

**Recent Shifts in the Relationship Between the Internet and Democratic  
Engagement in Britain and the United States: Granularity, Informational  
Exuberance, and Political Learning**

**Andrew Chadwick**

August 2010

Forthcoming in Eva Anduiza, Michael Jensen, and Laia Jorba (eds.) *Digital Media  
and Political Engagement Worldwide: A Comparative Study* (Cambridge University  
Press, early 2012).

Please ask the author's permission before citing or quoting from this pre-print.

Bio: Andrew Chadwick is Professor of Political Science and Co-Director of the New  
Political Communication Unit in the Department of Politics and International  
Relations at Royal Holloway, University of London: <http://newpolcom.rhul.ac.uk>.

Correspondence: Andrew Chadwick, New Political Communication Unit, Department  
of Politics and International Relations, Royal Holloway, University of London,  
Egham, Surrey, TW20 0EX, United Kingdom. Tel: +44 (0)1784 414131; Fax: +44  
(0)1784 276385. Email: [andrew.chadwick@rhul.ac.uk](mailto:andrew.chadwick@rhul.ac.uk)

# **Recent Shifts in the Relationship Between the Internet and Democratic Engagement in Britain and the United States: Granularity, Informational Exuberance, and Political Learning**

**Andrew Chadwick<sup>1</sup>**

The internet is evolving into one of the most significant enablers of political innovation since the emergence of mass democracy. Over the last decade, few areas of social and political life have escaped its influence. Due to the potentially huge scope of this area (see Chadwick 2006; Chadwick and Howard 2008b), this chapter has two interrelated objectives. First, following a brief explication of concepts, it discusses significant recent shifts in what we know, or should seek to know, about the internet's role in promoting political knowledge and political engagement, with reference to some important strands of literature from the United States and Britain. Second, it generates some hypotheses about the likely effects of recent changes in the online environment, through discussion of British and U.S. examples of what is now widely termed "web 2.0." The broad argument is that continuing to frame research in this area in terms of traditional understandings of engagement, participation, and deliberative democracy risks missing the significance of three key forces in the contemporary political context of these two countries: "granularity," "informational exuberance," and by-product

---

<sup>1</sup> Professor of Political Science and Co-Director of the New Political Communication Unit in the Department of Politics and International Relations at Royal Holloway, University of London: <http://newpolcom.rhul.ac.uk>. This chapter is based in part on work conducted as a member of the International Working Group on Online Consultation and Public Policy-making, an initiative of the US National Science Foundation's Digital Government Program's project on Building and Sustaining an International Digital Government Research Community of Practice (Award Number 0540069). I would like to thank all working group members for their comments and suggestions. Any errors or shortcomings are, of course, my own. Address correspondence to [andrew.chadwick@rhul.ac.uk](mailto:andrew.chadwick@rhul.ac.uk)

political learning.

## **Web 2.0, Granularity, and Informational Exuberance**

Though widely used, the concept of web 2.0 has eluded precise definition. Originally the creation of Silicon Valley technologists, it has long since escaped the business community and it is now an idea that loosely organizes a variety of concerns across a range of scholarly disciplines. O'Reilly is widely regarded to have been the first to popularize the term in 2003. His technology-focused approach defined web 2.0 in terms of seven key principles: "the web as platform"; "harnessing collective intelligence"; "data is the next 'Intel inside'"; "the end of the software release cycle"; "lightweight programming models"; "software above the level of a single device"; and "rich user experiences" (O'Reilly 2005). Chadwick and Howard (2008a) begin from these technological principles but explicate their relevance for politics, suggesting the following formulation: "the internet as a platform for political discourse; the collective intelligence emergent from political web use; the importance of data over particular software and hardware applications; perpetual experimentalism in the public domain; the creation of small scale forms of political engagement through consumerism; the propagation of political content over multiple applications; and rich user experiences on political websites." (Chadwick and Howard 2008a, 4-8).

Granularity is a metaphorical concept that has long been used in computer science but it has recently spread into other fields, such as management, information systems, and law. Benkler extends the computer science approach by observing that most successful examples of online collaboration involve breaking up large projects

into smaller “modules.” In Benkler’s terms, granularity is understood as the “size of the modules, in terms of the time and effort that an individual must invest in producing them” (2006). He goes on to argue that success is more likely when the majority of modules are “relatively fine-grained,” though there are instances of projects with coarse-grained contributions, such as, for example, in the collaborative production of Linux, the open source computer operating system.

Building upon Benkler’s approach, in this chapter, granularity refers to the extent to which the creation of informational public goods may be disaggregated into tasks of varying magnitude, where magnitude is understood as a function of resources, such as time, knowledge, experience, cognitive processing, and so on, that people are able to mobilize in the pursuit of individual and collective goals. Sociotechnical environments that have different degrees of granularity designed in – to allow citizens to innovate and perform citizenship in diverse ways – are more likely to be successful and to produce larger aggregated effects, where “success” and “effects” may be defined in any number of ways beneficial to democracy. “One-size-fits-all” environments in which classically deliberative encounters are the expectation require citizens to complete tasks that are of a much greater magnitude than those expected in nondeliberative environments.

By using the term informational exuberance I mean to capture the increasing willingness of nonelites to contribute to the collective production, reworking, and sharing of media content, with the conscious or unconscious aim of creating public goods for formal and informal political organization, coordination, and aggregation. These may include, for example, first hand reports of events, personal narratives, conversations, commentary, opinion, archives, spatial and temporal information, and lifestyle and consumption behavior, all of which may be expressed in textual and/or

audiovisual forms. In the United States and Britain, much of citizens' public informational exuberance as it relates to politics now takes place online, or it is conducted through mechanisms that involve rapid and subtle switching between online and offline realms. Due to the granularity that now characterizes the most popular online environments for politics in these two countries, most informational exuberance is nondeliberative, if deliberation is understood in the classical Athenian or Habermasian senses. By this, I mean that the small-scale forms of political engagement that have proliferated online over the last half decade are far removed from the demanding models of the deliberative and discursive democracy that provided the yardsticks for so many interpretations of the internet – both positive and negative – during the early years of scholarship in this field. And it is one of my hypotheses that these new forms may be all the more powerful for that.

Granularity and informational exuberance present challenges to deeply embedded assumptions about the relationship between media, information, and politics, but they arguably form the social roots of a new phase in the evolution of political participation, collective action, and democratic innovation.

