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Rulemaking 2.0: Understanding and Getting Better Public Participation

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IBM Center for
The Business of Government

Using Technology Series

Rulemaking 2.0

Understanding and Getting Better Public Participation



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Foreword

On behalf of the IBM Center for The Business of Government, we are pleased to present this report, *Rulemaking 2.0: Understanding and Getting Better Public Participation*, by Cynthia R. Farina and Mary J. Newhart, CeRI (the Cornell eRulemaking Initiative).

This report provides important insights in how governments can improve the rulemaking process by taking full advantage of Rulemaking 2.0 technology. The report's findings and recommendations are based on five experiments with Rulemaking 2.0 conducted by CeRI researchers, four in partnership with the Department of Transportation and one with the Consumer Financial Protection Bureau.

While geared specifically to achieving better public participation in rulemaking, the concepts, findings, and recommendations contained in the report are applicable to all government agencies interested in enhancing public participation in a variety of processes. The report offers advice on how government organizations can increase both the quantity and quality of public participation from specific groups of citizens, including missing stakeholders, unaffiliated experts, and the general public.

The report describes three barriers to effective participation in rulemaking: lack of awareness, low participation literacy, and information overload. While the report focuses on rulemaking, these barriers also hinder public participation in other arenas. The report offers three strategies to overcome such barriers:

- Outreach to alert and engage potential new participants
- Converting newcomers into effective commenters
- Making substantive rulemaking information accessible



Daniel J. Chenok



Glen C. Gram

This report makes an excellent companion piece to two previous IBM Center reports. In 2011, the Center published *Assessing Public Participation in an Open Government Era: A Review of Federal Agency Plans*, by Carolyn Lukensmeyer, Joe Goldman, and David Stern. That report addresses how public participation can be increased via online public participation, face-to-face public participation, and formal public participation (such as rulemaking and federal advisory committees). An earlier IBM Center report, *The Management of Regulation Development: Out of the Shadows*, by American University President Cornelius Kerwin, addressed the need to government to give increased attention to its role in regulation development and rulemaking.

We hope that this report will be informative and useful to public managers seeking to enhance public participation in their organization, including increasing participation in the all important rulemaking process.



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Introduction

Purpose of this Report

Rulemaking is a democratic paradox. It is one of the most important processes federal agencies use to accomplish their regulatory missions, and often has substantial direct effects not only on industry, but also on individuals (including small business owners), state and local government entities, and non-governmental organizations. Yet relatively few people know about the process, and even fewer understand how it works.

Rulemaking's formal legal structure is an open government ideal: It has broader transparency requirements and public participation rights than any other form of federal decision-making. Yet only a limited range of stakeholders—principally, large corporations and trade and professional associations—take advantage of their right to review the information on which the rule-making agency relies, or effectively exercise their right to comment on the rule before it is adopted. (Kerwin, 2003, p. 182–84; Yackee and Yackee, 2006).

This gap between rulemaking's broadly participatory formal structure on the one hand, and the narrow range of citizen awareness and actual participation on the other, has made rulemaking a prime target for e-government efforts. The E-Government Act of 2002 required agencies to accept comments “by electronic means” and to make available online the public comments and other materials included in the official rulemaking docket. Most agencies now meet these responsibilities through [Regulations.gov](#), the government-wide rulemaking portal where users can find rulemaking materials and submit their comments.

This first generation of federal e-rulemaking basically put the conventional rulemaking process online. Regulations.gov e-dockets contain materials previously kept in paper form in public reading rooms; commenters can submit their views by e-mail or on the website, as well as by mailing or faxing a hard copy. These advances have indeed made it easier to review rulemaking materials and file comments. But proponents hoped that technology-supported rulemaking would also lead to greater citizen understanding and participation. Unfortunately, first generation e-rulemaking efforts have not significantly broadened meaningful commenting beyond the groups that historically have participated (Balla and Daniels, 2007; Coglianese, 2006).

The new technologies and use patterns of Web 2.0 have inspired a second generation of e-rulemaking proposals. These include:

- Blogging about proposed rules
- Disseminating rulemaking information through social networking services like Facebook and Twitter
- Offering group comment drafting via wikis and other collaborative-work software

This second-generation e-rulemaking movement—Rulemaking 2.0—has been fueled by the Obama administration’s open-government emphasis. Yet, more than three years after the Open Government Directive first required agencies to find innovative ways of using new technologies to inform and engage the public, there are still more questions than answers about what value social media and other Web 2.0 technologies can bring to rulemaking, and about how agencies can realize that value.

This report begins to provide those answers. Its recommendations draw on theoretical insights from information science, communications, democratic theory, and psychology but, at least as important, they come out of actual experience in trying to make Rulemaking 2.0 work in the Regulation Room project. This academic-agency research collaboration, run by researchers of CeRI (the Cornell eRulemaking Initiative), has been experimenting since 2009 with how to use Web 2.0 technologies and techniques to improve public participation in selected “live” rulemakings. Department of Transportation (DOT) agencies and the Consumer Financial Protection Bureau (CFPB) have been partners in these efforts.

In carefully selected rulemakings, a strategy of web-based outreach that brings people to a carefully designed online participation platform can bring new voices and useful new perspectives into the comment process. But Rulemaking 2.0 is not sensibly regarded as a wholesale proposition—that is, as the next generation of technology-assisted rulemaking that *all* agencies should deploy for *all* rulemakings. To get real value from social media and other Web 2.0 technologies, agencies must make a significant investment in identifying the best opportunities and then putting together the appropriate elements of communication, website design, ongoing user support, and informational content.

Intended Audience and Outline

This report is specifically aimed at:

- Agency leadership, who must make the initial commitment to a Rulemaking 2.0 initiative
- Members of the rulemaking team, who will have new responsibilities and challenges
- Agency communications and public relations professionals, who will shape and implement outreach to new potential rulemaking participants
- Those with responsibility for designing, or overseeing the design or selection of, Rulemaking 2.0 platforms and tools
- Agency counsel who may be asked to review proposed Rulemaking 2.0 activities

Although the particular focus is public participation in the context of rulemaking, much of what is discussed here will help any government (or civil society) group seeking broader, better public engagement in complex policy decisions.

The next section of the report identifies barriers to participation that have historically prevented effective commenting by many individuals and groups with a direct stake in rulemaking. Understanding these barriers is the first step in developing strategies to lower them.

The report then describes four types of potential rulemaking participants, and identifies the kinds of predictable knowledge and skill gaps that can prevent some participants who have useful information from conveying it effectively. It explains how to assess when investing in Rulemaking 2.0 efforts is likely to yield meaningful new participation.

Rulemaking 2.0, Regulations.gov, and the “Rulemaking Record”

Over the decade since it was first launched, the federal government’s official online rulemaking portal, Regulations.gov, has become an increasingly powerful and user-friendly e-rulemaking system. Although future plans call for incorporating more Web 2.0 technologies, as of the time of this report Regulations.gov does not include a blog, discussion forum, or other capability through which users can attach comments to particular parts of the proposed rule, interact in discussion with other users, or be assisted in more effective participation by site moderators. For this reason, an agency wishing to implement the recommendations in this report will require an additional Rulemaking 2.0 platform.

To illustrate what such a platform could be like, and to make our design recommendations less abstract, we use screenshots of Regulation Room. (You can see the site in operation at www.regulationroom.org, where all the rulemakings referred to in this report can still be viewed.) The General Services Administration (GSA) currently has terms-of-service agreements covering numerous commercial social media products and e-participation tools. Although we are unaware of a commercial product like Regulation Room, at least some of the functionality discussed here may be obtained (or obtainable) through products on the GSA list.

Our discussion and recommendations assume that agencies will continue to provide all current types of notice and opportunities to comment. In other words, Rulemaking 2.0 efforts will supplement, not replace, conventional commenting via Regulations.gov. How will comments made on a Rulemaking 2.0 platform relate to those made on Regulations.gov? The easy part of the answer is the technology. Consistent with Executive Order 13642 on open and machine-readable data, Regulations.gov plans to release Application Programming Interfaces (APIs) for receiving comment submissions from other sites. This means that commenting on an agency’s Rulemaking 2.0 platform (or, for that matter, on any site using the APIs) can be “pushed” automatically into the appropriate electronic docket in Regulations.gov.

For many agencies, the harder issue is the policy decision whether to make Rulemaking 2.0 commenting part of the “rulemaking record.” What is (or ought to be) in the formal record of the rulemaking is a complex and contentious question largely beyond the scope of this report. (For new recommendations on this from the Administrative Conference of the United States, see <http://acus.gov/recommendations>.) We simply make three observations:

- The new APIs will enable websites of private organizations to collect and submit comments directly to Regulations.gov. Denying equal status to comments of those who use the agency’s own Rulemaking 2.0 site seems at best counterproductive.
- Making effective comments is hard work. New participants have no incentive to invest the required time and energy unless what they say is going to matter in the agency’s decision process. Halfway measures (e.g., encouraging discussion on the Rulemaking 2.0 site but then directing participants to go to Regulations.gov to write and submit a “real” comment) are likely only to deprive the agency of much of the value of its Rulemaking 2.0 investment.
- To the extent that agencies are worried about importing a large number of low-value comments into the rulemaking record, this report provides research-based guidance for creating an online environment that supports the production of useful new participation. Mass e-mail comments, or other comments generated on sites without such support, are not good predictors of what will occur on a carefully crafted Rulemaking 2.0 site.

