Weak Democracy, Strong Information:
The Role of Information Technology in the Rulemaking Process

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Techno-optimists advocate the application of information technology to the rulemaking process as a means of advancing strong democracy -- that is, direct, broad-based citizen involvement in regulatory policy making. In this paper, I show that such optimism is unfounded given the obstacles to meaningful citizen deliberation posed by the impenetrability of current e-rulemaking developments, the prevailing level of citizen disengagement from politics and policy making more generally, and most citizens' lack of the requisite technical information about and understanding of the issues at stake in regulatory decision making. As such, a more realistic goal for the application of new technology to the regulatory process is to expand the information base available to regulatory decision makers through increased interest group pluralism. Instead of creating conditions of strong democracy, information technology can expand the involvement and access of informed, knowledgeable, and affected parties to the rulemaking process, a weaker form of democracy that nevertheless can provide better information for government officials.

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Government regulation has a significant impact on society and the economy, affecting the operation of such vital institutions as banks, airlines, utilities, telecommunications systems, chemical plants, and transportation networks. In most developed countries, regulators make thousands of critical policy decisions each year that have major effects on economic growth, investment security, consumer prices, and public health and safety (Kerwin 2003). Given their ubiquity and significance, regulatory decisions require the most accurate information and best expert judgment obtainable. To regulate sensibly and without creating undue burdens on industry or undesirable side effects, decision-makers need a thorough and accurate understanding of how regulated industries operate and what causes underlie regulatory problems (Coglianese, Zeckhauser, and Parson 2004). For this reason, legislatures often delegate regulatory policy decisions to specialized agencies that possess in-house expertise and the capacity to collect and analyze a large volume of information.

Although expert delegation helps solve the informational problem associated with making regulatory policy, it in turn creates a problem with respect to democratic legitimacy. Regulatory decisions involve more than just complex technical challenges

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calling for specialized information and expertise; they frequently also entail critical value choices. For example, in setting air pollution control standards, regulators must certainly understand how different chemicals affect human health as well as the costs associated with various types of pollution-control technology. But they must also decide how much risk from air pollution society should bear (Coglianese and Marchant 2004). Similar value choices are embedded in many other areas of regulation. In establishing standards for drug safety and approving new drugs, for example, regulators must often make a trade-off between maximizing the safety of new drugs and the speed with which they can be brought to market. No amount of technical expertise endows unelected regulatory officials with special insight into how to make these kinds of value judgments (Dahl 1989).

Scholars and other observers have long questioned the democratic legitimacy of policymaking by bureaucratic officials. Traditionally, this question has been answered through the establishment of procedures to govern how agencies make new regulations. By providing a modicum of transparency and an opportunity for public comment, rulemaking procedures can materially affect the quality and effectiveness of regulatory decision making – and ultimately its legitimacy. These procedures determine the degree to which those with a stake in the outcome can affect the content of new regulations.

More recently, some scholars and policymakers have suggested another answer to the legitimacy question, one rooted in modern information technology. Indeed, they have proclaimed that information technology will transform or even "revolutionize" rulemaking from its current state of relative obscurity to one in which government is completely transparent and ordinary citizens participate regularly (Brandon and Carlitz

2002; Johnson 1998; Noveck 2004). Several so-called e-rulemaking projects in the United States specifically aim to tap into the purported transformational potential of the Internet, recognizing the "critically important role citizens play in the rulemaking process" and with the aim of "improving the public's ability to find, view, understand, and comment on regulatory actions" (Nelson 2004).

It is indisputable that information technology can make it easier and cheaper to connect governmental regulators with those whom they regulate and with ordinary citizens. Yet despite the technological optimism of many proponents of participatory democracy – or "strong democracy," as it is sometimes called (Barber 1984) – nothing in the federal government's current e-rulemaking agenda is likely to deliver more than marginal changes in the degree to which citizens will participate in rulemaking. In this paper, I explain why current e-rulemaking efforts cannot reasonably be expected to meet the aspirations of strong democracy's adherents to replace bureaucratic decision making with citizen deliberation (Barber 1984: 262).

E-rulemaking can advance, however, another form of democratic legitimacy, one that emphasizes the pluralistic involvement of those most directly affected by and knowledgeable about new government regulations. Legitimacy in this sense depends upon minimizing the potential biases that arise in closed policymaking environments while maximizing the amount of detailed information and the quality of adversarial arguments essential to improve policy decision making (Dahl 1961). In lieu of "strong democracy," information technology can thus promote a form of "weak democracy" that provides a "strong" base of information for regulators. Information technology can

facilitate the kind of input and oversight necessary to check the potential errors that can arise from biased or insulated expert decision making,

This paper begins, in Part I, with an overview of the governmental rulemaking process and current efforts to apply information technology to that process. In Part II, I turn specifically to concerns about the democratic legitimacy of rulemaking and explain the procedural strategies for addressing these concerns, including the reasons behind many observers' optimism regarding information technology's potential to promote strong democracy. In Part III, I offer the contrary view that information technology, especially as currently deployed, will not significantly advance the goal of strong democracy in rulemaking. In Part IV, I conclude by suggesting that the incapacity of e-rulemaking to advance strong democracy ought not to undercut innovative efforts to apply information technology to rulemaking. E-rulemaking initiatives should proceed insofar as they are targeted to advance the combination of weak democracy and strong information that can pragmatically enhance regulatory decision making.

