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E-Rulemaking: Issues in Current Research and Practice[1]

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Abstract: A rich and challenging dialogue about the shape of eRulemaking is underway. While in its infancy, an interdisciplinary research community has formed to assess and inform the development of information technologies that serve the public and rule writers. To date, little is actually known about whether this transition is likely to benefit or degrade the role of public participation. As with all policy innovation, particularly technologically determined innovation, the risk of unintended consequences is present. While the Internet may usher in a new era of more inclusive, deliberative, and legally defensible rulemaking, it may be just as likely to reinforce existing inequalities, or worse, create new pitfalls for citizens wishing and entitled to influence the decision-making process.

This article examines the origin of Regulations.Gov, a federal Web portal, in the context of recent literature on public participation, and federally funded research into impact of eRulemaking. It draws on workshop, interview, and focus group experiences that have fed into a multiyear dialogue between researchers, regulators, and the regulated public. It argues this dialogue is a fruitful and necessary part of the development of a standard architecture for eRulemaking that is consistent with the intent of public participation in the regulatory rulemaking process.

> "We have been as welcoming and joyous about the Net as the earthlings were about the aliens in *Independence Day*; we have accepted its growth in our lives without questioning its final effect. But at some point, we too will come to see a potential threat."[2]

INTRODUCTION

Internet technology is changing the dynamics of the federal rule-making process, with major implications for public participation in the traditional notice

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and comment procedures. The Internet now augments familiar methods, such as public hearings, postal mail, and faxes, for collecting and analyzing responses to proposed rules. The change is, of course, a significant one, and one from which there will be no retreat. However, as the work moves forward there are a number of unresolved questions. Which technologies are the most efficient and effective? What is the impact on public involvement in the rule-making process and is it meaningful? What is the impact internally on agency resources and on agencies' ability to move rules to final publication?

Early indications are that agency personnel and the commenting public appear to be adjusting with cautious optimism to the increasingly digital landscape of the "notice and comment" process required under the Administrative Procedure Act (APA). While the APA sets a "floor below which an agency may not go in prescribing procedures for a particular rulemaking,"[3] scholars, activists, and rule-making practitioners have long recognized the benefits and burdens that accrue when the baseline requirements for gathering public input are exceeded. Information technology opens heretofore unimaginable avenues for engaging the public in meaningful public discourse on a national and international scale.

Paralleling these internal agency efforts is a growing body of eRulemaking research and scholarship that is focusing on such fundamental issues as whether Internet-enhanced public participation results in better rules[4] or a process characterized by informed deliberation.[5] Meanwhile, in the federal government, best practices routinely target efficient, cost-effective strategies for overworked information managers. In an attempt to bridge the gap between these two perspectives, an ongoing dialogue is underway between researchers, IT developers, and end users of eRulemaking tools in the United States. Several questions might be asked about the scope and impact of this somewhat unique dialogue. For example, will the dialogue matter? Do academic researchers have the potential to inform e-government practices, or visa versa? If so, what can academic research deliver to federal managers responsible for eRulemaking that will augment its potential to achieve the democratic promise of public input?

This article offers tentative answers to these questions. It links the development of a new federal Web portal, Regulations.Gov, to recent scholarship on public participation in regulatory rulemaking, e-government practice, and National Science Foundation–sponsored Digital Government research. It relates input gathered from academics and agency personnel at a series of six workshops held over the last three years. In addition, it is informed by focus groups convened in conjunction with a recent workshop held at the National Science Foundation (NSF)[6]. Further, it draws on semi-structured interviews conducted in Washington, DC at several federal agencies.[7] The findings presented here suggest the dialogue indeed does matter; practitioners are wrestling with "academic" research questions while the research is firmly grounded in the "real world" of eRulemaking. The argument is made that academic researchers, IT developers and eRulemaking managers need continuous and diverse involvement of the public, organized interest groups, and agency

rule-writing personnel in the design of applications best suited to the purpose of public participation in rule making.