The fourth section of the report focuses on strategies to get broader and better public participation. It provides concrete, research-based advice on:

- **Outreach to alert and engage potential new participants**, using social and conventional media
- **Converting rulemaking newcomers into effective commenters**, using website design and human moderation techniques
- **Making important substantive information accessible**, using a series of techniques to create more user-friendly online versions of rulemaking materials

The report concludes with recommendations for how Rulemaking 2.0 efforts in carefully selected rulemakings can bring new voices and useful new perspectives into the public comment process, creating a new culture of rulemaking participation.

Understanding the Barriers to Rulemaking Participation

Case Studies

To provide real-world context for the concepts and strategies discussed in this report, three case studies of actual agency rulemakings offered on the Regulation Room platform are presented. These rules were chosen because, in each case, the agency could identify individuals and small entities that were directly impacted by the proposed rule but unlikely to participate effectively in the conventional notice-and-comment process.¹

- **Case One: EOBR rule.** In 2011, the Federal Motor Carrier Safety Administration (FMCSA), an agency with the U.S. Department of Transportation, proposed to require most commercial motor vehicles (CMV) to have an electronic onboard recorder (EOBR). This equipment (previously required only for those who seriously violated driving and rest time regulations) would replace the driver-completed paper logs used for decades to track compliance. New equipment costs would be borne by firms over 95 percent of which are small businesses. (Most large carriers already used fleet management systems that would likely satisfy the new requirements; they were expected to favor a rule that forced their small competitors to install automated compliance monitoring.) More than eight million CMV drivers would have to use EOBRs at the risk of losing their operating licenses. Yet, despite the direct and significant impact on small business owners and individual drivers, DOT knew from experience that FMCSA would get relatively few comments from these stakeholders—and what comments they did submit would predictably be bare statements of opposition or support or general, unsupported assertions of anticipated harm or benefit.
- **Case Two: Disability access rule.** In 2011, the Secretary of Transportation proposed a rule requiring airport check-in kiosks and most airline and online travel websites to be made accessible to individuals with a wide range of physical and cognitive disabilities. From experience, DOT expected extensive comments from airlines, trade associations of airport managers, equipment manufacturers, and disability rights groups—but little effective participation from individual travelers whose particular disabilities it sought to accommodate: either sporadic comments from individuals would be generalized and lacking useful details or, if an advocacy group decided to mount an online call-to-action, tens or even hundreds of thousands of duplicate or near-duplicate e-mails would flood the docket. Neither type of comment offers much useful information to rule writers, who have to base their final proposal on reliable factual information, detailed cost and benefit projections, and careful consideration of possible implementation and enforcement alternatives.
- **Case Three: Consumer mortgage protection rule.** As a result of the mortgage crisis, Congress required the Consumer Financial Protection Bureau (CFPB) to consider new mortgage servicing regulations. In 2012, CFPB proposed new notification requirements, greater obligations to help troubled borrowers, more stringent standards for correcting

1. The rulemaking materials and public discussion on each rule can be found at [Regulationroom.org](https://www.regulationroom.org).

errors, and other borrower-protective changes. CFPB had aggressively used Web 2.0 techniques in developing revised consumer notification forms, but it had heard principally from consumer advocacy groups rather than from borrowers themselves. Similarly, it expected participation from large mortgage servicers and trade associations but also wanted to hear from small lenders, such as community banks, about how the new requirements would affect their distinctive operations and customer service relationships.

Why don't such individuals and small entities (who will be called missing stakeholders in this report) take advantage of their right to comment—particularly when they can now do so online at Regulations.gov for free, any day or time during the several-week period the rule is open for comment? The answer often given is that they face “collective action” problems. That is, although the group of missing stakeholders may be quite large, the actual burden or benefit to any *particular* individual or entity is too small to outweigh the costs of participating. By contrast, the burden or benefit of proposed rules to large firms and organizations (who will be called sophisticated stakeholders) is concentrated, and so justifies devoting resources to participation, especially for repeat players who have ongoing regulatory interests.

However, this theory cannot explain lack of participation by, for example, the commercial trucking drivers and small business owners in the EOBR rule. When these stakeholders *did* become part of the discussion on Regulation Room, they consistently and vehemently painted a picture of individuals and small companies operating on a razor-thin margin. Many expressed the conviction that equipment costs and operating changes resulting from mandatory EOBR use would drive small truckers out of business.

If, then, collective action problems are at best only a partial explanation, what else might account for the dearth of meaningful participation by stakeholders who are not large firms or national organizations?

Barriers to Effective Participation

Our experience, developed over three years and five rulemakings on Regulation Room, is that individuals and small entities face three principal barriers to effective rulemaking participation:

Barrier One: Lack of awareness. The Federal Register (the government's official notification vehicle) is a convenient, one-stop way for sophisticated stakeholders to stay informed about relevant rulemakings. But even in its new, user-friendly online form, the Federal Register is simply not effective in spreading the word to most individuals and small entities with a stake in proposed new rules. Of course, agencies often also issue press releases and other statements, and may hold press conferences for high-profile rulemakings. But even if this information is picked up by news media, bloggers, organizational newsletters, etc., the story typically reports only the fact of government action—without explaining the public comment process. The absence of this explanation leads the next barrier.

Barrier Two: Low participation literacy. Few people (at least outside the Washington beltway) know much about what federal agencies do or how regulations are actually made. We will refer to this knowledge gap as low participation literacy: that is, people neither know that participation is possible, nor understand how to participate effectively.

Low participation literacy has two significant consequences. First, even people who do learn about a rulemaking through the media, a favorite blog, or an e-mail from a membership organization or advocacy group probably do not understand that this is an ongoing decision process, in which the government actively seeks their participation. Second, even people who

somehow get the message that they can comment to agency decision-makers are unlikely to do so effectively. The average American has two kinds of experiences with providing input into government policy (especially at the federal level): voting and opinion polls. Neither of these experiences prepares someone to participate meaningfully in rulemaking, in which agencies (unlike political leaders) are not permitted to make decisions based on majority vote or bare expressions of citizen preference.²

Barrier Three: Information overload. The third barrier is the length and complexity of rulemaking materials. In the EOBR rule, for example, the NPRM (the notice of proposed rulemaking which explains what the agency is proposing and why) was 95 manuscript pages, written at a late-college/early-graduate school reading level. The Regulatory Impact Assessment (explaining the agency's prediction of anticipated costs and benefits) was more than 170 pages. In the consumer mortgage protection rulemaking, the two interlocking NPRMs alone comprised 773 manuscript pages and tested at a comparably high reading level.

Effective comment is informed comment. Rulemaking participants should address what the agency is actually proposing, consider and react to the agency's factual assumptions and policy arguments, and make suggestions and criticisms consistent with the agency's statutory authority and mandate. Sophisticated commenters get this information from the NPRM. But documents of such length and complexity are inaccessible to the average small trucking company owner, consumer with a troubled home mortgage, or loan officer of a community bank.

Getting broader, better rulemaking participation requires deliberate strategies to lower each of these three barriers. The strategy section of the report offers specific suggestions for using Web 2.0 outreach methods and participation tools to do this. But it would be a serious mistake to think that technology offers quick and easy fixes for participation barriers. Getting new participation that adds value to the rulemaking process requires significant commitments from the agency—commitments of human, as well as technological, resources. The next section of the report offers guidance in deciding whether and when to make such commitments.

2. Mass e-mail comment campaigns mounted by advocacy groups illustrate low participation literacy. These comments are typically short, generalized statements urging the agency to do (or not do) something about the primary topic the rule addresses. The text looks remarkably like the e-mails that group members are urged, in other circumstances, to send to their congressional representatives or to the White House. Few of those who submit such comments realize how little value they generally have to rulemaking agencies.

Understanding Types of Potential Rulemaking Participants

Because public-comment periods are open to everyone, agencies may not be accustomed to thinking systematically about:

- The various types of commenters that might participate
- The sorts of useful information each type might have to offer
- The different kinds of help each type may need to convey this information effectively during the rulemaking

The conventional commenting process is not tailored to attracting and supporting particular types of participants. By contrast, web-based outreach strategies and participation tools must be tailored in this way to produce useful new rulemaking participation. For this reason, assessing whether a particular rulemaking is a good candidate for Rulemaking 2.0 efforts requires:

- Analyzing who might comment on this rule
- Determining what useful information they might have
- Considering how the agency would likely have to support them in order for them to be effective commenters

We have found it useful and effective to think about these questions in terms of four broad types of commenters who might be targeted in Rulemaking 2.0 efforts. (For an overview of each type of commenter, see Table 1 on page 14.)

Type One: Sophisticated Commenters

Because these commenters already participate extensively in the notice-and-comment process, they might seem unlikely Rulemaking 2.0 targets. However, e-rulemaking advocates have long hoped that technology could improve the commenting behavior of sophisticated commenters by promoting more dialogue among them. Currently, this type of participant tends to submit detailed comments at the end of the comment period. Unless the agency provides a reply comment period, such commenters rarely speak directly to one another's claims, arguments, and positions. Web 2.0's interactive technology, proponents argue, could encourage more responsive commenting, in which factual assertions are challenged, data and models evaluated, and possible areas of compromise explored.