I. Rulemaking and E-Rulemaking

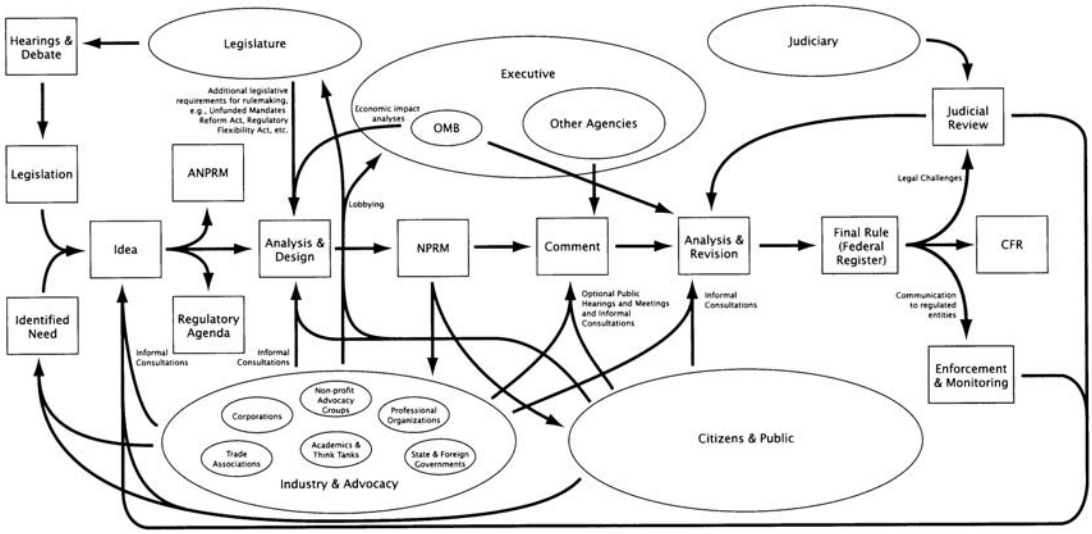
To correct market failures and advance other values expressed in legislation, regulatory agencies in the United States, such as the Food and Drug Administration (FDA), the Department of Transportation (DOT), the Environmental Protection Agency (EPA), and the Equal Employment Opportunity Commission (EEOC), adopt thousands of rules each year. The Office of Management and Budget (OMB) estimates that U.S. health, safety, and environmental regulations yield up to $1 trillion in benefits to society

each year (OMB 2001), while these same federal regulations impose annual costs on the economy of up to $230 billion. Other federal regulations, such as those in the areas of transportation, energy, telecommunications and international trade, may impose additional costs of up to $230 billion per year (OMB 2001).

When governmental agencies issue new regulations, they typically do so through a procedure called "notice and comment" or "informal" rulemaking. As outlined in the Administrative Procedure Act (APA), informal rulemaking calls for a regulatory agency to (1) publish a notice of proposed rulemaking (NPRM) in the *Federal Register*, a daily governmental publication that contains regulatory notices and other announcements from the executive branch; (2) specify a time period for public comment on the proposed rule and provide an address where public comments may be sent; and (3) consider these public comments in making any revisions to the proposed rule and when publishing the final rule in the *Federal Register*. In the main body of the *Federal Register* announcement — a section referred to as the *preamble* — the agency provides a written justification for the rule in its final form.

Although these three steps constitute the core of the rulemaking process, in reality regulatory agencies go through a much more involved and multi-layered process. Figure 1 maps that process, illustrating the procedural complexity that has grown up around so-called informal rulemaking. In the first instance, this greater complexity is a function of the fact that the APA procedures cover only one segment of the rulemaking chronology. Much, if not most, of the work of a regulatory agency actually takes place prior to the development of the NPRM. As they develop their proposals, regulators frequently

Figure 1: The Rulemaking Process



consult with industry representatives, other interested parties, and executive branch or legislative staff (Coglianese, Zeckhauser, and Parson 2004). Sometimes agencies issue an advance notice of proposed rulemaking (ANPRM) prior to the NPRM, providing detailed information about a forthcoming rule and encouraging those affected to provide early comments that can inform the development of the proposed rule.

Furthermore, the rulemaking process does not necessarily end with the publication of the final rule in the *Federal Register*. The government later publishes the rule's binding text in the *Code of Federal Regulations*, the official publication that organizes regulations by subject matter. Once the head of an agency has signed the final rule, objecting parties can file legal petitions forcing the agency to defend its decision in

court. According to the APA, courts can reject agency rules if they conflict with statutory authority, violate the U.S. Constitution, suffer from procedural flaws, or are otherwise "arbitrary and capricious." To settle a lawsuit or respond to an adverse court ruling, agencies sometimes need to revise their rules even after they are published in the *Federal Register*.