PUBLIC PARTICIPATION IN RULE MAKING

Regulatory rule making is typically characterized as a highly contested, time- and information-intensive process.[8,9] Dedicated users of digital communications technologies have the potential to flood agencies with vast quantities of public commentary. The outcome of this approach is often a boon for organized interests, and can include regulatory delay (which allows a return to Congress for redress), favorable publicity, and payoff in terms of membership identification with a group's mission. However, such efforts may undermine or dilute the voice of the public as agencies face statutory and administrative deadlines to incorporate public input into a legally defensible final rule.

While the slow pace of decision making may occasionally provoke controversy, rulemaking is of necessity methodical and time-consuming, precisely because a deliberative process tends to be associated with some degree of legitimacy. For example, the United States Department of Agriculture's National Organic Program (NOP) conducted a 12-year rulemaking process involving numerous public hearings, national advisory board meetings, and a massive outpouring of public comments. Two rounds of notice and comment on the proposed and revised rules resulted in over 300,000 public comments. The challenge was quickly apparent. For example, the precise number of "comments" depended on whether form letters are counted as discrete comments. How and whether to count them are matters of continuing debate for all parties invested in this process. The evolving definition of "meaningful input" and the uncertain role of digital public participation are researchable issues that currently accompany the implementation of eRulemaking at this early stage.

Participants in the NOP rulemaking submitted approximately 21,000 comments via a USDA Web site where they could also read the comments of other participants. This introduced an interesting interactional element to public input. Jeffrey Lubbers has noted that public comments "are much more likely to be focused and useful if the commenters have access to the comments of others."[10] This was precisely the case in the NOP rulemaking. While many stakeholders found cause to complain about substantive and procedural issues along the way, ultimately the organic standard, and the discursive process by which it was finalized, benefited enormously from transparent, Internet-enhanced decision-making structures. [11,12] During the recent interviews with agency personnel, one USDA official noted:

> We built an enormous amount of goodwill with the comment process with people who to this day don't believe we got it right. Now the vast majority of the people think we did, but there still are lots of people out

> there who think that we've sold everybody down the river, but there's this enormous goodwill because of the comment process, because they really felt like we cared and we tried, we really tried to listen to what they were saying.

Enhanced public participation and the credibility conferred on federal agencies are considered key eRulemaking drivers.[13] When public values and knowledge infuse decision making, the results are generally positive.[14] For example, the Environmental Protection Agency's review of the National Ambient Air Quality Standards (NAAQS) showed that "informed public debate over competing interpretations of cost–benefit analyses and risk assessments can produce broad political support for enhanced protection levels."[15] A senior career official with rulemaking responsibilities at one federal agency remarked:

> The public should participate because we, the government agencies, don't have all the answers; we don't know all the information. Indeed there are situations where we would have made mistakes if we did not have public input—mistakes that could have been very costly. Secondly, I think that when you provide not just an opportunity to participate, but an effective opportunity to participate, those that are affected by the regulation would be more willing to accept it, to live with and comply with it. One of the basic arguments is that even if you don't get everything you want, by participating effectively in the process, you are buying into the result. If we do normal APA-type rulemaking in an effective way, bring in the public in an effective way, they should feel better about the end product.

DIGITAL GOVERNMENT RESEARCH

One central goal for researchers who are collaborating with federal agency officials is to help define, gather, and analyze a variety of newly generated eRulemaking data.[16] Analyses of real-world data can be a source of constructive feedback for regulators during the iterative, multiyear process required to build on the eRulemaking foundation established by early users of the technology. Both quantitative and qualitative data provide, in some cases, previously unavailable baseline measures that will feed into performance-based criteria for determining the impact of eRulemaking. Ideally, these new measures will facilitate the empirical testing of hypotheses on the impact of eRulemaking and electronic public participation on democratic institutions. It should be understood, however, that reliable, widely agreed-upon metrics for measuring the impact of eRulemaking remain elusive and difficult to identify. Few people compellingly answer the question: what is better rulemaking?

