

Online Participation in the UK: Testing a ‘Contextualised’ Model of Internet Effects¹

Rachel K. Gibson, Wainer Lusoli and Stephen Ward

This article offers a new test of the mobilisation thesis of Internet effects on individual political participation using data from an NOP survey of 1,972 UK adults during May 2002. The analysis differs from that of previous studies in that it significantly widens the understanding of the dependent variable—online participation—as well as introducing new Internet-specific variables as explanatory factors for this new type of participation. Using this broader ‘contextualised’ model of online political activity we find support for the idea that the Internet is expanding the numbers of the politically active, specifically in terms of reaching groups that are typically inactive or less active in conventional or offline forms of politics. In drawing these conclusions our article joins with a growing body of literature calling for the re-evaluation of the so-called normalisation thesis which argues that ultimately the Internet will lead to a further narrowing of the pool of politically active citizens by reinforcing existing levels of engagement. At a broader level we consider the findings point to the need for scholars in the area to work towards a more sophisticated theoretical and empirical modelling of participation in the online environment.

Introduction

The literature on the Internet and political participation has a short but turbulent history. The early days of intellectual exploration saw discussion range from wildly optimistic scenarios of a return to Athenian-style direct democracy and empowered citizens to deeply pessimistic predictions of the rise of ‘push-button’ democracy and the fragmenting of the public sphere. As the empirical evidence started to flow in, largely from the US, a more moderate but sceptical view of Internet effects—the *normalisation* thesis—took hold. This theory held that rather than affecting any major changes in the rate or quality of democratic participation, the Internet was simply reproducing and thereby *reinforcing* existing social biases in participation. Although this perspective has gained widespread empirical support, some recent studies have highlighted problems in accepting it as a ‘global’ theory of Internet effects. In particular, attention has been drawn to the difficulties in forming long-term conclusions from current patterns of usage, as well as the rather limited understanding exhibited by studies supporting the thesis of the dependent variable—online participation—and the wider context and new resources offered in the online environment for mobilisation.

This study builds on these critiques to provide a more comprehensive test of the mobilisation effects of the Internet than has hitherto been presented, within the European context. We do this by profiling and critiquing the empirical literature supporting the normalisation theory and then develop a more detailed or *contex-*

tualised model of online participation that takes into account a wider range of online participatory behaviours and incorporates the various new forms of stimuli present in the new media that can kick-start those behaviours. We test this contextualised model of online engagement against the more conventional or 'standard' models commonly used in the current literature with data from a specially commissioned random national survey of UK citizens conducted in May 2002 by NOP. Our findings show that while reinforcement of the already active is clearly taking place within online politics, there is also evidence of genuine mobilisation among harder-to-reach groups that are typically seen as less active. In particular, we find that using the more contextualised model of Internet-based participation, political activity is actually found to be most likely among younger people and those with a high level of Internet familiarity, regardless of socioeconomic status. In addition, while the barriers that exist to more active forms of participation among women in the offline world (e.g. contacting, joining a rally etc.) appear to be present in the online world as well, the same cannot be said for those of lower education and class status. For such groups any disinclination they may have to participate actively in the 'real' world either disappears or is substantially lowered in the virtual environment.

The results are important in that they provide new evidence from the European context of the 'radical potential' of the Internet to expand the numbers of the politically active. While we stop short of inferring any immediate or even medium-term radical changes in patterns of participation in the UK given the relatively small numbers of individuals involved, the findings are significant in the challenge they present to the ideas of normalisation and reinforcement that currently dominate the field. Essentially, while these views ultimately argue for a net negative or contraction in the numbers of the politically active as a result of the new technology, our findings point to the possibility of a net positive change to rates of participation, with an increasing number of non-traditional players taking to the virtual political environment. According to these results, although the Internet may increase the activity of those already engaged, it also facilitates a new and easier path towards political engagement among those less active or not involved in conventional politics. Further periodic study in other countries at future time points will be necessary to see if the effects persist and increase over time. The conceptual and geographic expansion undertaken here, however, will, we hope, form a basis for future analysis.

From Visionaries to Sceptics: The Rise of the Normalisation Thesis

Much of the initial work on e-democracy and political participation was exuberant in the transformation it envisaged for society. Writers such as Toffler and Toffler (1995), Negroponte (1995), Rash (1997), Rheingold (1995) and Dyson (1998) saw the Internet, along with the other new digital technologies, as something of a holy grail, a new infrastructure that made possible direct democracy and citizen empowerment. Other commentators, while still positive, took a more reformist view, seeing the potential of the new ICTs to lie in their ability to improve and 'pare down' current governance apparatus rather than replace it entirely (Mulgan and Adonis 1994; Heilemann 1996; Poster 1997; Shenk 1997; Morris 2000). Taking a

much less sanguine view, however, were those who saw the individualistic nature of the technology as inherently dangerous to democracy, reducing the possibility of collective action (Street 1992; Lipow and Seyd 1996) as well as eroding social capital and community ties (Etzioni and Etzioni 1999; Galston 2003), civil debate and discourse (Streck 1999; Sunstein 2001) and the ability to keep the government in check (Wilhelm 2000; Lessig 1999; Adkeniz 2000; Liberty 1999; Elmer 1997).

After this period of 'blue skies' thinking the social science community turned to empirical data in order to examine the veracity of the claims about the impact of the medium. The findings, however, led to much of the early speculation being rejected as over-vaunted 'hype', particularly the more positive mobilisation-related claims. Starting from the realisation that: (1) only a minority of the population in most western countries had access to the Internet, and (2) most of those that did were of high socioeconomic status, it was quickly surmised that the medium was neither an agent of the glorious revolution or apocalypse now, but a bolster for the status quo. More damning for the visionaries' hopes were the data gathered by the Pew Center in the US on Internet use, showing that levels of interest in online politics were actually quite low, despite their constituting a better resourced section of the population. Less than one quarter reported engaging in even the most basic level of political activity such as looking for information about the election in 1996. This compared highly unfavourably with the 61 per cent that reported tuning into a news bulletin during the previous day or the 50 per cent who said they had read a newspaper (Pew 1996).

The more sophisticated systematic analysis of Internet use and rates of participation that followed increased the e-democrats' gloom. Bruce Bimber (1998), in one of the first studies of the topic using American National Election Studies (ANES) data as well as his own survey material, concluded essentially 'nil' effects—with Internet use being found to be unrelated to any significant increases in citizens' levels of traditional or offline political engagement. A similar story was reported by D. A. Schuefele and Matt Nisbet (2002) in their study of New York residents using a telephone poll. Other studies did uncover some mobilisation effects, but these were confined to those who were already positively engaged in politics already (Hill and Hughes 1998; Davis and Owen 1998; Norris 2001), leading Pippa Norris to conclude that:

... the rise of the virtual political system seems most likely to facilitate further knowledge, interest, and activism of those who are already most predisposed toward civic engagement, reinforcing patterns of political participation (Norris 2001, 228).

Studies of social capital offered little respite with results proving either ambivalent about Internet effects (Putnam 2000; Uslaner 2001; Wellman, Quan Haase, Witte and Hampton 2001; Weber, Loumake and Bergman 2001), or plainly negative. Nie and Ebring (2000) and Kraut et al. (1998) reported that individuals' levels of sociability dropped and feelings of alienation and disconnection to society increased with higher Net use.