In addition, both the president and the Congress have imposed requirements on the rulemaking process that extend beyond those stated in the APA. Some of these procedural requirements apply to only the most economically significant new rules. For example, since 1981 the White House has required agencies to conduct economic impact analyses of "major" or "significant" new regulations, which analyses are then subject to review by the OMB (Lazer 2001). Congress has effectively codified these presidential requirements in the Unfunded Mandates Reform Act of 1995, which independently requires agencies to analyze the costs and benefits of any proposed regulation entailing annual economic costs of more than $100 million. As a result of these requirements, the OMB's Office of Information and Regulatory Affairs now plays a key role in reviewing, and sometimes requesting revisions of, significant proposed and final rules.

Other rulemaking procedures govern the availability and disclosure of government-held information. For example, the Freedom of Information Act requires that, with some exceptions, all information supporting an agency's rulemaking be made publicly available. In addition, court decisions and statutory provisions have led agencies to develop "dockets" for each rulemaking proceeding. These dockets contain all the supporting documents associated with each rulemaking, including copies of all the public comments submitted on the rule as well as summaries of communications between

agency staff and anyone from outside of government (so-called ex parte communications). For a long time, agency dockets have consisted of large rooms full of file cabinets, sometimes with documents later archived on microfiche.

As one might imagine, information collection and management makes up most of the administrative effort associated with rulemaking, as regulatory agencies collect, process, and analyze large volumes of information in order to complete a single rulemaking (Coglianese 2004). To address the information management challenges inherent in rulemaking while gathering ever more information, agencies have started to employ digital technologies in the rulemaking process. In the early 1990s, the Clinton administration began encouraging federal agencies to increase their use of information technology. Around the same time, the Office of the Federal Register made the *Federal Register* and the *Code of Federal Regulations* available on the Internet, while Congress adopted legislation that aimed to increase the online availability of regulatory agency information.

Regulatory agencies now apply information technology in a variety of ways, including using the Internet to enhance transparency and facilitate public participation in rulemaking. Agencies post key studies and other rulemaking documents on their websites. Some agencies allow the public to submit comments via e-mail. Early on, electronically submitted comments played a role, for example, in the Federal Aviation Administration's rulemaking on small-scale rockets and the Department of Agriculture's rulemaking on the labeling of organic foods. Other early adopters of electronic commenting included the Nuclear Regulatory Commission and the Federal

Communications Commission (FCC). A few agencies have used information technology to analyze public comments submitted on proposed rules.

In 1998, the DOT became the first regulatory agency to make available an online, department-wide regulatory docket (dms.dot.gov), providing full electronic access to all studies, comments, and other documents contained in the agency's rulemaking records. The DOT system also allows the public to submit electronic comments on all rules proposed by the Department. A few years later, the EPA also adopted an agency-wide system called EDOCKET. Several other agencies have subsequently begun implementing similar docket management systems.

In a major effort to expand information technology capabilities across the federal government, the George W. Bush administration launched an e-government initiative as part of its President's Management Agenda. The administration's e-government initiative, coordinated through the OMB, consists of approximately two dozen projects, one of which is e-rulemaking. The eRulemaking Initiative, spearheaded by the EPA, has been designed to deploy in three stages.

The first stage, completed in January 2003, involved the creation of a search-and-comment portal located at www.regulations.gov. The Regulations.Gov portal relies on the Office of Federal Register's listings of notices of proposed rules and enables users to search all proposed rules that are open for public comment. It enables members of the public to comment on any proposed rule issued by any governmental agency from a single location on the Internet. Comments submitted electronically at Regulations.Gov are then automatically distributed to the appropriate agencies.

The second stage of the Bush administration's e-rulemaking project, currently in progress, further expands public access by creating a new government-wide docket management system, the Federal Docket Management System (FDMS). At present, more than a dozen agencies are connected, and eventually FDMS is supposed to make available to any interested party all documents related to every new regulation across the government.

The third stage, still under development, will install on the desktops of regulatory agency staff a standard suite of knowledge management tools. These tools will be specifically designed to assist with data collection, analysis, decision making, and rule writing.

Even after the Bush administration leaves office, e-rulemaking will likely continue. The passage of the E-Government Act in 2002 promotes the use of information technologies throughout government, and in particular directs regulatory agencies to accept electronically submitted comments and to establish comprehensive electronic dockets for all rulemakings. The act also creates a new Office of Electronic Government within OMB, requires that this office produce guidelines for all agency websites, and generally calls upon agencies to adopt innovative uses of information technologies.

The entrenchment of e-rulemaking in administrative systems does, though, raise the question of what difference information technology will make in the quality of public policy decision making and in the democratic legitimacy of regulatory policymaking. Specifically, will e-rulemaking enable the regulatory process to involve many more ordinary citizens in meaningful deliberation over regulatory policy? Researchers and

policymakers have begun to consider whether information technology can help fulfill the aspirations of democratic theory.

II. Rulemaking and the Problem of Democratic Legitimacy

For much of the last century, if not longer, scholars have wrestled with the democratic legitimacy of agency decision making (Coglianese 2001). Agency-issued rules have a major impact on society and constitute binding law, legally on par with statutes passed by Congress, yet these rules are issued by agency officials who are neither elected by the public nor otherwise directly accountable to them (Freedman 1978; Lowi 1969). The powers exercised by regulatory agencies are delegated powers, given over to bureaucrats by laws adopted by the more directly accountable branches of government. Furthermore, even though the heads of these agencies are political appointees, these appointees often in turn delegate to career civil servants the responsibility for, and discretion over, the drafting, analysis, and design of policy and regulations.