To date, and perhaps not surprisingly given the recent and sporadic nature of the change, there has been little systematic documentation of the effect of this digital transformation on either citizens or agencies. Indeed, one recent workshop report notes "a striking absence of empirical studies that examine the behavior of developers and governmental users of IT."[17] While the move to Internet-facilitated governance is accelerating, there is a dearth of political science and sociological research on the impact of the Internet on the administrative state.[18] Scholars of public administration have made headway developing a meaningful research agenda focused on the impact of IT.[19] However, perhaps one collateral indicator of the still-novel nature of this area is the membership in the IT and Politics section of the American Political Science Association, which remains around 250, despite a total association membership of over 15,000.

The interdisciplinary nature of the process may be a barrier, as well as the tendency of academic endeavors to disregard the rule-making process generally. Political scientists have been particularly reluctant to take up the interdisciplinary challenges inherent in digital government research. As a result, leading disciplinary journals and textbooks do not reflect the important change underway. One author, noting the lag time for well-developed theory and empirical research in the study of public administration, suggests "scholars and practitioners may be ill equipped to face the challenges of the information age."[20] A classic text for students of regulatory rulemaking observes: "One could not know the importance of rulemaking from the curricula of political science, public administration, and public policy programs … rulemaking rarely, if ever, merits more than a small fraction of a single course. Clearly, this is an area in which the academic community lags behind the practitioners."[21] The continuing dialogue is premised on this finding.

A search of scholarly databases or Google on "eRulemaking" or related terms yields very few citations. Much of the available scholarship lays out a broad and complex research agenda that remains, at this writing, noticeably forward looking.[22,23] While the practitioners in federal agencies are moving forward, the concept of eRulemaking and its implications for democracy remain largely unexamined by academics. "There is little theory and no coherent research program within the discipline of political science," notes Jane Fountain, "that seeks to account for the potential or likely effects of information processing on the bureaucracy."[24]

For now, much of the e-governance scholarship remains heavily speculative in nature. For example, Joseph Nye[25] sketches a familiar bipolar vision of IT-enhanced government:

> In a bleak vision of the future, one can imagine a thin democracy in which deliberation has greatly diminished. Citizens will use the set-top boxes on their Internet televisions to engage in frequent plebiscites that will be poorly understood and easily manipulated behind the scenes. The growth of thin direct democracy will lead to a further weakening of

> institutions . . . . Alternatively, one can envisage a better political process in the future. New virtual communities will cross-cut geographical communities, both supplementing and reinforcing local community. In Madisonian terms the extensive republic of balancing factions will be enhanced. Access to information will be plentiful and cheap for all citizens. Political participation, including voting, can be made easier.

It is against this historical backdrop (with the obvious gaps in data, methods, and knowledge) that a broader eRulemaking research community is emerging with the support of the NSF's Digital Government program.[26] Collaboration between computational and social scientists imposes unique challenges, as does work between academic and governmental personnel. [27,28] Nonetheless, significant inroads have been made over the past four years. The prominent role for federal funding and leadership in IT research and development is part of a well-established tradition whereby the public sector supports innovation and research with an eye toward socially beneficial applications.[29,30]

Digital government research requires interdisciplinary collaboration with government partners to ensure that information technology used for citizen–government interaction meets the requirements of democratic institutions and traditions. Program managers in the Directorate for Computer and Information Science and Engineering (CISE) at the NSF have recognized that "insight from the social sciences is needed to build IT systems that are truly user-friendly and that help people work better together."[31] To that end, the research into, and practice of, eRulemaking must continue to be informed by a broad, inclusive, and transparent dialogue about the tools and information systems that can balance competing visions for a democratically legitimate administrative state.

This nascent research domain is likely to generate innovative data that will enable heretofore impossible empirical studies of rulemaking.[32] The lack of solid empirical studies of rulemaking has vexed administrative law scholars for some time.[33] In the information age, however, one observer notes that "[f]ed by non-stop, real-time opinion polling, endless market testing of messages and images, and instant and cheap online focus groups, no social scientist need ever go hungry again."[34]

New automated collection techniques will track Web logs, click-through data, lengths of visits, page counts, and a host of other potential baseline data generated and easily captured by eRulemaking systems using legally permissible session cookies. At stake in the research process is the potential to shape data collection and mining techniques that may fundamentally redefine the study and practice of public participation in administrative decision-making. The impetus to develop these tools emerges from observations such as the following from a rule writer working at the USDA:

> As you know, one of the things that we had out of our 300,000 comments, we had probably 150–175,000 comments that were basically

> form letters, said the exact same thing over and over and over. Once you've read one, you've read them all. But that still leaves 100,000 individual comments that may have a kernel, a grain of a marvelous idea that you need to somehow bare it out and find it and use it. That either demands sophisticated IT infrastructure, or lots and lots of people.

