

**‘To Submit a Form or Not to Submit a Form, That is the (Real) Question’:
Deliberation and Mass Participation in U.S. Regulatory Rulemaking**

David Schlosberg, Northern Arizona University
Stephen Zavestoski, University of San Francisco
Stuart Shulman, University of Pittsburgh

ABSTRACT

In this paper we report data collected through a survey of 1,553 recent participants in regulatory rulemaking public comment processes. Our analysis focuses on the differences between those who used newly available electronic tools and those who mailed or faxed letters on paper and also between those who submitted original letters and those who submitted a version of a mass-mailed form letter. We first discuss current research and theory developing around the issue of electronic rulemaking and online policy deliberation. Next we provide background on the particular rulemakings from which our sample of survey respondents was drawn. After describing the survey methodology, we focus on three types of findings: 1) the absence of a significant difference in discursive practices between electronic and paper commenters, 2) the presence of unexpectedly high levels of discursive engagement across all survey respondents, and 3) the significant differences between respondents who submitted original comments and those who submitted form letters. Finally, we conclude with discussion of the implications of our findings and suggestions for further research.

Project Home Page: <http://erulemaking.ucsur.pitt.edu/>

‘To Submit a Form or Not to Submit a Form, That is the (Real) Question’: Deliberation and Mass Participation in U.S. Regulatory Rulemaking¹

David Schlosberg, Northern Arizona University
Stephen Zavestoski, University of San Francisco
Stuart Shulman, University of Pittsburgh

Prepared for delivery at the 2005 annual meeting of the
Western Political Science Association, Oakland, California

This is a draft; please do not quote without permission of the authors. Comments, critiques, and suggestions welcome to david.schlosberg@nau.edu, smzavestoski@usfca.edu, and shulman@pitt.edu.

Introduction

The United States federal government is, more uniformly than ever, facilitating the electronic submission of citizen comments during federal regulatory rulemaking comment periods.² Concurrently, activists of many stripes (but particularly environmentalists) are taking advantage of newly developed web-based tools for generating large numbers of online public comments. The confluence of these two trends -- the pull of an increasingly accessible and searchable federal system for collecting public comments and the push of advocacy coalitions and their electronic tools-- has created a rather hybrid eRulemaking environment. Group-initiated mass mailed postcards, familiar from past activism, have been digitized into email form letters and modestly enhanced, often by expensive for-profit intermediaries.³ This Internet-enhanced

¹ This project was funded by a grant (SES-0322622) from the National Science Foundation, Social and Economic Sciences, Program on Social Dimensions of Engineering, Science and Technology (SDEST), Ethics and Values Studies. Any opinions, findings, conclusions, or recommendations expressed in this material are those of the authors and do not necessarily reflect those of the National Science Foundation. Thanks to Fred Solop, Kristi Hagen, and Anne Motek Lukas at Northern Arizona University’s Social Research Lab.

² The federal eRulemaking Initiative (<http://www.regulations.gov/eRuleMaking.cfm>) is one of 24 E-Government efforts at the federal level (<http://www.whitehouse.gov/omb/egov/>). On the progress of the President’s Management Agenda to date, see the GAO report “Electronic Government: Initiatives Sponsored by the Office of Management and Budget Have Made Mixed Progress” GAO-04-561T available at: <http://www.gao.gov/new.items/d04561t.pdf>.

³ See <http://www.getactive.com/> or <http://capitoladvantage.com/> for examples of firms that sell e-advocacy services to groups by highlighting millions of constituent messages delivered and dollars raised for their customer organizations. The pitch is backed by claims that tools such as an “Email Relationship Manager,” for example, will improve communication not only between citizens and their government, but also between group leaders and members. The data mining that goes on, however, tends to be for the purpose of building and strengthening the

participation is likely to shape what will become the dominant form of mass political communication between average citizens and decision-makers in controversial rulemakings.

As a result of these and other trends, a growing research community is looking closely at electronic rulemaking (Shulman et al. 2003, Shulman 2004; Coglianese 2004; Lubbers 2002) and the possibilities for online political deliberation in general (Shane 2004). A range of scholarly activities spanning elaborate conceptual specifications for deliberation (Berkman Center 2005) to research centers and interdisciplinary conferences⁴ and online deliberative polls⁵ now dot the intellectual landscape. This new scholarship begins to more systematically articulate and test theories about the role of deliberation (Beierle 2004; Schlosberg & Dryzek 2002; Sunstein 2001), information (Bimber 2003 & 2000), communications technology (Froomkin 2004; Coleman and Gøtze 2001), architecture (Lessig 1999), design (Noveck 2004), as well as a host of other factors linked to theories of democratic governance (Zavestoski & Shulman 2002).

The fledgling interdisciplinary research community looking at these questions is generally long on theory, hopes, and predictions while too often short on empirical data. For many indicators of online deliberative political activity we have no baseline data or agreed upon metrics. In this paper we provide such baseline data, collected through a survey of 1,553 participants in regulatory rulemaking public comment processes. Our analysis focuses on the differences not just between those who used newly available electronic tools and those who mailed or faxed letters on paper, but also between those who submitted original letters and those who submitted a version of a mass-mailed form letter.

organization itself through targeted electronic mail appeals to commenters. Some activists privately report that limits on staff time and resources mean that organizations rarely mine their own members' comments for good ideas.

⁴ See: <http://www.online-deliberation.net/conf2005/>.

⁵ See: <http://cdd.stanford.edu/polls/docs/2004/onlinedp-release.pdf>.

Our initial research question (Shulman, et al., 2003) asked whether new electronic forms of participation introduce a degree of public deliberation absent in the traditional mailing or faxing of letters that dominated pre-Internet era public comment periods. Unlike others interested in the interface of new technology and discourse, rather than develop new forms of online interaction, we set out to evaluate the discursiveness of existing forms of electronic citizen participation.

Though our data failed to reveal evidence of deliberative differences between electronic and paper commenters, we discovered that some fundamental discursive and attitudinal differences do exist between citizens who submit unique original comments and those who submit form letters. This is true not just in terms of their self-described discursive practices, but also in terms of their overall trust in government and feelings of efficacy as participants in the rulemaking process. Stated bluntly, form letter writers, whether using paper or the Internet, are simplistic, cynical, and less discursively inclined; whereas the writers of original comments report letter-writing practices that embody many of the characteristics of deliberative democracy.

In what follows, we first discuss current research and theory developing around the issue of online policy deliberation. Next we provide background on the particular rulemakings from which our sample of survey respondents was drawn. After describing the survey methodology, we focus on three types of findings: 1) the absence of a significant difference in discursive practices between electronic and paper commenters, 2) the presence of unexpectedly high levels of discursive engagement across all survey respondents, and 3) the significant differences between respondents who submitted original comments and those who submitted form letters. Finally, we conclude with discussion of the implications of our findings and suggestions for further research.

