

A Proposed Methodology for Studying the Function and Effectiveness of Party and Candidate Web Sites

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The growth of party and candidate activity on the World Wide Web over the past 5 years has provoked much comment and criticism. Although initially most assessments were descriptive and anecdotal, more recent studies have taken a more systematic and quantitative approach to this topic. This article builds on the existing literature by developing a coding scheme that addresses two basic questions applicable to all political Web sites: (a) what the purpose of the sites are, and (b) how effectively they deliver their contents. In doing so, this article attempts to standardize the study of party Web sites and to promote the growth of cross-national and longitudinal comparative research in this area.

Keywords: Internet, methodology, parties, World Wide Web

The aim of this article is to develop a methodology for content analysis of political Web sites, specifically for those organizations or individuals that use the World Wide Web (WWW) to compete in elections for public office: political parties and candidates. The movement of political parties and candidates onto the WWW has been a focus of academic and journalistic attention since the U.S. presidential elections of 1996. During this campaign period, it was estimated that 29% of Americans had used the Internet to gather political information ("Britain On-Line," 1997). By 1998, Kamarck (1999) reported that 72% of all Senate candidates had established a campaign Web site, and *Campaigns & Elections* reported that 63.3% of the 270 campaigns they sampled reported using the WWW (Faucheux, 1998, pp. 22-25). In the United Kingdom, the numbers of parties with a Web presence almost doubled between 1996 and 1998, from 27 to more than 40 (Gibson & Ward, 2000). Such figures point to the growing importance of this medium as a tool for political communication.

The most common questions to be asked in this literature are why these political actors are using the new media and whether some are using it more effectively than others? As yet, a consensus has not been reached on a method to answer these questions. This study addresses this need by presenting a theoretical and methodological framework for understanding the following: (a) the purposes or functions of parties' and candidates' Web sites and (b) how well or effectively these sites deliver those functions. Whereas the principle units of analysis

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are those organizations and individuals competing in the electoral arena, the scheme is designed to have broader applicability to sites of other political actors such as interest groups, municipal governments, and civic or community-based prodemocracy advocates (e.g., UK Citizens Online Democracy at www.democracy.org.uk).

CURRENT LITERATURE

Studies of parties and candidates use of the Internet have become increasingly common as its usage has spread. Initially focused on the United States (Birdsell & Muzzio, 1997; Klinenberg & Perrin, 1996; Klotz, 1997; Margolis, Resnick, & Tu, 1997; Stone, 1996), studies of parties use of new information and communication technologies (ICTs) have since been conducted in the United Kingdom (Auty & Nicholas, 1998; Gibson & Ward, 1998, Ward & Gibson 1998), New Zealand (Roper, 1999), the Netherlands (Voerman, 1998), Sweden (Frisk, 1999; Nixon & Johansson, 1999), Finland (Carlson & Djupsund, 1999), and Italy (Gibson, Newell, & Ward, in press).

In answer to the questions about what these political actors are attempting to do by gaining a foothold in cyberspace, the most common conclusion drawn is that many parties lack a clear rationale for their online activities, other than maintaining an image of professionalism and being seen as up-to-date. This lack of purpose has, in some instances, led to harsh criticism. One observer of the 1996 U.S. presidential race viewed Republican and Democrat party sites with undisguised scorn, saying they were "filled with meaningless rhetoric, irritating propaganda, and silly multimedia gimmicks" (Stone, 1996, p. 44). This was a view echoed by commentators on the British parties' performance in the General Election of 1997.¹ However, this copycat or domino theory of party activity in cyberspace is challenged by a number of minor and extremist parties that articulate a clear rationale for their Web presence.² With a smaller resource base and very limited exposure in traditional media outlets, these groups see 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.

In terms of judging what a party is doing online and how well it is doing it, these studies have adopted a number of methodological approaches. Many have been qualitative accounts of political Web sites based on largely descriptive and impressionistic evidence (Auty & Nicholas, 1998; Birdsell & Muzzio, 1997; Klinenberg & Perrin, 1996; Margolis et al., 1997; Roper, 1999; Stone, 1996). Although such studies have proved very useful in framing the questions that need to be asked about political Web sites, they are clearly limited in the extent to which they allow for identification of trends across time, and across countries. Other studies have taken a more quantitative approach, constructing composite indices to measure various aspects of Web sites, such as design sophistication, information content, and opportunities for interaction (Gibson et al., in press; Gibson & Ward, 1998, 2000; Hill & Hughes, 1998; Klotz, 1997; Sadow, 1997; Voerman, 1998; Ward & Gibson, 1998). These studies, although country-specific, have allowed for more systematic analyses of political communication via Web sites.

This study aims to develop the methodology adopted by these analyses in two main ways. First, it seeks to move beyond predetermined composite indices to identify functionality, toward a more flexible method that allows the sites to speak for themselves. If one of the fundamental questions being asked about these sites is whether they have an underlying logic or purpose, applying an index of "participation" or "information provision" made up of e-mail contacts or various policy items would seem to prejudge the answer to that question. A recent study by Weare, Musso, and Hale (1999) of municipal Web sites in California offers a signifi-

cant step forward in this regard because it runs confirmatory factor analysis on quantitative site data (number of e-mail addresses to the city council, number and nature of external links, etc.) to identify the latent functions of the sites. Such an approach has the added benefit of parsimony in that specific Web site features need only be measured once. Composite indices measuring the various functions can quickly become unwieldy because a feature may serve a number of different functions and need to be included on each one. For instance, e-mail feedback may be considered a component of the general function of participation; however, it may also be viewed as a campaigning tool and so would need to be measured on both indices. The coding scheme proposed here is designed to gather data about the content and design of political party and candidate Web sites in a “function-neutral” way (i.e., it does not build in assumptions about underlying purpose to the measurement process). We do, however, advance a set of theoretical expectations for what parties will be doing online (elaborated below).