Delegation of rulemaking authority thus significantly stretches the chain of governmental accountability. Rather than a government of and by the people, regulatory decision making moves the country in the direction of a government of and by unelected bureaucrats. For this reason, some scholars oppose any delegation of policymaking authority to regulatory agencies. Schoenbrod (1993), for example, argues that rulemaking authority should remain vested completely in the democratically elected legislature. Despite the theoretical appeal of such a strict approach, eliminating delegation to agencies would be impracticable, placing an onerous burden of policy

decision making on the legislative agenda, and taxing Congress beyond the limits of its institutional capacities (Meidinger 1992). Furthermore, the likely response of any legislature to such a burden would be to delegate internally to committees and subcommittees, which would then need substantially larger staffs and would no doubt assume even more power than they already have (Krehbiel 1991; Stewart 1987), in effect simply relocating and replicating the problem of delegation to non-elected actors situated inside the legislature.

Recognizing the pragmatic necessity for at least some delegation to bureaucrats, others have suggested that democratic legitimacy be enhanced by tightening the connections between regulatory agencies and the electorally accountable branches of government. These connections could be effectuated through institutional *control* or institutional *oversight*. In the first instance, the legislature would *control* regulatory agencies' authority by providing more specific instructions through statutes (Lowi 1969). Rather than delegating broad discretion to agencies to regulate in virtually any manner (e.g., "protect the public from the harm of automobile accidents"), statutes creating regulatory authority can specify more concretely what the legislature expects the agency to do (e.g., "adopt standards for air bag devices that will protect occupants in head-on collisions at or above 30 miles per hour"). Of course, maximally specific legislation would essentially eliminate all agency discretion, which would have the same effect as bypassing delegation altogether, with the attendant untenable burden on Congress. Short of backing into that extreme position, enhancing institutional control by specific legislation only serves to constrain an agency's policymaking discretion, not to eliminate it, and hence does not solve entirely the underlying problem of democratic legitimacy.

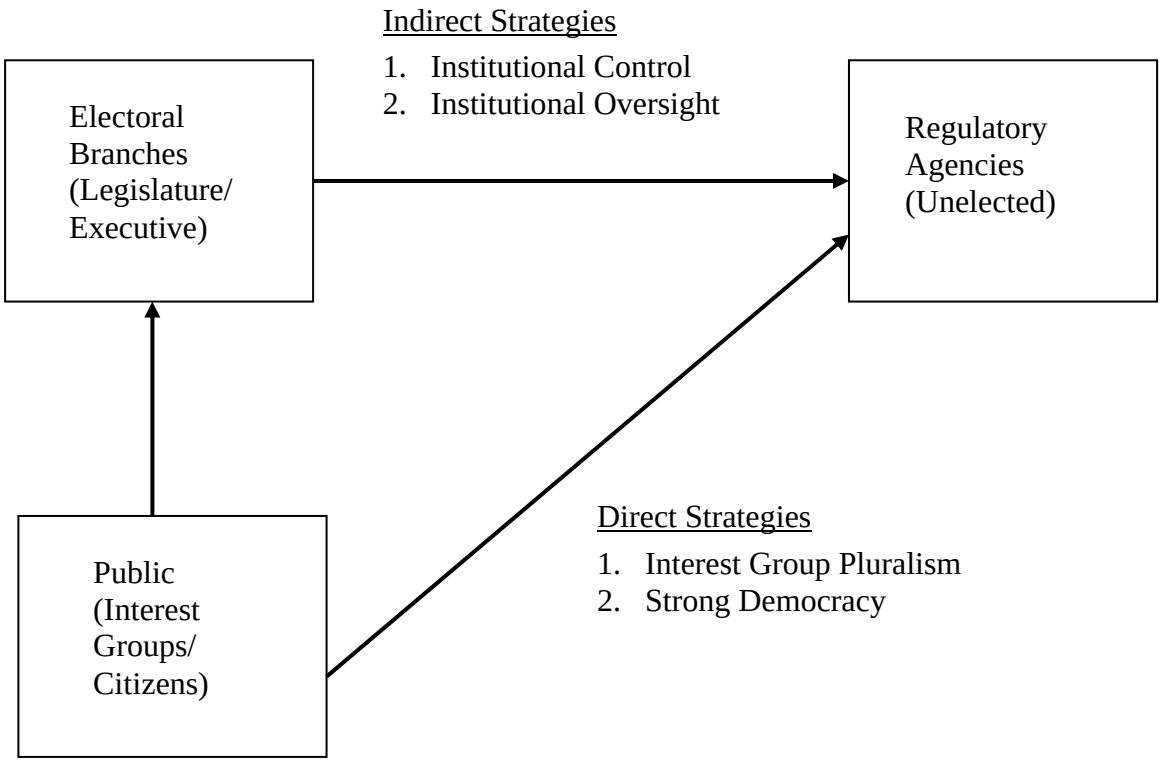
A second way to build closer connections between regulatory agencies and the electorally accountable branches of government is through institutional *oversight* (McCubbins and Schwartz 1984). Legislators hold hearings at which they summon the leaders of regulatory agencies to produce information and answer questions. Legislators can also always exploit the appropriations process to influence agencies' discretionary decisions. In addition, U.S. regulatory agencies must submit to Congress copies of the most significant rules they adopt, and Congress may vote to disapprove these rules and send them back to the relevant agencies. In addition, the establishment of a regulatory review process in the OMB helps ensure that regulatory agencies are more closely tied to the electorally accountable executive branch of government (Kagan 2001; Lazer 2001).