It would indeed be useful new information if a Rulemaking 2.0 platform could achieve these kinds of interactions among sophisticated commenters. Unfortunately, in our experience, the behavior of this type of commenter is very difficult to change.

Accustomed to submitting a long, complex formal letter or memorandum on the last day or so of the comment period, such commenters are not anxious to participate in extended discussion about their arguments or data with each other (or with new participants). They resist being told they cannot join the online discussion by simply attaching (or cutting and pasting the text

Table 1: Types of Potential Rulemaking Participants and Their Likely Capabilities

	Sophisticated Stakeholders	Missing Stakeholders	Unaffiliated Experts	Interested Members of the Public
Who They Are	Directly affected by proposed rule (either because their conduct would be regulated or because they would directly benefit); experienced in interacting with the agency in RM and other contexts	Directly affected by proposed rule (either because their conduct would be regulated or because they would directly benefit); do not participate in RM or other agency policy interactions	Scientific, technical, or other professionals who are not direct stakeholders, and not employed or retained by a stakeholder in this matter	Individuals who self-identify as interested in the proposal, but who are not in the previous groups
Examples	Trade association of large trucking companies, large mortgage lenders, major airlines	Small trucking company owners; drivers, travelers with disabilities, consumers who went through foreclosure, community bank officials	Researchers on driving fatigue or traffic accident prediction models, accessible designers, consumer behavior researchers	Members of the driving public
Awareness of Relevant Ongoing Rulemakings	High	Typically low	Typically low, but might vary with field and particular rule	Possibly general awareness in highly politically salient RM; otherwise, low to nonexistent
Understanding of RM Process and Larger Regulatory Environment	High; often repeat players	May have patchy knowledge of regulations that immediately affect them; unlikely to understand RM process or larger regulatory environment	Difficult to predict; likely dependent on field and particular rule	Low to nonexistent
Ability to Comprehend Meaning and Implications of Agency’s Proposal Without Help	High; often have staff that specialize in regulation; likely to have in-house or hired legal and technical experts	Low on deciphering NPRM and supporting cost/benefit projections	High for parts directly relevant to their expertise	Very low on deciphering NRPM and supporting cost/benefit projections
Ability to Produce Effective Comments Without Help	High (already have access to the required help)	Low; likely to have relevant situated knowledge but communication is impeded by lack of knowledge of RM process or larger regulatory context	Likely high for parts relevant to their expertise	Very low

of) a 10-to-15 page document.³ In the thousands of comments made in the five rulemakings offered on Regulation Room, only a handful were posted by users identifying themselves as working for a large regulated entity or national trade or professional association.

In sum, technology alone cannot achieve responsive commenting by sophisticated commenters. Like leading the proverbial horse to water, a Rulemaking 2.0 site can provide opportunities for this type of commenter to engage in the desired behavior by offering interactive discussion spaces or collaborative drafting tools. Unless the agency can devise some powerful set of incentives to *use* such participation tools, however, sophisticated commenters are likely to avoid the novel and unpredictable demands of interactive online participation in favor of the familiar process of submitting their lengthy comments as file attachments via Regulations.gov.⁴

Type Two: Missing Stakeholders

Based on our experience, missing stakeholders are the type of potential commenter most likely to yield valuable new participation when targeted by Rulemaking 2.0 efforts.

Missing stakeholders are identified by asking, with reference to a specific rulemaking: “Are there types of stakeholders who will be directly affected by this proposal but who usually don’t participate at all—or who don’t submit very useful comments when they do participate?” Examples from Regulation Room rulemakings include small trucking company owners and individual drivers in the EOBR rule, travelers with disabilities in the disability access rule, or consumers with troubled mortgages and officials of small community banks and credit unions in the consumer mortgage protection rule.

Missing stakeholders bring a different kind of information to rulemaking than do sophisticated commenters. They are typically individuals, small businesses, state or local government agencies, or nonprofit entities—a type of commenter who can rarely afford the costs of generating new data or models, or of hiring professionals to critique the agency’s legal, economic, or technical analyses. Instead, what missing stakeholders can contribute is *situated knowledge* (Farina, Epstein, Heidt, Newhart, 2012). This is experiential knowledge gained from their on-the-ground, first-hand exposure to the problems, circumstances, or solutions involved in the proposed regulation. For specific ways in which this kind of information can help rule makers, see the box, *The Value of Situated Knowledge*.

Because situated knowledge is based in personal experience, organizations purporting to represent such stakeholders (e.g., consumer-rights advocacy groups or independent truckers’ associations) are generally not an adequate substitute for the stakeholders’ direct participation. Organizational commenters can, of course, be important sources of information for rule makers. But organizations have their own agendas and priorities. Their comments do not always reveal the range of views of those for whom they claim to speak.⁵ Moreover, their comments rarely convey the rich and nuanced detail of individual experiences, practices, and operations.

3. Regulation Room sets a 5000-character limit on comment length, a research-based limit that rarely affects even the most loquacious individual commenters.

4. Sophisticated commenters are likely to assign someone to monitor the online discussion, so that they can respond to what is said in the comments they ultimately file. This ability to benefit strategically from the online discussion without revealing their own claims and arguments is troubling, but we see no obvious technical solution. The Rulemaking 2.0 site could require registration in order to have any access to the discussion, but even on Regulation Room (where registration is not required to simply read the discussion) a significant subset of users register but do not post comments. The futility of trying to force users not only to register but also to contribute to the discussion is obvious.

5. For an example, see “Revealing Complexity” in *The Value of Situated Knowledge* box.

The Value of Situated Knowledge

In rulemakings in which the agency can identify one or more groups of missing stakeholders likely to have situated knowledge, their comments might help rulemakers in several ways:

Revealing complexity. Such comments draw on personal experience to reveal and explore contradictions, tensions, or disagreements within what otherwise may appear to be a unitary set of interests or practices.

For example, in the DOT disability access rule, prominent disability rights organizations emphatically supported DOT's plan to require accessible redesign of automated airport check-in kiosks. However, some individual travelers with disabilities (commenting on Regulation Room) disagreed that an accessible-technology focus best served their needs. Describing their own problems navigating the airport environment, they sought additional human assistance over increased autonomy, and worried that requirements for accessible machines would result in fewer customer service personnel.

Identifying contributory context. Such comments draw on situated knowledge to identify contributory causes of the problem the agency aims to solve. The factors they identify may or may not be within the agency's regulatory authority, but rule writers should be aware of them because these factors might affect the costs or efficacy of new regulatory measures.

For example, in the EOBR rule, many drivers and small truckers argued from personal experience that the root causes of unsafe driving practices and exceeding "legal" driving time include (1) the industry practice among large carriers of paying by the mile rather than hourly; and (2) behavior of third-party shippers (over whom small companies have little control) that causes drivers to lose time waiting at the loading dock for cargo they are contractually obligated to transport. (Some commenters who argued importance of these factors explicitly acknowledged that FMCSA probably could not address them.)

In the consumer mortgage protection rule, a major issue was how to ensure that borrowers in trouble are offered any available payment restructuring options before foreclosure is instituted. Some borrowers recounted experiences of being denied payment restructuring only to discover, after it was too late, that the denial was based on erroneous calculations of their home's net present value. (Required disclosure of these underlying calculations was not part of the proposed rule, but did appear in the rule as finalized.)

Predicting unintended consequences. Such comments draw on personal experience to identify possible outcomes and effects of the proposed rule that are different than those the agency is seeking to achieve.

For example, although consumer commenters broadly approved of CFPB's proposal to require lenders to respond to borrowers' oral (not just written) claims of error, several criticized the part of the proposal that would have allowed lenders to make oral responses. They argued from experience that borrowers could not safely rely on mere oral assurances, predicting that these would lead borrowers to think the matter had been resolved when in fact this was not reflected in the lenders' records.

Reframing the issues. Such comments draw on situated knowledge to reframe the regulatory issues, including the competing values at stake.

For example, numerous comments in the EOBR rule revealed that concerns about expense, counterproductive inflexibility, and invasion of privacy were only part of the reason for the opposition of small truckers and drivers. Equally important were (1) the perception that the government was unfairly treating them as lawbreakers (a feeling heightened by a recently finalized rule that required flagrant hours-of-service violators to install EOBRs); (2) a related perception that their professional competence was being impugned; and (3) the conviction that EOBRs would add pressure to what was already a high-stress occupation.

Although missing stakeholders are likely to bring valuable new information to rulemakings in which their presence can be identified, this type of participant will also predictably need considerable support to become an effective contributor in the rulemaking. Specifically, they will probably require:

- Additional outreach efforts to make them aware of the rulemaking and of their ability to participate in it
- Informational materials that are far shorter, simpler, and more direct than the typical NPRM and regulatory impact analysis
- Education and mentoring in the skills of effective commenting (e.g., giving reasons for positions; providing substantiation for claims)

Specific approaches for addressing all of these needs are discussed in the strategy section of the report.