Second, we build on the preceding methodology by clarifying, conceptually and empirically, what we mean when we talk about a site’s quality and sophistication. Most discussion of sites’ appeal and professionalism focuses on the presence of stylistic features such as graphics or audio and video. We expand on this to identify a distinct dimension of site performance and presentation that we term *site delivery*. It is composed of a range of components such as freshness, navigability, and visibility, in addition to “glitziness” of presentation. In doing so, we are drawing a clear distinction between a site’s function and its form, or how effectively a site delivers its contents. The components of delivery are first defined and then operationalized.

NONPOLITICAL SCIENCE STUDIES

Although content analysis in general, and of media sources in particular, has a long and established pedigree (Berelson, 1952; Holsti, 1969; Riffe, Lacy, & Fico, 1998), analysis of Web sites is a recent area of study. A number of disciplines beyond political science have turned their attention to issues of measuring and analyzing Web site content. These include the fields of library or information science, media and communication, marketing, and also education. Although there have been more recent and radical proposals to move away entirely from the manual coding of Web sites to an automated method of analysis (see Bauer & Scharl, 2000), most of these studies have used subjective coding.³ As in political science, these approaches can be divided broadly into qualitative and quantitative approaches. Although the specifics of the research questions posed have differed across disciplines, most have centered, as in political science, on issues of purpose and design. Information science has generated considerable work on this topic. Although it has focused on problems of assessing information quality on the net (McMurdo, 1998), it has also devoted effort to providing quantitative scoring of sites using criteria such as graphics, sound, and navigation tools (Everhart, 1997, 1998). Cohen and Still’s (1999) empirical study of 100 library home pages contrasted those within Ph.D.-granting colleges and 2-year colleges on a number of criteria relating to extent and accessibility of information provision and site complexity.

Business studies have adopted a more practical approach by attempting to understand how corporate images can and should be created on the Web (Aldridge, Forcht, & Pierson, 1997; Hoffman, Novak, & Chatterjee, 1997; Pardun & Lamb, 1999) and how the Internet can aid marketing (Herbig & Hale, 1997). Consumer psychology studies have engaged in content analysis of sites for rather different purposes, assessing the persuasive techniques employed by low-credibility groups (extremist hate groups) on the WWW (McDonald, 1999). Education research has also developed quantitative evaluation instruments to assess

the functionality and design of educational sites (Knupfer, 1997; Reeves & Dehoney, 1998). A significant number of education-based studies have also focused on more practical questions about how to design effective sites for Web-based instruction (Gillani, 1998; Maddux, 1998; Maule, 1998). Communication studies have examined differences between online newspapers and their conventional counterparts (Li, 1998).

Thus, although these studies have originated in varying disciplines, their aims have been very similar to those of political science, namely to identify the purpose of sites and judge the utility of their design. Furthermore, the methodology employed to address these questions has not differed significantly from that employed in political science. Researcher-specific indices of information provision or presentation using criteria such as presence of graphics, links, e-mail contacts, and search engines are fairly commonplace, with some studies employing more calibrated measures than others.

CONCEPTUALIZING PARTY ACTIVITY ON THE WEB

To develop a methodology for identifying what parties are doing online, and how well they are doing it, some theoretical expectations about these ends should first be elaborated. To do this, we begin by identifying the key properties of the new media. Building on the work of scholars who have examined the new media's effects on society (Abramson, Arterton, & Orren, 1988; Rogers, 1986; van Dijk, 1999), it is argued that the WWW changes the nature of communication in five crucial ways compared with traditional media: (a) Volume—far larger quantities of information can be sent compared with previous modes of media communication. (b) Speed—compression of data and more space for communication decrease the amount of time it takes to send a message. (c) Format—the style of the message sent is changed as the combination of print and electronic communication allows information to be sent in audio, video, and text form. Thus, in-depth, and also dynamic and visually stimulating communication are possible, simultaneously. (d) Direction—the possibilities for two-way and truly interactive or synchronous communication are greatly expanded on the Web, given the greater space and speed for information transmission. In addition, horizontal or lateral communication between groups and individuals is also dramatically enhanced due to the immediacy of hypertext linkage between sites. (e) Individual control—given the opening up of control over the direction in the sending and receiving of messages, power is decentralized to the individual consumer who has the choice of what to view, and also perhaps more significantly, what to publish. In summary, therefore, Web-based communication has the potential to be a more immediate, dynamic, in-depth, interactive, and unedited process than is possible in conventional media.