As Internet use widened and more specific data on people's online activities became available e-democrats' hopes were revived slightly, particularly with regard to young people. The Internet voting experiment in the Arizona Democratic primary

of 2000 was regarded as a great success for the medium with participation reaching record levels (Gibson 2001). High levels of take-up of e-government services in the US were reported by the Pew Center and in the UK a Hansard Society/MORI survey in the UK in 2001 on e-government initiatives showed that a significant majority would engage with their MPs, through some kind of online meeting place or via email.² Notably, 'the younger the respondents were, the more enthusiastic they were for these features to be introduced' (Coleman 2001, 4). A subsequent Hansard survey examining online behaviour then confirmed this finding, noting that younger voters (18–24-year-olds) were significantly more likely than other age groups to have visited the Westminster website—34 per cent *vis-à-vis* an average of 24 per cent—and were much more likely to do this than write to their MP (Hansard Society 2002, 22).³ Pew Center data on online contacting in 2001 also bore witness to the 'youth appeal' of the technology.⁴

The growing expectations were challenged, however, by more systematic analysis of a range of political uses of the Internet. Closer examination of the Arizona Democratic primary, for instance, showed that while young people were more likely to engage in Internet voting than older citizens, still it attracted disproportionate numbers of those with higher educational attainment (Solop 2001). Further ecological analysis discovered that such initiatives actually served as a disincentive for non-white voters (Alvarez and Nagler 2000). In terms of citizen engagement in e-government initiatives, multivariate analysis by Norris revealed a story that was in fact much closer to normalisation, with males, the better educated and the more affluent as well as those who currently vote being most likely to go searching for political information online or look up government services (Norris 2003). Finally, Tolbert, Mossberger and McNeal (2002), using attitudinal data on e-government initiatives collected in July 2001 by the CATI lab at Kent State University found overwhelming support for the reinforcement notion. The poor and those with lower education were significantly less supportive of e-government opportunities, even when it was clear that they would be available via public access points. Such findings, they argue, provide strong evidence in support of the idea that online politics will reinforce the current participation gap.

Thus, almost 10 years after the emergence of the World Wide Web in the public domain, the pendulum of academic opinion on the Internet's effects on participation had settled on a largely sceptical and ultimately negative position. While there was clearly evidence of a youth appeal, how long this would last once the novelty wore off was seen as anyone's guess. For the most part, commentators saw that it was going to be politics as usual, with any net change being the movement of more marginal players even further into the cold as established elites gained a new channel of influence. Summing the position up, one scholar remarked that there is '... an emerging scholarly consensus that patterns of Internet political participation will merely imitate the established patterns of participation in the United States' (Krueger 2002, 476).

Challenges to the Normalisation Thesis

Despite the overwhelming amount of evidence pointing towards normalisation and reinforcement as the signature effects of the Internet, a number of caveats and cri-

tiques have accumulated over time. One key qualification noted above, and issued across many of these studies, relates to the youth appeal of the technology (see Norris 2001, 84–86). Tolbert et al. (2002), for instance, despite concluding reinforcement also explicitly recognise that ‘... younger respondents are more supportive of digital democracy ...’, a finding that is significant since it suggests the potential of the medium for ‘... expanding the electorate to include a group that has been traditionally under-represented’ (Tolbert et al. 2002, 27). Such positive implications can of course always be countered by questions over the long-term sustainability of these changes given young people’s tendency to embrace, and then quickly drop, new technologies, and suspicions about any overt attempts at political manipulation.

Aside from the findings relating to young people, however, the normalisation thesis has also faced an increasing number of theoretical and methodological challenges. Shah, Kwak and Holbert (2001), for example, in a bid to unravel the ambivalence of both positive and negative effects of the so-called ‘Internet paradox’, found that by better specifying the nature of Internet activities, a clearer picture of effects was found. Information gathering was positively linked with the production of social capital, while recreational uses emerged as negatively related to people’s store of community spirit. In a further study, after accounting for the reciprocal effects between Internet use and social engagement, Shah et al. (2002) reported further positive results, finding time spent online was associated with higher levels of civic engagement. More specifically in relation to political participation, Catherine J. Tolbert and Ramona S. McNeal (2003), using NES data from 1996, 1998 and 2000, and in contrast to their earlier work on attitudes towards e-government, reported that actual use of the Internet did serve as a stimulus to voting, in particular those who used the medium for information gathering were significantly more likely to vote, net of any other traditional predictors of participation such as socio-demographic resources.

Other critiques have focused on the specification of the independent variables, and in particular the failure to incorporate those relevant for the online context. A key proponent of this approach has been Brian S. Krueger (2002). In an analysis of online participation he revealed that individual resources specific to the Internet environment, such as time online and Internet skills and familiarity, were more important than the conventional predictors of offline participation (i.e. those related to socioeconomic status), these being important largely for predicting access rather than activity online. As access becomes universal, therefore, he saw these results as suggesting that the ‘same old faces’ will actually not re-emerge in online politics. Recent research by Diana Owen (2003) on young people’s participation in a variety of online activities has further supported Krueger’s understanding. Her analysis shows that once adolescents’ socioeconomic background is accounted for, Internet use and skills move to the fore in predicting involvement in information gathering. Indeed, experience with the Internet, measured in terms of the amount of time spent online, is the greatest determinant of their tendency to seek news and information about current events, express opinions and create web pages (Owen 2003). While not expressly political, she argues that many of these activities can legitimately be seen as precursors to the development of citizenship skills behaviour in terms of signalling an engagement in the world.

Towards a Contextualised Model of Online Participation

Even if the claims about young people fail to convince, therefore, there appear to be substantial grounds for re-assessment of the current wisdom regarding Internet effects and participation. Specifically, these centre on: (1) mis-specification of the dependent variable; (2) an overemphasis on the traditional background resources associated with participation and failure to take into account the new resources and stimuli to participation that exist in the online environment. Below we outline a new model of participation that attempts to remedy these problems.

- (1) *Specification of the dependent variable.* Current studies claiming normalisation and reinforcement effects have generally been based on an examination of offline political behaviour or attitudes towards possible forms of online activity. Any studies that have analysed actual engagement in the newer forms of online participatory behaviours have tended to be quite conservative, examining types of participation with obvious 'offline' corollaries, such as contacting or information gathering. Aside from failing to provide any theoretical argument as to why Internet use *per se* would increase the likelihood of offline participation,⁵ these studies fail to capture the new and wider range of behaviours involved in online participation. While some participatory opportunities in the online environment do have corollaries in the offline world such as contacting or political discussion, the context provided by the Internet means that the activities take on new dimensions and forms that are at once more visual, immediate, self-selected and impersonal. Examples might be sending e-postcards or political jokes to friends from websites, downloading campaign software, forwarding an online petition or signing up for an e-news bulletin. Analysis of the effects of online participation, therefore, needs to conceptualise and operationalise online political activities more broadly.
- (2) *Individual resources: conventional and Internet-based.* Conclusions about the Internet reinforcing participation inequalities have been drawn largely from observations that those individuals participating online have a high store of the resources associated with offline participation, i.e. high socioeconomic status and high levels of interest in politics. While such resources may predict both types of participation, it must also be remembered that access to the Internet has been, and to a large degree still is, determined by these variables. Further, it is emerging that Internet use itself may be providing a new context-specific skill set, relevant for the online environment. Thus, studies of Internet use and participation should take care to pinpoint the role socioeconomic resources play in determining patterns of access as opposed to those of use, as well as the role that new Internet-specific skills play in shaping online behaviour.
- (3) *E-contacting and e-stimuli.* Finally, as well as under-specifying the modes of participation and individual resources required for online participation, these models fail to incorporate an understanding of the new possibilities for organisational contacting, as a means to mobilise participation. All of the models examined are centred on the individual as initiator and originator of the political activity. Though engagement in any type of political action is certainly dependent on the individual's own prior store of material and psychological