## **Information, Learning, and Engagement**

Social scientists have long sought to understand how information shapes political participation. Early empirical studies of U.S. public opinion from the 1940s and 1950s tended to discover that individuals rarely lived up to the ideal of the informed citizen. While citizens usually reported some basic awareness of political events, most devoted more energy and attention to nonpolitical information, particularly

entertainment. Yet some scholars argued that individuals were able to derive sufficient information from the press, radio, and television through “by-product learning.” This concept, first elaborated by Downs (1957), assumes that, if given a choice, most citizens will avoid consuming political information and will instead seek out entertainment. In the context of a media environment in which choice is limited, citizens are often exposed to political information by accident: their daily diet of sports, music, movies, and celebrity gossip is interspersed with television and radio news bulletins that are hard to avoid. Downs concluded that a basic level of political knowledge – certainly sufficient to enable informed participation in elections – was a healthy by-product of a mixed information ecology. By-product learning was said to soften informational inequalities between social groups, ensure broad popular awareness of key political events and, most crucially, spur us to act on that knowledge, come election day.

Since Downs’s study, the proliferation of multichannel television and the internet have radically increased the quantity of information available to the majority of citizens in the advanced western democracies and the original conditions under which by-product learning was first proposed have vanished. But what of the aggregate effects of these developments? The by-product learning argument was hatched in an era of relative media scarcity, but for some scholars it has started to look less secure in the rather different context of a virtually limitless choice of media content. In an early study of the internet’s contribution to democracy, Sunstein (2001) argued that individuals were predisposed to filter and sort information about the social world in ways that accord with their preexisting preferences. When the technological tools to do this are highly refined and widely available, as they now are online, Sunstein argued that citizens created information “echo chambers”: meticulously

personalized spheres of communication that reflect, but do not challenge, their predilections and prejudices.

Prior (2005, 2007) has demonstrated empirically that, in the United States, individuals with a preference for entertainment now have far greater opportunities for avoiding news than they did during the “golden age” of broadcast television from the 1950s to the early 1980s. Before the diffusion of cable/satellite and the internet, Prior argues, individuals watched a lot of television, but this was no bad thing. Learning about politics via this medium was “easier” than learning through print media because it relied on images and the spoken word. For those predisposed to watching entertainment programming, by-product learning about politics while watching television played an important role in encouraging them to vote. During the mid-1960s (terrestrial broadcast television’s heyday in the United States) each household had access to an average of just 6.8 stations. Similarly, in late 1970s Britain there were only three stations per household. Now, 85% of American and 90% of British households face a bewildering, yet empowering, choice of cable and satellite stations and substantially more than two-thirds of these populations can access vast swathes of online content at home (Internet World Stats 2008; United Kingdom Office of Communications 2010). In 2010, 88 per cent of the population of the United Kingdom owned a mobile phone, 40 per cent watched “television” online, and 23 per cent reported using their mobile devices for accessing the internet and watching “television” (United Kingdom Office of Communications 2010, 1).

The high-choice media environment in America and Britain enables those with a preference for politics to satisfy their cravings in ways that were unimaginable only a couple of decades ago. But for Sunstein and Prior, in this environment, it is much less likely that those uninterested in politics will be accidentally exposed to

political content. As Prior (2007, 134) puts it: “Even though political information is abundant and more readily available than ever before, political knowledge has decreased for a substantial portion of the electorate: entertainment fans with access to new media. Ironically, the share of politically uninformed people has risen since we entered the so-called ‘information age.’”

More recently, these and several related assumptions have been placed at the center of Bennett and Iyengar’s argument that we are entering a new era of “minimal effects,” as media fragmentation becomes more deeply embedded and aligned with broader social changes associated with postindustrialism, such as the decline of solidaristic social and political institutions (Bennett and Iyengar 2008). Paradoxically, therefore, abundant information is said to create incentive structures that increase political apathy and polarization at the same time as they further stratify civic and political engagement.

But is this always the case? Recent shifts in the literature on the internet and engagement, discussed next, suggest that things might not be this straightforward.

## **Some Recent Shifts in the U.S. and British Literatures**

In the radically fragmented media environments of the contemporary Anglo-American democracies, researching the diverse ways in which individuals interact with media, and precisely how those interactions may or may not shape political behavior, has become a huge challenge.

### **Analytical and Methodological Uncertainty**

An initial contextual point here is that, despite the growth of the literature base over the last decade, the study of the internet and engagement has been characterized by a general sense of analytical and methodological uncertainty. While this could be said of many areas of the social sciences, it is a sign that political communication is a field in transition following a major exogenous shock.

Most early behavioral studies of the effects of internet use on civic and political participation emerged from the United States and tended to find that the internet's overall influence was minimal. The medium was more likely to provide further opportunities for political engagement for those already politically engaged (Bimber 2001; Hill and Hughes 1998; Scheufele and Nisbet 2002). In the late 1990s and early 2000s, only a small minority of citizens used the internet for political information. Early British studies tended to reinforce these findings. For example, anywhere between 4 and 10 per cent, depending on the survey, used the medium for information during the 2004 European Parliament and 2005 general election campaigns (Lusoli and Ward 2005, 78; Norris and Curtice 2007, 7). Meanwhile, some U.S. empirical studies of online behavior substantiated the "end of by-product learning" argument by observing, for example, how people actually consume online news. Tewksbury's (2003) analysis of website logs found that readers of online news tended to avoid content about public affairs and instead preferred sports and entertainment.

A recent meta-analysis of 38 mainstream empirical studies of the internet and engagement in the United States unearths a total of 166 separate "effects" (Boulianne 2009). It reveals that most studies have attempted to use as dependent variables some fairly standard measures of civic and political participation derived from pre-internet

political science in the American pluralist tradition (for example Verba, Schlozman, and Brady 1995). Political participation is usually operationalized as traditional behaviors that are obviously focused on political institutions and shaping policy, such as voting, donating money, attending meetings, letter-writing, discussing issues, and so on, though it may also include less formal behavior such as protesting in marches and demonstrations, volunteering in the local community, and signing petitions. The standard independent variables have usually included internet use or nonuse, number of hours spent online, different technology uses (email, web browsing, instant messaging, and so on), or online and offline media consumption habits. The consumption of news has, for understandable reasons in liberal democratic contexts, been perceived as a particularly important independent variable for political engagement. Most of the U.S. studies have used multivariate statistical analysis and have controlled for variables that shape participation, such as education and income. A surprisingly high proportion of empirical work has used web surveys to gather data, and many studies have focused on subsamples of internet users derived from random digit dialing telephone surveys. The majority of studies model internet use as affecting participation, but some studies reverse this, by assessing how prior levels of engagement affect internet use. Some only include online activity in their measures of political participation (for example Kobayashi, Ikeda, and Miyata 2006). Some combine online and offline behavior into composite scales, but do not distinguish between effects on online and offline action (for example Weber, Loumakis, and Bergman 2003; Wellman et al. 2001). The majority only test internet use effects on offline action. These uncertainties raise questions which arguably deserve greater attention, especially given the recent shifts in the nature of the online environment.