Given these distinctive properties, what are the particular ways in which we would expect parties to be using the WWW? To address this question, we need to identify party functions in general, and as they relate to media communication in particular. Then we can establish how these needs can be served or enhanced by the Web. In the vast array of party literature, four basic party goals have been detected (Budge & Keman, 1990; Harmel & Janda, 1994; Katz & Mair, 1994, 1995; Lucardie & Rihoux, 1998; Panebianco, 1988; Strom, 1990): (a) vote maximization and electoral campaigning—parties are essentially engaged in electoral strategy to produce the maximum coalition of voters; (b) pursuit of executive office—whereby parties are seeking to govern and control state power; (c) policy advocacy—parties are organizations that build and pursue policy, ideological, and issue interests; and (d) pursuing internal democracy—some parties develop strategies that seek to maximize participation and democracy within party decision-making structures. Clearly, in engaging in these activi-

ties, parties also play a wider democratic role of (e) socializing and linking citizens into the broader political system through recruitment, mobilization, and issue advocacy.

The traditional media has become a central tool for parties to pursue these basic goals (Norris, 2000) because it allows them to communicate with the mass electorate on a daily basis (particularly the vote-maximizing and the policy advocacy goals). Parties now spend an increasing amount of resources devising ever more sophisticated media strategies in attempts to control the news agenda and market themselves successfully (Norris, Curtice, Sanders, Scammell, & Semetko, 1999). So how have parties translated their basic goals into an online format, and what added value does the new media provide? This theoretical starting point and the existing empirical evidence of party-Web activities suggest a number of functions that parties will be performing online: (a) information provision, (b) campaigning, (c) resource generation, (d) networking and organization strengthening, and (e) promoting participation. The rationale for these expectations and the nature of these functions are elaborated on below.

Information provision. This refers to efforts by parties to disseminate information to the general public about their identity and policies (i.e., their history, overall orientation, and current activities) in an educational and socializing manner, rather than an explicitly vote-winning way. This function is clearly improved by the Web given the enhanced volume and speed of data transmission made possible, and its low-cost-high-reach properties. Effectively, parties' Web sites can act as storehouses or archives for essential background information.

Campaigning. Although most things that parties do can be construed as campaigning in some sense, we refer here to overt attempts by parties to recruit voters on their sites. Modern campaigning is promoted by the Web in a number of ways: (a) greater space for information and more individual control means that party messages can be specialized or targeted much more; (b) enhanced speed of communication allows continuous updating of information and rapid rebuttals of opponents' attacks; (c) the dynamic multimedia format of the Web provides a new way of reaching existing audiences and perhaps also reaching a new audience. Young people, who as first-time voters are fiercely fought for by parties, are disproportionately attracted to the Web (Norris, 1998, 1999); and (d) the interactive communication flow means that there are frequent opportunities for parties to push their message to voters on an individualized basis and also measure voter opinion through e-mail or opinion polls. Overall, the broad reach and low cost of this media renders it an attractive additional space to compete for support, particularly by the smaller parties.

Resource generation. This refers to efforts by parties to raise financial support and also to recruit new members. The immediacy and interactive nature of Web communication, combined with its wide global reach, opens up a huge potential for recruitment of new members and financial donations. Given the increasing security of financial transactions on the Web, the use of such means of resource generation are growing in appeal.

Networking. This refers to parties' efforts to build and strengthen internal and external organizational links. Internal linkages include those between constituency organizations, elected politicians, central headquarters, and internal pressure groups, such as the labor unions and feminist activists. External links include those between the party and other bodies such as interest groups, government departments, or media outlets. The Web enhances par-

ties' capacities to build these links simply because of the extra space it provides for discussion of the issues of relevance for these groups. More significantly, however, the hypertext links of the Web allow for organizations to build "one-stop shops" to their internal branches from their central Web site, or link to external organizations across the world.

Promoting participation. This refers to parties' efforts to increase citizens' engagement in the political process. The Web can promote this in a number of ways: (a) by offering more information, more quickly, and in multimedia format, Web sites make information gathering easier; (b) the global reach of the Web allows parties to publicize any events and demonstrations to more people; and (c) by increasing the possibilities for interactive communication, new opportunities for joining or assisting a party are offered, as well as more chances for contacting and debating with party leaders directly. Also, through the use of "real-time" discussion and chat groups, it is also possible for citizens to engage in debate with one another.

CODING PARTY ACTIVITIES ON THE WORLD WIDE WEB

The coding scheme proposed below is designed to address two questions: Are parties and candidates performing the hypothesized functions with their Web sites? How well or effectively are they performing these functions?

Function

To assess functionality, the coding scheme was organized around the broad direction of information and communication flow (ICF) on a Web site. Four categories of ICF were specified: downward, upward, lateral (inward or outward), and interactive. The first three categories of ICFs are unidirectional in that communication is predominantly one-way: downward from the organization to the individual user, upward from the user to the organization, or lateral (i.e., outward from the organization to other bodies, or inward to internal groupings). Interactive ICFs are distinguished as two-way or multidirectional substantive contacts between organizations and individuals whereby input from one side (usually the user) has a strong expectation of producing a response from the other side. The key here is that the contact is actively initiated by the user and involves a meaningful level of engagement. Thus, a request for a particular page by a user when moving around a Web site does not constitute an interactive ICF. Equally, transactional communications such as donating, where the exchange is nonsubstantive and largely one-way, are considered to constitute an upward rather than interactive ICF.

A distinction was drawn within the category of interactive ICF between asynchronous, or sequential interaction, and synchronous or real-time exchanges. Therefore, a search engine was considered an asynchronous interactive mode of communication because a response follows user input after a certain time interval and cannot then be subject to modification. Chat rooms, however, allow for free-flowing communication in which both input and responses are subject to continuous modification.