Online Deliberation and the Focus on Rulemaking

The informational realm is quite different from what it was when the Administrative Procedures Act (APA) was initially adopted in 1946. New media and tools created using information and communications technologies (ICTs) have created a complex and teeming digital landscape unlike anything ever encountered by modern representative forms of government. These tools pose many challenges along with every apparent opportunity. The once reasonably straightforward processes of democratic participation and deliberation found in the classic works of political science (for example Dahl 1961; Truman 1960) are now antiquated in the age of blogs, listservs, mass emails, and web services. Deliberation today, aside from the crucial questions of digital inequality,⁶ is open to anyone who cares to participate. The more pressing question in this context is: exactly how do they deliberate?

With the 2004 publication of *Democracy Online: The Prospects for Political Renewal Through the Internet*, we can glimpse the spirit animating the short history of online deliberation research. Editor Peter Shane signals the tempered hopes of a growing body of cautious “cyberrealist” reaction to earlier scholarship, reminding readers “we cannot really know the promise or limitations of ICTs until people can actually experience them” (Shane 2004: xx; see also Coglianesse 2003 and Muhlberger 2004). One of the problems with this research, however, is that there are so many avenues for such experience – websites, usenets, bulletin boards, chats, blogs, podcasts, etc. As Froomkin notes, “the Internet can be seen as a giant electronic talkfest, a medium that is discourse-mad” (2003, 777). Our focus, however, is on one particular element in that talkfest: public participation in regulatory rulemaking.

⁶ A recent report from the American Political Science Association Task Force on Inequality and American Democracy stated “the Internet may ‘activate the active’ and widen disparities between participants and the politically disengaged by making it easier for the already politically engaged to gain political information.” See “American Democracy in an Age of Rising Inequality” at <http://snipurl.com/7egy>.

Why focus on rulemaking in an examination of electronic deliberation? First, the development of new rulemaking technology has embodied a democratic direction. Many agencies use open electronic dockets, which allow citizens to see and comment on both the rules proposed by agencies and the comments of other citizens. In an early benchmark case of mass deliberation online, the USDA's National Organic Program rulemaking on the definition of "organic" allowed people to read all of the comments as they were posted, regardless if they came via fax, paper, or online. The EPA and DOT were among several other path-breaking agencies that developed open-docket systems that were agency-wide. Electronic rulemaking in the U.S. is therefore an ICT testbed in which large numbers of real citizens have begun to concretely experience the limits and opportunities afforded by the online environment.⁷

Second, e-rulemaking systems are highly structured, and so quite different from other web-based discourse that is merely one-way, isolated, or homogenous. Sunstein (2001) argues that the web enables people to pay attention to other, like-minded people, and ignore those who are unlike them or disagree with their positions on issues. The web, for Sunstein, diminishes exposure to heterogeneity and is far from the ideal of a real (well, virtual) public forum. But the argument here is that the structure of e-rulemaking, in particular the open docket system in which citizens can view the comments of others, may lead those citizens to engage the positions of others, including those with whom they disagree. The very architecture of e-rulemaking may help us avoid some of the anti-discursive dangers lurking elsewhere on the web.

⁷ One of the central challenges for research in this expanding field is that most cases are exceptional – the business practice of an institution or the architecture of an electronic interface is often novel, experimental, or entirely idiosyncratic (Beierle 2004; Shulman 2003). Our own research looks only at those environmentally-driven regulatory actions where the architecture of the online notice and comment process permitted commenters to view other comments before writing their own comments, and where the total number of public comments received exceeded 66,000, 133,000, and 490,000 respectively. Hence our survey respondents are drawn from exceptionally controversial rather than ordinary rulemakings.

Other reasons to examine rulemaking are more specifically political. On environmental issues especially, battles have moved away from the legislative arena into the rewriting of regulatory rules. “Perhaps the most significant administrative law development during the last two decades,” notes Jeffrey Lubbers, “has been the increased presidential involvement in federal agency rulemaking” (Lubbers 1998: 19). While one of the reasons for this move has certainly been to try to avoid controversy, recent administration decisions and proposals have drawn considerable attention to the rulemaking process itself, in turn increasing the likelihood of large numbers of public comments. In fact, the Bush administration has moved to address its environmental concerns by proposing changes environmental rules much more than environmental laws⁸

Rulemaking also, simply put, goes somewhere – the process leads to the actual revision of agency rules and behavior. Here, a focus on rulemaking differs from other examinations of web-based discourse. A common problem in, for example, online deliberative polling, cyberjuries, or web-based policy discussions is that often that deliberative work goes nowhere. People spend time and energy working toward consensus, only to see it ignored or rejected politically. This is a problem of implementation deficit, and it can deplete citizen energy devoted to discourse. Rulemaking, by definition, requires agencies to respond to, and incorporate public comment; it is the only form of deliberation open to online participation that regularly ends in implementation.

Regulatory rulemaking, however, can be a highly contested, time- and information-intensive process that takes years to complete (Rakoff, 2000; Johnson, 1998). The APA created the basic framework of “notice and comment” for agency rulemaking. Interestingly, from the

⁸ See Amy Goldstein and Sarah Cohen, “Bush Forces a Shift in Regulatory Thrust,” *Washington Post* (August 15, 2004), A1, the first of a series of three in the *Post* on recent regulatory politics and which appeared about the same time as Joel Brinkley, “Out of the Spotlight, Bush Overhauls U.S. Regulations,” *New York Times* (August 14, 2004).

point of view of democratic discourse, one of the intents of the APA was to increase the gathering of substantive information from the public before agencies were to implement decisions. In its focus on substance, rather than aggregative opinion, the rulemaking process is a ripe area of study for deliberative, rather than aggregative, democrats. While the lack of solid empirical studies of rulemaking has vexed administrative law scholars for some time (Kerwin, 1999), new sources of interesting and more readily available data may reverse this trend as scholars come to use new information technologies to better understand the nature, purpose, and efficacy of public participation in electronic rulemaking.

Electronic Deliberation: Recent Research and Theory

Public participation and citizen deliberation continue to be hallmarks of democratic theory. Over the past decade, there has been a renewed and expanded interest on deliberation as a crucial aspect of democratic practice; the role of discussion, reasoning, and engagement across lines of difference has become a central focus of democratic theorists. Some deliberative democrats make the argument that deliberation already occurs in current liberal democratic governments, legislatures, and/or courts (see, for example, Bessette 1994; Rawls 1996). Most in the field, however, insist on expanding public discourse and deliberation on policy issues (Barber 1984; Bohman 1996; Dryzek 2000; Habermas 1996; Young 2000). As Dryzek (2000: 1) notes, “the essence of democracy itself is now widely taken to be deliberation.” Our central aim in this project is to evaluate the move to web-based public participation in rulemaking from the perspective of deliberative democracy.

The central feature of deliberative democracy is, of course, deliberation or discourse among citizen participants; it is no different in examining deliberative democracy in electronic

contexts. Yet one of the key challenges of this research is that the search for valid inferences about the impact of deliberation on an individual's decision process, or observable indicators of deliberative behavior in cyberspace, is fraught with conceptual and operational challenges (Janssen and Kies 2004). Many in this emergent field identify discursive attributes (such as autonomy from power, reflexivity, heterogeneity, inclusion, equality, etc.) as conducive to better decisions and democratic legitimacy (Froomkin 2004; Witschge 2004; Dahlberg 2001). These attributes are drawn from various theories of rational and reflexive discourse, such as those noted above. Yet major differences exist across such theories of deliberation and discursive democracy (see Dryzek 2000), making a specific focus on "discursivity" rather difficult. Research can range from the specific aspects of speech to the larger effect of deliberative processes on the public sphere. In addition, once one decides on elements of discursivity, there is little consensus on how we measure these elusive concepts.