By enhancing both institutional oversight and control in these ways, it is possible to strengthen the connections between regulatory agencies and their democratically elected principals (Epstein and O'Halloran 1999). However, these strategies advance democratic ties to the public only indirectly. As shown in figure 2, the linkage between the public to a given regulatory agency is only indirect, since the public elects the legislature or president and then the legislature or president in turn seeks to influence the policy decisions of the agency.

An alternative, but complementary, strategy of legitimization would open the rulemaking process to direct public involvement. As indicated in figure 2, two strategies for such involvement exist: (1) *interest-group pluralism*, and (2) *strong democracy*. The first of these, *interest group pluralism*, seeks to involve directly a subset of the general public consisting of organized groups and experts with a high level of interest in and knowledge about a particular rulemaking. In one of the most widely influential articles in

administrative law, Richard Stewart (1975) argued that interest group pluralism explains a variety of procedural features of U.S. rulemaking. The notice and comment process, the imposition of open meeting requirements, and freedom of information laws mandating the disclosure of governmental actions to affected parties are all examples of interest group pluralism in operation. This notion of democratic involvement also lies behind a variety of judicial reforms, such as the expansion of standing, which have allowed groups organized around regulatory benefits to seek redress in the courts.

Figure 2: Strategies for Legitimizing Rulemaking



Although interest group pluralism provides opportunities for direct participation in the rulemaking process, and therefore overcomes certain limitations inherent in the indirect strategies of institutional control and oversight, democratic purists still find it

wanting. At the root of the problem, in their view, is the fact that although everyone has an equal opportunity to participate, equal opportunity does not translate into equal participation by or equal representation of all those affected by regulatory policy. In practice, most of the participants in rulemaking proceedings are businesses and industry trade associations. For this reason, critics charge that pluralism effectively privileges a select and biased set of interest groups, namely those that possess the resources necessary to organize and participate in policymaking (Schattschneider 1960).

Pluralism's critics often put forth *strong democracy* as a more robust means to ensure the legitimacy of regulatory policymaking. Strong democracy empowers not just organized interest groups in regulatory decisions, but also the ordinary citizens who will be affected by those decisions. The involvement of citizens in the policy making process counteracts the biases inevitably expressed through the pluralistic universe of interest groups. Moreover, proponents of strong democracy maintain that citizen involvement is vital to the health of democracy itself because it is through direct participation and deliberation that citizens come to a better understanding of not just their own individual interests but the collective welfare of their society.

In short, strong democracy promotes civic virtue. By engaging citizens directly in dialogue over both the proper ends and means of government, strong democracy encourages "the active consent of participating citizens who have imaginatively reconstructed their own values as public norms through the process of identifying and empathizing with the values of others" (Barber 1984, 137). Strong democracy is, as Barber (1984) has written, "the politics of amateurs, where every man is compelled to encounter every other man without the intermediary of expertise" (152). According to

this view, only by involving citizens directly in deliberation over their own collective fate will regulatory policy decisions gain genuine democratic legitimacy.

Advances in information and communications technology appear to hold great promise for enhancing citizen deliberation and ultimately the legitimacy of rulemaking. After all, businesses and other organized interest groups, as well as the political branches of government to whom agencies are indirectly accountable, already participate extensively in the rulemaking process, and have done so in the absence of new information technology. Ordinary citizens have been largely absent from the rulemaking process. According to one study from the 1990s, less than 6 percent of the comments filed in EPA rulemakings were submitted by individual citizens (Coglianese 1996). It is precisely these citizens who strong democrats believe can be reached and recruited by new information and communication technologies. Barber (1984) has written that "the interactive possibilities of video, computers, and information retrieval systems open up a new mode of human communications that . . . can be used to strengthen civic education . . . and tie individuals and institutions into networks that will make real participatory discussion and debate possible across great distances" (274).

Such enthusiasm, or "techno-optimism," regarding the potential for the Internet and other information technologies to broaden citizen participation is widespread among both democratic theorists and e-government scholars who, as Stanley and Weare (2004) explain, "tout the ability of technology to make government more efficient and responsive and to strengthen citizen participation by making political information more compelling, lowering the costs of participation, and creating new opportunities for involvement" (504). Shane (2005) argues that the federal government's e-rulemaking

initiative "seems to hold out the potential to enlarge significantly a genuine public sphere in which individual citizens participate directly to help make government decisions that are binding on the entire polity" (148). It is clear that, for many observers, e-rulemaking affords a most promising means for achieving the aspirations of strong democracy (Johnson, 1998; Schlosberg, Zavestocki, and Shulman 2005).