## **The Abundance and Complexity of Information**

Though she does not explore it in detail, a key finding of Boulianne's meta-analysis (2009) is a consensus that the internet has a small but positive effect on participation and that this effect is becoming stronger over time. What might underlay this development? Contrary to the "end of by-product learning" thesis of Sunstein and Prior, or the "new era of minimal effects" argument of Bennett and Iyengar, some have theorized that the characteristics of political information online – its quantity, richness, timeliness, and accessibility – create a media environment more beneficial for the acquisition of the knowledge and skills required for politics. In an ongoing series of team-authored studies, Shah and colleagues integrate several large U.S. datasets to examine whether informational uses of the internet encourage civic and political engagement when compared with traditional media, especially newspapers. Their early results revealed that the internet played only a minor role in this regard (Shah, Kwak, and Holbert 2001), though a significant finding from a 2001 study was that using the internet to exchange political information generates higher levels of political trust than uses of traditional print and broadcast news media (Shah, McLeod, and Yoon 2001).

The latest U.S. studies, however, are beginning to get under the skin of the internet's functions in everyday communication about politics, and how these functions may lead to civic and political engagement. They reveal the emergence of a more complex political communication environment, with the internet rivaling, and, in some U.S. work, exceeding, television and newspaper consumption as a spur to engagement (Shah et al. 2005). A range of mediation and interaction effects between traditional media use, direct campaign messages, interpersonal communication and

online interactivity are now observed (Shah et al. 2007). As Shah and colleagues put it: “Online news use and interactive political messaging – uses of the web as a resource *and* a forum – both strongly influence civic and political participation” (2007, 696). And these findings have been reinforced by a recent book by Mossberger, Tolbert and MacNeal (2008, 47-66), who discover that across three American election campaigns (2000, 2002 and 2004), those who read political news online were more likely to have higher levels of political knowledge and political interest and were more likely to engage in discussion about politics.

This shift towards a more complex understanding of the internet and engagement is now starting to inform the British literature. For example, Norris and Curtice’s (2007) analysis of internet use during the 2005 British general election finds evidence of a classic two-step flow of communication. The two-step flow model, first proposed by Lazarsfeld, Berelson, and Gaudet (1944), and much discussed since, argues that specialized forms of political communication such as manifestos, speeches, and now website content are unlikely to reach a mass audience but are highly likely to reach informed activists. Those activists, termed “opinion leaders,” engage in interpersonal discussion with those in their immediate surroundings, indirectly informing the less-engaged. Norris and Curtice demonstrate that those who go online to acquire political information are statistically more likely to talk to others about the election (both online and offline) than those who do not go online. As they conclude: “it appears that the reach of the internet during the 2005 election campaign was rather greater than appears to be the case from simply looking at how many people used the internet for themselves to find out about the election.” (Norris and Curtice 2007, 11).

The discovery of more complex, often interpersonal, flows of political

information and more diverse internet usage patterns by citizens in Britain and the United States should come as less of a surprise if we consider how the supply of opportunities for online political activity has increased since the internet's early period of diffusion in the mid-1990s. As web technologies have evolved and expanded over the last decade, so too have the political repertoires available to citizens. Early work in this area was based on the assumption of an online realm in which basic websites formed the core experience of those wishing to pursue politics online. Few could have foreseen the recent rapid innovations in networked online software services. Not only do American and British citizens now have many more opportunities to participate in mediated politics, the means by which they are able to do so are far more granular and interpersonal than they once were.

### **Revisionist Perspectives on Deliberation**

A recent shift in the U.S. literature on political deliberation also has implications for the internet and engagement. Deliberation has provided an important organizing perspective and normative model for scholarship on the internet and politics (for an overview see Chadwick 2006, 83-203). Yet just as the literature on the internet and engagement has recently shifted towards an emphasis on granularity and complexity, so too has the broader literature on deliberative democracy. These revisionist approaches now ought to inform studies of democratic innovation online.

There has long been a divide between normative and empirical approaches to deliberation (Thompson 2008). Mutz has gone as far as to suggest that "frustration remains on both sides due to our inability to accept one another's assumptions and even to understand one another's terms" (2008, 522). Studies of the internet,

especially those in the United States, have replicated this divide because they have often been fueled by highly unrealistic expectations of citizen behavior, not just in normative terms but also empirically. At stake here is the extent to which the ethical justifications for the promotion of deliberative democracy may be operationalized as testable hypotheses and applied to deliberation in “real world” settings by social scientists, where the “real world” now firmly includes the online environment. Mutz argues that studies of deliberation should move away from all-or-nothing approaches, such as, for example, the assumption that deliberation creates legitimate consensus. Instead, she advocates a new orientation based on Merton’s well-known idea of theories of the “middle range” (Merton 1957; Mutz 2008, 522). Taking Mutz’s view on board means moving away from deliberation as the supreme independent variable and universally positive outcome, and towards exploring mechanisms that “partially comprise deliberation” (Mutz 2008, 531). Rather than seek to construct increasingly elaborate normative edifices which can then be applied to deliberative encounters, we ought to generate more circumscribed hypotheses about the conditions under which specific desiderata from deliberative theory may or may not be achieved. We ought also to consider whether deliberative modes of decision making are in fact always suitable for the production of particular outcomes desirable for democratic politics, such as citizens’ political interest, sense of political efficacy, and so on.

Part of the problem here is that the majority of the studies of online democracy begin from the assumption that “true” deliberation is, in itself, always and everywhere, intrinsically valuable; they then tend to conclude that an online environment is or is not deliberative (for example, Hindman 2008, 138-139). In terms of Mutz’s critique, such studies have developed criteria that may be used to assess online communication for its deliberativeness without questioning either whether a

setting that meets those criteria actually produces the desired outcomes or, more importantly for my argument, whether *nondeliberative* contexts are capable of producing the democratic goods that deliberative contexts are supposed, but so often fail, to create.

### **Web 1.0 to Web 2.0: Three Arguments on the Transition**

At least three important arguments flow from these recent shifts in the U.S. and British literatures on the internet, engagement, and deliberation.

The first is that citizens' digital network repertoires (Chadwick 2007) have expanded considerably and studies of online engagement in the U.S. and Britain are steadily catching up. Work that conceptualizes the internet as a simple conduit for the vertical transmission of messages from source to receiver now appears limited. Even the two-step flow model is a limited tool for making sense of these trends. The internet is a multifaceted medium, and it partly functions as a series of network mechanisms for the organization of horizontal, interpersonal, communication among citizens. The useful knowledge that flows through these networks stimulates involvement in political campaigns and other civically beneficial activities, and this knowledge is increasingly, though not exclusively, derived from online, not traditional, sources (Shah et al. 2007, 691). There is also evidence that these kinds of effects are more strongly created by, and experienced among, those less involved in traditional political activity, such as women and young people (Gibson, Lusoli, and Ward 2005; Pasek, More, and Romer 2009).