The contents of party and candidate Web sites were divided up according to which of these ICFs they promoted, and variable scores were developed for each of the items identified. The variables and their measures are listed in Table 1. The variables identified are based on three in-depth surveys of UK political party Web sites (Gibson & Ward, 1998, 2000; Ward & Gibson, 1998), the international studies referred to above, and the online source *Netpulse*.⁴

TABLE 1
Indicators for Information and Communication Flows

<i>Feature</i>	<i>Measure</i>
Downward Information Flows	
Organizational history	→ word count
Documents (e.g., manifesto)	→ summed word count
Policies	→ summed word count
Values/ideology	→ word count
Structure	→ word count
Who's who	→ average word count per person
Newsletters	→ number available (including archived copies)
Media releases (e.g., speeches)	→ number available (including archived copies)
Candidate profiles	→ average word count per person
Leader profile	→ word count
Election information	→ summed word count
Event calendar	→ present (1), absent (0)
Frequently asked questions	→ summed word count
Negative campaigning	→ summed word count
Credit claiming	→ summed word count
Targeted pages	→ number of groups targeted
Upward information flows	
Donation	→ download form (1), online inquiry form (2), online transaction, (3) no reference (0)
Merchandise	→ download form (1), online inquiry form (2), online transaction (3), no reference (0)
Cookies	→ present (1), absent (0)
Lateral/horizontal information flows	
Partisan links	→ number of groups supportive of organization goals
Reference links	→ number of general information sites
Internal links	→ number of suborganizational groups
Interactive information flows: Asynchronous	
Download logos/posters	→ number of opportunities
Site search	→ present (1), absent (0)
Online games/gimmicks	→ present (1), absent (0)
E-mail contact	→ number of addresses offered
E-mail feedback	→ e-mail address (1), e-mail requesting comments (2), online form/poll (3), no reference (0)
Join e-mail list	→ present (1), absent (0)
Join online campaign	→ present (1), absent (0)
Membership	→ download form (1), online inquiry form (2), online transaction (3), no reference (0)
Absentee voting	→ information (1), e-mail inquiry contact (2), download inquiry/registration form (3), no reference (0)
Bulletin board	→ present (1), absent (0)
Interactive information flows: Synchronous	
Chat room	→ present (1), absent (0)
Online debate	→ number of opportunities to debate candidates/leaders (set time period)

Although this list is comprehensive, it is not seen as being definitive. Other researchers might choose to add or delete certain items to suit their purposes. For instance, to code candidates' Web sites, leader and candidate profiles could be collapsed into one and organizational history dropped. Items relating to structure and a who's who, however, might be retained because candidates may put details of their campaign team on the site. Equally for

interest groups, information relating to elections could be removed, although most other features could be retained. However, the key utility of the scheme lies in the fact that it offers a standardized tool for entering information about Web sites. Thus, as campaigns innovate on the Web and new features are developed, they can be slotted into this skeleton framework.

Delivery

The second component of interest in Web sites, their effectiveness in delivering those functions, was broken down into six basic components: presentation and appearance, accessibility, navigability, freshness, responsiveness, and visibility (see Table 2 for measures).

Presentation/appearance. Otherwise known as the “glitz” factor, this component was broken down into two sub-dimensions: flashiness (graphics emphasis) and dynamism (multimedia properties). The visual appeal and entertainment that such features add to a site are considered to make it more effective in delivering its message than static, plain-text pages.

Accessibility. Although a site may have a high level of glitz, this will be undermined if the site is offline, takes a long time to load, or various features and/or pages cannot be viewed. There are proactive features a site can include that indicate an organization’s commitment to accessibility, such as foreign language translations or software for the visually impaired. In addition, considerations such as the size of the home page would affect accessibility of the site in practice.

Navigability. A site that is easy to move around in and makes it simple to locate particular information more effectively communicates its message. A number of factors can facilitate moving around a site efficiently such as site maps and search engines.

Freshness. This is considered key to effective delivery of site content. Sites that are regularly updated will create more interest than those that are not. Sites that are stale would probably deter visitors.

Responsiveness. This refers to the capacity with which the site responds to a relatively simple and specific request for information. It can be broken down into two components: the speed of response and the quality of the response. If a site’s function is identified as promoting participation or information provision, then this serves as a measure of how well it delivers on those goals.

Visibility. Finally, in addition to these measures of site performance, measures of the visibility of the site on the WWW were developed. To deliver its contents effectively, a site has to be relatively straightforward to locate. A party might have the most glitzy and accessible site, but if it is not visible on the Web, then it is failing to deliver its content.

AN EMPIRICAL EXAMPLE

Tables 3 and 4 are used to illustrate how the coding scheme is applied in practice, to expand on some of the measures, and to discuss any potential limitations on data gathered from the Web sites of two major parties in different political systems: the British and Australian Labour parties.