In this study, we focus on a few key attributes of deliberation – qualities noted across the spectrum of deliberative democratic theory. For example, one of the basic concepts in the field is that deliberation is reflective – based on collecting information and an understanding of various positions on an issue; this contrasts with an unreflective opinion. In the rulemaking process, we looked for the use of deliberation rather than the simple submission of statements. A second central concept in deliberative theory is that such engagement with other positions will bring recognition of others in the process; here we looked to see if citizen commenters reported gaining an understanding of other participants. Third, deliberative theory examines the relation between discourse and the transformation of individual preferences. We asked commenters if participation in the process, in particular reading the comments of others, led to a change in their own positions. Finally, as the issue of power is central to all models of democracy and in

particular deliberative participation, we also examine the perceived efficacy of participants – whether or not they thought their actions had impact on the rule, and how the process affected their opinion of the agency involved. While we do not claim to provide an overview of all of the concerns of deliberative theorists of all stripes, these indicators are central to the recent developments of democratic theory, and will give an indication of the level of discursivity present in the rulemaking process.

For all of these indicators, this portion of our research relies on a survey of citizen commenters, and so their own interpretation of their experience and the meaning of the questions asked. Obviously, there are problems with operationalizing our questions within the methodology of survey research. Participants may understand the questions in ways different than we intended, self-reporting may exaggerate discursive indicators, and citizens may simply be mistaken about what they actually did during the rulemaking process. Still, we think it is central in an examination of these issues to get direct input from a large number of citizen participants in the rulemaking process. In our larger study, we are combining survey methodology with content analysis of actual citizen comments and interviews and focus groups with citizens, agency employees, and interest group representatives. For now, however, the survey offers quite interesting results.

Research Design Challenges: Case Selection and Sampling Frame Construction

Our interest in the deliberative characteristics of regulatory rulemaking public comment processes originated with two cases characterized by a large volume of public comments and much political controversy: the USDA's National Organic Standard (300,000+ comments in 2 rounds); and the Forest Service's Roadless Area Conservation rulemaking (which received over

1.5 million comments spanning several rounds). Though these two cases were excluded due to data quality issues, the choice to focus the study not just on large comment-receiving regulatory actions, but ones focused on environmental issues, was based on several factors (Zavestoski et al 2005).

First, environmental rules, especially over the last few years, have been highly controversial, and have attracted large numbers of comments. More comments should mean more discourse and more diverse participants, factors that would make for richer results in our use of qualitative data analysis techniques.⁹ We also needed to ensure a chance for deliberation, which meant restricting ourselves to rules in which the lead agency posted citizen comments to its website so that visitors could see the comments of others. The EPA and DOT both designed such “open docket” systems.

Second, much of the environmental politics literature claims high levels of democratic involvement in environmental policy-making. “One of the most distinctive features of modern U.S. environmental protection policy,” writes Andrews, is the “broad right of access to the regulatory process, which extends not only to affected businesses but to citizens advocating environmental protection” (1999: 240). Paehlke (1989) argues that in the last three decades the environmental area has led all others in the scope and extent of innovations in public participation, including public inquiries, right-to-know legislation, alternative dispute resolution, advisory committees, and policy dialogues. Hence a leading edge of democratic public participation in the US is in the environmental field; this seems to have continued into web-based participation processes.

⁹ Future papers will report on the multi-year coding effort underway. To date, teams of undergraduate and graduate students have coded over 2000 randomly selected public comments from a range of rulemakings looking for indications of deliberative practice and finding very few.

Overview of the Regulatory Actions

Given our interest in controversial environmental regulations that elicited large numbers of public comments, we settled on the following cases (our colloquial designations are in bold):

- 1) EPA's advanced notice of proposed rulemaking (ANPRM) on the Clean Water Act regulatory definition of the "Waters of the United States" (**Waters**)
- 2) EPA's proposed National Emissions Standards for Hazardous Air Pollutants (**Mercury**)
- 3) DOT's advanced notice of proposed rulemaking (ANPRM) on the Corporate Average Fuel Economy Standards (**CAFE**).

We summarize the events leading up to each of the regulatory actions that we selected as cases below.

The Waters ANPR

On January 15, 2003, the EPA published an advance notice of proposed rulemaking on the Clean Water Act regulatory definition of the "Waters of the United States" and in response the EPA received approximately 133,000 public comments.¹⁰ An EPA press release dated December 16, 2003 announced that the EPA would not issue a new rule clarifying the extent of federal jurisdiction over so-called "isolated" wetlands.¹¹ Critics of the Bush administration's environmental policies were "surprised and delighted"¹² by the unexpected decision to forgo a rulemaking in the wake of the confusion created by the 2001 Supreme Court's controversial ruling in *Solid Waste Agency of Northern Cook City v. Army Corps of Engineers* (SWANCC). Whereas development lobbies saw the prospect of a Bush administration rulemaking as an opportunity to free up considerable chunks of land that had been protected for 30 years,

¹⁰ See *Federal Register* Vol 68, No. 10 pp. 1991-1998 (available at: <http://snipurl.com/dac3>). At a June 10, 2003 hearing before a Senate Subcommittee, G. Tracy Mehan, Assistant Administrator for Water, noted that most of the comments received were "the result of e-mail or write-in campaigns," whereas about 500 were "substantive" comments. See S. HRG. 108-352, p. 16.

¹¹ See <http://snipurl.com/dace>.

¹² See http://www.nrdc.org/bushrecord/water_wetlands.asp.

environmentalists feared the potential rollback of federal regulatory powers would undermine core principles articulated in the landmark 1972 Clean Water Act. Perhaps most important in this case, the “hook and bullet” lobby (fisherman & hunters) spoke out strongly about the need to protect habitat for their game.

The Mercury Rulemaking

On January 20, 2004, the EPA published a proposed rule titled “Proposed National Standards for Hazardous Air Pollutants” and in response the “Mercury” rulemaking received approximately 500,000 public comments.¹³ An EPA press release dated December 15, 2003 quoted Administrator Leavitt claiming the proposed actions represented “the largest air pollution reductions of any kind not specifically mandated by Congress.”¹⁴ Like many significant federal regulatory actions, the EPA’s mercury rule resulted from a drawn out mix of congressional, administrative, and legal proceedings stretching back to the Clean Air Act (CAA) Amendments of 1990. A suit by the Natural Resources Defense Council filed in 1992 and another by the Sierra Club in 1994 were settled later in 1994 and ultimately resulted in a “Mercury Study Report to Congress” (RTC), which was released in December of 1997.¹⁵ On December 14, 2000, one day after Al Gore conceded the 2000 election, EPA Administrator Carol Browner announced an EPA “finding” that it was “appropriate and necessary” to regulate coal- and oil-fired electric utilities under section 112 of the CAA. The EPA currently reports it is on schedule to issue a final rule on March 15, 2005, a court appointed deadline.