Type Three: Unaffiliated Experts

Early e-rulemaking advocates hoped that technology-enabled commenting would bring a broader range of expert opinion into the discussion. The value of such new participation may be even greater today. Budget constraints limit agencies' ability to commission their own expert analyses, and many agencies are losing internally developed expertise through retirement of experienced regulators. These factors, largely beyond the agency's control, may cause regulators to rely more and more on experimental data and other scientific and technical information generated by regulated industry itself (Field and Robb, 1990; Wagner, 2010). Other stakeholders, even large national advocacy organizations, usually cannot afford to produce such information themselves. Systematic information gaps and biases may be the result. Broadening the pool of expertise to include experts not affiliated with particular stakeholders could help level the informational playing field.

Unaffiliated experts are generally likely to need less support to be effective commenters than missing stakeholders do. In many cases, their professional education and practice have accustomed them to reading complex documents like NPRMs and supporting analyses (at least the parts directly relevant to their expertise, which is where their comments would be focused). Similarly, their training has already given them the participation skills of substantiating claims, justifying opinions, and making reasoned arguments.

Still, at this point, the potential of Rulemaking 2.0 efforts to successfully engage unaffiliated experts is largely unknown. Some of this commenting has occurred on Regulation Room,⁶ but we have not specifically targeted this type of commenter in any of our rulemakings to date. Hence we can only speculate about possible challenges. Obviously, agencies will be concerned about the credentials and biases of those who purport to be experts, but these problems are neither new nor distinctive to online participation. The greater challenge may be the motivational one of persuading experts to:

- Put the required time into participation within the fairly short time-frame of the typical comment period
- Donate their expertise without monetary compensation

6. In the disability access rule, two accessible design experts made detailed comments about the proposed new standards. In another rulemaking, in which peanut allergies became an unexpectedly controversial issue, two physicians and some other commenters produced nearly a page of citations to studies on incidence, severity, and triggering mechanisms.

There are strategies that might address these challenges,⁷ but experimentation will be needed to identify the combination of regulatory circumstances, outreach techniques, and participation tools that maximize the likelihood of successfully engaging unaffiliated experts.

Type Four: Members of the General Public

Although e-rulemaking and other open government advocates often identify the goal as increasing participation by “the public,” this is the most problematic commenter type to target in Rulemaking 2.0 efforts. To become effective commenters, members of the general public will typically require at least as much (if not more) support as missing stakeholders. But their ability to contribute useful information is much less certain.

The easiest rulemakings for predicting value from general-public participation are those in which the agency is deciding the best format or content for conveying information to consumers. The agency is likely to have used structured feedback methods (e.g., focus groups, one-on-one cognitive interviews, or formal usability testing) to develop and refine options for new forms, labels, or packaging. At the point these options are being actually proposed for adoption, broader public feedback might be useful. Moreover, asking commenters simply to rate or rank proposed designs (and perhaps give a brief explanation of their reaction) is an easy kind of participation that requires little support from the agency; a variety of Web 2.0 voting tools are readily available and inexpensive. (See Strategy Two on page 26).

Beyond this important but fairly limited class of rulemakings, the ability of general-public commenters to contribute useful information is far less clear. The rulemakings that now draw mass participation typically involve environmental standards (e.g., greenhouse gases), conservation measures (e.g., polar bear protection), or some other issue with high political salience to one or more powerful interest groups (e.g., media decency standards or contraception coverage under the Affordable Care Act). Members of the public who participate typically have strong political, ideological, or moral reactions to what the agency is proposing. But, lacking specialized training or relevant experiential knowledge that would enable them to offer specific factual information, criticisms, questions or alternatives, they can do little more than urge the agency to reach the outcome they prefer. *Neither the public nor the government benefits if Rulemaking 2.0 techniques are used to actively solicit new participation that the agency does not value or use in the rulemaking.*

Some have argued that agencies should use general-public comments as a form of democratic guidance on how to resolve competing value claims or prioritize various kinds of risk. (e.g., Mendelson 2011). But there is a problem. Members of the public are often ignorant of, or flatly wrong about, the workings and outcomes of regulatory programs and proposals (Hoffman, 2012; Kuklinski, Quirk, Jerit, Schwieder, and Rich, 2000). Research has shown that giving people accurate and balanced information about complex policy questions can change their initial outcome preferences— sometimes quite dramatically (Barabas, 2004; Fishkin, 2009; Muhlberger and Weber, 2006). This change doesn’t always happen (Denver, Hands, and Jones, 1995; Gastil and Dillard, 1996), but it happens often enough that agencies should be skeptical about taking “democratic guidance” from members of the public who don’t have reasonably fair and complete information. Unfortunately, the sources through which members of the public often hear about proposed rules do not reliably provide such information about the

7. For example, to provide more lead-in time, outreach to experts might begin when the impending rulemaking is announced in the agency’s Regulatory Plan. With respect to motivation, online community research suggests the effectiveness of devising non-monetary, reputational incentives for participation, such as creating publicly visible hierarchies of valuable contributors and offering frequent contributors additional roles in the discussion (Lampe, Walsh, Velasquez and Ozkaya, 2010).

range of competing claims and interests, or the likely consequences of the agency's proposed approach and available alternatives. (Farina, Newhart, and Heidt, 2013). This means that the agency cannot be confident that general-public commenters are expressing informed value or risk preferences unless it can itself provide the necessary substantive information in a form that such commenters can and will consume.

The agency's ability to do this in a specific rulemaking depends on what we call the information load of effective participation in that rulemaking. Information load is the amount and complexity of the substantive information that commenters must understand in order to make useful comments on issues of importance to them. Information load varies across rules. A rulemaking to decide the best format and location for new consumer product labeling will have a very low information load for effective participation by general-public commenters; by contrast, a rulemaking to set greenhouse gas emission levels will have a very high information load.

The basic rule of information load is simple: As a rulemaking's information load for a particular type of participant increases, the feasibility of successfully engaging such participants in effective commenting decreases. This is so because the higher the information load, the more costly it is for both participant and agency to achieve effective commenting. Participants must invest proportionally more time and attention in becoming informed before they comment. Agencies must invest proportionally more resources in enabling, motivating, and supporting participants in this effort. (For more on assessing information load, which can also vary for different types of potential commenters and even different issues within a single rulemaking, see the box, *Using Information Load to Predict Effective Participation*.)

Table 1 on page 14, summarizing the preceding discussion, underscores the key insight of this section: *Types of potential rulemaking participants are not similarly situated*. The knowledge and skills required for effective commenting are not equally distributed across the range of individuals and entities who might participate.

Rulemaking 2.0 efforts are most successful when the agency identifies the types of participants it hopes to bring into a rulemaking, and then uses outreach and participation-support strategies designed to meet their specific predictable needs.

Rulemaking 2.0 efforts are most efficient when the agency focuses them on rulemakings in which it can reasonably predict that the value added by the targeted types of participants will justify the costs associated with these outreach and support strategies.

Using Information Load to Predict Effective Participation

Information load refers to the quantity and complexity of substantive information about a specific rulemaking that commenters would need to understand in order to make useful, effective comments. Estimating information load is important to choosing the best opportunities for Rulemaking 2.0 efforts because, as information load increases, the feasibility of obtaining meaningful participation from new rulemaking participants decreases.

Information load varies across rulemakings, but also can vary considerably across types of commenter. For example, in the disability access rule, the information load for travelers with disabilities was fairly high. To do more than simply urge DOT to make airports and air travel websites more accessible, these missing stakeholders needed to know what specific kiosk and web accessibility standards DOT was considering, when and how it proposed to phase in implementation, what locations or websites would be exempted, and what methods would be used to verify compliance. By contrast, information load was fairly low for unaffiliated experts such as accessible web designers. These commenters could readily comprehend and discuss the proposed technical specifications, as well as the practicability of DOT's plan for transitioning from inaccessible to accessible devices and websites.

Differences in information load may suggest focusing Rulemaking 2.0 efforts on only some types of potential new participants in a specific rulemaking. For example, the EOBR rule presented a fairly low information load for drivers and small trucking company owners, who already knew about electronic monitoring equipment, the complicated hours-of-service rules and associated reporting requirements, and the economics, conditions, and practices of long-haul trucking. By contrast, this rulemaking presented a very high information load for members of the driving public. The real issues were likely costs, incremental safety benefits, enforceability concerns, and impacts on different sectors of the trucking industry. To meaningfully comment on these issues (rather than simply advocate for more highway safety), public commenters would first have to learn a fair amount about the regulatory and industry context. Even if Regulation Room could have provided this information, we doubt the motivation of most driving-public commenters to pay attention to it. For this reason, our outreach and participation support efforts did not target this type of potential new commenter (who of course remained free to participate through the conventional commenting routes).

Finally, information load may vary across issues in a single rulemaking. For example, a rulemaking to establish new consumer product labeling requirements could include not only questions about label format and location, but also questions about how manufacturers should test and measure the characteristics being reported on the new labeling. The agency could focus Rulemaking 2.0 efforts on getting general-public comment on the low-information load issues of label design and placement, while not trying to engage the general public (beyond the existing notice-and-comment process) on the high-information load engineering and technical issues.

Strategies to Lower Participation Barriers and Enhance Participation Quality

Once the agency has determined that a specific rulemaking presents a good opportunity for engaging one or more types of new participants, how can Web 2.0 technologies and techniques be used to recruit them and then support them in producing comments that add value to the rulemaking?