TABLE 2
Indicators for Site Delivery

<i>Feature</i>	<i>Measure</i>
Graphics/flashiness	→ total number of images or pictures
Multimedia/dynamism	→ moving icons (1), audio (2), video (3), live streaming (4)
Freshness	→ updated daily (6), 1 to 2 days (5), 3 to 7 days (4), every 2 weeks (3), monthly (2), 1 to 6 months (1), more than 6 months (0)
Accessibility (in principle)	→ no frames option (+1), text-only option (whole site) (+1), text-only documents to download/print (+1), foreign language translation (+1), blind/visually impaired software (+1)
Accessibility (in practice)	→ (a) site working (1), inaccessible (0) (b) size of home page in Kb
Navigability	→ navigation tips (+1), number of search engines (+n), home page icon on each page (+1), major site area links/menu bar on each page (+1), site map/index (+1)
Responsiveness (speed)	→ same day (5), 1 to 2 days (4), up to 1 week (3), up to 2 weeks (2), up to 1 month (1), more than 1 month (0)
Responsiveness (quality)	→ number of words, (0) if irrelevant to query
Visibility	→ (a) number of links in (b) yahoo party index, present (1), absent (0)

The Australian Labour Party (ALP), February 10-17, 2000: ICF

In terms of downward information provision, organizational history and structure were clearly identified pages, two levels down from the home page. For documents, the word counts for three items were summed: the ALP's platform, adopted at the 1998 conference; the party constitution; and a series of International Reports on the ALP's involvement in Labour issues overseas. The ALP discussed its position on four distinct policy areas: proposals for a national coastguard, the Asia-Pacific Economic Cooperation Forum (APEC), drugs, and employee entitlements. The discussion of the new Goods and Services Tax (GST) was primarily an attack on the Liberal party and was counted as negative advertising along with a page called "The Howard Project," which was prominently displayed on the home page. Only those items that were headlined explicitly as criticizing other parties or were predominantly about the opposition were counted as negative campaigning. Attacks nestled in larger policy discussions were not counted. The credit-claiming pages were focused on the most recent Hawke and Keating Labour governments and were titled as "Achievements." Although extensive, as reflected in the total word count, they were not as prominently displayed as the negative material on the Liberals, being placed in the second-level section "About the ALP." Ninety-nine individuals, including members of parliament (MPs), the president, and the national and international secretaries, were profiled in the "People" section with biographies of 265 words on average. The average word count per entry is used here because simply counting the number of people profiled or using overall word counts would discriminate against smaller parties with fewer personnel that provided more biographical information on their people. The ALP newspaper, the *Labour Herald*, was presented as a link on the home page, and six copies in total were available online (three were archived copies dating back to

TABLE 3
Sample Coding of Information and Communication Flow (ICF)

<i>Variable</i>	<i>ALP</i>	<i>UK Labour Party</i>
Downward ICF		
History	2,450	3,193
Documents	88,646	19,386
Policies	25,121 (4 items)	111,786 (11 items)
Values/ideology	3,979	82
Structure	1,785	0
Who's who	265 (99 people)	206 (29 people)
Newsletters	6	0
Media releases	1,242	85
Candidate profiles	0	0
Leader profile	490	384
Election information	766	1,356
Event calendar	0	1
FAQ	483 (7 questions)	0
Negative ads	3,301	2,917
Credit claiming	23,291	5,277
Targeting	3	3
Upward ICF		
Donation	0	3
Purchase merchandise	0	3
Cookies	0	0
Lateral ICF		
Partisan links	11	16
Reference links	2	27
Internal links	19	5
Interactive ICF: Asynchronous		
Download logo	0	0
Site search	1	1
Online games	0	0
Number of e-mail contacts	107	22
Feedback	3	3
Join e-mail list	0	0
Membership	2	3
Join online campaign	0	0
Proxy/absent vote	0	1
Bulletin board	0	0
Interactive ICF: Synchronous		
Chat room	0	0
Online debate w/ leader	0	0

NOTE: ALP = Australian Labour party; FAQ = frequently asked questions.

February 1998). ALP politicians' statements formed the bulk of the media releases (more than 900 presented); transcripts of media conferences and interviews were featured, as were speeches (dating back to spring 1999). No candidate profiles were available as there were no elections ongoing. There was a leader profile, information about the working of the electoral system, and a glossary of electoral terms, although these latter items were hidden in the pages on party structure. The 1998 federal election site was archived along with the constitutional referendum pages; however, neither of these were used for coding purposes. There was no event calendar, and the "Frequently Asked Questions" (FAQ) focused on the Internet and the ALP rather than on the party more broadly. Targeted groups included women, the trade

TABLE 4
Sample Coding of Delivery

<i>Variable</i>	<i>ALP</i>	<i>UK Labour Party</i>
The glitz factor		
Graphics/flashiness	112	438
Multimedia	3	1
Freshness	5	5
Accessibility		
In principle	1	1
In practice		
Site working	1	1
Size of homepage in Kb	17	NA
Navigability	7	6
Responsiveness		
Speed	0	0
Quality	0	0
Visibility		
Number of links in	437	716
Yahoo party index	1 (6th)	1 (8th)

NOTE: ALP = Australian Labour party; NA = not available.

unions, and Young Labour, each of which had separate pages of information describing their role in the party.

In terms of upward or transactional information flows, there were no facilities for donation or purchasing merchandise. Laterally, the party did offer a links page although it was not well advertised, being placed in the "Action" pages of the site. The site did not offer extensive external links of either a partisan or nonpartisan nature. Other Labour parties listed were those in the United Kingdom and New Zealand. The U.S. Democratic party was also linked. All state branches' Web sites were linked, but no local parties were listed. Nine MPs with homepages were linked from the People section rather than the main link site. The site was not highly interactive. The main features of the interactive ICF were the extensive e-mail contacts that were offered. These included the party headquarters, the leader, the international secretary, the *Labour Herald*, the UK and U.S. branch, and Young Labour, as well as most MPs (only three MPs offered no e-mail address). An online inquiry form about membership was available, although it came with a warning that responses might be slow (that indeed proved to be the case, see Delivery section). Three separate search engines were offered: a general site search, an MP/constituency search, and a media release search.