¹³ See *Federal Register* Vol. 69, No. 20 pp. 4652-4752 (available at: <http://snipurl.com/dab9>). “As of February 2005, EPA E-Docket shows an actual count of more than ~490,000 public comments and close to 4,500 unique comments received. The initial count of 680,000 and 5,000 included duplicate and triplicate e-mails and comments related to other rules.” See: <http://snipurl.com/dabd>.

¹⁴ See <http://snipurl.com/dabh>.

¹⁵ See: <http://www.epa.gov/mercury/report.htm>.

The CAFE ANPR

On December 29, 2003, The DOT published an advance notice of proposed rulemaking on reforming the automobile fuel economy standards program and in response the “CAFE” ANPRM received 66,786 public comments.¹⁶ Congress enacted the Energy Policy and Conservation Act (EPCA) in 1975 as a response to the 1973-1974 oil embargo, thereby creating an automotive fuel economy regulatory program. The Corporate Average Fuel Economy (CAFE) program set requirements for the manufacturer’s fleets of 19 mpg for 1978 and 27.5 mpg for 1985. These requirements were frozen for most of the 1990s by Congress and in 2001 DOT Secretary Mineta successfully asked the Senate appropriations to lift the restriction on improvements to the CAFE standard. In late 2002 the DOT issued new proposed rules that took effect in late 2004 increasing CAFE standard by 1.5 mpg over the model years 2005-2007. The ANPRM published in 2003, however, sought public comments on revising the CAFE program’s structure to address the continuing CAFE criticisms related to energy security, traffic safety, economic practicability, and the definition of the separate category for light trucks.

Sampling Frame Construction

Having selected our cases, we worked with the Social Research Laboratory (SRL) at Northern Arizona University to construct a sampling frame that would be used to complete the telephone survey portion of the study. Submitted comments become part of the public record, so we were able to rely on relatively open access to the sets of comments (with some limitations described in Table 1 below) on each rule. Our challenge was to find commenters who left a phone number, or at least a full name and address so that we could locate their phone numbers using a reverse phone-number look-up.

¹⁶ See Federal Register Vol. 68, No. 248, pp. 74908-74931 (available at: <http://snipurl.com/daw6>).

Because our research design did not require comparisons across the cases, we did not attempt to sample proportionally from the three cases. Instead, we were interested in making two types of comparisons: between people who submitted electronically as opposed to on paper, and between those who submitted original letters, as opposed to form letters. The goal was to complete 375 surveys for each of the following four types of commenters: 1) electronic submission of form letters (E/F); 2) electronic submission of originals (E/O); 3) paper submission of form letters (P/F); and 4) paper submission of originals (P/O). Table 1 lists the number of completed surveys for each of the four types of commenters we were looking for. Table 2 describes the total number of comments on each rule, the number of comments to which we had access, the limitations with respect to the way in which the accessible comments had been selected by the agencies, and the approach we took to sampling for each rule.

Table 1. Summary of Completed Surveys

	Electronic Submission	Paper Submission	Total
Form Comment	376	421	797
Original Comment	381	375	756
Total	757	796	1553

As Table 2 illustrates, we had to employ a number of different approaches to reach our sample size goals. In all cases, graduate research assistants trained as sample collectors located the comments on the Federal agency web-based docket systems (EPA’s “eDocket” or DOT’s “Docket Management System”).¹⁷ Comments were available from these websites as either Adobe Acrobat (.pdf) or text (.txt) files. In the case of the mercury rule, EPA also provided us with a number of .txt files containing roughly 400,000 emailed comments. Determination of

¹⁷ Thanks go to Michael Aquino Tina Eyraud, Meg Inokumu, Jonathan Nez, Suzuki Susumu, and Paul Vaughn, Baohua Yen.

submission type was based on the content and/or appearance of the submitted comment. Form letters included identical content and were submitted by multiple participants that filled in their contact information. Determination of an original comment was based on whether the letter contained a unique opinion, authored by the commenter.

Table 2. Case Characteristics and Data Access.

	Waters	Mercury	CAFE
Estimated total number of comments	~135,000	~490,000	66,786
Comments in sampling frame	3,223	4,264; +~536,000 emails	66,786
Access to comments	EPA's "eDocket" web-based docket management system	EPA's "eDocket" web-based docket management system; EPA also supplied .txt files containing ~536,000 emails	DOT's web-based "Docket Management System" (DMS)
Limitations	EPA places only unique original comments in the eDocket system, plus one example of each type of form letter received, therefore our ability to include submitters of form letters on this rule was limited; EPA reports having deleted over 125,000 emails	Access to limited form letters in the eDocket system was off-set by .txt files containing all ~536,000 emails submitted, the vast majority of which were form submissions	DOT did not enumerate all 66,786 comments in the DMS, but rather created "records" of form comments containing anywhere from 2 to 25,432 versions of a form letter
Sampling approach	We collected contact info from every single electronic and paper form letter that existed in eDocket (therefore no sampling actually took place); for original letters, we collected info from eDocket using systematic random sampling until the target of 125 paper and 125 electronic originals was reached	We collected contact info from every single electronic and paper form letter that existed in eDocket, and then used text searching to acquire phone numbers from the ~536,000 email submitters; for original letters, we collected info from eDocket using systematic random sampling until the target of 125 paper and 125 electronic originals was reached	Systematic random sampling was used to select records from DMS; when a record contained no contact info, the next record was selected; when a record contained multiple versions of a form letter, systematic random sampling was used within the batch of form letters

As sampling progressed, it became apparent that we lacked access to a sufficient number of form comments on the EPA rules to ensure a balance of comment types across all three rules.

This was due to the EPA's practice of putting one example of each form letter, rather than every single submission, into the eDocket system. As noted above, comparing across rules was not integral to the research design, so we relied on access to a greater number of form submissions in the CAFE set of comments to complete the sample. Our sample accounted for an estimated 50% response rate by including double the number of elements necessary to hit the target of 375 completed questionnaires for each of the four types of commenters (E/F, E/O, P/F, P/O) (see Table 2).

Since potential respondents were to be contacted by telephone, we obtained telephone numbers either from the actual comment or by looking them up using a web-based phone number database.¹⁸ Because we were using a systematic random sampling method, when we could not locate a phone number using, we moved to the next "nth" comment. Due to the range of difficulties faced—from agencies failing to provide access to the entire set of submitted comments, to obtaining phone numbers for individuals actually represented in the sampling frame—we do not want to claim that the results of the survey are generalizable to the whole population of citizen commenters on environmental rules. The results are, however, useful for exploratory purposes, and hopefully will establish a foundation for further research in this area.

Administering the Survey

A telephone survey instrument (see Appendix D), developed in collaboration with the SRL, was administered using a computer-assisted telephone interviewing (CATI) system. Thirty trained interviewers completed the telephone surveys. The interviews took an average of 14 minutes to complete. Respondents qualified to complete the interview if they recalled submitting

¹⁸ We used www.whitepages.com, and found that we were able to obtain phone numbers for slightly more than 60% of the names and addresses we entered.

a comment to a Federal public agency and if they were 18 years of age or older. The survey was completed with 1553 respondents between the dates of August 30 and November 24, 2004. This represented a response-rate of 48%. Given the size of our sample, the margin of error for the survey is +/- 2.5%.