This section provides answers by focusing on strategies to lower each of the three barriers to participation:

- **Strategy One: Outreach to alert and engage potential new participants.** How to address the barrier of *unawareness* by using social and conventional media to reach target audiences and craft messages that motivate them to respond.
- **Strategy Two: Converting newcomers into effective commenters.** How to address the barrier of *low participation literacy* by using site design and moderation to help new participants get past “voting and venting” behaviors and effectively contribute the information they possess.
- **Strategy Three: Making substantive rulemaking information accessible.** How to address the barrier of *information overload* by transforming the NPRM and other relevant materials into a web-appropriate information structure that new participants can and will use to become informed about the proposed rule.

Strategy One: Outreach to Alert and Engage Potential New Participants

Creating a Rulemaking 2.0 site is, unfortunately, not like carving a baseball diamond out of an Iowa cornfield. Building it will not be enough to make new participants come. Raising awareness among missing stakeholders and other types of new participants requires new outreach efforts. These new efforts must:

- **Use methods likely to come to the attention of the targeted types of participants.** Even if potential new participants realize that the agency is the source of regulations that affect them (and many do not), they almost certainly do not routinely follow the agency’s standard rulemaking communications. New proactive efforts, tailored to reach the particular stakeholder groups being targeted, are essential.
- **Not only announce the rulemaking, but also emphasize the opportunity to participate in the process.** Because most people don’t know how rulemaking works, outreach must overcome low participation literacy by telling people not only what the agency is substantively proposing, but also that their input is desired and will be considered before a final decision is made.
- **Convince the targeted groups why the rulemaking matters to them and why making the effort to participate is worth it.** Sophisticated stakeholders understand why rulemaking participation matters; missing stakeholders and other types of potential new participants

need to be motivated to engage in an unfamiliar and demanding process. Outreach must be clear and specific about how their interests would be affected by the proposed rule, so that they realize the risks of remaining silent.

Here we provide specific suggestions for accomplishing this by:

- **Activity One:** Developing an outreach plan
- **Activity Two:** Crafting message content that motivates engagement

Activity One: Developing an Outreach Plan

Overcoming the participation barrier of unawareness requires an outreach plan tailored to the specific rule and to the targeted types of participants. It should include direct communication with them (to the extent possible) as well as communication with individuals, entities, and groups who might be persuaded to pass the message along to them. Although using social media is important, the plan should not neglect conventional media opportunities to reach missing stakeholders and other types of potential new participants. Our experience on Regulation Room is that new online participation can be powerfully motivated by a good story about the rulemaking picked up by a major newspaper, wire service, or broadcasting network.

The ultimate goal of the outreach plan is to put information about the rulemaking in places where members of the targeted participant groups are likely to come across it. For this reason, social media efforts must be more extensive than just announcing the rulemaking on the agency's blog, Facebook page, and Twitter feed. If the targeted types of participants were following these sources, they probably would not be systematically absent from the agency's rulemakings.

On Regulation Room, we try to identify places where targeted participants are likely to go for information, including membership associations; subject-matter, recreational, and trade publications; and influential individual opinion leaders such as bloggers and newsletter authors. We reach out to these sources through e-mail, phone, social networking, and other online communication, asking them to publicize information about the rulemaking and how individuals can participate (See Activity Two). We also develop a list of keywords and phrases related to the rule that are likely to have impact for the targeted groups. We use these both *proactively* in daily tweeting, Facebook posting, and Facebook, Google, and Twitter ads; and *reactively* by continuously monitoring Internet activity and responding with comments and tweets about the opportunity to participate whenever the rulemaking or its issues appears on blogs, news sites, or Twitter.⁸

This kind of outreach involves significant human effort, and it is important not to expect social media to provide an easy technological fix for the barrier of unawareness. Thanks to the

Figure 1: Examples of Participation-Motivating, Google and Facebook



8. Some agencies' ex parte contact rules will prevent those directly involved in the rulemaking from reading "outside" material about the rulemaking once the comment period has opened. Actual implementation of the communications plan should come from the agency's public relations office, so the rulewriters themselves need not be involved in monitoring Internet "chatter" to find additional opportunities for outreach during the comment period.

Internet and other modern communications technologies, Americans live in an information-saturated environment. This means that rulemaking information has a lot of competition in what has been called the “battle for attention” (see box). In our experience, it is difficult to cause information about even important rulemakings to spread widely across the web because such information rarely has the characteristics (e.g., emotionally evocative, shocking, trendy, funny, cute) associated with content that goes viral when large numbers of people share it with others.

The Battle for Attention

Social media seems to hold great promise for recruiting more public participation:

- Four of five Internet users report visiting social networks and blogs
- Twitter is growing at the rate of 11 new accounts per second
- Facebook is the most visited site on the Internet

But the very popularity of social media is a problem for those trying to attract the attention of new rulemaking participants. Here are some measures of the competition in the “battle for attention:”

- More than 634 million websites
- More than 109 million blogs on the two most popular platforms alone
- 190 million tweets sent per day
- Every minute on Facebook 510,000 comments posted, 293,000 status updates and 136,000 images uploaded, and every month, 30 billion pieces of content shared

If the Internet is the information superhighway, social media is the Los Angeles freeway at rush hour on the night of a Lakers home game. What this means is that, while social media has a role to play in outreach, it is important to set realistic expectations for both required human effort and likely success.

Source: (Pingdom, 2013; Pring, 2012A; Pring, 2012B).

Because Web 2.0 success is so frequently expressed in numbers—visits, followers, likes, downloads, retweets, etc.—it can be easy to lose sight of the fact that outreach is a means to an end, not an end in itself. In the EOBR rulemaking, for example, the number of potential new participants in the group of commercial motor vehicle license holders was about eight million. During the rulemaking, 5,328 people visited Regulation Room; 104 registered as users and 72 of these actually contributed content to the site—a seemingly miniscule yield on outreach.⁹ But the objective was to add an important missing stakeholder perspective to the EOBR rulemaking, and this happened. Seventy-five percent of Regulation Room commenters said they had never participated in a rulemaking before, and the discussion was rich in the situated knowledge of small trucking owners and operators. If *more* public comment is not the same as *better* public participation, then quantity per se is a very incomplete metric for measuring the success of outreach.

9. To those unfamiliar with online community marketing or research, typical Web 2.0 participation rates are usually surprising. The widely used rule of thumb is 95–5–.1— meaning that 95% of site visitors will do no more than read, 5% will engage in some sort of participation, and 0.1% will participate actively. Because participation on even a well-designed Rulemaking 2.0 site requires more user attention and effort than the typical blog or other Web 2.0 site, even a 0.1% conversion of visitors to commenters is respectable. On Wikipedia, for example, where participation demands are also fairly high, the observed participation ratios are 99.8–.2–.003 (Nielsen, 2006).

Activity Two: Crafting Message Content that Motivates Engagement

Current agency communications about rulemakings typically focus on providing information rather than motivating participation. However, bringing in new participants requires messages deliberately crafted to recruit as well as to inform. Here are some specific suggestions:

Make the process part of the message. In Regulation Room, it has often been discouraging to see a news story or blog post that does a great job of explaining the proposed rule in comprehensible terms, but says nothing about the right to participate and gives no direction on where people can comment. Unsurprisingly—given the barrier of low participation literacy—such coverage rarely produces a noticeable spike in new participants.

All communication about the rulemaking—even that which is not specifically targeted to missing stakeholders or other potential new participants—should treat the solicitation of public comment as part of the story. Specifically:

- Draft messages on the assumption that people don't understand what a comment period is—a safe assumption even for many reporters, subject-relevant bloggers, and communications directors of membership or advocacy organizations.
- Because the general level of public trust in government regulators tends *not* to be high, provide information about what the agency does with comments. Motivate new participants through a three-part message:
 - (1) You have a legal right to comment.
 - (2) The agency has a legal responsibility to review and consider your comments.
 - (3) A single comment that makes a good point can change the outcome in the rulemaking.
- Include a live link to (or, if this is not possible, at least the web address of) the Rulemaking 2.0 site. Explain that this site is a place where people can easily find information about the proposed rule, discuss it with others who are interested, and give the agency the benefit of their comments.

Personalize the impact of the proposed rule. When it comes to describing the proposed rule, communicating clearly and specifically how it will affect the targeted participants' interests—positively or negatively—is crucial to winning the battle for their attention.

It may seem imprudent for outreach to underscore possible negative impacts, but behavioral economics and decision-theory research shows that avoiding a loss (“loss aversion”) is one of the most powerful motivators of human action (Kahneman and Tversky, 1984). Even negative impacts (e.g., increased cost from proposed new procedures) can be communicated constructively by emphasizing the agency's desire to get information from those who would be affected (e.g., urging small community banks to learn about proposed new procedures and provide details about how these would affect their current operations.)

Communicating about positive impacts may seem easier, but there is a risk that simply describing potential benefits of the proposed rule makes message recipients complacent. (“If the agency already wants to do this, I guess I don't need to say anything.”) Consider, instead, a subtle negative framing emphasizing that this is only a proposed rule and that, for example, the agency needs to hear more details about the kinds of problems people are having and whether the proposed rule would really solve those problems. The subtext of this sort of messaging is that the final rule may not be as good for message recipients as the proposed rule if they don't participate.