UK Labour Party, ICF

The downward part of Labour's site is certainly information heavy. The party had an obvious history page, which was given added prominence from a home page link as Labour is currently celebrating its centenary. In terms of documents, the party displayed all its recent manifestos (1997 General Election, 1999 European Union, Scottish and Welsh elections). Policy archiving was fairly extensive with 11 large policy documents available in the form of pdf files. These covered all the major policy areas. It is interesting that the site appears to be aimed at a dual audience. For the casual visitor, the main policy pages consist of short summaries, often with soundbites, whereas a link to a full document enables the more interested (such as journalists, researchers, students, etc.) to download the full detail. Labour engaged

in both credit claiming and attacks on the Conservatives (a special section titled “Tory Watch” came online in March, after this coding had been done). The overall word count for each feature reflects only the material that was obviously titled to draw attention to the party’s achievements or the other parties’ failures. There were instances in speeches or weekly briefs when Labour clearly claimed credit or blamed the Conservatives for problems; however, this material is filtered strategically throughout the site, and measuring it would prove impracticable, if not unworkable.

In terms of information about the party organization, there was a whole section of the site titled “get in touch,” which provided, on first sight, extensive links to various parts of the party. However, there was no one obvious page outlining the party structure. The youth and women’s sections had fairly detailed pages, whereas the trade union and international sections were merely lists of affiliated or sister organizations. Again, profiling of individuals appeared superficially extensive (lists of all MPs, cabinet members, members of the European parliament, Scottish and Welsh representatives, and Labour members in the House of Lords are available). Only cabinet members were provided with short biographies, although the same information was promised for all Labour MPs and representatives in the Scottish Parliament and Welsh assembly. Similarly, the electoral data simply comprised recent results (General Election 1997, the 1999 local, European Union and Scottish and Welsh elections) with brief commentaries.

The media news release archives consisted largely of recent speeches of leading politicians, again available for downloading/printing. Also included in this total were “weekly news briefs.” These were not official press releases but were clearly designed to provide a news update for journalists from Labour’s perspective. Each brief contained approximately 10 to 12 short items (similar to press releases). We counted the entire brief as one news item because they were presented as summaries. If individual items were counted separately, however, the total reported would increase significantly. This was clearly a matter of judgment for the researcher and requires consistency of application across parties, and notation in the text. In terms of targeting, there were particular pages devoted to young people, women, and also business.

The area where Labour scored particularly strongly was upward transactional information flows. The site made numerous appeals to donate, join, or support the party. There were special pages for business and potential advertisers at the annual conference and a large online shop and services section. There were no cookies to be filled in on the site.

By contrast, lateral communication scores were relatively low, with limited links to other sites within the party. For example, no local constituency sites were listed (only three regional party offices and the London party). The main links out of the site were mainly to government departments or parliament and were usually directed toward highlighting more of the government’s policy initiatives.

Overall, the site was not very interactive, though on the home page Labour local councillors are encouraged to join the Association of Labour Councillors and then link into a restricted part of the site. E-mail contacts were fairly limited and directed mainly to party officials rather than politicians. There was no list of MPs’ e-mail addresses, for example. Nevertheless, the party has a dedicated section encouraging visitors to send in their views. However, this also requires the inquirer to fill out an online form. Noticeably, Labour now distinguishes between supporters and members, having separate sections for both. You can declare your support and donate money or, alternatively, join the party as a fully paid-up member. Both are available with online forms and payments facilities. As with the ALP, there were no opportunities offered for online debate with leading figures in the party during the period of study.

The ALP: Site Delivery

The glitz factor was not particularly high for the ALP (see Table 2). There were 112 images on the site, most of which were pictures of MPs. The images on the menu bar were counted only once because they were fixed as a frame to reappear on each page. Although the original intention was to measure site flashiness with the method employed by Hill and Hughes (1998) whereby number of pages were divided by the number of images (the lower the score, the more flashy a site is considered to be; see chap. 6, p. 147), to adjust for site size, measures of number of pages proved too unreliable. Alexa, a Web navigation tool used by Margolis, Resnick, and Wolfe (1999) reports the number of pages for a Web site based on periodic Internet crawls but does not include pages excluded by `robots.txt`, `cgi-bin` and other restrictions.⁵ In addition, counting of pages was problematic because a site may constitute a single but very long page with hypertext links to quickly scroll down (see Sinn Fein's site, www.sinnfein.org). Such sites would count as having one or a few pages but may actually be larger than other sites that split their content across a number of pages. Therefore, in using the raw number of graphics to judge flashiness, two limitations are acknowledged: First, no adjustment according to site size is made. A small site with the same number of graphics as a larger site would probably appear more flashy but would be given the same score. Second, it does not take into account the evenness of the "spread" of images across the site that might affect perceptions of glitziness. For instance, if a site has a lot of graphics but has them concentrated at a lower level, it will appear less glitzy than one that scatters images across the site or puts them on its top-level pages. The score for both sites, however, could be the same according to this measure. In defense of using total graphics, this measure was considered a more objective indicator because it is designed around unresearched presumptions about site construction or viewers' online habits. In terms of the second component of the glitz factor, audio and video were available to listen to and view material from previous elections, and also the constitutional referendum, without entering the archived sites.