The survey asked questions regarding the respondents' general commenting practices such as the number of times that they had commented, how much information they obtained before commenting, how they typically submit a comment, whether they refer to other citizens' comments and, if so, the effect this has on their comments, and the reasons that they commented. Respondents were also asked questions pertaining to the results of the final rule-making process such as whether they thought their comments were reviewed by a government employee, whether they heard about the final agency decision, and if so, were they satisfied with the final decision. Respondents were also asked questions about Federal agency websites that include the frequency of the visits, the type of information they accessed, whether they used these websites to submit a comment, their general perceptions of the effect Federal agency websites have on commenting, and if they would be likely to submit a comment on an agency rule in the future. Finally, respondents were asked if they believe submitting comments individually, or as a group, has the ability to change the outcome of the final rule. Demographic variables include age, gender, education, income, political ideology, voting behavior, race, ethnicity and weekly internet use (in hours).

Survey Findings

We organize the discussion of our findings around three important discoveries. First, electronic commenters do not appear to be any more discursive than paper commenters. In fact, we observed a significant difference on only one measure, where paper commenters scored higher on one key discursive measure. Second, despite failing to find that electronic commenters are more discursive, we observed greater levels of self-reported discursivity across all types of commenters than expected. A surprisingly large number of respondents reported that they read other individuals' comments, acquire increased understanding of other people's positions as a result, and even occasionally change their own positions. Third, rather than significant differences in discursivity between electronic and paper commenters, the main differences found were between individuals who submitted original comments and those who posted form letters.

Differences Between Paper and Electronic Commenters

The main goal of the survey was to look for differences between those who submitted comments on paper, either through postal mail or fax, and those who used agency web-based forms, interest group websites, or email to comment. The survey suggests that those differences simply do not exist. There was a significant difference between electronic and paper commenters on only one question, and that finding was exactly the opposite of what we expected. Paper commenters, by 74.6% to 67.1% over web-based commenters, were more likely to refer to the "arguments, studies, statements, or positions made by agencies or individual organizations." Since paper submitters are more likely to say that they reference other people's work, an essential practice for creating quality discourse, our hypothesis that electronic commenters would demonstrate greater discursivity than paper commenters is not supported. We

suspect this may be due to the fact that many submitters of original paper comments actually use the Internet extensively as a resource to collect information in crafting their comments. When asked whether they had ever used a federal agency website to read information on a proposed rule, 42.7% of paper form submitters reported having done so, as did 45.9% of electronic form submitters, 50.0% of paper original submitters, and 58.4% of electronic original submitters. While there is a distinction between the means citizens use to comment, all types of commenters used electronic means to gather information in the commenting process. As for the lack of discursive indicators by electronic commenters, it may be that the technology, which makes commenting easier than ever before, encourages the rapid submission of comments, which is antithetical to more thoughtful and carefully reasoned arguments.

The Prevalence of Discursivity

While differences between electronic and paper commenters were nonexistent, there are nevertheless indicators that all types of commenters practice, or benefit from, certain types of discursivity. In this section we report on four indicators of discourse: the frequency with which commenters seek out a variety of information, the tendency to review other citizen's comments, gaining an understanding of the positions of others, and changing one's own position after being exposed to the arguments of others. The findings are summarized in Table 3.

Commenters are information-seekers

The use of information in developing a public comment is quite high. Overall, commenters, regardless of medium, are information-seekers. When asked how much information they receive on rules before submitting a comment, 45.2% said they get a lot of information, and a full 90% say they get a lot or some information. Those that write original paper comments claim the

most; nearly 51% say they get a lot of information before submitting a comment. Over 71% of those surveyed said that they referred to the arguments, studies, statements or positions of agencies or independent organizations before submitting a comment; again, those that submitted original paper comments were at the top with 76.7%. Agency websites are important sources of information for commenters—a full 50% surveyed said they used these sites in developing their comment. Again, a large majority of commenters are seeking out information, even those who submit form letters. Few commenters, at least from what they report, simply submit comments without trying to understand the issue.

Commenters review other's comments

Surprisingly, 68.0% of those surveyed said that they had read the comments of others at some point. As these comments are only available either in person in the agency docket rooms in DC, or on the newly developed agency websites,¹⁹ it may be that all types of commenters are using the agency websites to examine the docket, when such comments are available. For those that specifically reported using the agency websites, 69.4% said that the site helped them review other citizens' comments. Again, and counter to our original hypotheses, such access to information was reported highest (75.5%) by those who ultimately submitted original paper comments. Still, overall reporting of the review of others' comments is high regardless of submission type, illustrating attention to the positions of others in the rulemaking process.

Commenters gain an understanding of other positions

Reading of other citizen's comments is not just for information; commenters report that they gain an *understanding* of the positions of others as well. Overall, nearly three-quarters (73.2%) say they get a better understanding of the positions of other citizens by reading their

¹⁹ See <http://docket.epa.gov/edkpub/index.jsp> for the EPA's EDOCKET and <http://dms.dot.gov/> for the DOT's Docket Management System.

comments, and 41.5% say that they have found the comments of other citizens persuasive. Of the commenters who said that they visited and used agency websites, a very large percentage (71.7%) said that they somewhat or strongly agreed with the statement that the agency websites helped them to understand the positions of others. As the difference across types of commenters is insignificant, this finding suggests that commenters in general are gaining an understanding of the positions of other citizens commenting on a rule. Agency websites seem to have added to this particular indicator of democratic discursivity.

Commenters change their own positions

Finally, over one-third (36.3%) of those surveyed report that their position on an issue actually changed after reading others' comments. That is less than the 47% who report no change in their position, but the percentage that acknowledges such change is significant, and is yet another indicator that the limited discourse made possible by access to others' comments is having an impact on the reasoning of citizen commenters. However, this is a question that needs further research. It may be that people are not changing their positions from "opposed" to "for" or vice versa, but instead changing one or more reasons for being opposed, or for, the proposed rule. Other commenters might change their reasons due to information or arguments learned from commenters with whom they agree. Overall, participants may simply be getting more familiar with a variety of reasons for taking a position, one way or another.