Computer science research will facilitate development of eRulemaking applications for duplicate and near-duplicate detection, stakeholder identification, clustering issues and themes, and it will summarize content using natural language processing and information retrieval algorithms. Over the next five to ten years these data, and the techniques used to harvest and analyze the data, will infuse a challenging yet energetic dialogue between social and computational scientists as they carve out the direction of interdisciplinary Digital Government–funded research.[35,36]

Like much of the ongoing e-government rollout,[37] both fundamental and more subtle choices about the architecture of eRulemaking will shape the new digital and democratic landscape.[38] The transition is fraught with peril for those who would design, approve, or use such a system. For example, information systems that provide seamless access and increased accountability can result in controversy for public-sector officials.[39] As the National Research Council has noted, "IT is anything but a mature, stable technology,[40] and the leeway for innovations in democracy that has devolved to technologists and public administration managers is remarkable."

The challenge for researchers in this unsettled context is to conduct interdisciplinary research capable of evaluating and anticipating the shifting terrain. Visions of eRulemaking need to retain a long-term and evolutionary perspective in the face of demands for technical quick fixes for information management problems that plague the process. "Overwhelmingly, the most important opportunities lie in not simply automating existing applications, but rather in rethinking and remolding the structure and organization of the business process to reflect the best uses of IT and in redesigning and remolding the technology to make it most valuable in its (rethought) application context."[41] Governmental organizations, we are often told, are not prone to seeking business process reengineering solutions. The new federal impetus to eRulemaking, however, may do just that on a historically significant scale, comparable to that created by passage of the APA in 1946.

The Origin of Regulations.gov

After an erratic and uncertain start government-wide in the mid- and late-1990s, eRulemaking is now moving toward a unified structural system for the entire federal government. Clearly, IT-based approaches to rulemaking hold the potential to increase the volume and lower the cost of citizen-to-government

(C2G), government-to-citizen (G2C), and citizen-to-citizen (C2C) interactions. The potential for C2C, however, is only beginning to enter the practice of public administration (e.g., on European e-government, see note 42), though it flourishes in the voluntary, peer-to-peer, self-organizing spaces on the Internet. The Bush Administration situates its online rulemaking initiative in the government-to-business (G2B) category of its 24-point eGov plan,[43] leaving some doubt about both the immediate prospect for C2C and C2G development.

The transition to eRulemaking is attributable in part to the impetus from legislative (e.g., the Government Paperwork Elimination Act) and administrative directives that seek to make the regulatory process open, transparent, deliberative, efficient, and effective.[44–46] Citizen demand for electronic access is also an impetus for this transition.[47,48] These various trends culminated in approval by Congress in 2002 of the E-Government Act, which specifically directs agencies "to enhance public participation in Government by electronic means" (Sec. 206[a][2]). Professor Lubbers has noted that the Act called for enhancements that were already in the pipeline, resulting in "a classic example of Congress leading from the rear."[49] Indeed, many agencies already had begun to develop eRulemaking systems when the Act was signed into law.[50] What the Act did was to translate a politically popular trend into a bipartisan victory for advocates of a more modern and accessible government.

Despite the move toward a consolidated endeavor under the current eRulemaking initiative, many federal agencies have been moving ahead with the implementation and refinement of their own in-house solution to the question of how to incorporate Internet-based public participation in rulemaking. More than 100 sub-agencies have integrated some form of electronic comment process into their notice and comment rulemaking, with varying degrees of success. At the individual agency level, electronic collection of public comment is often ad hoc and conducted via a nonstandardized process.[51]

Meanwhile, at another level and of relevance to the impact of eRulemaking, some are questioning the statutory and constitutional basis for a recent expansion of the OMB's role in rulemaking.[52] "Perhaps the most significant administrative law development during the last two decades," Professor Lubbers notes, "has been the increased presidential involvement in federal agency rulemaking."[53] Interestingly, many of the tools employed by the OMB when it exerts control over federal rulemaking (e.g., monitoring, prompting, or early collaboration in drafting proposals) are likely to be enhanced by seamless IT systems for eRulemaking.

