more dynamic and interactive dimensions of web communication. More importantly, through our iCrawler analyses we found these resources provided within a much more complex and networked cyberspace terrain. We close with a brief consideration of two practices identified in our overall analysis that we believe hold the most potential for maximizing the capabilities of political communication through the internet for attracting more young citizens into the electoral process and helping them find meaningful ways in which to participate.

At the risk of belaboring the point, we identify the increased use of hyperlinks among youth engagement websites as the first of these practices. Considered by many to be the essence of internet communication, hyperlinks are the basic building blocks of social capital in political web spheres. Sites within the youth engagement web sphere that evidenced the greatest efforts at using hyperlinks to broaden and strengthen the pool of political resources available to young citizens online included YouthVote.org, with 23 outlinks to other youth political websites, Civicyouth.org, Compact.org, and Freechild.org, each with 15 outlinks to other youth websites, and Declareyourself.com and Mobilize.org with 12 outlinks each. But it is important to note that the patterns seen in the network maps presented earlier are not only the product of high-outlink sites such as these, but what appears to be a greater collective effort on the part of many youth-oriented political websites to include more, and more prominently placed links to other organizations working toward the common goal of greater civic and political involvement among American youth.

In contrast, the second practice, or set of practices, observed in the 2004 cycle that we identify as particularly noteworthy does appear to be isolated to a few sites. Here we refer to the strategy deployed by sites such as http://www.indyvoter.org, which used site features similar to those found on more popular dating and social networking websites to help connect younger citizens with those sharing common interests and preferences. As configured during the 2004 elections, the indyvoter site featured a system through which "joining" the website and obtaining a login also involved creating a user profile, complete with photos and general statements. Users could use the profiles to contact each other to share information and coordinate offline political actions, and were also encouraged to create their own personal or collective "voter guides," which were then made available to all other members. Though relatively unnoticed during the 2004 cycle, these innovations represent significant steps in terms of combining the features and functionality common to sites more frequently visited by younger citizens with political information and avenues to participation.

In conclusion, we believe that the period between 2002 and 2004 was one in which the youth engagement web sphere "came of age," so to speak. To be sure, much of the growth we have identified in this period likely stems from the high profile presidential race that accompanied our latter period of data collection. It is not implausible, however, to expect that much of the development in online political infrastructure documented here may remain or even grow in future, off-year election cycles, much in the same way that sites like MoveOn.org and DrudgeReport.com have retained significant shares of their original visitor bases, and continued to grow, long after the events that brought them into the political limelight have subsided. Indeed, this would appear to suggest a key set of research questions to guide future research in this area.

APPENDIX A
THE YOUTH ENGAGEMENT WEB SPHERE: 2004

Site/Organization Name	URL
18to35	http://www.18to35.org
2020democrats	http://www.2020democrats.org
arsalyn	http://www.arsalyn.org
bigvote	http://www.bigvote.org
campaign young voters	http://www.campaignyoungvoters.org
civic youth	http://www.civicyouth.org
college democrats	http://www.collegedems.org
college republicans	http://www.collegerepublicans.org
congress	http://www.congress.org
conservative punk	http://www.conservativepunk.com
declare yourself	http://www.declareyourself.com
democracy matters	http://www.democracymatters.org
freechild	http://www.freechild.org
freedoms answer	http://www.freedomsanswer.net
generation vote	http://www.generationvote.com
harvard institute of politics	http://www.iop.harvard.edu
indyvoter	http://www.indyvoter.org
millennial politics	http://www.millenialpolitics.com
mobilize.org	http://www.mobilize.org
national council for support of disability issues	http://www.ncsd.org
new voters project	http://www.newvotersproject.org
punkvoter.com	http://www.punkvoter.com
republican youth majority	http://www.rym.org
rockthevote.org	http://www.rockthevote.org
smackdown your vote	http://www.wwe.com
united leaders.org	http://www.unitedleaders.org
vote-smart.org	http://www.vote-smart.org
www.party-y.org	http://www.party-y.org
young democrats	http://yda.org
young voter alliance	http://www.youngvoteralliance.org
youth '04	http://www.youth04.org
youth noise	http://www.youthnoise.com
youth rights	http://www.youthrights.org
youth vote	http://www.youthvote.org

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