With so many recent quantitative and qualitative shifts in online behavior, as

greater numbers of people have become involved, not only in the consumption but also the *production* of digital content, we need to disaggregate what we mean by “the internet” and to operationalize the diverse range of activities that occur in the online environment when compared with much simpler, one-to-many, media such as television. Though there are, at the time of writing, no published studies that explore this question (though see Bode 2010), as I have argued previously (Chadwick 2009), it is a reasonable hypothesis that hugely popular user generated content sites such as YouTube and social network environments such as Facebook encourage more by-product learning about politics than do static web pages. While the internet’s enormous potential for political information retrieval does not imply that individuals will always use it for those ends, and it is clear that attitudinal variables such as partisanship will act as important mediators, there is a danger that we neglect opportunities for by-product learning in the online environment. A recent review of the literature on online news posits, among other things, that many use the internet in the same way that they use other media, and general browsing is just as important as “echo chamber” style filtering (Tewksbury and Rittenberg 2008, 199). Other studies have found that it is practically impossible for citizens to avoid dissonant views in the online environment (Garrett 2005), that ideological segregation online is typically lower than in face-to-face social interactions (Gentzkow and Shapiro 2010), and that citizens typically engage in much political discussion in online arenas that are formally nonpolitical, such as those related to hobbies and lifestyles (Wojcieszak and Mutz 2009). Indeed, there is evidence that even during the period of the early web, before blogging, social network sites, and user generated content expanded, individuals sought out dissonant views (Brundidge and Rice 2008; Stromer-Galley 2003) and they did experience by-product learning effects (Tewksbury, Weaver, and

Maddex 2001). In other words, media fragmentation may not always lead to “minimal effects”; it may simply be that the sources and modalities of these effects are different in the new media environment (Holbert, Garrett, and Gleason 2010).

The second point to be made about these recent shifts is that it is less analytically useful to conceptualize engagement and participation along the lines first established during the early wave of empirical research. Many of the current assumptions about how to measure engagement date from the wave of Anglo-American studies of the late 1980s and early 1990s (see, for example Parry, Moyser, and Day 1992; Verba, Schlozman, and Brady 1995). But given that *solely online* political expression is a growing part of citizens’ political behavior, is it sufficient to model the effects of simple internet use variables (such as time spent online) on solely *offline* behaviors (such as voting or attending town hall meetings)? Kirsten Foot and Steven Schneider convincingly argue that political websites should be understood as distinctive zones of political action: “surfaces on which campaigns’ production practices are inscribed over time and evolving structures that simultaneously manifest and enable political action” (Foot and Schneider 2006, 5). I have argued elsewhere that “repertoire switches,” spatially – between online and offline realms, and temporally – within and between campaigns, now characterize political mobilization (Chadwick 2007, 283). How citizens use and contribute to informational exuberance, together with the rapid expansion of a diverse range of meaningful online opportunities for political action, present challenges to the assumptions of the first wave of literature on the internet and engagement.

The third point here is that revisionist critiques of the deliberation literature (Fung 2007; Mutz 2008) are highly pertinent for understanding recent shifts in the nature of the internet’s role in democratic innovation. Though they do not of course

use the term, these approaches assume granularity. There is no natural, immutable link between a set of normative principles and institutional design across all policy problems and contexts. Equally, there ought to be no automatic assumption that democratic goods are always more likely to emerge from classically deliberative encounters. As Fung puts it “A democrat for whom deliberation and public reason are cardinal values need not prescribe citizen deliberation, or even deliberation, for every problem... Democratic theorists should widen their sources of inspiration and constraint to include the disciplined consideration of the consequences of the fullest range of institutional alternatives for collective decision making and action” (Fung 2007, 445, 456).

In the remainder of the chapter, by way of illustration, I sketch out a range of intriguing themes that emerge from recent developments in the United States and Britain. These ought to be on the research agendas of all scholars interested in the internet and engagement.

## **Granularity in Web 2.0 Politics<sup>2</sup>**

The internet’s role in daily life has changed a great deal over the last half-decade. Contemporary web applications are dominated by a distinctive usability ethos that was often absent from the earlier phases of the web’s development. Early critical accounts of internet-mediated politics often bemoaned the growth of a digital divide between DIY websites and the glitzy, “professionalized” sites of the wealthy and powerful. While it would be a mistake to ignore the sophisticated backend

---

<sup>2</sup> The next two sections expand upon Chadwick 2009, 26-33.

technologies that enable web 2.0 sites to function, the usability doctrines of figures such as Nielsen (1999) and Maeda (2008) have had a major influence on the look and feel of the contemporary web. Accessibility and ease of use are the core principles of extremely simple messaging platforms such as tumblelogs (see <http://www.tumblr.com>) or Twitter (<http://www.twitter.com>). The UK's MySociety projects are based on the principle "small is beautiful" and they enable citizens to do one simple thing, easily, and elegantly (<http://www.mysociety.org>).

TheyWorkForYou, for example, provides an intuitive searchable interface to Hansard, the record of all British Parliamentary proceedings. Debates are listed in an easy to follow format, but more importantly, they allow for citizen comments on specific parliamentarians' speeches. Once submitted, citizen comments appear alongside the original speeches, and citizens are able to comment on the comments of others. The site also provides opportunities to learn about the views and behavior of MPs, including their voting record, speeches, committee membership, and entries in the register of members' interests (<http://www.theyworkforyou.com>). In granular sociotechnical environments such as this, complexity emerges from the aggregation of many simple contributions.

High-, medium-, and low-threshold tools for democratic innovation exist side by side in a panoply of online environments, such as threaded discussion forums, group and individual blogs, wikis, audio messaging, video messaging, social network profile pages, friend lists, shared calendars, shared address books, shared document databases, shared spreadsheets, and shared tag clouds. This list could be extended. Many web services now rely upon large numbers of individuals behaving with regularity in low-threshold ways. A threshold is here understood to be a function of an individual's calculation about the expected utility of participating in a given activity,

based on the likelihood of participation by others (Granovetter 1973; Miller and Page 2004; Olson 1965, 164). The key point about low-threshold political behavior online is that much of the technological architecture of web 2.0 applications *designed in* low- and high-threshold activities, and many variants in between. An example is the division of labour typified by many news aggregators and blogs such as Digg (<http://www.digg.com>), BBC News Online, and AOL News (<http://news.aol.com>). This user generated content circulates around reactive, story-telling models and a division of labour. Citizens write stories and a sample of these is opened up to comments and ratings. Some tell the stories, others make brief comments, and others rate both the story and the comments with a simple button-click. Highly rated stories rise to the top of the list. Many of these stories begin life as stories about other stories – remixed versions of the content of others. A good policy example comes in the form of “Frank,” a user generated element on the UK government’s drugs awareness site for young people (<http://www.talktofrank.com>). The page allows users to write and upload their own stories, providing an interesting combination of an information site with a public health agenda that is now relying on user content to help it fulfill its role. The popularity of this approach is explained by the fact that it is a granular, not an all-or-nothing, model. Quantitatively and qualitatively different forms of contribution are facilitated by the technological architecture. Many citizens seem to find mixing together sources of digital content originally created by others to be a compelling and worthwhile experience. While it would be an exaggeration to say that the political economy of political content creation has been transformed, it has shifted in significant ways.