According to the President's Management Agenda, "IT offers opportunities to break down obsolete bureaucratic divisions. Unfortunately, agencies often perceive this more as a threat than as an opportunity, and in response make wasteful and redundant investments in an effort to preserve chains of command that lost their purpose years ago."[54] This theme emerged during many of the e-government interviews mentioned above. In reference to a question

about institutional obstacles to change, one long-time federal official stated: "We get in a rut. We get jaded. Bureaucracy can kill you sometimes. It truly can." When cross-agency initiatives challenge traditional stovepipe, bureaucratic culture, a number of obstacles quickly emerge. One official at the OMB noted:

> E-government is much more about process transformation and change management than it is about the technology. The technology is the easy, easy, easy stuff. There's an overwhelming amount of technology out there that's applicable. It's hard to drive that change. And you're seeing that in rulemaking. People don't want to lose their system. People don't want to lose the way they manage their docket. People don't want to lose something they identify with.

Early eRulemaking adopters in the US Department of Transportation (DOT) developed an impressive Docket Management System (DMS) that improved the flow of information across nine sub-agencies, as well as to and from the public. The DOT's DMS was the first agency-wide eRulemaking system that assembled entirely electronic dockets for the commenting public to review.[55] At the time of this writing, the DMS remains the most comprehensive, agency-wide eRulemaking system. In its infancy, it represented a major transformation of the rulemaking workflow. One person involved with the creation of the DMS recalled the numerous technical and organizational hurdles:

> They all had their own individual processes, they all championed what they wanted to do, what they felt was best. And now you're going to try and make everybody do it in a uniform fashion. A lot of resistance to that and technical barriers in the early days … the system required open-forms-based application, so everybody had to buy a big, expensive PC with a 21-inch monitor and do client server all for forms. Couldn't afford it. This was a DOT-wide system but they didn't have the money and the technical configurations were horrible. We had five different network operating systems throughout the department. With all kinds of different protocols, all kinds of technical hurdles to make a very complicated client install happen.

Originally, the Department of Transportation played the managing partner role as the Online Rulemaking Initiative that emerged in February 2002. The DOT commissioned Excella Consulting to perform an independent study of the seven major eRulemaking applications that were in existence at federal agencies.[56] The goal was to find an existing system best suited to become the universal Web-based front end for members of the public wishing to read and comment on proposed federal rules. The report[57] listed several primary areas of interest:

- The public's ability to comment.
- The public's ability to search and view proposed rules and their dockets.

- The agency's ability to review, report on, summarize and incorporate comments.
- The agency's ability to internally receive, upload and process paper comments.

Based on a complex scoring system, the DOT's Docket Management System finished a close second to the EPA's newer EDOCKET system. While the DOT's many strengths were noted (automated workflow, strong internal reporting, proactive listserv communication, flexible keyword search, and mature IT procedures), the areas for improvement included the need for better integration of content and comments, content sorting tools, and full-text search. One official at the OMB noted "a rule in technology that you really never want to be first. Sometimes first to take advantage of something is a good thing, but the best thing to be is second or third, so that you can learn from the mistakes from others." Other agency personnel were less sanguine about the results of the selection process, commenting that EPA's Capitol Hill lobbying for the managing partner role was decisive in the end.