resources, it is also well known that external stimuli from groups or friends act as a significant prod to get people involved politically (e.g. Huckfeldt and Sprague 1995). The Internet, one can argue, offers a new and particularly effective means for organisations and also individuals to engage in this type of 'viral politics' or contacting. Random SMS messaging, blanket email distribution, e-postcards via a third party and unsolicited 'spam' all comprise these new tactics. While the effects of these stimuli may not always be positive, with people seeing them as invasions of privacy, under conditions of universal access they could reach a wider audience and trigger increased awareness of, and interest in, the political groups sending them. Although it is clearly reasonable to expect that receipt of such stimuli would be more common among those who are already politically active and signing up for such messages, it is also possible to envision that some expansion in the pool of the politically engaged could result from these practices. Indeed, even if only a small group of previously inactive individuals was positively affected by what they received then one can argue that the technology is having an expansionary effect.

A final concern about current studies that can be added to the list is their limited geographic scope. Although there have been some comparative studies of participation and the Internet based on data from Eurobarometers and Survey 2000 and 2002, most of the work has concentrated on the US population, largely due to the greater availability of data and larger number of scholars working in this area. While the findings from outside the US have made for similar reading regarding normalisation (Norris 2001; Witte, Amoroso and Howard 2000; Brown and Svennevig 1999), their scarcity makes any conclusions offered less than definitive. Certainly, the notion that country-specific attitudes to the new technology and politics practice might exist and produce different findings on the impact of the Internet on participation outside the US is one that we can entertain, at least theoretically.

Research Questions

We are focusing here on the key claim of the normalisation thesis that the net effect of online politics will be to enhance the political stock of those who are already involved, and reduce the influence of the more uninterested and apathetic. To do this we are expanding the conceptual and geographic focus of existing analyses by: (1) specifying a broader range of online forms of participation; (2) including the new and Internet-specific resources as independent variables that can mobilise participation; (3) incorporating the context for viral campaigning or online contacting by organisations; and, finally (4) testing the model outside of the context of the US where much of the support for the thesis has originated. Specifically, in the course of the analysis we seek to address the following sets of questions:

1. What forms of online politics take place in the UK and who is engaging in them? In particular, do we find that online forms of political activity attract a different crowd from those engaging in the real-world version?
2. What are the predictors of online political engagement, and how far do they differ to those relevant for predicting comparable offline political activities? Do Internet-related resources (familiarity, e-stimuli) enhance the explanatory power of these models of participation in the online context?

3. Finally, what do our results tell us about the power of the Internet in a more general sense? Overall, can the Internet actually mobilise the hitherto apathetic or does it really just allow the already powerful to accrue more influence?

Data and Methodology

The data used to address these questions were gathered from a face-to-face survey of the British population aged 15 years and older during May 2002 ($n = 1972$).⁶ We developed a series of measures for online and offline political participation, overall Internet experience and the extent and origin of any e-stimuli received from political groups. For *online political participation* we asked a series of yes/no questions about engagement in sixteen types of activities:

1. looking for political information on the web;
2. visiting a political organisation's website;
3. signing up for an e-news bulletin;
4. discussing politics in a chat group;
5. joining an email discussion about politics;
6. sending an e-postcard from a political organisation's website;
7. downloading software (screensavers etc.) from a political organisation's website;
8. signing an online petition;
9. sending an email to a politician;
10. sending an email to local or national government;
11. sending an email to a political organisation;
12. donating funds online to a political cause;
13. volunteering online to help with a political cause;
14. joining a political organisation online;
15. participating in an online question and answer session with a political official.

Given the focus of the article on the impact of e-stimuli and online contacting by organisations we also asked a series of yes/no questions about the more specific case of online contacting by respondents: namely, whether or not the respondent had ever visited the website of a range of political organisations (single issue protest campaigns, charity or pressure groups, political parties, anti-capitalist groups, independent media organisations and mainstream news organisations) or contacted them via email. These questions then formed the basis for the two key dichotomous measures of individuals' engagement in online politics—general online participation (ONPA) and online contacting (ONCA)—that were used in the analysis. We then also asked respondents about individuals' *offline participation* habits for comparative purposes, producing a third variable—OFFPA. This was based on a series of yes/no questions about whether respondents had:

1. voted;
2. discussed politics with friends/family;
3. contacted an elected official;
4. engaged in strike activity;
5. donated money to a political cause;

6. attended a rally;
7. joined a political organisation;
8. actively campaigned for a political organisation.

To assess the extent and impact of online organisational contact or *e-stimuli* on individuals we asked a series of yes/no questions about whether respondents ever received any political messages from organisations while on online, either directly or via friends. This included items such as news bulletins, postcards or news articles. Finally, we included a series of standard demographic indicators related to participation, i.e. gender, age, social class (self-identified) and formal education level,⁷ as well as questions about frequency and location of Internet use.

Findings

Below, we profile the general findings from the survey in terms of our first research question, i.e. the overall extent of online participation, contacting and e-stimuli received by individuals, as well as the profile of the participants, comparing that with offline participation. We then move to examine our second question about the predictors of these different types of participation. In the discussion and conclusion we address the final question about the overall implications for future participatory trends in the UK.

General Characteristics

Overall, almost half (49 per cent) of the British population reported being online. This figure matches that from the most recently released government data on Internet adoption in Britain.⁸ Our findings show that although there is variance regarding when people first started to use the technology, the bulk of current users are relatively 'mature' in terms of their Internet age, having begun three to five years ago (38 per cent) or one to two years ago (25 per cent). As Internet access progressed rapidly in the UK at the time of the survey, 23 per cent of respondents had been users for six months or less. Most of the people going online tended to become heavy users with almost half (48 per cent) spending three or more hours per week online. More intensive use of the Net is found among those with a longer experience of being online, with 52 per cent of those who have been online for at least three years being classified as heavy users compared with 34 per cent of those having started to use the Internet in the last year. This suggests a 'habituation' process whereby more activities are engaged in as the new medium is matured by the users.