Just as these environments lower thresholds for citizens, they also lower them for political elites. A major disadvantage of deliberative models is their high-stakes,

“one-size-fits-all” approach. Many risk factors present themselves in this environment (Chadwick 2011a), but three are particularly salient. First, forum participation rates will be low, which will attract negative media coverage, and will, over time deter citizens from entering a forum for fear of “standing out.” Second, the forum descends into irrelevance or “flame wars,” and becomes heavily censored or an embarrassment. Third, the forum’s sponsors fear losing control of its agenda and either design in severe restrictions, overmoderate it, or disown it.

Granular environments, where different repertoires of engagement sit side-by-side, from postings to comments to ratings to wiki editing, and so on, do not eliminate these risks but will reduce them. Consider, for example, the UK Foreign Office’s group blog (United Kingdom Foreign Office 2008). This features entries by the UK’s Foreign Minister, junior ministers, career civil servants and occasionally guest writers. David Miliband, the British Foreign Secretary from 2007 to 2010, began blogging while a minister at the Department of the Environment. Miliband’s blog concentrated on policy and ministerial work and featured a commenting facility. The entries were moderated, and rarely received large numbers of comments, though they were read by many (Hansard Society 2007). But the advantage of the blog format is that comments and interaction are not pivotal to the experience: many blogs have no comments, but this is generally accepted as part of the blogging ecology and does not deter their authors. The general sense of an ongoing flow of material in a conversational style also avoids the perception that this is a high-stakes, tightly managed environment. The amount of time and staff resources required to run a group blog are also fewer than those required to run a deliberative forum. Skeptics point to the fact that some politicians’ blogs are ghost-written, but many are not. For example, the Hansard Society’s researchers found that Miliband wrote his own entries (Hansard

Society 2007, 21).

The hypothesis that increasing granularity reduces the risk of failure also relates to the presentation of politicians' and officials' online personae. Politicians' blogs and YouTube videos tend to avoid jargon and formal stump speech and press release genres. The microblogging services such as Twitter, the ultimate in low-threshold action because it permits individual messages only 140 characters long, take this informality to extremes. Yet many politicians have adopted it with relish. As with blogging, there is much skepticism regarding politicians' use of Twitter. Barack Obama was criticized for supposedly suspending his Twitter feed once elected in November 2008. However, the account was not in fact suspended, and was used to publicize the White House's "Open For Questions" initiative of March 2009, at which, according to the White House site "92,937 people submitted 103,981 questions and cast 3,602,695 votes" (United States White House 2009). Twitter has also provoked controversy on the grounds of its superficiality and transience, but it has evolved into a distributed "back channel" medium at political meetings, as those present use it to converse with each other, as well as with broader networks of followers. Twitter is also playing a major role in contributing to the hybridization of new and old media, by reconfiguring intralite communication among journalists and politicians, as well as occasionally integrating nonelite members of the public into news-making assemblages during important political events that are simultaneously mediated via other channels, most notably television (Chadwick 2011b).

The granularity of web 2.0 also offers more powerful means of increasing trust among online participants than the older models of political discourse based on open web pages, discussion forums, and Usenet. Trust is one of the most valuable and most elusive forces in online politics. Anonymity and pseudonymity may encourage

freedom of expression but they also constantly undermine sustained collaboration in problem solving. Government-run online consultations in Britain have been criticized for their insensitivity to how the sociotechnical environment encourages or undermines trust (Wright 2006). Web 2.0 environments do not wholly solve these problems, but in recent years some interesting models have emerged for sustainable coproduction, reflecting a blend of self-governance and regulation (see Benkler 2006). Wikipedia relies on a mix of spontaneous self-correction by the army of volunteer “Wikipedians” and an expanding conception of hierarchy (entries are now frequently locked down; prominent warnings are increasingly displayed at the top of contentious or incomplete entries). Politicians have started to experiment with such mechanisms. During the 2010 British general election campaign, the Conservative Party (now in government) ran two major wiki-style “crowd-sourcing” initiatives, the first on the Labour government’s final budget, and the other on Labour’s manifesto. The budget consultation was particularly intriguing. UK opposition parties are always at a disadvantage in the immediate aftermath of a new budget, where the information asymmetry is at its most acute due to governments’ ability to draw upon civil service expertise for their approach. Minutes after the government’s document was published, the Conservatives’ uploaded it to an interactive website that enabled Conservative supporters to highlight and comment critically on the budget’s key priorities. The site received approximately a thousand comments and these went on to shape the party’s response through the mainstream media.

## **Informational Exuberance and Political Learning in Web 2.0 Politics**

It would be naive to suggest that coproduction environments such as Wikipedia and Digg create the high levels of trust that are typical of face-to-face encounters such as deliberative polling. But they do encourage voice and loyalty, while discouraging exit (Hirschman 1970). In this sense, the small scale interactions in these environments offer potentially valuable lessons for online deliberative consultations, where ease of exit has long been perceived as a barrier to citizen and government participation. Some of the online mechanisms of web 2.0 encourage greater trust through a variety of means that tap into citizens' informational exuberance: use of real names, continuous presence, clear archives, inclusion of photos, address details, and so on. These provide for a richer representation of a citizen's "real life" identity. Interactions among citizens in these enclosed environments are a long way from the freewheeling libertarian ethos of Usenet in the 1980s and 1990s – much admired by the early e-democracy movement in the United States – but they do reduce the risk of politically embarrassing comments and they also offer balance, by providing political elites with a greater sense of control over the terms of engagement.

Social network sites provide areas in which individuals express many different facets of their identities and in which diverse lifestyles and values play out. The affordances of social network environments encourage us to build our lives online. As discussed above, it has been argued that the internet is a "purposive" medium and is therefore less likely to have by-product learning effects in comparison with other media such as television, where serendipitous encounters with political information occur in the context of entertainment. But while this may have been true of earlier phases of the internet, the emergence of social network applications has altered the context. Political life in Facebook occurs amid the everyday life characteristics of the environment, in much the same way as "third places" function in community-

building, social capital, and civic engagement away from the home and the workplace (Oldenburg 1997). Politics here aligns itself with broader repertoires of self-expression and lifestyle values. Politics in Facebook goes to where people *are*, not where we would like them to be. In 2007, when the company opened up its code as a means of encouraging programmers to create extra features, this unleashed a wave of new “applications.” The majority of these are concerned with the expression of lifestyle choices and consumerism, but political applications, of which there were over 1200 by early 2009, include “Causes,” which in April 2009 averaged 22.3 million monthly active users mobilized around a vast array of topics, such as the environment, human rights, healthcare, trade, poverty, and organizations, such as political parties, advocacy groups, and trade unions (Facebook 2009a, 2009b).