As a result, personnel at the Environmental Protection Agency (EPA) assumed the managing partner role developing the OMB-mandated eRulemaking portal for all federal agencies. The EPA's EDOCKET was praised in the Excella report for its integration of content and commenting, intuitive display, and powerful full-text search and content manipulation/sorting tools, as well as an automated workflow based on an open, technically sound architecture. The unified regulatory access point, Regulations.Gov, went live on January 23, 2003.[58] It expands on the portal precedent set by FirstGov.gov.[59] Officials at the OMB estimate that the new consolidated system resulting from the eRulemaking Initiative could save the federal government close to $100 million by eliminating redundant systems.[60]

The portal Regulations.Gov is an interim system, representing the first of three modules planned for the eRulemaking Initiative. In this first module, the Government Printing Office (GPO) hosts the front end (www.regulations.gov) and provides user support, while the EPA's National Computing Center hosts the back-end collection and distribution of the comments. One of the few important innovations in phase one is the ability to "search by keyword across all government agencies to find proposals of interest."[61] This ability lessens, but does not yet eliminate, the challenge of knowing where to look within the labyrinth of federal government Web pages for an open rulemaking on a topic of interest. An EPA official used the example of a motorcycle to illustrate the long-term goal:

> The guy that owns a motorcycle in the Midwest and the small business owner who manufactures motorcycles … anybody that touches a motorcycle can go on line and find out what rules affect … whatever his

> relationship with the motorcycle is. Whether he's a parts distributor or the salesman, owner, operator, or whatever, that if they want to say something about these rules that they can readily, easily, in, as fast and cheap, of manner as they can.

A General Accounting Office (GAO) report in late 2003 noted that, despite some difficulties, during its first three months in existence, Regulations.Gov provided substantially greater electronic access to proposed rules and commenting than either the DOT or EPA systems. Nonetheless, this interim portal has received very few substantive comments in its short life span. The GAO report found Regulations.Gov was listed in only two of 411 rulemakings published over the period of its study. Part of the problem may be that Regulations.Gov is a passive system, "requiring users to take the initiative to find out about recently proposed rules" as well as to comment on them.[62] While EPA officials suggested the low rate of use "could be because commenters have become used to filing comments in a particular way," it remains to be seen whether a central portal will ever become popular with the commenting public. Focus group responses from organized interests suggested a number of technical and organizational reasons that Regulations.Gov may remain underused for some time. For example, groups will be unlikely to promote citizen-to-government communication that will steer traffic away from their own information gathering websites. Instead, advocacy organizations will look for creative ways to reverse engineer public comment portals back to their own Web content, maximizing their influence over the message and the valuable respondent contact information.

According to officials working on the eRulemaking Initiative, the second module will expand the EPA's current electronic docket management system to become a federal docket system that will replace the interim Regulations.Gov website. All electronic and paper dockets will migrate to a centralized system with enhanced EDOCKET functionality. The new centralized electronic docket system, scheduled to be completed by the end of 2005, will be accessible to the public as well as to all federal employees, and it will facilitate the viewing both of supporting regulatory documents and the comments of others. The GAO report noted that "a number of legal and policy issues still must be resolved" including the issues involved in making electronic documents the official record, as is currently the case at the DOT, but that the rollout of the second module did not hinge on resolution of the legal issues.

For the third module, the eRulemaking Initiative will create an Integrated Federal eRulemaking System. This system will create a seamless electronic process for developing, reviewing, and publishing federal regulations and similar documents for internal agency use. This desktop system (a "Regulation-Writers Workbench") will provide a host of tools to assist in all phases of the process. Currently, the DOT and our eRulemaking

Research Group are planning controlled pilot studies to assess the viability of the Regulation Writers Workbench in a real-world rule-writing setting. Whereas the docket migration envisioned in phase two is mandatory, participation in this module by agencies is voluntary. However, the GAO report argues that no agency should be compelled to "abandon"[63] its own docket system until phase two of the federal eRulemaking Initiative allows the public to review other public comments and the regulatory supporting materials.

IS THIS DIALOGUE ENHANCING OR RESHAPING A FUNDAMENTAL PROCESS?

For some, the rise of so-called "Click-On Democracy" eventually will lead to a viable pathway from public indifference to greater civic engagement on a massive scale.[64] The electronic republic has been held out by some (and dismissed by others) as a remedy for inequities that plague democratic and administrative practice. It remains to be seen whether eRulemaking will significantly alter the adversarial decision-making characteristic of much administrative procedure in the United States, particularly with respect to environmental matters.[65–67] To date, there is little empirical data, poorly developed theory, and too few studies to support any authoritative statement about the impact of eRulemaking. Indeed, much of what is available fosters ad hoc speculation rather than substantive insight.