Targeted Outreach and Concerns about Bias

Agencies may initially be uncomfortable with the idea of singling out certain types of potential participants for enhanced outreach efforts. But, because the agency will still be doing everything it usually does to give notice of the rulemaking, it is unlikely that any non-targeted group's notice rights would be violated simply by the fact of targeted outreach. The more plausible criticism may be that motivational *content* of targeted outreach messages signals some sort of substantive agency bias.

It should be relatively uncontroversial to recruit new participation by emphasizing the risks, to the targeted group's interests, of remaining silent. After all, the NPRM has almost certainly raised the issues of positive or negative impact (often by explicitly posing questions), and it is well-established law that those who do not submit comments can't complain about a less favorable final outcome.

More controversial, perhaps, is messaging that recruits new potential commenters by warning that sophisticated stakeholders with possibly adverse interests will participate. In Regulation Room, we sometimes try to motivate lagging participation in the closing days of the comment period by messaging along the following general lines: *"Only [**] more days to comment on the [proposed] rule. [Relevant industry group] will have their say about this proposal; you should make your voice heard too."* This kind of messaging occasionally concerns some rule makers, who see it as taking sides in the rulemaking.

Each agency must reach its own conclusions about the fact or appearance of bias, but messaging such as this simply makes explicit to missing shareholders and other potential new participants what everyone familiar with rulemaking already knows: Large motor carriers *will* comment about proposals affecting driver behavior and responsibilities; airlines *will* comment about proposals to make their websites accessible; national mortgage servicers *will* comment about proposals imposing new duties of care to consumer borrowers. Of the many predictions about behavior an agency makes in a rulemaking, these sorts of predictions are surely among the most well-founded based on historical data. And missing stakeholders *should* exercise their participation rights, for their own good and for the social good of well-considered regulatory policy. Candor about participation inequities is not the same thing as bias. (Compare 5 U.S.C. § 567(c), explicitly authorizing agencies to pay participation expenses of an interested party in negotiated rulemaking if the party lacks adequate financial resources and its participation is necessary to ensure adequate representation.)

Motivate organizations to help spread the word. Even with social media, it is often hard to reach potential new participants directly. Therefore trade, professional, recreational, advocacy, and membership organizations can be important channels for getting the message out to targeted potential participants. However, there can be obstacles to obtaining such organizations' cooperation.

Organizations also must battle for their members' or followers' attention, and using some of their limited "attention-and-action" capital on the rulemaking may not obviously align with their own priorities. Moreover, some organizations exist to be the exclusive voice of their members (unions are the most obvious, but not the only, example). And even other kinds of organizations may have a strong self-interest in being "the" vehicle through which their members or followers speak. This might be one of the services they offer to members, as with some trade associations. Or, as with some issue-advocacy organizations, being able to deliver thousands of comments in an orchestrated mass action campaign helps fundraising and increases general political clout (Shulman, 2009). For such organizations, efforts to engage individual members directly in the rulemaking may be highly threatening.

To try to overcome these obstacles:

- Reassure the organization that the agency values any comments it plans to file, and that individual participation is sought to supplement, not replace, what the organization can bring to the rulemaking.
- Emphasize how the organization's members will be directly impacted, and point out that affected individuals may consider it a membership benefit for the organization to alert them about personal participation opportunities, even if the organization plans to submit a comment on their behalf.

If the agency also clearly signals that it considers individual participation important, organizations that regularly interact with regulators may be motivated to appear helpful by cooperating in outreach. In the end, however, an organization is likely to help bring missing stakeholders or other potential new participants into the rulemaking only if doing so aligns with its own interests and priorities. Some organizations may never find this to be the case. Others might be led over time to see meaningful participation by individual members as an advantage. It is still early enough in the Rulemaking 2.0 effort that no one can really anticipate how the rule-making landscape might be changed by engaging new participants. For this reason, it is worth continuing to try to enlist organizations in outreach efforts, even if there is initially resistance.

Strategy Two: Converting Newcomers to Effective Commenters

Once outreach has brought missing stakeholders or other potential new commenters to the Rulemaking 2.0 site, the next challenge is dealing with newcomers' lack of understanding about rulemaking and the role public comment plays in it. The problem is not just that new participants don't know much about the process in which they are taking part. This knowledge gap is exacerbated because most rulemaking newcomers are already primed with a set of expectations about participation that actually work against effective commenting behaviors. Both traditional forms of American political participation and newer forms of interacting on the web lead newcomers to expect that participation (especially online participation) will be quick, simple, and low-effort. (See box, *Low Expectations and "Drive-through" Participation*).

The Rulemaking 2.0 environment must be deliberately designed to reset these expectations, and to mentor newcomers in developing the kinds of participation skills that produce meaningful comments.

Activity One: Offering Education about the Process

Guidance on writing effective comments can increasingly be found both on agencies' own websites and on Regulations.gov. Unfortunately, these materials are often not located where participants can readily consult them, and they are not written for laypersons with varying education levels. To be most useful to new participants, educational materials should:

- Be easily and prominently accessible from the location at which commenting occurs
- Explain enough about rulemaking that people can understand not only *what* they should do (e.g., give reasons, provide details, etc.) but also *why* this important in the process
- Avoid formalistic phrasing in favor of a plain language, conversational style that offers people advice about how to make their voices heard effectively
- Emphasize that people have a right to comment and that the agency will review and consider every comment
- Ideally be offered in multiple formats that respond to differences in how people most easily process information. (Regulation Room uses textual explanation, a series of cartoon-like graphics, and videos.)

In the end, however, even clear, accessible, and creative instructional materials will be used by only a small fraction of new rulemaking participants. (On Regulation Room, less than 2% of all page views are for educational materials.) In part, the low level of user interest in effective-commenting materials is explained by people's general tendency not to read instructions—behavior that becomes even more pronounced on the web. More fundamentally, because of their background expectations about participation, rulemaking newcomers typically don't realize that they may not know how to participate effectively in this process.

Low Expectations and “Drive-Through” Participation

“I am interested in this regulation but do not want to spend a lot of time reading or submitting comments. How can I just ‘voice my opinion’ in an easy way? I could not figure out how to do this. My suggestion is to state the section of the proposed regulation. Then, ask for votes, using, for example, five choices from strongly agree to strongly disagree, with the option of adding comments to any question. What you already have is useful but too time-consuming for me.”

— E-mail from Regulation Room user

Most Americans participate in public policy making by voting for government officials, responding to opinion polls, and perhaps signing petitions. What all these have in common is that they ask people simply to express an outcome preference. None requires:

- Demonstrating an understanding of the relevant facts, circumstances, and issues
- Articulating reasons for preferences
- Engaging with and responding to opposing points of view
- Considering and evaluating a range of possible outcome alternatives

In other words, the familiar forms of democratic participation create low participation expectations in people by demanding very little of their time, attention, or cognitive effort. Ironically, Web 2.0 exacerbates the problem. Here are typical online behaviors:

- Scanning pages, rather than actually reading content. (In one notable study [Nielsen 1997], only 16% of users read site content word-by-word.)
- Clicking on the first button or link that might do what the user wants, rather than reviewing all the available options and then deciding which is best
- “Muddling through,” rather than reading instructions or otherwise figuring out the site or the required task

Usability experts study these behaviors in order to design for them, not to change them. For this reason, people are now used to websites designed specifically to allow them to engage rapidly and with little effort—the complete opposite of the kind of engagement needed for effective rulemaking participation. People are also increasingly accustomed to online question-and-answer and review sites, on which anyone can answer any question, review any kind of product or service, or rate the contributions of other users. The theory of these sites is that the “wisdom of crowds” can emerge by aggregating contributions from a large number of diverse participants. But few people understand how crowdsourcing is actually supposed to work. Rather, what they see is an invitation to contribute whatever opinion they may have without any responsibility to acquire relevant information or demonstrate relevant experience—once again, the complete opposite of effective rulemaking participation.

As the quote from a Regulation Room user reveals, many new participants will come to a Rulemaking 2.0 site expecting to engage in what we call drive-through participation. Everything about the design and content of the participation environment must work to reset such expectations—hopefully without overwhelming, frustrating, or intimidating users so much that they leave.

Activity Two: Structuring Information to Signal that Good Participation is Informed Participation

The most important and difficult challenge in designing a Rulemaking 2.0 site is how to structure the relationship between text explaining the proposed rule on the one hand, and the comments of participants on the other. Effective comment is informed comment. Therefore, the participation environment should clearly signal that users are expected to learn about the agency's proposal and make it the focus of their discussion. (Note that here we are focusing on the structure of the explanatory text; Strategy 3, below, focuses on how to create the content of the text). Moreover, if interaction among commenters is important—to test claims, refine arguments, reveal possible grounds for consensus, etc.—then users should have ready access to what other participants have said.