Table 3. Summary of Deliberation Measures

(Cell values are percentages Ns are reported in "Total" column)		Paper Original	Paper Form	Electronic Original	Electronic Form	Total %(N)	Signif- icance
<i>Commenters are information-seekers</i>							
In general, how much information do you receive on rules before submitting a comment?	"A lot"	50.8	43.3	45.4	41.4	45.2 (700)	.284 (df=12)
	"Some"	40.4	47.6	44.4	47.3	45.0 (697)	
	"A little"	7.0	6.2	7.6	9.9	7.6 (118)	
	"None at all"	1.1	1.9	1.3	.8	1.3 (20)	
	"Don't Know"	.8	1.0	1.3	.5	.9 (14)	
When preparing your comments, do you refer to arguments, studies, statements or positions made by agencies or independent organizations?	YES	76.7	72.6	67.5	66.7	70.9 (1099)	.009 (df=9)
	NO	7.0	11.4	12.6	16.3	11.8 (183)	
	OTHER	16.3	16.0	19.9	17.1	17.3 (268)	
Have you ever used a federal agency's website to read information on a proposed rule?	YES	50.0	42.7	58.4	45.9	49.1 (763)	.000 (df=6)
	NO	48.9	55.0	39.5	51.5	48.9 (760)	
	OTHER	1.1	2.4	2.1	2.7	2.1 (32)	
<i>Commenters review other comments</i>							
Have you ever read other citizen's comments before sending in a comment?	YES	70.1	72.6	67.9	71.6	70.6 (806)	.605 (df=6)
	NO	27.3	23.6	27.6	26.2	26.2 (299)	
	OTHER	2.5	3.7	4.4	2.2	3.2 (37)	
<i>Commenters gain an understanding of other positions</i>							
<i>Among those who reported reading others' comments:</i>							
Do you gain a greater understanding of the positions or arguments of other citizens by reading their comments?	YES	79.5	69.0	74.1	70.6	73.2 (824)	.196 (df=9)
	NO	9.5	13.4	9.7	11.0	10.9 (123)	
	OTHER	11.0	17.6	16.2	18.3	15.8 (178)	
Have you found that other citizen's comments are persuasive?	YES	37.5	44.3	45.4	38.1	41.5 (459)	.488 (df=9)
	NO	22.7	23.5	19.4	27.3	22.0 (243)	
	OTHER	39.8	32.1	35.2	39.6	36.6 (405)	
<i>Commenters change their own positions</i>							
Has your own position on issues EVER changed at all as a result of reading other citizens' comments?	YES	36.9	37.2	37.4	33.6	36.3 (408)	.939 (df=9)
	NO	46.9	45.2	45.7	51.5	47.2 (531)	
	OTHER	16.2	17.6	16.9	15.0	16.4 (185)	

Differences Between Original and Form Commenters

The vast majority of significant differences in this study turned out to be not between electronic and paper submitters as we had originally proposed, but between those who submit

original comments and those who submit form-based comments (see Tables 4 and 5). This difference has become a major topic of interest—to the authors, agencies, and interest groups alike—as it can have an impact on both how agencies respond to public comment and how interest groups can refine their campaigns. Key here is that these comments are part of the rulemaking process governed by the Administrative Procedures Act. As numerous civil servants have reported at workshops, focus groups, and interviews over the last four years, agencies are required to examine and respond to substantive comments, but not to sheer numbers; the practice of notice and comment was designed to bring diverse information to the rulemaking process, not to be a referendum—and agency officials and rulewriters are adamant on this point. Most interest groups, in addition to drawing on their legal and scientific staff to draft detailed comments, respond to the rulemaking process with an aggregative approach—soliciting mass numbers of identical comments from their members and interested citizens. By all accounts, new ICTs have enabled the number of comments to increase well beyond the capacity of agencies to cope without expensive, outside private consulting firms to report on the content of citizen comments. The key question for us here is whether or not this technology improves citizen discourse.

Form versus original differences in information-seeking

In the survey findings, the differences between original and form commenters start with the use of information. Over half (54.2%) of original commenters report having used an agency website to read information on a proposed rule. This compares to 44.2% of the form commenters – a clear difference. On the other hand, form and original submitters appear rather similar in the amount of information they claim to receive on rules before submitting a comment. 48.1% of original submitters claim to receive “a lot” of information, compared to 42.4% of form

submitters. Likewise, there is not a great difference in the rate at which the two types of commenters report referring to other arguments in their comments. Nevertheless, the substance of a comment – original or form – is a bigger indicator of the use of information before commenting than is the method of submission.

Form versus original differences in viewing of others' comments

While there is no significant difference between original and form commenters on their reading of others' comments, their perceptions of others' comments as persuasive, or their having changed their mind as a result of reading another comment, original commenters are significantly more likely to report (76.7% vs. 69.8%) gaining "a greater understanding of the positions or arguments of other citizens by reading their comments." While both sets of commenters read the positions of others, original submitters are more likely to report having a better understanding of those positions. It may be that original commenters see others' comments as part of a larger discourse, and so pay attention to all sides of the issue. But this difference may also be a function of original commenters having greater faith that their comments could actually change an outcome. If form commenters are more pessimistic about their ability to affect outcomes, they may not read others' comments with any intentions of actually understanding others' positions. The above mentioned differences, as well as some similarities, are summarized in Table 4.

Table 4. Summary of Form vs. Original Differences in Deliberation Measures

		Originals	Forms	Total % (N)	Significance
<i>Information Seeking</i>					
In general, how much information do you receive on rules before submitting a comment?	"A lot"	48.1	42.4	45.2 (700)	.225 (df=4)
	"Some"	42.4	47.5	45.0 (697)	
	"A little"	7.3	7.9	7.6 (118)	
	"None at all"	1.2	1.4	1.3 (20)	
	"Don't Know"	1.1	.8	.9 (14)	
	Total (N=)	755	794	1549	
When preparing your comments, do you refer to arguments, studies, statements or positions made by agencies or independent organizations?	YES	72.0	69.8	70.9 (1099)	.110 (df=3)
	NO	9.8	13.7	11.8 (183)	
	OTHER	18.1	16.5	17.3 (268)	
	Total (N=)	755	795	1550	
Have you ever used a federal agency's website to read information on a proposed rule?	YES	54.2	44.2	49.1 (763)	.000 (df=2)
	NO	44.2	53.3	48.9 (760)	
	OTHER	1.6	2.5	2.1 (32)	
	Total (N=)	756	799	1555	
<i>Viewing Others' Comments</i>					
Have you ever read other citizen's comments before sending in a comment?	YES	69.0	72.2	70.6 (481)	.497 (df=2)
	NO	27.5	24.9	26.2 (299)	
	OTHER	3.5	2.9	3.2 (37)	
	Total (N=)	571	571	1142	
<i>Among those who reported reading others' comments:</i>					
Do you gain a greater understanding of the positions or arguments of other citizens by reading their comments?	YES	76.7	69.8	73.2 (824)	.041 (df=3)
	NO	9.6	12.2	10.9 (123)	
	OTHER	13.7	18.0	15.8 (178)	
	Total (N=)	563	562	1125	

Form versus original differences in trust

In addition to the modest differences between original and form commenters on the discursive indicators described above, there are significant differences between the two on a number of indicators of trust in the process and the agency involved. For example, 62.7% of

original commenters (both paper and electronic) believe their comments were actually read by a government employee, compared to only 45.6% of form commenters. This is one of the strongest differences we found between form and original commenters. Related, electronic form commenters are the most cynical in terms of their feeling that their participation will have an impact on their satisfaction with the final rule; conversely, those that sent paper original comments are the most satisfied with their participation and the outcome. Finally, not only are form submitters more cynical about having their comments read and making a difference, they are also more likely to say that their participation led to a negative view of the agency running the rulemaking (45.4% for form commenters, vs. 36.0% of original commenters). Original commenters are about 6% more likely (19.7% to 13.4%) to report a positive view of the agency. Original commenters report being slightly more satisfied than form commenters with agency decisions on issues they have commented on (57.7% of originals are unsatisfied vs. 65.7% of form submitters).