Offline and Online Participatory Behaviour

If we examine the scope of offline political activities (reported in the right-hand column of Table 1) a none-too-surprising story emerges in that the less active or less demanding forms of engagement are most common (i.e. voting and discussing politics), with more active types of engagement (joining a political organisation, donating money or demonstrating) being less frequent. The proportion reporting

Table 1: Engagement in Online and Offline Political Activity in the UK

Online political activity	% of Internet users (N = 965)*	Offline political activity	% of total sample (N = 1972)
Looked for political information	8 (77)	Voted in a local, general or European election	59 (1171)
Visited the site of a political organisation	5 (47)	Discussed politics with friends/family	41 (814)
Signed an online petition	4 (39)	Contacted a politician or government official	14 (270)
Sent an email to a politician	4 (38)	Engaged in strike activity	8 (161)
Sent an e-postcard newspaper article	4 (36)	Donated money to a political cause or organisation	6 (111)
Sent an email to local/national public services	4 (34)	Attended a political rally	5 (89)
Signed up for e-news bulletin	3 (25)	Joined a political organisation (party/pressure group)	4 (87)
Downloaded software (screensavers, banners etc.) from political org. website	2 (15)	Actively campaigned for a political organisation	4 (84)
Not engaged in any of the specified activities	83 (803)	Not engaged in any of the specified activities	34 (674)

Notes: * weighted N; N for each activity in brackets below

Q: Offline, 'Have you ever engaged in any of the following forms of offline or more traditional types of political activity or not? (Multiple answers permitted)

Q: Online, 'Have you ever engaged in any of the following forms of online political activity or not? (Multiple answers permitted)

Source: NOP Poll May 2002

having voted in an election appears to be quite low but is in fact exactly equal to the actual turnout in the 2001 general election—59.4 per cent. Overall, just over two thirds of the population report engaging in some form of offline political activity.

Moving to look at levels of online participation (left-hand column of Table 1) the contrast appears quite stark. Overall only 17 per cent of the population of Internet users or 162 respondents reported engaging in any one of the specified behaviours. Those behaviours not listed in the table (eight items) were those where less than 1 per cent of Internet users reported engaging in them. As with offline participation, the most common forms of activity were also the most passive, with most people having either looked for political information or visited

an organisation's website. More active types of engagement such as signing an online petition or sending an email to a politician were less frequently observed. Follow-up analysis of these data showed that individuals tended to engage in online politics in a non-cumulative manner, with just over two thirds of the online participants engaged in only one or two forms of online activity. Thus, as well as appearing to be quite limited in scope, Internet-related participation would also seem to be a low-intensity activity overall. Of course, given the relatively shorter window of opportunity that individuals have had to engage in Internet-related political activities compared with their 'real world' counterparts, the figures should be interpreted with some caution. Also, since voting—the most common type of offline activity—is not available online at the national level, this would clearly further depress the overall pool of online participators.

Overall, however, the general impression conveyed by these figures is that online politics does lag behind more conventional forms of activity in its appeal. Significantly for our questions about the expansion or narrowing of the pool of participation, additional analysis showed that Internet users are more active in offline politics than non-users, especially in terms of the extent to which they engage in political discussion (+22 per cent), and contacting of political figures (+8 per cent). Among those Internet users who did not involve themselves in online politics, when pressed on the reasons for their reticence most revealed that it was due to a lack of interest in the subject (44 per cent) or the fact that they got enough politics offline (17 per cent). However, for just over one in ten users the primary concern centred on the fact that politics was a face-to-face activity for which the Net provides no substitute.

Online Contacting and Political Stimuli

As well as asking respondents about whether they had engaged in specific types of political activities we also asked about the extent of their contact with a range of organisations that included political parties, charities and mainstream news services such as the BBC or newspapers. In terms of the individual initiating contact with these organisations, the results, reported in Table 2, reveal quite a high level of activity, with almost one third of online users reporting having visited one of these organisation's websites or contacted them via email, with mainstream media outlets (i.e. the BBC and CNN websites) proving by far the most popular destination.

In terms of online contact running from organisations to individuals either directly or via friends and acquaintances, as Table 2 further reveals, the picture is less active, with 14 per cent of Internet users reporting that they have received any political messages from these organisations during their time online. The items most likely to be received are news updates. Requests for financial donations and e-postcards are also fairly common, email petitions and newspaper articles slightly less so and election-related material the least frequently received. Further analysis of receipt of these stimuli reveal that they are generally not 'one-offs' with the individuals receiving them tending to report receiving at least two. Also, the source of the item tends to be known to the recipient with 13 per cent coming from friends or

Table 2: Online Contacting of Political Organisations by UK Citizens

	% of Internet users (N = 965)*
Individual to organisation contact (email or visited website)	
Mainstream news media organisation	26% (248)
Charity or pressure group	8% (74)
Political party	5% (46)
Alternative/indy media organisation	3% (28)
Single issue/protest campaign	3% (24)
Anti-capitalist group/network	2% (14)
None of these**	70% (674)
Organisation to individual contact	
E-news bulletin	8% (76)
Request for donation to refugee/political cause	5% (50)
E-postcard	5% (44)
E-newspaper article	4% (37)
Email petition	4% (40)
None of these	84% (811)

Notes: * weighted total N; N for each activity in brackets below

** Figures for 'None of these' increase to 87% (N = 844) if calculated excluding contacts of mainstream news media sites

Q: (indiv to org) 'Have you ever visited any website or emailed any of the organisations on this card or not?' (Multiple answers permitted) For news media: 'A mainstream news organisation like the BBC, *The Guardian*, *The Times*'
 Q: (org to indiv) 'Political organisations such as parties and lobby groups make use of the Internet to provide information about themselves and the issues they are concerned about. Thinking about the time that you have been online have you ever received any of the following regarding a political organisation or campaign or not?' (Multiple answers permitted)

Source: NOP Poll May 2002

acquaintances and 52 per cent directly from the organisation itself, while 17 per cent came from an unknown source.

Who is Engaging in Online and Offline Political Activity

We then moved to identify who was engaging in these forms of political activity and in particular how far online participants resembled their offline counterparts. To do this we compared the basic demographics and socioeconomic status (SES) of online participants with those engaging in any form of offline political activity (see Table 1). At first glance the results certainly seem to indicate that offline politics is a more inclusive form of participation than online. Even when we exclude voting and focus on more active forms of engagement these data show that offline participants are more representative of the overall population, being only slightly more likely to be male, of higher social status and better educated. Online participants, on the other hand, are significantly more likely to be male, highly educated and of high socioeconomic status.

Table 3: Sample Demographics and Characteristics of Internet Users, Online and Offline Participants

		Sample demographics %	Internet users %	Engaged in online politics %	Engaged in offline politics %
Gender	<i>Male</i>	49	56***	66***	49
	<i>Female</i>	51	44***	34***	51
Age	<i>15–24</i>	15	22***	30***	10***
	<i>25–34</i>	18	25***	28**	18
	<i>35–44</i>	19	23***	23	20
	<i>45–54</i>	16	17	11	18***
	<i>55–64</i>	13	8***	7*	14*
	<i>65+</i>	19	4***	1***	20
Social grade	<i>AB</i>	18	27***	30***	20**
	<i>C1</i>	29	37***	43***	32***
	<i>C2</i>	21	19*	11***	20
	<i>DE</i>	32	17***	16***	28***
Terminal education age	<i>13–14</i>	11	1***	1***	11
	<i>15–16</i>	49	36***	21***	47*
	<i>17–18</i>	16	21***	21	17
	<i>19+</i>	17	28***	37***	20***
	<i>Students</i>	7	13***	21***	5***
Totals		N = 1972	N = 965	N = 162	N = 1298

Notes: Significance of difference from each category's average is indicated by * = sig. $p < 0.05$; ** = sig. $p < 0.01$; *** = sig. $p < 0.001$