Many Facebook profile pages are now a mish-mash of content and genres, where music, film, and fashion sit alongside political campaigns, donation drives, and slogans. There is a substantial amount of political engagement around the technological affordances of Facebook itself, chiefly organized around civil libertarian mobilizations against the company’s somewhat cavalier attitude to users’ privacy. This is, therefore, a fragile and uncertain arena for politics; one that may erode at some future point, as rival services meet demand for different principles for their sociotechnical environments. But while we must await empirical work in this area, it is a reasonable hypothesis that online social network sites encourage greater by-product learning about politics than the simple websites of the past, and, perhaps, the multichannel television environment. And we should not lose sight of the fact that Facebook is, once again, a low-threshold communication environment, with features such as “Status updates,” “The Wall” and “Groups” allowing users to comment on others’ profiles and to hold ongoing conversations in semipublic spaces.

The quality of citizens' informational exuberance is of course the subject of debate. Some commentary on web 2.0 has focused on the rise of highly individualized forms of online expression and how these contribute to a broader social narcissism (Keen 2007). Some of the journalistic accounts of blogs and YouTube, for example, have criticized what are perceived to be self-obsessed, egotistical communication genres. Some lament the rise of audiovisual content online, complaining that it signals the end of an innocent ideal of text-based communication free from the constraints of physical markers such as ethnicity, appearance, accent, and social class. As O'Loughlin shows, many of the early advocates of e-democracy celebrated the egalitarian quality of textual computer-mediated communication (O'Loughlin 2001).

The emergence of visual communication genres online presents challenges to understandings of e-democracy. But is the news all bad? Over the last decade or so, some have sought to broaden the concerns of social and political theory to encompass the role of affective dimensions in the regulation of social life. Young has written of political deliberation's "internal" exclusionary dynamics, which subtly devalue informal and emotional discourse (Young 2000, 53-57). More recently, Papacharissi (2008, 236-239), drawing upon Inglehart and Welzel (2005), has argued for a "civically motivated narcissism," based on the view that "self-expression values are connected to the desire to control one's environment, a stronger desire for autonomy, and the need to question authority" and the claim that "self-expression values are not uncivic." Citizen-produced audio and video deviate from the ideal of textual deliberative discourse but in the genres of YouTube we can hypothesize that they democratize political expression by creating a new grassroots outlet for the affective in politics. We can see how certain policy sectors are more attuned to this style of discourse than others. The site of the British National Health Service review, started

in summer of 2007, features a Have Your Say section, complete with a news and announcements blog that allows public commenting. The site also incorporated Lord Darzi's personal blog, online surveys for NHS stakeholders and members of the public, and an accompanying YouTube stream (United Kingdom National Health Service 2008).

Though there remains much empirical work to be done in this area, we can also hypothesize that citizens are more at ease uploading a quickly recorded video delivered in an informal, conversational style, than if asked to formally deliberate in a staged setting. Thus, while the egalitarian effects of text-based computer-mediated communication will in some respects diminish, it is not at all clear that audiovisual online culture will have entirely negative effects on citizen engagement. An excellent example here is Barack Obama's unedited, 37-minute long "More Perfect Union" speech delivered in Philadelphia in March, 2008. By election day in November 2009, more than 6 million people had viewed the speech on YouTube. But more significantly, many citizens chose to upload short films narrating their own personal reactions to it.

A final point about informational exuberance concerns legitimacy and the importance of numbers. Faced with low participation rates, many online democracy initiatives have fallen back on the argument that numbers do not matter and that it is the quality of political deliberation that counts. The most well-known formal deliberative schemes have never grown beyond communities of a few hundred and have therefore faced legitimacy problems. Indeed, the reliance by interest organizations on low-threshold form emails and web templates that enable many thousands of citizens to send comments to policymakers has been criticized for its "cheap talk" effects (Shulman 2006).

But should we be so quick to devalue large numbers of citizen actions, even if those actions carry very little cost to the individuals who act? Web 2.0 environments enshrine participation by thousands in scalable ways. The most powerful web 2.0 applications – and this is most obvious for online social network sites – derive their value from the predictable network effects associated with large numbers of participants. Most interactions on these sites are low-threshold but may involve huge numbers. Consider Netmums, the popular British parenting and health advice community, with its 275,000 users (Mayo and Steinberg 2007) or TheStudentRoom, with its forums containing upwards of 19 million messages and (as of October 2009) a 9000-page user generated wiki covering a wide variety of topics related to higher education (<http://www.thestudentroom.co.uk>).

Political networks in Facebook and Twitter, because they are not tied to a deliberative model, have been able to grow comparatively quickly, and the more people participate, the more value there is in the network. The first signs of this dynamic emerged during the 2004 US presidential primaries, when it became obvious that citizens were very willing to add simple one-line comments to blog posts, often in very large quantities. Yet these efforts were utterly eclipsed by Obama's 2008 campaign. According to Obama's new media director, Joe Rospars, the campaign raised \$500 million from 6.5 million online donations, encouraged 400,000 blog posts, regularly emailed a database of 13 million Americans, established its own social network (MyBarackObama.com) of two million supporters, and managed to garner the support of a further five million members of commercial social network sites (Rospars 2009). The Pew Internet and American Life Project's tracking survey on the internet and the US election, conducted before the height of the campaign in April and May 2008, reported that 40 per cent of Americans accessed political news

and information online and 46 per cent “used the internet, email, or phone texting to get news about the campaigns, share their views, and mobilize others.” Some 10 per cent of all Americans used social network sites for political activity – a total of 40 per cent of all those who maintain social network profiles (Smith and Rainie 2008).

While it has been criticized for its lack of deliberative mechanisms, if judged in terms of the number of participants, the British Prime Minister’s E-Petitions website, which ran from 2007 to 2010 (when the new Conservative government abandoned it) was one of the most successful e-democracy projects of all time. In its first year, over 29,000 petitions were submitted. Accepted petitions attracted 5.8 million signatures from 3.9 million unique email addresses (United Kingdom Prime Minister's Office 2008). E-Petitions of all kinds have quickly become part of the online repertoire of citizen groups in Britain and the United States, as well as elsewhere, and they have viral characteristics. For example, a 2008 search on Facebook revealed a number of groups formed around specific UK e-petitions (Facebook Downing Street E-Petitions 2008).

## **Conclusion**

This chapter has sought to establish the importance of the hypothesis that innovation in democratic practice is more likely to result where the principles of granularity, informational exuberance, and by-product political learning are embedded in a political communication environment. Nowhere can this hypothesis be more compellingly investigated than in the dynamic complexity of the chaotic transition in which we find ourselves. As ever, the pace of change in the real world of internet-

enabled citizen behavior continues to outstrip the pace of change in the academy. Scholars have much to learn from these changes, as do those who seek to bridge the normative/empirical divide in social science.