Finally, form commenters are simply more negative about the government in general. By 41.3% to 27.8% compared to original commenters they “rarely” trust the government to do what is right. When “rarely” and “never” trust the government are combined, 49.5% of form commenters report this distrust, while 32.5% of original commenters do. Simply put, original submitters have significantly higher levels of trust in the government to do what is right. These differences are reported in Table 5.

Overall, the survey illustrates that people believe that form letters are less likely to be read by government employees and have an actual impact; it may be the case that a negative view of the agency and government in general was one of the reasons for commenting in the first place. A central question here is whether a lack of faith in the agency has led to some citizens’

refusal to take the time to write an original letter. On the other side, it may be the case that original commenters understand the rulemaking process more thoroughly, and have more knowledge of (and maybe sympathy for) the agency involved.

Table 5. Original vs. Form Differences in Trust and Satisfaction

<i>(Cell values are percentages Ns are reported in "Total" column)</i>		Originals	Forms	Total %(N)	Signif- icance
Do you think the comments you have submitted were viewed by a government employee?	YES	62.7	45.6	54.0 (837)	.000 (df=3)
	NO	11.0	17.8	14.5 (225)	
	OTHER	26.3	36.6	31.5 (490)	
	Total (N=)	756	796	1552	
Does your participation generally lead you to have a positive or negative view of the agency involved?	POSITIVE	19.7	13.4	16.5 (173)	.003 (df=5)
	NEGATIVE	36.0	45.4	40.7 (427)	
	OTHER	44.3	41.2	42.8 (448)	
	Total (N=)	512	536	1048	
Have you been satisfied with the agencies' decisions on issues that you have commented on?	YES	13.7	10.9	12.3 (162)	.022 (df=3)
	NO	57.7	65.7	31.8 (816)	
	OTHER	28.6	23.4	25.4 (342)	
	Total (N=)	643	677	1320	
How often do you trust the federal government to do what is right?	All or some of the time	66.1	49.1	57.3 (872)	.000 (df=4)
	Rarely or Never	32.5	49.5	41.2 (627)	
	Don't Know	1.4	1.5	1.4 (22)	
	Total (N=)	740	781	1521	

On the Value of Electronic Comment and Mass E-Mail Campaigns

There is one other key finding regarding the difference between form and original commenters: Though it contradicts the lack of trust in government noted above, form commenters are more likely than original commenters to think that groups that organize mass mail campaigns have the ability to change proposed rules (86.7% to 81.7%). That may explain why form commenters are much more likely to submit comments more often than original commenters. Sixty-two percent of form commenters report submitting comments more than ten

times, while only 44% of original commenters report that level of participation. This difference, however, can also be explained by the expertise and time involved in many original comments.

This faith that mass email campaigns have an impact has led to the increase in the popularity of the tactic. Nearly 50% of those surveyed said they submitted their last comment through an interest group website, and almost 40% reported that this method will also be how they comment next time. Only those that had submitted paper original comments said that they would continue that route over all others. While agencies such as the EPA and DOT have worked to improve the information on their web-based docket systems, and while the federal government continues to develop regulations.gov as a single web-based public comment portal, very few commenters plan to use such systems – 12% vs. nearly the 40% who plan to use interest group websites. Mass-mailed form comments originating from various environmental and other interest groups make up the vast majority of comments submitted on rules; the mercury rule, for example, received almost 500,000 comments, only 4264 of which the EPA labeled original.

This practice should be worrisome for those interested in the potential of the web to increase discourse on important issues in the rulemaking process. Commenters who submitted using form emails via interest group websites were the least likely to look at other information and the least likely to report that their positions have changed as a result of reading others' comments. In other words, electronic commenters show the lowest scores on many discursive indicators. Mass email campaigns, as they are currently designed, are only useful in an aggregative form of democracy; such an approach is much more suited to pressure on legislators than it is on agencies required to abide by the APA.

In addition, there is little evidence to support the belief that mass email campaigns actually do change proposed rules. While the proposed waters rule was dropped (for a variety of reasons), other highly controversial rulemakings went forward while tens of thousands, and sometimes hundreds of thousands, of comments came in against them. Interviews with agency rulewriters and officials show that agencies do not value form letters at all; they simply do not meet the minimum requirement of a “substantive” comment as laid out in the Administrative Procedures Act. The EPA, in fact, simply deletes all but one example of each mass email, after taking note of how many they received of each specific version. Importantly, however, our interviews and focus groups show that these same officials would welcome more substantive and original comments, as they could return the rulemaking process to that designed by the APA – based on the collection of information and substantive input from interested parties outside of the government.

Conclusion: Building Political Capital among New Commenters

The first obvious conclusion is that the distinction between paper and electronic commenters, which was the basis of our original set of theses, simply does not exist as we hypothesized. We do have an explanation, however, as it seems that all commenters are using electronic means of researching an issue, and paper commenters were highest in reporting use of web-based agency docket systems. Using this methodology, of comparing paper and electronic commenters on recent rules, does not help us examine whether the new electronic systems are more deliberative than past paper-based notice and comment processes. One could try to explore differences between current rulemaking processes and past, pre-internet processes, but given the weakness of the human memory, a survey would be an inappropriate method. If the central

question is the discursivity of current agency practices, it would seem the paper/electronic divide is simply not a viable or productive area for further research.

That said, the issue of the difference between original and form-based participation is obviously at the forefront of the questions regarding the potential discursivity of the rulemaking process. The range of significant differences between original letter writers and form letter submitters might be partially explained by the introduction of a large number of commenters who are new to the rulemaking process. The ease with which interest groups can spread information to constituents about proposed rules open for public comment, and the sophistication of email action alert systems that allow individuals to “participate” by doing little more than clicking the “send” button on an interest group’s website, means agencies are getting more comments, especially from people who have not participated in the process in the past. Though many of these participants, even electronic form submitters, reported to us that they seek out information before sending in their comments, form submitters are nevertheless much more cynical about the process. This leads us to conclude that there is a certain amount of political capital that must be acquired and invested before these new participants have a level of efficacy and trust in the process that will justify the effort required to become more discursive participants.

Perhaps as the very technology that has brought more participants into the process is better utilized to handle increased levels of participation, all types of participants—from paper original letter writers to electronic form submitters—will feel their participation is meaningful. In turn, theoretically, these participants will invest more time in becoming more educated and thoughtful commenters. This is important since 91% of respondents said they are very or somewhat likely to submit comments again in the future. Yet whereas 39.7% report they will go

through an interest group website to submit their comments (and, presumably, the majority of these will send the “click to send” variety of form letter), only 12% plan to use an agency website. Federal agencies do not necessarily need to figure out how to get more people to comment through their websites, but they do need to figure out how to get more commenters to trust the process and invest time in enhancing the discourse surrounding a proposed rule. In the meantime, the discursive divide between citizens who invest time to write original letters and those who merely submit form letters has the potential to increase feelings of powerlessness or disenfranchisement.