Therefore, while the potential for IT-enhancements to improve democratic processes is apparent to many, the risks associated with moving administrative decision making and public deliberation online may be less well understood.[68,69] Some perils of online governance have been clearly identified, including social fragmentation, mass manipulation, and increased political/economic inequality due to the digital divide.[70,71] Yet even Sunstein's widely noted fragmentation thesis is made suspect by recent examples, such as the Howard Dean presidential campaign, which used peer-to-peer organizing to generate impressive levels of face-to-face political activity involving tens of thousands of people across the country.

According to Neil Kerwin of American University, the core elements of rulemaking are information, participation, and accountability. Each of these elements potentially takes on new significance as IT-based applications are introduced and enhanced over time. The use of IT in rulemaking creates the possibility for transparent, low-cost information flows, improved rulemaking management, as well as many-to-many communication. Rulemaking offers "opportunities for dimensions of public participation that are rarely present in the deliberations of Congress or other legislatures."[72] It is a process designed to allow participants to sort through and challenge facts

derived from numerous sources, experts and lay persons alike. How individual agencies actually weight such comments varies widely.

In theory, IT-enhanced public participation will result in better and more durable rules that stand up to court challenges and better achieve the goals of the authorizing legislation. Ultimately, the official rulemaking record will be more accessible once it is entirely electronic, as existing and new tools (e.g., full-text search, self-indexing databases, or stakeholder identification) allow rule writers and the regulated public to drill down into the many sources of relevant data.[73] In the past, judges have been "somewhat perplexed and unhappy about some of the rulemaking records they have been called upon to review."[74] As one judge noted, in a lengthy rulemaking proceeding, the record "too often resembles a safari through uncharted lands without benefit of a guide."[75] Agencies using mature electronic dockets will likely find it easier to compile the record needed to meet the standards under the logical outgrowth doctrine.[76] If rule-writing agencies can more easily show comments were submitted and considered, then a key threshold is for rulemaking durability in the courts is crossed.

Future enhancements to eRulemaking will create innovative methods for advance notice, allowing agencies to target groups and individuals likely to be affected by proposed rules. While Listservs are the most likely method to transition from a passive to an active notification system, we also can expect to see more ubiquitous plain-English translations of regulatory language, as well as Amazon.com–style referral applications.[26] For example, if a commenter has submitted concerns about biotechnology in the organic rulemaking, they might be prompted via e-mail or during a future visit to a government portal to look at other open or pending rulemakings dealing with genetic engineering. Just as electronic commerce offers users referral and notification services, so, too, will electronic government, assuming the Office of General Counsel (OGC) can approve such practices.

On occasion, significant rules are promulgated without targeted outreach to interested parties and thus potential commenters. As a result, public input is limited. For example, new Treasury Department rules created under the authority of the USA PATRIOT Act to enhance law enforcement surveillance raise a range of privacy issues for all users of US financial institutions. Despite the widespread discussion of threats to privacy and other civil liberties post–September 11, 2001, only 180 public comments were received. While 70 percent of the comments came from individuals concerned with privacy, the final rule reflected only the "sophisticated statements made by financial institutions and their lawyers."[77]

In this case, the researcher concluded that lay-person comments could have been more meaningful had they directly addressed the possible methods for allaying privacy concerns. We can expect future iterations of eRulemaking will explicitly guide commenters to make substantive suggestions, perhaps through an optional TurboTax-style interface that leads the public not only to

participate, but also to make more useful submissions that will effectively shape the final rule. What will be interesting is to see where these more structured comment architectures develop. The most likely developers appear to be e-advocacy action center firms on contract to interest groups seeking to streamline their role in management of public sentiment. One can imagine a range of human–computer interfaces proliferating in the marketplace as groups seek to offer a menu of options for commenters of varying levels of sophistication and time commitment to the comment process. For many groups, these flexible comment portals may redefine the nature of advocacy and education in the American political system.