Emphasizing the importance of these principles for democratic innovation does not involve the assumption that citizens lack the motivation to think about and discuss politics. Not only is this assumption empirically disputed (Delli Carpini, Cook, and Jacobs 2004), it is also unnecessary. Most citizens will fall into categories along a continuum from motivated to apathetic, and it is highly unlikely that they will remain in one category in perpetuity. Most of us occupy positions between these two extremes, depending upon our contexts.

Equally, though they owe much to the web 2.0 wave, these principles are not exclusively dependent upon the specific online services that are currently in vogue. While the network effects of YouTube, Facebook, and Twitter are extremely powerful, these services are likely to evolve or be replaced by others in the future. But it seems safe to assume that the success of these three particular examples means that their foundational rationales will survive, in one variant or another. In other words, the internet will continue to provide sources of democratic innovation – and the need for scholarly interrogation – for many years to come. It is not as if things were not interesting enough already. They are about to get even more so.

## **References**

Benkler, Y. 2006. *The Wealth of Networks: How Social Production Transforms Markets and Freedom*. New Haven: Yale University Press.

- Bennett, W. L., and S. Iyengar. 2008. A New Era of Minimal Effects? The Changing Foundations of Political Communication. *Journal of Communication* 58 (4): 707-731.
- 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.
- Bode, L. 2010. Accidentally Informed 2.0: Incidental Learning on Facebook. Paper presented at the Annual Meeting of the Midwest Political Science Association, April 23, in Chicago.
- Boulianne, S. 2009. Does Internet Use Affect Engagement? A Meta-Analysis of Research. *Political Communication* 26 (2): 193-211.
- Brundidge, J. S., and R. E. Rice. 2008. Political Engagement Online: Do the Information Rich Get Richer and the Like-Minded More Similar? In *The Handbook of Internet Politics*, eds. A. Chadwick and P. N. Howard, 144-156. London: Routledge.
- Chadwick, A. 2011a. Explaining the Failure of an Online Citizen Engagement Initiative: The Role of Internal Institutional Variables. *Journal of Information Technology and Politics* 8 (1).
- Chadwick, A. 2011b. The Political Information Cycle in a Hybrid News System: the British Prime Minister and the “Bullygate” Affair. *The International Journal of Press/Politics* 16 (1).
- Chadwick, A. 2006. *Internet Politics: States, Citizens, and New Communication Technologies*. New York: Oxford University Press.
- Chadwick, A. 2007. Digital Network Repertoires and Organizational Hybridity. *Political Communication* 24 (3): 283-301.

- Chadwick, A. 2009. Web 2.0: New Challenges for the Study of E-Democracy in an Era of Informational Exuberance. *I/S: Journal of Law and Policy for the Information Society* 5 (1): 9-41.
- Chadwick, A., and P. N. Howard. 2008a. Introduction: New Directions in Internet Politics Research. In *The Handbook of Internet Politics*, eds. A. Chadwick and P. N. Howard, 1-9. New York: Routledge.
- Chadwick, A., and P. N. Howard, eds. 2008b. *The Handbook of Internet Politics*. London: Routledge.
- Delli Carpini, M. X., F. L. Cook, and L. R. Jacobs. 2004. Public Deliberation, Discursive Participation, and Citizen Engagement: A Review of the Empirical Literature. *Annual Review of Political Science* 7: 315-344.
- Downs, A. 1957. *An Economic Theory of Democracy*. New York: Harper and Row.
- Facebook. 2009. Facebook Applications: Politics.  
<http://www.facebook.com/apps/directory.php>.
- Facebook. 2009. Facebook Causes Application. <http://www.facebook.com/causes>.
- Facebook Downing Street E-Petitions. 2008. Facebook Downing Street E-Petitions Search. <http://www.facebook.com/s.php?q=downing+street+petition&n=1&k=200000010&init=r>.
- Foot, K. M., and S. M. Schneider. 2006. *Web Campaigning*. Cambridge, MA: MIT Press.
- Fung, A. 2007. Democratic Theory and Political Science: A Pragmatic Method of Constructive Engagement. *American Political Science Review* 101 (3): 443-458.
- Garrett, K. R. 2005. Exposure to Controversy in an Information Society. PhD Diss., University of Michigan.

- Gentzkow, M., and J. Shapiro. 2010. Ideological Segregation Online and Offline: Chicago Booth Research Paper 10-19. Chicago: University of Chicago.
- Gibson, R. K., W. Lusoli, and S. J. Ward. 2005. Online Participation in the UK: Testing a Contextualised Model of Internet Effects. *British Journal of Politics and International Relations* 7 (4): 561-83.
- Granovetter, M. S. 1973. The Strength of Weak Ties. *American Journal of Sociology* 78 (6): 1360-1380.
- Hansard Society. 2007. *Digital Dialogues Second Phase Report August 2006-August 2007*. London: Hansard Society.
- Hill, K. A., and J. E. Hughes. 1998. *Cyberpolitics: Citizen Activism in the Age of the Internet*. New York: Rowman and Littlefield.
- Hindman, M. 2008. *The Myth of Digital Democracy*. Princeton, NJ: Princeton University Press.
- Hirschman, A. O. 1970. *Exit, Voice, and Loyalty: Responses to Decline in Firms, Organizations, and States*. Cambridge, MA: Harvard University Press.
- Holbert, R. L., R. K. Garrett, and L. S. Gleason. 2010. A New Era of Minimal Effects? A Response to Bennett and Iyengar. *Journal of Communication* 60 (1): 15-34.
- Inglehart, R., and C. Welzel. 2005. *Modernization, Cultural Change, and Democracy*. London: Cambridge University Press.
- Internet World Stats. Internet Usage Stats and Market Report.  
<http://www.internetworldstats.com>.
- Keen, A. 2007. *The Cult of the Amateur: How Today's Internet Is Killing Our Culture and Assaulting Our Economy*. London: Nicholas Brealey.