Source: NOP Poll May 2002

Combined with the earlier figures on the greater interest among Internet users in regular political activity offline these results strongly suggest that reinforcement has well and truly taken hold. However, some caveats need to be acknowledged here. First, it is clear that the digital divide in Internet access is still in evidence in the UK as Table 3 also shows. Compared with the population as a whole, represented here by our sample demographics, Internet users overall are more likely to be male, highly educated and of higher (AB or C1) social grade. The greater proclivity among the more affluent and educated towards online participation is hardly surprising, therefore. Second, a much more positive story about online participation emerges from the table when one considers the results for younger citizens and students. Young people's rates of engagement in online politics far outstrip their engagement in more traditional forms. While only 10 per cent have acted

politically in an offline context, a full 30 per cent of those aged 15–24 years of age have engaged in any form of online political activity.⁹ Probing more deeply into the profile of the online participators we find that there is a small subset ($n = 25$) engaging only in online politics, eschewing entirely the offline version. Although few in number, the demographics of these individuals are noteworthy in that they are more likely to come from younger age groups and be of lower social grade, with 43 per cent of them classified as DE status. In addition, they are more likely to be recent recruits to the Internet. Thus, it would seem that underneath the reinforcement headlines there is a different story that we now set out to investigate more closely.

Regression Analysis

To identify better the causal relationships at work among these variables, more systematic analysis was conducted. In total, a series of eight logistic regressions were performed with a range of six dependent variables. Four of these dependent variables were forms of offline participation (OFFPA)—vote, discuss, contact and involvement in organisational activities, i.e. collapsed measure of donate/join/campaigned for items. The other two dependent variables measured online participation. The first, ONPA, was a more general measure of online political activity with respondents being coded one if they had engaged in any one of the 16 activities listed earlier. The second, ONCA, was a more specific binary measure of whether respondents had engaged in any online contacting of the organisations specified in Table 2. The goal in each analysis was to test the explanatory power of the standard individual resources or SES model of political participation, and for the ONPA and ONCA to compare that with the contextualised model of online participation, i.e. one which included Internet resources/skills and online stimuli or contact from organisations.

Table 4 presents the results from eight logistic regression analyses on our three basic types of political participation. The first four columns present the significant coefficients for offline political activity split into its different types—voting, discussing politics, contacting and involvement in a political organisation—as predicted by our basic demographic characteristics. The last four columns present the results for engagement in any one form of online participation (ONPA) and for the specific case of contacting or accessing information about a political organisation (ONCA). Each of the models is tested with demographic variables alone as predictors (SES model) and then also with a range of offline participation variables, as well as whether or not the individual received any e-stimuli, and their Internet familiarity, measured by length of Internet use (complete model).

Mirroring results over the last 30 years, we found that traditional offline politics, particularly more activist forms such as discussing politics and contacting politicians, is more likely to be engaged in by males, those who are older, and those of higher socioeconomic class and, especially, higher formal education (models 1 to 4). Testing online contacting (ONCA) with the same range of SES variables (model 5) reveals a rather similar picture emerging with both gender and social class influencing participation rates. Translating the log odds into the probability change indicates that being female reduces the likelihood of online contacting by 12 per cent

Table 4: Predicting Offline and Online Participation and Organisational Contacting

	Vote (1)	Discuss (2)	Contact (3)	Org activity (4)	Online contacting SES (5)	Online contacting Complete (6)	Online activity SES (7)	Online activity Complete (8)
Sex (Female)	1.20	0.79*	0.81	0.63**	0.51**	0.59*	0.60**	0.78
Age (15–25)	0.19***	0.68	0.23**	0.20***			5.16*	9.14*
Age (26–35)	0.73		0.60				4.89*	6.31*
Age (36–45)							4.61*	5.32*
Age (46–55)			1.42					3.09
Age (56–65)			2.09**	1.53			3.209	
Class (AB)	1.66**	2.24***	2.50***	1.71*	3.42**			
Class (C1)	2.03***	1.78***	1.62*		2.21*			
Class (C2)	1.30	1.45**	1.59*				0.582	0.44*
TEA (17–18)		1.65*						
TEA (19+)		1.91**	1.85	2.73**				
TEA (Student status)				3.20*				
Length of internet use (five steps)						1.18		1.33**
Vote (Yes)								
Discuss politics (Yes)						3.46***		2.34***
Contact (Yes)						1.60		2.17**
Organisational (0–4)						4.31***		2.76***
Stimuli: newspaper article by email								2.71*
email petition								2.66*
e-news update						3.60**		
election material by email						4.39***		
Constant	1.29	0.45***	0.10***	0.88***	0.00	0.00	0.040*	3.13*
N	N = 1972				N = 922			0.01**
Correctly classified	67.4%	62.7%	86.3%	89.5%	88.0%	90.4%	83.2%	86.3%
Cox and Snell r square	0.10	0.06	0.06	0.04	0.05	0.21	0.05	0.20
r square difference from baseline model	—	—	—	—	—	0.16	—	0.15

Notes: Figures reported are Exp(B). Only coefficients significant at $p < 0.20$ are reported (excluding constant). * = sig. $p < 0.05$, ** = sig. $p < 0.01$, *** = sig. $p < 0.001$. TEA refers to terminal education age. The bottom category (13–14 yrs) was set as the reference term; the first intermediate category (15–16 yrs) yielded non-significant results and was therefore omitted.

and being from higher social status (AB compared with DE) increases the probability by 28 per cent. Although being younger does not appear to increase this type of participation, being older does not appear to exert the same force as it does for more traditional or offline contacting as reported for model 3.

When examining online participation (ONPA) and the standard SES variables (model 7) we can see that this follows a similar pattern in terms of female gender bias (–6 per cent); however, it is far less influenced by class and education than the previous models. Most notably, age proves to be the most significant background factor of importance with younger people more likely to engage in this range of participatory activities. Our results show that 15–25-year-olds are 40 per cent more likely to be involved in online politics than those aged 65 years and above and 7 per cent more likely than those older than 35 years. Comparing these findings against the figures from Table 3, therefore, these results clearly show that SES resources, while important in predicting who is online or has access to the technology, do not perform so well when it comes to predicting who will engage in politics using the new media, particularly if one takes into account the newer and less conventional types of activity (i.e. ONPA). Indeed, contrary to the story emerging from offline participation, education and wealth do not appear to play any strong determining role in online participation.

The radical nature of these findings is ameliorated somewhat when we add in the variables tapping political interest and engagement in offline politics (models 6 and 8). As the coefficients show, they add significant explanatory power both for online participation (ONPA) in general and organisational contacting (ONCA). An additional 2.5 per cent and 3.1 per cent respectively are correctly classified. Those who discuss politics offline and those who are engaged in organisational activities display a 29 per cent and a 34 per cent increase, respectively, in the probability that they will contact political organisations online, *ceteris paribus*. However, before concluding the normalisation thesis to be alive and well it is also clear from these models that even when taking these factors into account there remains an important role for online stimuli in explaining both types of online participation.¹⁰ In particular, receiving an email petition and an electronic information bulletin increases the chance of contacting online respectively by 30 per cent and 35 per cent. Receiving a newspaper article or election-related material increases the chances of online participation more generally by 18 per cent and 21 per cent respectively.