The site was kept up-to-date with press releases appearing on the site the day following their issuance. However, the only commitment to site accessibility was in a printer icon that appeared on every page that converted the document to basic text for printing. The site was not offline during the weeklong period of study, nor were there any problems accessing its pages or multimedia features (February 10-16, 2000). The home page at 17 Kb meant that it did not take a long time to load. Measuring accessibility by timing the site loading in practice is not reliable because it could be affected by a number of factors beyond the site's control, such as volume of traffic or the user's modem. A rule of thumb we adopt here is that a home page size greater than 30 Kb will mean there are multiple graphics and will take a long time to load for the average home user (Nielson, 1997). Navigability was emphasized by three separate types of search engine, a page of tips on navigating the site, a home page icon and a general menu bar on each page, and a clearly presented index of the site. In terms of responsiveness, the ALP's disclaimer proved a worthwhile caution because no reply was received to a query about their higher education policy 4 weeks after it was sent.

Finally, in terms of visibility, the site was fairly prominent with 437 links in, according to Infoseek's calculation (February 11, 2000). The ALP was listed sixth on Yahoo's index of Australian parties, following alphabetical order. Yahoo was used because it is one of the most mainstream and widely accessed guides to the Internet globally and thus provides a more standardized measure for cross-national analysis. Other news sites, more relevant for particular countries, could also be substituted, however, if the researcher deemed them a higher profile gateway to party sites.

The UK Labour Party: Site Delivery February 2, 2000, to February 27, 2000

Although there were no audio or video features, the UK Labour party site had a glitzy feel, reflected in the high number of graphics it contained (see Table 2). Most of the images related to products in the online shop or black and white photos of Labour MPs. The site was kept up-to-date well in terms of the news section. Although no great effort had gone into making the site more accessible (print function for various documents), and some of the documents took a long time to download, no problems were experienced in using the site during the period of study. Unfortunately, we were unable to ascertain the size of the home page because the save function for the home page was disabled, and so it could not be captured as an html document. Navigability was emphasized with home icons, indexes, and menus on each page, which meant that it was relatively easy to move around the site. The site had a higher visibility than the Australian Labour party according to Infoseek, with 716 recorded links in (March 2, 2000). It was listed eighth according to alphabetical order in Yahoo.

ANALYSIS

The method most appropriate for examining the underlying functionality and form or style of party Web sites is a combination of exploratory and confirmatory factor analysis. Exploratory factor analysis is useful in the first stages of analysis because it does not force the variables to load onto particular factors. The variable loadings that emerge can then be examined for their fit to our expectations about the latent constructs or functions and aspects of delivery within sites. In brief, if our five factors emerged, we would expect to see a clustering of the variables relating to downward ICF forming the information provision factor. Items tapping lateral ICFs would form a networking factor, whereas those relating to upward ICFs, along with the membership variable, would form a resource generation factor. The participation and campaigning factors would be expected to draw heavily on the interactive ICF items. However, campaigning might also relate to the downward ICFs, whereas participation could link with some of the upward ICFs.

Once the item loadings were established, they could be used to create summary variables if appropriate (with checks for internal reliability) or removed if nonfactor relevant. For instance, if the measures of values/ideology, organizational history, and structure load together and are highly correlated, then a composite index of all three labeled *Background Information* could be constructed, reducing the number of variables involved. Similarly, if graphical flashiness and multimedia presence proved highly correlated, a summary scale of the glitz factor could be created.

Having performed the initial analysis, the researcher can now argue for the loading of certain items on specific factors. Thus, confirmatory factor analysis can then be performed whereby the adequacy of the model's overall goodness of fit can be evaluated statistically. Depending on sample size, both stages could be performed using one data set. The sample could be split and one half examined with exploratory factor analysis; the other half could then be used to test the fit of the modeled relationships. This method would allow for the initial inductive analysis to establish whether underlying functions and dimensions of site design can be identified. It also then provides a "new" sample for testing how well the hypothesized functions fit the data.

We recommend that the LISREL program be used to perform the structural equation modeling because its associated data preprocessor PRELIS is designed to accommodate noncontinuous data, measured on different scales that are nonnormally distributed (see Byrne, 1998; Holmes-Smith, 2000; Weare et al., 1999). The data are expected to be skewed

in that only a few sites will score highly on some of these measures. PRELIS allows the researcher to prepare the appropriate correlation matrix to be read by LISREL.

Once the LISREL estimation has taken place, factor scores for each of the latent functions can be created and assigned to each of the parties and/or candidates in the analysis. A similar analysis can be performed on the delivery indicators to assess whether they conform to the dimensions of effectiveness outlined. These scores can then be analyzed as dependent variables in a regression analysis so that the impact of variables such as party ideology, resources, and age can be investigated on functional emphasis with questions like the following: Are left-wing parties or candidates more likely to emphasize participation as opposed to resource generation? Can the internal relationship between site function and delivery also be examined? Do highly glitzy sites score lower on information provision and higher on resource generation? Finally, can factors also be used as independent variables? Is a certain combination of functional emphasis and stylistic form related to a high number of hits on sites and longer length of user sessions? Access to party server statistics would clearly be necessary to investigate these questions.