- Kobayashi, T., K. Ikeda, and K. Miyata. 2006. Social Capital Online: Collective use of the Internet and Reciprocity as Lubricants of Democracy. *Information, Communication and Society* 9 (5): 582-611.
- Lazarsfeld, P., B. Berelson, and H. Gaudet. 1944. *The People's Choice*. New York: The Free Press.
- Lusoli, W., and J. Ward. 2005. "Politics Makes Strange Bedfellows": The Internet and the 2004 European Parliament Election in Britain. *Harvard International Journal of Press/Politics* 10 (4): 71-97.
- Maeda, J. 2008. *The Laws of Simplicity*. Cambridge, MA: MIT Press.
- Mayo, E., and T. Steinberg. 2007. The Power of Information Review.  
<http://www.opsi.gov.uk/advice/poi/power-of-information-review.pdf>.
- Merton, R. K. 1957. *Social Theory and Social Structure*. New York: Free Press.
- Miller, J. H., and S. E. Page. 2004. The Standing Ovation Problem. *Complexity* 9 (5): 8-16.
- Mossberger, K., C. J. Tolbert, and R. S. McNeal. 2008. *Digital Citizenship: The Internet, Society, and Participation*. Cambridge, MA: MIT Press.
- Mutz, D. C. 2008. Is Deliberative Theory a Falsifiable Theory? *Annual Review of Political Science* 11: 521-538.
- Nielsen, J. 1999. *Designing Web Usability: the Practice of Simplicity*. Indianapolis: New Riders.
- Norris, P., and J. Curtice. 2007. Getting the Message Out: A Two-Step Model of the Role of the Internet in Campaign Communication Flows During the 2005 British General Election. *Journal of Information Technology and Politics* 4 (4): 3-13.

- O'Loughlin, B. 2001. The Political Implications of Digital Innovations: The Internet and Trade-offs of Democracy and Liberty in the Developed World. *Information, Communication and Society* 4 (4): 595-614.
- O'Reilly, T. What Is Web 2.0?: Design Patterns and Business Models for the Next Generation of Software. <http://www.oreilly.com/lpt/a/6228>.
- Oldenburg, R. 1997. *The Great Good Place: Coffee Shops, Bookstores, Bars, Hair Salons, and Other Hangouts at the Heart of a Community*. 2nd ed. New York: Marlowe.
- Olson, M. 1965. *The Logic of Collective Action: Public Goods and the Theory of Groups*. Cambridge, MA: Harvard University Press.
- Papacharissi, Z. 2008. The Virtual Sphere 2.0: The Internet, the Public Sphere and Beyond. In *The Handbook of Internet Politics*, eds. A. Chadwick and P. N. Howard, 230-245. New York: Routledge.
- Parry, G., G. Moyser, and N. Day. 1992. *Political Participation and Democracy in Britain*. Cambridge: Cambridge University Press.
- Pasek, J., E. More, and D. Romer. 2009. Realizing the Social Internet?: Online Social Networking Meets Offline Social Capital. *Journal of Information Technology and Politics* 6 (3-4): 197-215.
- Prior, M. 2005. News vs. Entertainment: How Increasing Media Choice Widens Gaps in Political Knowledge and Turnout. *American Journal of Political Science* 49 (3): 577-592.
- Prior, M. 2007. *Post-Broadcast Democracy: How Media Choice Increases Inequality in Political Involvement and Polarizes Elections*. New York: Cambridge University Press.

- Rospars, J. 2009. Obama 2008. Paper presented at the Progress/Blue State Digital Labour 2.0: Campaigning for the Net Generation Conference, February 2, in Canary Wharf, London.
- Scheufele, D. A., and M. C. Nisbet. 2002. Being a Citizen Online: New Opportunities and Dead Ends. *Harvard International Journal of Press/Politics* 7 (3): 55-75.
- Shah, D. V., J. Cho, W. P. Eveland Jr, and N. Kwak. 2005. Information and Expression in a Digital Age: Modeling Internet Effects on Civic Participation. *Communication Research* 32 (5): 531-565.
- Shah, D. V., J. Cho, S. Nah, M. R. Gotlieb, H. Hwang, N-J. Lee, R. M. Scholl, and D. M. McLeod. 2007. Campaign Ads, Online Messaging, and Participation: Extending the Communication Mediation Model. *Journal of Communication* 57 (4): 676-703.
- Shah, D. V., N. Kwak, and R. Holbert. 2001. "Connecting" and "Disconnecting" with Civic Life: Patterns of Internet use and the Production of Social Capital. *Political Communication* 18 (2): 141-162.
- Shah, D. V., J. M. McLeod, and S. H. Yoon. 2001. Communication, Context, and Community: An Exploration of Print, Broadcast, and Internet Influences. *Communication Research* 28 (4): 464-506.
- Shulman, S. 2006. Whither Deliberation? Mass E-Mail Campaigns and U.S. Regulatory Rulemaking. *Journal of E-Government* 3 (3): 41-64.
- Smith, A., and L. Rainie. 2008. *The Internet and the 2008 Election*. Washington, DC.: Pew Internet and American Life Project.
- Stromer-Galley, J. 2003. Diversity of Political Conversation on the Internet: Users' Perspectives. *Journal of Computer-Mediated Communication* 8 (3).
- Sunstein, C. R. 2001. *Republic.com*. Princeton: Princeton University Press.

- Tewksbury, D. 2003. What Do Americans Really Want to Know? Tracking the Behavior of News Readers on the Internet. *Journal of Communication* 53 (4): 694-710.
- Tewksbury, D., A. Weaver, and B. Maddex. 2001. Accidentally Informed: Incidental News Exposure on the World Wide Web. *Journalism and Mass Communication Quarterly* 78 (3): 533-554.
- Tewksbury, D., and J. Rittenberg. 2008. Online News Creation and Consumption: Implications for Modern Democracies. In *The Handbook of Internet Politics*, eds. A. Chadwick and P. N. Howard, 186-200. London: Routledge.
- Thompson, D. F. 2008. Deliberative Democratic Theory and Empirical Political Science. *Annual Review of Political Science* 11: 497-520.
- United Kingdom Foreign Office. 2008. FCO Bloggers: Global Conversations. <http://blogs.fco.gov.uk>.
- United Kingdom National Health Service. 2008. Our NHS, Our Future: Have Your Say. <http://www.ournhs.nhs.uk>.
- United Kingdom Office of Communications. 2010. *The Communications Market 2010*. London: HMSO.
- United Kingdom Prime Minister's Office. 2008. E-Petitions Website. United Kingdom Prime Minister's Office. <http://petitions.pm.gov.uk>.
- United States White House. 2009. Open For Questions. <http://www.whitehouse.gov/OpenForQuestions/>.
- Verba, S., K. L. Schlozman, and H. E. Brady. 1995. *Voice and Equality: Civic Voluntarism in American Politics*. Cambridge, MA: Harvard University Press.

- Weber, L., A. Loumakis, and J. Bergman. 2003. 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., A. Quan-Haase, J. Witte, and K. Hampton. 2001. Does the Internet Increase, Decrease, or Supplement Social Capital? *American Behavioral Scientist* 45 (3): 436-455.
- Wojcieszak, M., and D. C. Mutz. 2009. Online Groups and Political Discourse: Do Online Discussion Spaces Facilitate Exposure to Political Disagreement? *Journal of Communication* 59 (1): 40-56.
- Wright, S. 2006. Government-run Online Discussion Fora: Moderation, Censorship and the Shadow of Control. *British Journal of Politics and International Relations* 8 (4): 550-568.
- Young, I. M. 2000. *Inclusion and Democracy*. New York: Oxford University Press.