A further finding of significance in relation to mobilisation effects is that even after controlling for Internet skills, offline activities and e-stimuli, the variable for age remains significant for ONPA (model 8) and actually increases in magnitude compared with model 7. Younger people are found to be far more likely to engage in online politics than older citizens—on average 9 per cent for all respondents below 36 years of age. The same does not occur for online contacting, however. Such findings suggest that regardless of their socioeconomic standing, levels of interest in politics and offline political behaviours, younger people are still more inclined towards engaging in a variety of forms of online politics, learning as they go, supported by online virtual networks. They are less animated when it comes to more focused activities such as contacting organisations. A further important difference

to emerge between ONCA and ONPA in terms of the factors increasing their likelihood is that Internet-specific resources (as measured by length of time online) also continue to be relevant for ONPA once these other variables are introduced. These figures show that every step up the Internet familiarity scale produces a 4 per cent increase in the likelihood of engaging in online politics. Translating this into the mobilising potential of the medium, this suggests that Internet use itself is important in encouraging online political activity in general, though it does not appear to be particularly relevant for the more particular instances of contacting political organisations.

Before moving to discuss the wider implications of these results it is important to address more closely the causal relationship between e-stimuli and participation. Clearly an argument can be made that the receipt of e-stimuli, rather than being a prod to online participation itself, actually results from prior engagement by individuals in some kind of political activity. Inevitably, there is an important element of reciprocity between the two, particularly in relation to ONCA; however, we consider that the causal or independent effects of e-stimuli on online participation can be identified in this analysis in a number of ways. First, from the existing results it is clear that different e-stimuli had a greater or lesser effect on the two types of online participation. While organisational contacting (ONCA) responded more strongly to e-bulletins and email petitions, online participation more broadly conceived (ONPA) was stimulated by receipt of newspaper articles and election-related material. While not speaking directly to the presence of reciprocity this finding certainly suggests that different causal dynamics are at work here. In particular, one can argue that the link between online contacting and e-news bulletins is more likely to take the form of a virtuous circle in that receipt of this information is generally produced by individuals having previously contacted an organisation and subscribed to it. Newspaper articles and election material more generally, however, might be more likely to constitute unsolicited mail from friends, family or acquaintances, and therefore serve in a more independent mobilising capacity.

Taking a more proactive approach to unravelling the causal effects of the e-stimuli variables, we then removed them from the contextualised contacting model and general online participation models (6 and 8), and re-ran the analysis. We found that for ONCA (model 6) this did not lead to any dramatic changes to any of the reported coefficients, nor does it bring to the foreground formerly non-significant predictors. The only noticeable effect is the inflation of the log odds of traditional political activities, mainly organisational involvement, which does indicate a degree of multicollinearity.¹¹ It is in fact quite possible that we have uncovered another *virtuous circle* between contacting organisations online and receiving political material by email, both based in pre-existing patterns of engagement.¹² No such thing happened when we removed e-stimuli from ONPA (model 8) however, which suggests a closer, unmediated link between online stimuli and participation activities. If a circle exists, then it is undoubtedly 'virtual' in nature. These findings were seen to support further the interpretation of online contacting as a more 'traditional' type of activity that is more strongly linked to patterns of offline rather than online participation dynamics. In a second step, we then re-ran the contextualised ONPA model (8), limiting the e-stimuli variable to include only those items received from

friends or anonymous sources, rather than the organisation itself. This limited the impact of self-selection bias, as we excluded e-stimuli our informants might have subscribed to. The result was a $p. < 0.01$ significant $\text{Exp}(B)$ of 3.02, higher than the original, general coefficient. In this case, we might postulate the existence of more general 'political network' effects, which include both the organisation and the circle of friends and acquaintances that gravitate around a political organisation. Even this would not entirely dismiss the e-stimulus-effect component of the circle (*ceteris paribus*).

Conclusions

The findings from this analysis are significant for a number of reasons. Overall, the article offers the first systematic study of UK citizens' online political behaviours and thus provides evidence from the European context to leverage against the largely US-focused literature on this topic. More specifically, however, our analysis has shown that UK citizens engaging in online participation are significantly different from citizens engaging in existing and more traditional forms of politics such as contacting politicians and officials, discussing politics and being involved in organisational activities. In particular, while female citizens and those from poorer backgrounds are less likely to do more activist politics offline or contact organisations online, they are equally likely to engage in online participation in general as men and higher social status individuals, once existing levels of political involvement and experience on the Internet are taken into account. For young people, the results are perhaps even more noteworthy in that they emerge as significantly more likely than their older counterparts to engage in online politics, holding these other variables constant.

Thus, although the statistics at first glance suggested Net-based participation to be largely the playground of well-educated and wealthy men, further analysis has revealed that the online world is offering a space for political engagement among those who might not have been otherwise active. Secondly, while this analysis has not attempted to explore the underlying attitudes and resources that might explain the greater attraction of Net-based participation among these groups, the analysis has suggested that a significant factor may lie in the technology itself. Even with a pre-existing interest in politics, receiving e-stimuli and developing experience of the Internet increase the likelihood that one will engage in organisational contacting and online participation. Such findings support the idea that there is a new set of resources coming to the fore in the sphere of online politics that are Internet-specific and unrelated to those linked to offline participation.

Importantly, we also found that online contacting and online participation draw on different sets of resources. Online contacting (ONCA) was found to be more similar to traditional, offline participation (OFFPA). Online participation (ONPA) more broadly conceived, however, showed a small but theoretically significant 'radical potential', linked to the age profile of the users, a process of technological learning and the reception of 'friendly' political stimuli online. While we have not explored in depth precisely what such 'virtual' resources might be, one can argue that they would be closely associated with the acquisition of greater

skills and expertise in navigating the Net and perhaps even building web pages. In addition, the 'prod' provided by the online messages sent by organisations serves as an additional 'external' resource, unique to the virtual world. Whether the expansionary effects of such 'mobilisation' are offset by the intensification of participation among the already active is clearly an important question to address, and one that will become clearer over time.

As already noted, one should certainly be cautious in interpreting the impact of e-stimuli. That is, the causal relationship no doubt will run in both directions. When a citizen visits the organisation site, they might opt to receive an e-news update bulletin, or log in their contact details for navigation profiling. In addition, an e-stimulus out of the blue from an organisation via its membership database or from a friend could well lead to a subsequent visit to the site or email contact with the organisation. This is increasingly more frequent, as political e-news and party bulletins tend to embed links in email text, prompting users to visit the organisation's site. The task for future studies on this topic, therefore, will be to disentangle further the causal relationship at work here.

Overall, the research presented here has opened up the field for more in-depth theoretical and methodological investigation of the link between being online and being politically active. Our analysis provides a contextualised and comprehensive understanding of online participation, and thus a more valid test of the linkage between Internet use and participation. Our results have shown that the socio-economic resource models of participation before the Internet do not have the same currency in the online environment. Contrary to the ideas of the normalisation theorists, these resources appear to be important largely for determining access to the technology; however, their influence fades once people are online, as a new set of Internet-related skills moves to the fore. As such, our analysis provides a promising basis for further investigation of the Internet as a tool of political socialisation, as well as the importance of networking and external stimulants to political participation. Following these findings up more fully would require more than the survey tools used here, however. The first and most obvious way is to use panel survey data, where people are followed up to see whether their Internet political habits have changed over time.¹³ Second, one can go the way of the experiment, or the quasi experiment, as Shanto Iyengar (2001) advocates, and Pippa Norris and David Sanders (2001) attempted at the last election. Finally, one can examine case histories, *ex post facto*, of activists in ICTs and politics, and attempt to establish the mediating role of political organisation and information received. The latter avenue is currently being explored by the authors using data from UK party members.