Pooled cross-national data. The issue of sample size is important to address here, particularly because the PRELIS preprocessing of data requires a large number of degrees of freedom, and structural equation modeling in general requires an n of at least 100. For U.S.-based analyses of candidates' Web sites, the sample size should not prove problematic. For studies of parties, however, the population with Web sites in any given country will usually not exceed 50 and may be fewer. Given that there are just over 30 observed variables to be included in the initial exploratory phase of analysis, for many countries, the number of cases will barely exceed the number of variables.

One option, adopting the most similar systems design logic (Prezworksi & Teune, 1970), is to create a pooled data set from party systems considered to be relatively homogenous institutionally and culturally, such as those in Scandinavia or Southern or Northern Europe. Country-level effects could be tested for post hoc by regressing factor scores against dummy variables for each country. This would provide some indication of whether the factor scheme is overly reliant on any one country for its coherence.

Predefined composite indices. If none of the above options are available (i.e., sample size is too small), then the methodology does not preclude the construction of composite indices (the approach used in most contemporary studies). Using the expectations about factor loadings, an additive index of information provision can be constructed by dichotomously coding downward ICFs as present or absent. Resource generation could be measured by a cumulative score of 9 from the donation, purchasing, and membership indices. A participation index using a 0 to 5 scale could be constructed assigning a point for whether the site had e-mail contacts, substantive feedback opportunities, a bulletin board, a chat room, and any online debate opportunities. Networking could be measured by the number of links to other sites. Campaigning could be scored on a 0 to 6 additive index of negative advertising, credit claiming, downloading of logos, e-mail list subscription, online solicitation of campaign volunteers, and information about absentee or proxy voting.

Parties' scores on the indices can then be compared and, depending on the researchers particular question(s) of interest, the results are probed further by breaking the indices down into a more nuanced form. Thus, if networking emerges as a variable of interest, the emphasis on partisan versus nonpartisan links could be examined. Equally, participation could be broken into different components of general openness (e-mail contact) and more substantive

forms of interaction. Parties can also be rated on the delivery dimensions and relative emphasis on glitz versus determined accessibility.

ELECTIONEERING IN THE INFORMATION AGE: DEVELOPING A RESEARCH AGENDA

By establishing a more standardized method of assessing function and form of parties and candidates' Web sites, it becomes possible to broaden the research agenda in a number of ways.

(1) *Temporally*. Repeating the measurements over time will allow us to chart the evolution of party sites and whether their principal functions changed. For example, will parties become more or less interested in the participatory functions of the Internet as access to WWW becomes more widespread? Or, will the utilitarian function of resource generation become the focus of Web site activity?

(2) *Cross-nationally*. The measures are designed to be applicable cross-nationally (having been derived from country studies referred to earlier) to allow for testing of hypotheses regarding functional emphasis and performance of Web sites. For example, (a) Does context make a difference to functional emphasis? Financial donations are considered a crucial part of U.S. candidates' sites but clearly are less important in a country where extensive state funding is available such as Germany. (b) Do left-wing parties emphasize participatory and networking functions more than their right-wing counterparts? (c) Does size make a difference to site performance (i.e., Do the major parties have more glitzy, up-to-date, and accessible sites?)?

CONCLUSIONS

The traditional media promote largely one-way, downward political communication from the elite to the masses. Limited bandwidth guarantees a hierarchical structure of information dissemination from a few sources to a wide audience. However, the new media allow for multidirectional flows of information that open up the possibilities for more upward and interactive transmission of grassroots views to leaders. New ICTs, therefore, can be seen to offer parties and other electoral actors a means of enhancing their role as socializers and mobilizers of citizenship and participation. Alternatively, it is clear that the technology can be used to further utilitarian goals by allowing for greater targeting messages and for the more widespread and faster generation of financial resources.

Given the current debates surrounding the role and continuing relevance of parties in democratic society (see Katz & Mair, 1995; Maisel, 1998), whether they exploit the opportunities presented by the new media clearly has important implications for their future. The methodology presented here is an effort, ultimately, to allow us to address these broader questions with more scientific rigor than has hitherto been the case. Are parties using the new ICTs toward promoting participation? Or, do they herald a new era of more postmodern campaign techniques, where sophisticated sound bites dominate substantive debate (Norris, 2000; Wring, 1996)? The new media only offers the capacity to provide for a more participatory democracy; it is the parties themselves and other institutions of government that need to decide to place their emphasis on these functions. This coding scheme for party activity on the WWW offers one means of assessing how far such a shift is taking place as a result of our movement into the information age.

NOTES

1. For example see Richard Belfield's (1997) damning report in the *New Statesman* where he notes that "Every party has a web site, a shop window in cyberspace, but their performance is at best amateur and at worst abysmal" (pp. 26-27). See also Jenkins (1997).
2. Such a conclusion became evident from a series of semistructured interviews the authors conducted with a total of 12 UK party Internet managers during July/August 1997. In addition, parties such as the British National Party clearly extol the virtues of the new media on their Web pages: "Cyberspace offers a new opportunity to break the monopoly of the mass media, which has ruthlessly manipulated the British people for decades into accepting the destruction of their country and of their way of life" (<http://www.BNP.net>).
3. Bauer and Scharl's (2000) innovative approach clearly offers great utility for objective assessment of a large number of Web sites in terms of their complexity and purpose. In a more limited universe of parties and candidates, however, dispensing with manual coding entirely is questioned. Thus, combining the two methods would seem to be an interesting avenue for future research.
4. *Netpulse*: An e-journal of politicking on the Internet (www.politicsonline.com).
5. See <http://www.alexa.com>.

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