Public access to agency procedures and methods, as mandated under the Freedom of Information Act (FOIA) and the Electronic Freedom of Information Act (E-FOIA),[78,79] will be standardized and hence more manageable. The use of IT in rulemaking should be able to ease the twin burdens of delay and cost that plague users of FOIA and E-FOIA.[80] In addition, eRulemaking will greatly enhance the "government in the sunshine" philosophy that "does more than merely create a visitors gallery and convert rulemaking into a spectator sport … [that] empowers the public to question the proposed regulation, and the data and assumptions on which it is based, before it becomes effective."[81] Ultimately, this increased transparency and accessibility will lower the number of FOIA requests and force agencies to better defend their decisions when they release their final rules.

New systems for eRulemaking can also be expected to result in user-friendly methods for navigation through complex and heterogeneous dockets. As noted by Professor Lubbers, the growth of useful government Web sites in recent years is nothing short of remarkable.[23] With that expansion of e-government services on the Web, both at rule-writing agencies and the National Archives and Records Administration, came a host navigability challenges, not only for the commenting public, but also for end users and IT managers in the federal agencies. Access to more information is a boon to democracy only when it is easily penetrable with tools that eliminate insignificant documents from a query.

One useful way to describe this capacity is in terms of horizontal and vertical axes[23] that allow online inspection and full-text search capacity from cradle to grave in a rulemaking life cycle. The horizontal view captures "every meaningful step" in rulemaking, with end users helping define what counts as meaningful, while the vertical view allows access to all the studies and comments that shaped a final rule. While these tools are emerging rapidly in the private sector, the process of aligning all federal rulemaking to a "global seamless view," as described by Professor Lubbers, remains a slow and cumbersome one. Nonetheless, IT-visionaries like Eduard Hovy imagine a perpetual "Super-Google" on every rulemaking that goes backwards and forwards in time, gathering, sorting, and clustering documents from every imaginable electronic source.

CONCLUSION

A rich and challenging dialogue about the shape of eRulemaking is underway. While in its infancy, an interdisciplinary research community has formed to assess and inform the development of information technologies that serve the public and rule writers. To date, little is actually known about whether this transition is likely to benefit or degrade the role of public participation. As with all policy innovation, particularly technologically determined innovation, the risk of unintended consequences is ever-present. While the Internet may usher in a new era of more inclusive, deliberative, and legally defensible rulemaking, it may be just as likely to reinforce existing inequalities, or worse, create new pitfalls for citizens wishing and entitled to influence the decision-making process.

Still, much of the evidence gathered over the last three years of workshops and sustained dialogue with agency personnel suggest that the parties responsible for building and using an integrated federal eRulemaking system are aware of the high stakes measured in terms of democratic legitimacy, accountability, and regulatory effectiveness. To translate that awareness into a functioning architecture, scholars, federal officials, and many public stakeholders will need to continue to deliberate in a transparent and inclusive manner.

The public rationale for e-government is often couched in the rhetoric of cost savings and other familiar efficiency metrics. Efficient, effective, and responsive e-government, as defined by the OMB, may be at odds with the core principles of participatory democracy as envisioned by advocates of wider and enhanced forms of public commentary. Since federal agencies are neither equipped nor well positioned to examine the impact of IT on democracy, it remains for students of democratic theory, administrative law, and many others to investigate how eRulemaking actually affects citizen notions of trust and legitimacy and the nature of the deliberative process.[82] Studies are underway, and others are in planning, to test hypotheses on precisely these questions.[83] A new generation of interdisciplinary scholars, intrigued by the unpredictable but seemingly powerful impact of information technology on the regulatory process, is embracing the study of public administration.

Given the importance of regulatory rulemaking and public participation, these efforts will necessarily provoke greater public scrutiny of the architecture of Regulations.Gov and similarly critical citizen–government interfaces. The dialogue underway will help inform those who find themselves steering the juggernaut known as e-government as well as the end-user public, whose practices and demands drive a cat-and-mouse game that can occasionally become a part of the rulemaking process. For now, all the parties encountered seem willing to support a wider and far-reaching debate about what would constitute a better eRulemaking system.

NOTES

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