About the Authors

Dr Rachel K. Gibson, SCSPRI Centre for Social Research, Research School of Social Sciences, Australian National University, Canberra ACT 0200, Australia, email: Rachel.Gibson@anu.edu.au

Wainer Lusoli, London School of Economics, email: w.lusoli@lse.ac.uk

Stephen J. Ward, Oxford Internet Institute, University of Oxford, email: Stephen.ward@internet-institute.oxford.ac.uk

Notes

1. A previous version of this article was presented at the Annual Meeting of the American Political Science Association, Boston, Massachusetts, 2002.
2. The report found that a majority (58 per cent) of Internet users or 68 million Americans had ever visited at least one government website, with 41 per cent of those visiting several times per month. In addition, almost two thirds (60 per cent) of the government website users reported that using the sites had improved their interactions with at least one level of government, see *The Rise of the E-Citizen: How People Use Government Agencies' Web Sites* by Elena Larsen and Lee Rainie, 3 April 2002. Available at: http://www.pewinternet.org/reports/pdfs/PIP_Govt_Website_Rpt.pdf, accessed 29 March 2004. Similarly positive results emerged from a study by the Council for Excellence in Government in the US in 2003 that revealed the Internet was the second most popular method for communicating with the government after face-to-face contact. See 'E-gov happiness breeds more use' by Diane Frank, 14 April 2003, *Federal Computer Week*, <http://www.fcw.com/fcw/articles/2003/0414/web-egov-04-14-03.asp>. Accessed 15 April 2003. See also 'Survey Finds Americans Split on E-Government' by Judy Sarasohn, 14 April 2003, *Washington Post.com*, <http://www.washingtonpost.com/wp-dyn/articles/A19407-2003Apr13.html>. Accessed 15 April 2003. For analysis of UK Hansard figures see Coleman (2001).
3. Other reports on youth participation following the 2001 election from the Electoral Commission (2002), Howland and Bethell (2002) and the Government's Children and Young Peoples Unit (2002) also indicated the usefulness of technology in engaging younger voters.
4. Based on the 2001 Pew Internet and Community Survey. The questionnaire, data set and basic cross-tabs are publicly available for academic research at <http://www.pewinternet.org> from 8 February 2002.
5. Bimber (2001) offered one of the few explicit justifications for this assumption when he claimed that Internet access implies a greater volume of information available to them at reduced costs. However interesting, Bimber's analysis fails to demonstrate convincingly whether this leads to increasing or decreasing political returns on the information acquired, respectively suggesting reinforcement or mobilisation (see also Bimber 2003).
6. NOP omnibus survey of British adults aged 15 years and above. A random location method was used to select 175 sampling points (electoral constituencies) from which individuals were randomly selected. Quotas were applied for age and sex within working status for field interviews.
7. Social class is based on current or last occupation, according to the 'social grade' scale of the Market Research Society (also used in the UK Census). A: Higher managerial, administrative or professional; B: Intermediate managerial, administrative and professional; C1: Supervisory, clerical, junior administrative or professional; C2: Skilled manual workers; D: Semi and unskilled manual workers; E: State pensioners, widows, lowest grade workers. Education is measured with terminal education age, 13-14, 15-16, 17-18 and 19+ years of age.
8. For instance the authoritative OFTEL Residential survey of Internet use, see the 29 April 2002 release at <http://www.oftel.co.uk/publications/research/2002/q8intr0402.htm>. See also the July 2002 report from National Statistics, found at <http://www.statistics.gov.uk/pdfdir/intacc0702.pdf>.
9. The use of age categories was an inherent feature of the data provided by the NOP. However, empirical research in this area has consistently shown that the use of cohorts is appropriated in this area, as age effects in Internet use tend to be generation specific and non-linear. Internet usage patterns generally show an increase up to the point of 35 (our first two categories) and then a levelling out around middle age, with a fall thereafter which is precipitous after 65 years (e.g. see data from Eurobarometer 58.0). Although sacrificing the precision of a continuous variable, the age categories used here are thus adequate in terms of fitting the relationship observed thus far between Internet use and age.
10. Of the factors considered, only receiving an email postcard (not reported in the table) has no relation with online participation of the two different sorts.
11. The model fit (Cox and Snell) decreases from 0.20 for the complete model to 0.16 for the model excluding e-stimuli. The presence of multicollinearity more generally was examined in a number of ways. Item by item correlations did not reveal any scores above 0.80 for variables of interest, although some interaction between education and length of Internet use was evident. Re-running the models to account for this interaction, however, yielded no significant change to the results reported. In a further test we also re-ran model 8 (complete ONPA) excluding all e-stimuli (given their anticipated multicollinearity with existing levels of political activity, i.e. OFFPA), but found coefficients for traditional political engagement variables were unchanged, again save for a slightly inflated error term for organisational activities (as generally is the case with logistic regression). Finally, we measured multicollinearity using OLS, with ONPA as dependent (suggested by Menard 2002). No VIF above 2, general multicollinearity ruled out (Menard 2002).

12. We are grateful to one of the anonymous reviewers for informing our thinking on this point.
13. The closest to this type of analysis we are aware of is Bimber's work using repeated cross-sectional analysis (2001 and 2003).