III. Will E-Rulemaking Lead to Strong Democracy?

The participatory allure of e-rulemaking has been heightened by a number of instances in which a relatively large number of individual citizens have used the Internet to submit comments on proposed regulations (Cuéllar 2005). For example, a U.S. Department of Agriculture rulemaking on organic foods garnered more than a quarter of a million comments (Shulman 2003). Other recent rulemakings have elicited similarly large numbers of comments filed by members of the public, including an FCC rulemaking on the concentration of ownership of media outlets (de Figueiredo 2006), an EPA rulemaking on mercury emissions (Schlosberg, Zavestocki, and Shulman 2005), and the Forest Service's rulemaking proceedings to ban roads in wilderness areas (Borenstein 2005).

Do cases like these show that advances in information technology will strengthen rulemaking's legitimacy as envisioned by adherents of strong democracy? The sheer number of comments filed in rulemakings such as those cited above would certainly appear to provide support for the "revolutionary" potential of information technology to transform rulemaking from a largely invisible backwater of government to a process that

involves a broad segment of the citizenry. Yet despite the large absolute number of comments filed in a few highly controversial rulemakings, it is far from clear that information technology will, as a general matter, transform rulemaking into anything close to the ideals of strong democracy.

For one thing, the rulemakings that do generate comments in the hundreds of thousands constitute only a minute fraction (even a fraction of a fraction) of the several thousands of rules issued each year. Most rulemakings continue to elicit little attention from the public (GAO 2003). A comprehensive study of five years' worth of comments filed with the FCC demonstrates that the volume of comments submitted on the media ownership rule was over twenty times the normal rate for other FCC rules (de Figueiredo 2006).

Furthermore, for the exceedingly rare rule that may generate a half million or even a million comments, this volume of participation would still represent less than 5 percent of the total voting-age population in the United States, a country of approximately 200 million adults and 150 million registered voters (Coglianese 2005). Participation by citizens in presidential elections — the most salient avenue for public participation in government — has declined steadily since the 1960s, with only slightly more than half of citizens of voting age participating in presidential elections (Patterson 2002). If general rates of voting in the United States are lower than in other developed countries, we should certainly be surprised if the mere existence of information technology were to lead to a consequential increase in the rate of participation in rulemaking.

Information technology may well bring down the costs associated with accessing information and submitting comments to agencies, but many rules will continue to have significant consequences for citizens without eliciting much public attention. Other barriers to citizen participation will remain, perhaps most saliently, the specialized knowledge requisite to meaningful participation—not only familiarity with the organization and operation of government but with the technical issues underlying a given rulemaking. After all, if the issues underlying rulemaking were sufficiently technical or difficult as to lead Congress to delegate to an expert agency to begin with, then by definition these issues will be difficult for ordinary citizens to understand. Moreover, even with greater accessibility to rulemaking information via the Internet, most citizens are unlikely to have or to take the time to learn about the technical issues surrounding rulemaking.

Furthermore, a fairly high degree of sophistication is necessary for citizens merely to navigate the dockets of information that agencies have made available on the Internet. In the fall of 2004, I conducted a brief study to see how readily a group of motivated and sophisticated citizens could access information about a specific rulemaking. Twenty-two graduate students of government at Harvard University were asked to search for four specific rulemaking dockets at the DOT and the EPA websites. Subjects were given information about the four rulemakings and were asked to find a specific numbered document in the docket for each rulemaking. The study was designed to simulate the experience of a typical user who, upon learning of a proposed rule through the media, would search online for more information about the rule from the agency's online docket. The object of the study was to measure the ease with which users can find information on

the Internet, and to assess whether e-rulemaking will in fact "mak[e] it easier for citizens to participate in the regulatory process" (Daniels 2002).

Strikingly, even these sophisticated students, adept at using the Internet, had difficulty identifying the correct dockets within the time allotted. The overall average number of correct dockets identified by each subject was 1.9, or only half the target number. Only 26 percent of the subjects were able to correctly identify at least three of the four dockets. Overall, these results reveal that the theoretical *availability* of rulemaking information through online docket systems does not mean that citizens will actually be able to *retrieve* that information.

Why were these students — who were, after all, presumably better educated than the average citizen — not more successful, even when given a clear description of the rule and the precise name of the agency that proposed the rule? A de-briefing session revealed a number of the challenges they had faced in information retrieval. First, they encountered difficulty distinguishing among multiple rules on the same subject. For example, one of the target EPA rules aimed at reducing mercury pollution, but as it turns out the EPA is simultaneously addressing mercury exposure through a number of other rules. Students who typed the word "mercury" in the search engine retrieved seventeen different dockets and faced great difficulty in identifying the specific rule they were looking for.

Second, sometimes multiple dockets address exactly the same rulemaking. It is not unusual for an agency to open a docket in connection with an early investigation of the subject of a potential new rulemaking, and then another one later when filing an NPRM. As it turned out, one of the DOT rules was associated with two dockets, even

though only one was listed in the agency's NPRM filed in the *Federal Register*. Nor was there any clearly identifiable online link between these two dockets.

Finally, even when subjects were able to find websites with information about particular rulemakings, these sites provided no direct links to the corresponding rulemaking dockets. For example, to find the mercury emissions docket from the EPA's homepage, the user needed to click through four levels of the agency's website and open a protected document file containing the NPRM before locating the docket number from within the NPRM. At that point, the user needed to go back to the EPA's homepage to link to the agency's EDOCKET and then search for the docket number within the EDOCKET system. Needless to say, substantial time and motivation are necessary to navigate through these various levels and pathways.