So we conclude by noting the potential of the e-rulemaking process to enhance democratic deliberation on key issues in the American polity. Certainly, we see that some citizens are interested in rules, information surrounding various issues, and in what other citizens have to say in the comment process. We also see that technology exists both to enhance the deliberative process (the open dockets and access to information on agency websites) and to decrease discourse (the easy click-to-send web pages on interest group websites). Obviously, the technology will not stand still; we only hope that research like this will push the agencies and interest groups alike to develop systems that meet the ideals of both the APA notice and comment process and deliberative democracy to increase the amount of information and exchange of views in the development of better policy.

Works Cited

- Andrews, Richard N.L. 1999. *Managing the Environment, Managing Ourselves: A History of American Environmental Policy*. (New Haven: Yale).
- Barber, Benjamin. 1984. *Strong Democracy: Participatory Politics for a New Age* (Berkeley: University of California Press).
- Beierle, Thomas C. 2004. "Digital Deliberation: Engaging the Public Through Online Policy Dialogues," in Peter Shane (ed.) *Democracy Online: The Prospects for Political Renewal Through the Internet* (New York: Routledge), 155-166.
- Berkman Center for Internet & Society. 2005. "Online Deliberative Discourse Project," <http://cyber.law.harvard.edu/projects/deliberation/> [Last accessed February 28, 2005].
- Bessette, Joseph M. 1994. *The Mild Voice of Reason: Deliberative Democracy and American National Government*. (Chicago: University of Chicago Press).
- Bimber, Bruce. 2003. *Information and American Democracy: Technology in the Evolution of Political Power* (New York: Cambridge University Press).
- Bimber, Bruce. 2000. "The Study of Information Technology and Civic Engagement," *Political Communication* 17(4), 329-333.
- Bohman, James. 1996. *Public Deliberation: Pluralism, Complexity and Democracy* (Cambridge, MA: MIT Press).
- Coglianesi, Cary. 2004. "E-Rulemaking: Information Technology and Regulatory Policy," Regulatory Policy Program Report No. RPP-05.
- Coglianesi, Cary. 2003. "The Internet and Public Participation in Rulemaking," Paper prepared for conference on Democracy in the Digital Age, Yale Law School, April 2003.
- Coleman, S., & Gøtze, J. 2001. *Bowling Together: Online Public Engagement in Policy Deliberation* <http://www.bowlingtogether.net/> [Last accessed January 31, 2003].
- Dahl, Robert. 1961. *Who Governs?* New Haven: Yale University Press.
- Dahlbergh, Lincoln. 2001. "Computer-Mediated Communication and the Public Sphere: A Critical Analysis," *Journal of Computer-Mediated Communication* 7(1) <http://www.ascusc.org/jcmc/vol7/issue1/dahlberg.html> [Last accessed March 1, 2005].
- Dryzek, John S. 2000. *Deliberative Democracy and Beyond: Liberals, Critics, Contestations* (New York: Oxford UP).
- Froomkin, A. Michael. 2004 "Technologies for Democracy," in Peter Shane (ed.) *Democracy Online: The Prospects for Political Renewal Through the Internet* (New York: Routledge), 3-20.
- Froomkin, A. Michael. 2003. "Habermas@Discourse.Net: Toward a Critical Theory of Cyberspace." *Harvard Law Review* 116, No. 3: 751-873.
- Habermas, Jurgen. 1996. *Between Facts and Norms: Contributions to a Discourse Theory of Law and Democracy*. (Cambridge, MA: MIT Press).

- Janssen, Davy and Raphaël Kies. 2004. "Online Forums and Deliberative Democracy: Hypotheses, Variables and Methodologies," Prepared for the Conference on Empirical Approaches to Deliberative Politics, European University Institute, Florence (May 22-23, 2004) <http://edc.unige.ch/publications/e-workingpapers/onlineforums.pdf> [Last accessed February 28, 2005].
- Johnson, Steven M. 1998. "The Internet Changes Everything: Revolutionizing Public Participation and Access to Government Information Through the Internet," *Administrative Law Review* 50(2), 277-37.
- Kerwin, Cornelius M. 1999. *Rulemaking: How Government Agencies Write Law and Make Policy* 2nd ed. (Washington, DC: CQ Press).
- Lessig, Lawrence. 1999. *Code and Other Laws of Cyberspace* (New York: Basic Books).
- Lubbers, Jeffrey S. 2002. "The Future of Electronic Rulemaking: A Research Agenda," *Administrative and Regulatory Law News* 27:4, 6-7, 22-23.
- Lubbers, Jeffrey S. 1998. *A Guide to Federal Agency Rulemaking* Third Edition (Chicago: ABA).
- Muhlberger, Peter. 2004. "Polarization of Political Attitudes and values on the Internet," paper presented at the 2004 International Communication Association meeting, New Orleans, LA <http://communityconnections.heinz.cmu.edu/papers/index.jsp> [last accessed March 1, 2005].
- Noveck, Beth S. 2004. "The Electronic Revolution in Rulemaking," which can be downloaded at <http://snipurl.com/88jf> [Last accessed February 28, 2005].
- Paehlke, Robert. 1989. *Environmentalism and the Future of Progressive Politics*. (New Haven: Yale University Press).
- Rakoff, Todd D. 2000. "The Choice Between Formal and Informal Modes of Administrative Regulation," *Administrative Law Review* 52:1, 159-174.
- Rawls, John. 1996. *Political Liberalism*. (New York: Columbia University Press).
- Schlosberg, David, and John S. Dryzek. (September 2002). "Digital Democracy: Authentic or Virtual?" *Organization & Environment* 15(3), 332-335.
- Shane, Peter. 2004. "Introduction: The Prospects for Electronic Democracy," in Peter Shane (ed.) *Democracy Online: The Prospects for Political Renewal Through the Internet*. (New York: Routledge), xi-xx.
- Shulman, Stuart W. 2004. "The Internet Still Might (but Probably Won't) Change Everything: Stakeholder Views on the Future of Electronic Rulemaking," University of Pittsburgh.
- Shulman, Stuart W. 2003. "An Experiment in Digital Government at the United States National Organic Program," *Agriculture and Human Values* 20, 3 (Fall), 253-265.
- Shulman, Stuart W., David Schlosberg, Stephen Zavestoski, and David Courard-Hauri. 2003. "Electronic Rulemaking: New Frontiers in Public Participation," *Social Science Computer Review* 21(2), 162-178.
- Sunstein, Cass R. 2001. *Republic.com*. Princeton, N.J.; Oxford: Princeton University Press.

Truman, David. 1960. *The Governmental Process: Political Interests and Public Opinion*. New York: Knopf.

Witschge, Tamara. 2004. "Online Deliberation: Possibilities of the Internet for Deliberative Democracy," in Peter Shane (ed.) *Democracy Online: The Prospects for Political Renewal Through the Internet*. (New York: Routledge), 109-122.

Young, Iris Marion. 2000. *Inclusion and Democracy* (Oxford, UK: Oxford University Press).

Zavestoski, Stephen, Stuart Shulman and David Schlosberg. 2005. "Democracy and the Environment on the Internet: Electronic Citizen Participation in Regulatory Rulemaking," *Science, Technology & Human Values*, forthcoming.

Zavestoski, Stephen and Stuart W. Shulman. 2002. "The Internet and Environmental Decision-Making," *Organization & Environment* 15(3): 323-327.