Bibliography

- Adkeniz, Y. (2000) 'Policing the Internet: Concerns for cyber-rights', in R. Gibson and S. Ward (eds), *Reinvigorating Democracy?: British Politics and the Internet* (Aldershot: Ashgate), 169–188.
- Alvarez, R. M. and Nagler, J. (2000) 'The likely consequences of Internet voting for political representation', Paper presented at the Internet Voting and Democratic Symposium at Loyola Law School, Los Angeles, California.
- Bimber, B. (1998) 'Toward an empirical map of political participation on the Internet', Paper presented at the American Political Science Association Conference, Boston, MA, 3–6 September.
- Bimber, B. (2001) 'Information and political engagement in America: The search for effects of information technology at the individual level', *Political Research Quarterly*, 54:1, 53–67.
- Bimber, B. (2003) *Information and American Democracy* (Cambridge: Cambridge University Press).
- Brown, R. and Svennevig, M. (1999) 'Waiting for the great leap forward? New Information Communications Technologies and democratic participation', Paper presented to the UK Political Studies Association, Nottingham, 23–25 March.
- Coleman, S. (2001) *Democracy Online: What do we Want from MPs' Web Sites?* (London: Hansard Society). <<http://www.hansardsociety.org.uk/MPWEB.pdf>>
- Davis, R. and Owen, D. (1998) *New Media and American Politics* (Oxford: Oxford University Press).
- Dyson, E. (1998) *Release 2.1: A Design for Living In The Digital Age* (London: Penguin).
- Electoral Commission (2002) *Voter Engagement and Young People* (London: Electoral Commission).
- Elmer, G. (1997) 'Spaces of surveillance: Indexicality and solicitation on the Internet', *Critical Studies in Mass Communication*, 14:2, 182–191.
- Etzioni, A. and Etzioni, O. (1999) 'Face-to-face and computer-mediated communities, a comparative analysis', Paper presented at 'Virtual Communities: Eighth Annual Conference on Computers, Freedom and Privacy', University of Texas, Austin.
- Galston, W. (2003) 'The impact of the Internet on civic life: An early assessment', in E. C. Kamarck and J. S. Nye (eds), *Governance.com: Democracy in the Information Age* (Washington DC: Brookings Institution Press), 40–58.
- Gibson, R. K. (2001) 'Elections online: Assessing Internet voting in light of the Arizona Democratic primary', *Political Science Quarterly*, 116:4, 561–583.
- Government's Children and Young People's Unit (2002) *Young People and Politics: A Report on the Yvote?/Ynot? Project* (London: DiES).
- Hansard Society (2002) *Technology: Enhancing Representative Democracy in the UK?* (London: Hansard Society).
- Heilemann, J. (1996) 'Old politics RIP', *Wired*, 4:11. <www.wired.com/wired/archive?4.11/netizen.html>
- Hill, K. and Hughes, J. (1998) *Cyberpolitics: Citizen Activism in the Age of the Internet* (Lanham, MD: Rowan and Littlefield).
- Howland, L. and Bethell, M. (2002) *Logged Off? How ICT can Connect Young People and Politics* (London: Demos).
- Huckfeldt, R. and Sprague, J. (1995) *Citizens, Politics, and Social Communication: Information and Influence in an Election Campaign* (New York: Cambridge University Press).
- Iyengar, J. (2001) 'The method is the message', *Political Communication*, 18:2, 225–229.
- Kraut, R., Patterson, M., Lundmark, V., Mukhopadhyay, T., Kiesler, S. and Scherlis, W. (1998) 'Internet paradox: A social technology that reduces social involvement and psychological well-being?', *American Psychologist*, 53:9, 1017–1072.
- Krueger, B. S. (2002) 'Assessing the potential of Internet political participation in the United States: A resource approach', *American Politics Research*, 30:5, 476–498.
- Lessig, L. (1999) *Code and Other Laws of Cyberspace* (New York: Basic).
- Liberty (ed) (1999) *Liberating Cyberspace: Civil Liberties, Human Rights and the Internet* (London: Pluto Press & Liberty).

- Lipow, A. and Seyd, P. (1996) 'The politics of anti-partyism', *Parliamentary Affairs*, 49:2, 273–284.
- Menard, S. (2002) *Applied Logistic Regression Analysis* (2nd edn), Sage University Papers Series Quantitative Applications in the Social Sciences, n. 106.
- Morris, D. (2000) *Vote.com* (Los Angeles: Renaissance).
- Mulgan, G. and Adonis, A. (1994) 'Back to Greece: The scope for direct democracy', *Demos Quarterly*, 3, 2–9.
- Negroponste, N. (1995) *Being Digital* (London: Coronet).
- Nie, N. H. and Erbring, L. (2000) 'Internet and society: A preliminary report', Stanford Institute for the Quantitative Study of Society. <http://www.stanford.edu/group/siqqs>
- Norris, P. (2001) *Digital Divide* (Cambridge: Cambridge University Press).
- Norris, P. (2003) 'Revolution, what revolution? The Internet and US elections, 1992–2000', in E. C. Kamarck and J. S. Nye (eds), *Governance.com: Democracy in the Information Age* (Washington, DC: Brookings Institution), 59–80.
- Norris, P. and Sanders, D. (2001) 'Knows little, learns less? An experimental study of the impact of the media on learning during the 2001 British general election', Paper presented to the Annual Meeting of the American Political Science Association, San Francisco, 1 September.
- Owen, D. (2003) 'The Internet and youth civic engagement in the United States', Paper presented at the Joint Sessions of the European Consortium for Political Research (ECPR), Workshop 20: 'Changing Media and Civil Society', Edinburgh.
- Pew Research Center for the People and the Press (1996) *One in Ten Voters Online for Campaign '96* (Washington, DC: Pew Center). <http://peoplepress.org/reports/display.php3?ReportID=117>
- Poster, M. (1997) 'Cyberdemocracy: The Internet and the public sphere', in D. Holmes (ed), *Virtual Politics: Identity and Community in Cyberspace* (London: Sage), 212–242.
- Putnam, R. (2000) *Bowling Alone* (New York: Simon Schuster).
- Rash, W. (1997) *Politics on the Nets: Wiring the Political Process* (New York: W. H. Freeman).
- Rheingold, H. (1995) *The Virtual Community: Finding Connection in a Computerised World* (London: Minerva).
- Schuefele, D. A. and Nisbet, M. (2002) 'Being a citizen online: New opportunities and dead ends', *The Harvard Journal of Press/Politics*, 7:3, 55–75.
- Shah, D., Kwak, N. and Holbert, R. L. (2001) '"Connecting" and "disconnecting" with civic life: Patterns of Internet use and the production of social capital', *Political Communication*, 18, 141–162.
- Shah, D., Schmierbach, M., Hawkins, J., Espino, R. and Donovan, J. (2002) 'Non-recursive models of Internet use and community engagement: Questioning whether time spent online erodes social capital', *Journalism and Mass Communication Quarterly*, 79:4, 964–987.
- Shenk, D. (1997) *Data Smog* (San Francisco: Abacus).
- Solop, F. (2001) 'Digital democracy comes of age: Internet voting and the 2000 Arizona Democratic primary election', *PSOnline*, XXXIV, 2:June, available at www.apsanet.org
- Streck, J. (1999) 'Pulling the plug on electronic town meetings: Participatory democracy and the reality of usenet', in C. Toulouse and T. Luke (eds), *The Politics of Cyberspace* (London: Routledge), 18–47.
- Street, J. (1992) *Politics and Technology* (New York: Guildford Press).
- Sunstein, C. (2001) *Republic.com* (Princeton, NJ: Princeton University Press).
- Toffler, A. and Toffler, H. (1995) *Creating A New Civilization: The Politics of The Third Wave* (Atlanta: Turner Publications).
- Tolbert, C. J. and McNeal, R. S. (2003) 'Unraveling the effects of the Internet on political participation?', *Political Research Quarterly*, 56:2, 175–186.
- Tolbert, C. J., Mossberger, K. and McNeal, R. S. (2002) 'Beyond the digital divide: Exploring attitudes about Information Technology, political participation and electronic government', Paper presented at the annual meeting of the American Political Science Association, Boston, MA.
- Uslaner, E. (2001) 'Trust, civic engagement and the Internet', Paper presented at the 'Electronic Democracy' Workshop, Joint Sessions of the ECPR, Grenoble, France.
- Weber, L., Loumake, A. and Bergman, J. (2001) 'Who participates and why?: An analysis of citizens on the Internet and the mass public', *Social Science Computer Review*, 21:1, 26–42.
- Wellman, B., Quan Haase, A., Witte, J. and Hampton, K. (2001) 'Does the Internet increase, decrease, or supplement social capital?', *American Behavioral Scientist*, 45:3, 436–455.

-
- Wilhelm, A. G. (2000) *Democracy in the Digital Age: Challenges to Political Life in Cyberspace* (New York: Routledge).
- Witte, J., Amoroso, L. and Howard, P. (2000) 'Method and representation in Internet-based survey tools—Mobility, community, and cultural identity in Survey 2000', *Social Science Computer Review*, 18:2, 179–195.