Even with further improvements in the underlying technology, users who are not already sophisticated and knowledgeable about particular rulemakings will continue to face similar barriers to gathering information about rulemakings. To imagine that information technology by itself will foster the kind of sustained and consistent involvement by citizens in rulemaking that strong democracy adherents envision is a bit like imagining that giving automobile owners the ability to download technical manuals and order car parts online would turn a great number of them into do-it-yourself mechanics. A small subset of people, such as engineers and car buffs, would be better able to fix their own cars, but most of us would be none the wiser. For similar reasons, even with technologies more advanced than those the government is currently implementing, the accessibility of regulatory information on the Internet provides no

guarantee that a significantly greater number of citizens will actually be able to process that information effectively.

Expectations about what e-rulemaking can achieve should be further tempered by a consideration of the nature and quality of the comments that are submitted electronically by ordinary citizens. While a few agencies have received tens of thousands of comments (or more) on a few especially salient rulemakings, the vast majority of these comments have been unsophisticated and either formulaic or completely devoid of information (Cuéllar 2005). Increasingly, electronic form letters are being sent to agencies not directly from citizens themselves, but indirectly via the websites of advocacy groups that feature buttons allowing visitors instantly to send messages to Washington. According to a recent study of rulemaking comments, "[m]ass-mailed form comments originating from various environmental and other interest groups make up the vast majority of comments submitted on rules" (Schlosberg, Zavestocki and Shulman 2005, 25). That same study reported that out of 500,000 comments submitted on a recent controversial EPA rule, only about 4,000 were deemed by the agency to contain any original idea. For these reasons, more participation does not necessarily mean more *meaningful* participation. Some may even question whether clicking a button on an interest group website constitutes participation in rulemaking at all. Certainly this is not the kind of deliberative civic engagement envisioned by proponents of strong democracy.

On the other hand, even if such electronic form letters do not result in much citizen deliberation, perhaps they provide agencies with a much better indication of citizen preferences. Yet if that turns out to be the case, information technology would achieve something quite remote from strong democracy's ideal of developing collective

public decision making, rather than just aggregating individual preferences (Barber 1984, 290). Moreover, even accepting preference aggregation as a worthwhile function of electronic commenting, the fraction of the public that files comments will probably never be representative of the public as a whole (the latter being the constituency whom the agency presumably seeks to serve). If regulatory agencies sought to capture the preferences of the overall public and incorporate them into their regulatory decisions, they could do so more effectively by commissioning public opinion surveys that asked questions of a random sample of citizens. A few hundred survey responses would be, if randomly generated, a more accurate and credible measure of the overall views of the public than tens or hundreds of thousands of self-initiated comments (Lee 2002).

In the end, information technology appears unlikely to bring regulatory policymaking into closer alignment with the principles of strong democracy (Dahl 1998, 106). Electronic efforts to improve the *accessibility* of rulemaking information cannot be counted on to generate dramatic increases either in the *usability* or the actual, meaningful *use* of this information by ordinary citizens. It appears that current e-rulemaking efforts will at best facilitate an increase in relatively superficial participation by a select, probably unrepresentative, portion of the public.

IV. Technology and Regulatory Pluralism

The barriers to the achievement of strong democracy, especially in the context of technical rulemaking, appear much steeper than can be surmounted by new applications of information technologies. As long as most citizens lack more than the most

rudimentary knowledge of how government works and of the technical issues underlying most rulemakings, e-rulemaking will not effectuate any but the most trivial change in ordinary citizens' engagement with regulatory policymaking. Even Barber (2003) has recently conceded that the prospects for using technology to promote strong democracy are "more ambivalent than early democratic enthusiasts had hoped" (xiv).

If information technology fails to engage a broad segment of the public in meaningful deliberation about regulatory policy issues, is e-rulemaking a waste of time and resources? Given the motivational and informational barriers that will continue to keep most citizens from participating in rulemaking, should efforts to introduce new technology into the rulemaking process be abandoned? These questions should be answered in the affirmative only if e-rulemaking's sole or main purpose is to advance strong democracy. Yet, despite the claims of some of its proponents, this is not the only basis on which e-rulemaking can be justified. A much more pragmatic goal of, and more realistic justification for, e-rulemaking is to expand and solidify the information base underlying regulatory decision making.

Earlier I pointed out that interest group pluralism has been viewed as a way to enhance the democratic legitimacy of rulemaking, even though its critics have correctly faulted its tendency to privilege certain interests over others in the policy process. Despite its deficiencies, pluralism retains what Shapiro (2005) refers to as pragmatic value, specifically it provides a way to generate better information and improve the quality of regulatory decision making, while serving as an antidote to insulated or secretive decision making by a few unelected regulatory officials.

Pluralism offers the beneficial effects that come from airing dissenting views (Seidenfeld 2001; Sunstein 2003). When multiple affected interests participate in a rulemaking, the regulator benefits from the competition in the marketplace of ideas created by pluralism, even when that competition falls short of being fully representative (Lazer 2001). Since agencies are required to supply reasons for their decisions and respond to significant comments submitted on proposed rules, they have an incentive to pay attention to the full range of views that emerge from pluralistic competition.