The current approach. Up to this point, e-rulemaking sites have structured information about the rule by providing a link to the NPRM along with a comment submission form for typing in, or attaching, comments.¹⁰ This is the simplest information structure—and the least likely to produce meaningful comments by new rulemaking participants. Why? It requires users to:

- Resist the urge to start immediately typing in the comment box
- Go to another location to open and read something of unknown content and length
- Return to the page on which they can comment
- Remember enough of what they read to create a responsive and useful comment

Given typical online behaviors and background participation expectations, it's no surprise that this design approach fails to produce effective commenting from rulemaking newcomers.

The standard blog format. A design alternative is the standard blog structure, with a column of text followed by a comment box. This information structure has several advantages. Most users have encountered the design before and know what to do with it. Moreover, scrolling up and down to reference the explanatory text during comment writing is much easier than switching back and forth between separate document and commenting screens. When something is easier, users will do more of it. Finally, the standard blog structure displays all comments in chronological or reverse chronological order, allowing users to easily see what others have said.

Still, the standard blog structure has disadvantages in the rulemaking context. Even with techniques to shorten and simplify information in the NPRM (see Strategy Three below), there will likely be a large amount of explanatory text compared with the typical blog post. Scrolling back to recheck a point thus becomes more tedious and difficult. As users must expend more effort to find and return to the relevant portion of the explanation, their comments are likely to become less focused and detailed. Moreover, because all comments are made below the text regardless of which part of the text they address, isolating discussion about a specific topic becomes difficult, especially as the comment stream grows. This is a disadvantage for participants while discussion is going on, and for rule makers after the comment period closes.

The targeted commenting structure. In a targeted commenting structure, users attach their comments to specific sections of text. One possible implementation allows users to open a comment box below a segment of text, at the same time revealing other comments about that segment. This implementation was used by FedThread, an innovative but no-longer-opera-

10. Agency-specific sites like DOT's former Docket Management System used this structure, and it is still the basic structure of Regulations.gov. The comment screen enables users to access the NPRM or other rulemaking documents from the e-docket.

tional site that automatically pulled NRPMs from the Federal Register and allowed people to comment on each paragraph.¹¹ Figure 2a is the view when the user first lands on the page; Figure 2b shows how the user could click on a paragraph and open it to add his/her own comment and see the comments of others. (In this implementation, users could not reply to other participants' comments.)

Figure 2a: FedThread Initial User View

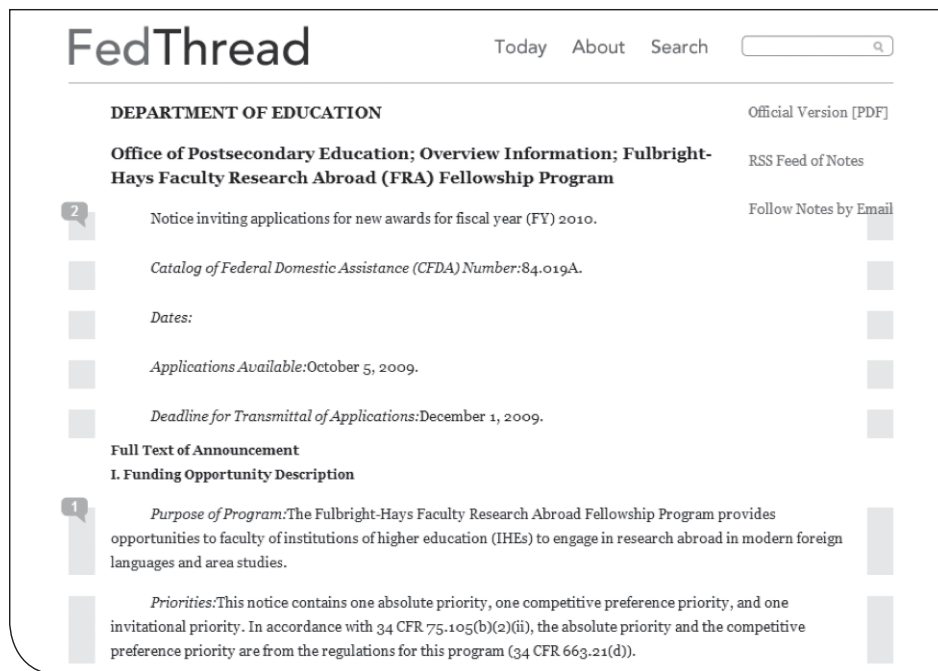
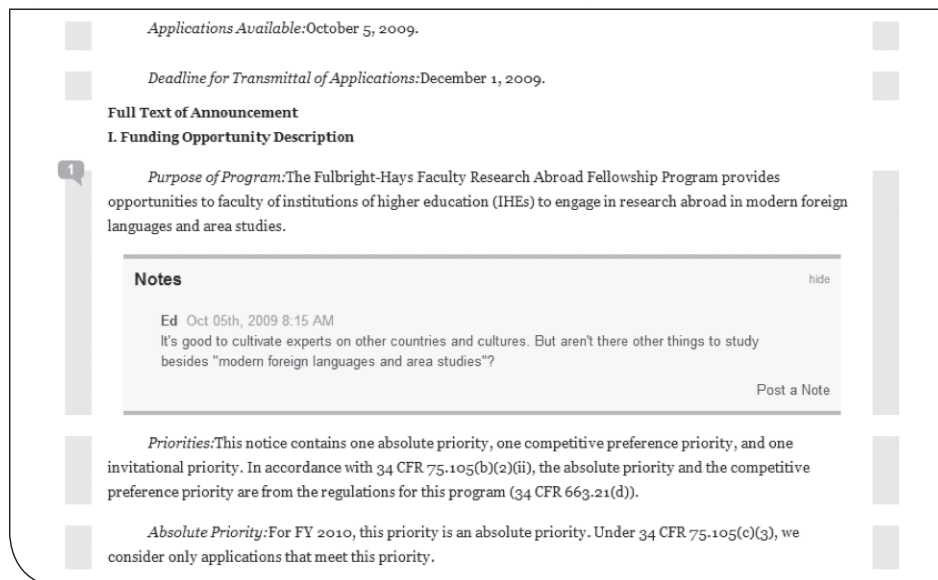


Figure 2b: FedThread with Text Section Selected by User



11. An archived but still functional version can be found at <http://web.archive.org/web/20091009203600/http://www.fedthread.org/fr/document/E9-23898/>.

Regulation Room uses a side-by-side implementation of targeted commenting, in which explanatory text appears in sections on the left side of the page, while comments appear on the right side.¹² Clicking on a section of text enables participants to see all other comments made on this section, and either reply to those comments or add their own. (Comments are threaded, meaning that the participant can insert a reply to any comment in the stream, and another participant can respond to that reply, thus creating a discussion thread.) Because the left and right columns scroll separately, the side-by-side approach allows participants to continue to view the explanatory text while reading and replying to other comments, or writing their own. Figure 3a is the view when the user first lands on the page. Figure 3b shows how clicking on a section of text opens up all the comments made on that section, and allows the user to add a new comment or reply to someone else's.

Although the side-by-side targeted commenting structure will not be a familiar design to most users, it has several advantages that strongly recommend it as a Rulemaking 2.0 design strategy. These include:

- Clearly signaling the expectation that becoming informed about the agency's proposal is part of the desired participation
- Promoting focused commenting on specific aspects of the proposal, by requiring users to select a portion of text in order to comment
- Automatically organizing comments by substantive topic, enabling participants (and the agency) to more easily find all comments about a particular issue

Activity Three: Carefully Selecting Participation Tools

As a general rule, avoid giving participants the ability to vote on, rate, or rank either the proposal or the comments of other participants. Although this may go against standard advice about social media design, incorporating voting, rating, and ranking tools in a Rulemaking 2.0 environment can undermine the effort to reset newcomers' participation expectations and to encourage informed and thoughtful commenting behavior. Moreover, these tools tend to invite gaming: that is, campaigns by users (often relying on social networks) to solicit many others to come to the site just to vote up, or down, a particular proposal or comment.

Voting, rating, and ranking tools should be used only in circumstances where a careful analysis concludes that predictable benefits outweigh these risks. Here are three situations in which the cost/benefit balance may favor allowing participants to vote, rate, or rank—and a fourth but more debatable reason to provide a voting-like tool:

Rulemakings to determine the best format for, or content of, consumer information. In this special category of rulemakings, simple voting or ranking tools can be used to aggregate reaction by members of the general public to alternative proposed model notice forms, product labels, etc. These sorts of choices usually do not involve the strong ideological or emotional commitments that encourage gaming (although this risk should be assessed in the specific rulemaking). Even though rule makers would not treat this kind of participatory input as conclusive, the general tenor of public reaction may confirm the agency's preferred choice or, conversely, suggest the need for further study. Also including functionality that prompts users briefly to explain their preferences can provide useful guidance, particularly when those preferences are not what rule makers anticipated.

12. We originally obtained this functionality through Digress-It, a collaborative annotation tool available as an open source Wordpress plug-in. (<http://wordpress.org/extend/plugins/digressit/> Digress-It). Digress-it is currently used in a variety of non-rulemaking contexts, including literary criticism and scholarly research sites. Text can be sectioned into any length. After initially allowing commenting on each paragraph, we found it more effective to make a commentable segment a thematic unit of text, which usually requires more than one paragraph (See Strategy Three).