Regulators are undoubtedly better informed when they receive input from outside experts and interested parties. These outsiders bring distinct perspectives on regulatory problems based both on their differences in interests and differences in the scale or level at which they interact with a regulatory issue (Pike et al. 2005). The local sanitation engineer for the City of Milwaukee, for instance, will probably have useful insights about how new EPA drinking water standards should be implemented that might not be apparent to the American Water Works Association representatives in Washington, DC. E-rulemaking makes it more feasible for that local sanitation engineer, as well as other experts and affected interests across the country, to become aware of and submit comments on relevant regulations. An open and networked regulatory process can thus expand the potential information that comes to regulators' attention.

Hence, while the goals of strong democracy are unlikely to be advanced by the tool of e-rulemaking, it is reasonable to expect that the goals of pluralism can be so advanced. That is, information technology is not likely to "transform" or "revolutionize" rulemaking to allow ordinary citizens to deliberate in any meaningful way, but it can allow a *broader* set of well-organized and sophisticated actors to mobilize their

resources, monitor government decision making, and share potentially valuable information and insights with decision-makers.

For any given regulatory action, there may only be a relatively limited number of organizations and actors that are both affected by and significantly knowledgeable about the relevant issues. Until now, it has been hard to ensure that all of these organizations and actors have known about or been able to comment on all the rulemakings to which they could valuably contribute. Because it will lower the cost of participation to those individuals and organizations, e-rulemaking can increase the number of knowledgeable actors who participate in the rulemaking process, while also allowing each of them in turn to participate in a larger overall number of rulemakings because of the reduced costs of accessing and transmitting information.

For many smaller organizations, as well as individual engineers, economists, scientists, and other experts, the barriers to their participation have been precisely those that information technology is best equipped to break down, such as the need for physical proximity to Washington, DC, or the ability to hire messengers to retrieve documents from a docket housed at an agency's headquarters. These informed individuals and organizations possess the knowledge to understand and participate meaningfully in rulemaking, but in the past, when written comments on rules had to be delivered by hand or mailed to the agency docket offices, it was much more costly to contribute. Previously, even the *Federal Register* and the *Code of Federal Regulations* were accessible only at certain public or law libraries, making it much harder for experts around the country to keep abreast of regulatory developments.

E-rulemaking's contribution may be to recalibrate pluralism so that fewer organized interests and knowledgeable experts are excluded from the process simply because they did not know that a rulemaking was taking place or could not gather government information about a proposed rule in time to offer comments on it. In other words, even though information technology cannot eliminate the core barriers that stand in the way of broad citizen participation, technology may lower precisely the right kind of barriers to participation by experts, the logistical or physical ones. The remaining barriers -- ones of knowledge and motivation -- might not necessarily be so bad, at least from an informational perspective. Such barriers can serve as screens or filters providing a "quality control" function for regulatory decision makers. Those individuals who are able to clear the knowledge-based hurdles and then go on to submit original comments (as opposed to form letters) are more likely to make contributions that have informational value.

In evaluating the contributions of information technology to regulatory policymaking, then, observers should pay heed if efforts such as Regulations.Gov or online dockets result in even a relatively small increase in the number of truly helpful comments, or a slightly more diverse set of arguments from knowledgeable actors than would otherwise have been received. Such seemingly modest gains could very well represent a much more meaningful measure of the success of e-rulemaking than the generation of a million e-mail form letters submitted by ordinary citizens.

Conclusion

Although both scholars and public officials have characterized e-rulemaking's potential contribution to the democratic legitimacy of rulemaking in terms of fostering strong democracy, the reality is that even with the Internet significant barriers to ordinary citizens' engagement in rulemaking will remain. Most citizens are disengaged from politics and public policy to such a degree and for reasons that no amount of computer programs or technological innovations are likely to change. Rather than inspiring members of the public to participate in the arcane or technical discussions surrounding regulatory policymaking, modern information technology is and will continue to be more widely used by citizens for other purposes, such as communicating with friends and family or accessing entertainment.

Even among the relatively few citizens who might have an interest in regulatory policy, knowledge will remain a significant barrier to their meaningful participation. As illustrated by a study of graduate students using online dockets, the technical complexity of many rulemakings necessarily inhibits broad and meaningful citizen access to and participation in rulemaking. If highly educated graduate students cannot easily navigate today's online regulatory dockets, surely most ordinary citizens will face similar if not greater difficulties participating in rulemakings even with the advent of more advanced technologies.

While hopes for information technology transforming rulemaking into a strongly democratic process may be unrealistic, this does not mean that e-rulemaking is unimportant or misguided. Rather, it means strong democracy is the wrong goal for e-

rulemaking. Given the complexity of rulemaking, its democratic legitimacy will probably always be "weak," in the sense that such legitimacy will continue to depend mainly on indirect institutional ties with elected branches of government and on direct involvement by organized interests rather than by ordinary citizens. Nevertheless, even if it is only possible to achieve "weak democracy" in the rulemaking process, information technology can be useful in promoting "strong information." E-rulemaking holds much greater promise for expanding the pluralist process so that a larger group of experts and interested organizations can help inform regulatory decision-makers. If e-rulemaking accomplishes this goal, its impact will be more incremental than revolutionary, but over time it will enable government to make better regulatory decisions.

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