Figure 3a: Regulation Room Topic Post Page, Initial User View

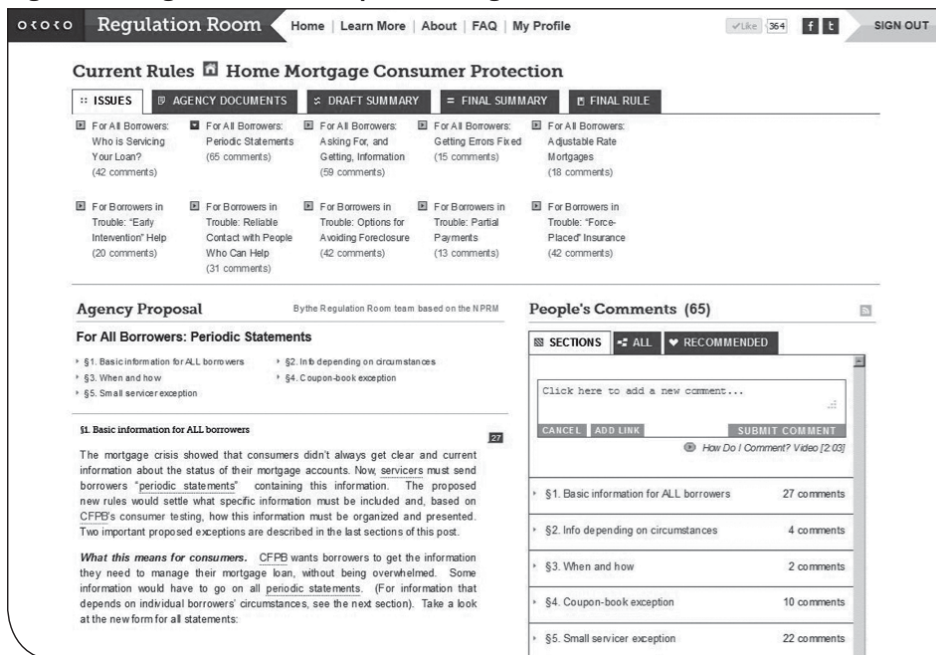
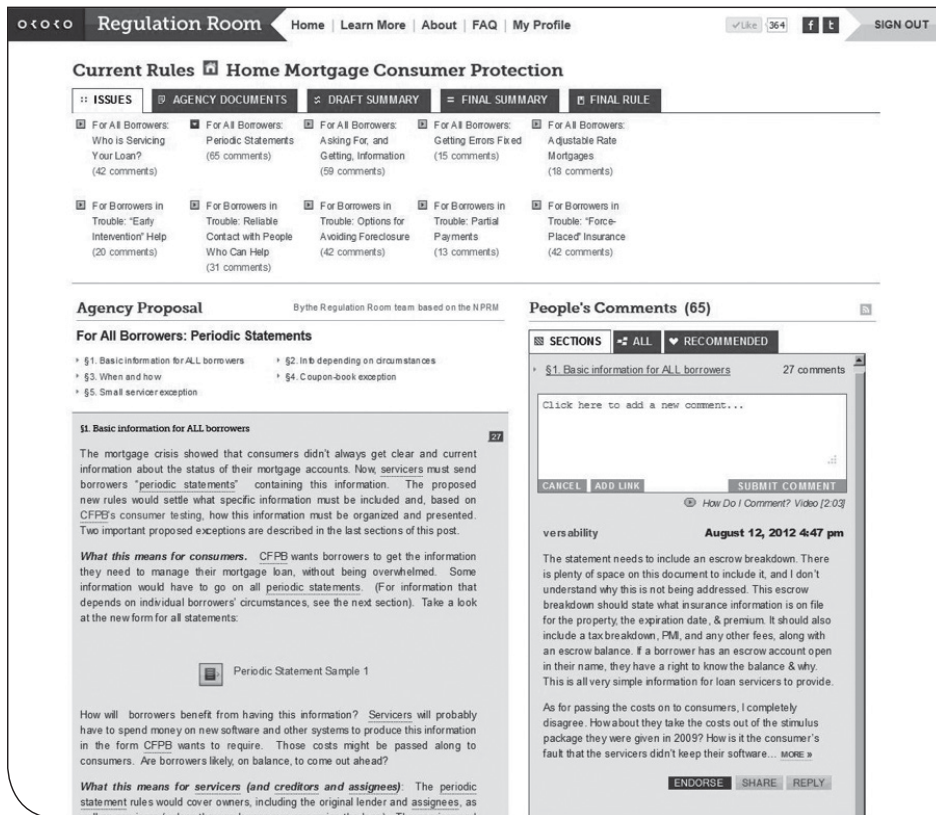


Figure 3b: Regulation Room Topic Post Page, with Text Section Selected by User



When unaffiliated experts are the targeted type of new rulemaking participants. The professional training and practice of experts often causes them to develop the skills for effective commenting. For this reason, giving them the option of voting on, rating, or ranking proposals, alternatives, or each other's comments might give the agency useful information about the range of expert views, with little risk of discouraging substantive comments that offer claim substantiation and reasoned argument.

As a first step that induces more participation. Psychologists have identified a strong human behavioral tendency to stick with an activity one has started (Atkinson and Birch, 1974). Many marketing strategies exploit this "action tendency" by asking consumers to make seemingly minor initial decisions that psychologically pave the way for larger commitments. Voting, rating, or ranking mechanisms, if very carefully implemented, might be used in this way. To illustrate, in a rulemaking that proposed possible new airline passenger protections, Regulation Room designers added a poll on the home page that used visually compelling icons to represent various topics being addressed in the rulemaking (see Figure 4).

The poll question (What matters to you?) was carefully worded not to suggest an outcome referendum. Selecting an icon recorded a vote but also offered a link to the topic post that explained the specific actions the agency was proposing in that area. Clicking an icon satisfied users' urge to quickly engage in some activity on the site, but also channeled them directly to the information and discussion that was most likely to elicit more meaningful participation.

To minimize repetitive commenting? A far more difficult question is whether to offer users a voting-like mechanism as an alternative to simply repeating what another commenter has said. Many agency rule makers have experienced the burdens imposed by duplicative commenting, but rulemaking participants are harmed by this as well. Keeping up with the discussion becomes tedious, and productive interaction decreases when users have to scroll through repetitive text to locate comments worth engaging (Rafaeli, Ravid, and Soroka, 2006). Hence, even though the number of people who agree with a comment may not be relevant information

Figure 4: Airline Passenger Rights Rule Home Page Poll

The screenshot shows the Cornell University Regulation Room website. The main content area features a poll titled "Passenger Rights - What Matters to You?". The poll results are as follows:

Topic	Percentage
Tarmac Delay	15%
Allergies	41%
Flight Status Info	11%
Customer Service	12%
Baggage Handling	14%
Bag & Food Fees	7%

The website also displays a "POST OF THE DAY" section titled "Tarmac Delay" and a "RECENT COMMENTS" section. The footer includes the Cornell e-Rulemaking Initiative CeRI and Legal Information Institute LII logos, along with links for Site Info, Privacy/Terms & Conditions, and Contact Us.

in the rulemaking, there is definitely value in giving participants some way to communicate their views without adding comment volume.¹³

For these reasons, Regulation Room is experimenting with allowing participants to “endorse” comments—explained as: “Endorse a comment that does a good job of making a good point.” (The blue endorse button is visible in the bottom right side box in Figure 3b.) Users must register to endorse, and no one can endorse a given comment more than once; both these conditions help control gaming. To further discourage such behavior, the total number of endorsements received by a comment is not publicly visible—although, based on research showing that appreciation by other users tends to increase participation (Brzozowski, Sandholm, and Hogg, 2009), commenters can see on their profile page the number of endorsements their own comments receive.

All these conditions, along with the non-standard terminology of “endorse,”¹⁴ reduce the risks associated with voting-like participation tools, but obviously some risk remains. We carefully monitor how participants actually use the tool. So far, participants have not used “endorse” at a rate that suggests they see it as a simple voting mechanism. Even more interesting is the pattern of use. About 25 percent of those who endorse a comment make no other contribution, suggesting that it does enable some people to participate without duplicating content. Another 25 percent subsequently make a different, substantive comment, suggesting that “endorse” can serve the “action tendency” function of motivating further participation. We believe these results justify continued experimentation to discover the relative risks and benefits of a carefully designed tool to minimize duplicative commenting.

Activity Four: Using Facilitative Moderation to Mentor Effective Commenting Practices

Imagine that an agency identifies one or more missing stakeholder groups likely to have useful situated knowledge about a proposed rule, and that it invites them to a meeting to discuss the proposal and give comments. The agency finds a suitable room and sets it up appropriately, perhaps with a series of round tables having pens and notepads at each place. It places in the room a set of written materials for each participant; these materials explain the proposed rule and give tips on effective commenting. Signs posted around the room indicate how long participants have to discuss the proposal and make comments. At the announced time, the doors are opened and all the participants enter the room. Then the doors are shut and no one from the agency (or working on its behalf) appears again until the end of the day, when discussion and commenting are supposed to have concluded.

Few agencies would even consider structuring a stakeholder engagement in this way. Yet, when the location of stakeholder engagement is an online virtual room, it is commonly assumed that the processes of commenting and discussion will run themselves. Remarkable as Web 2.0 technologies are, they cannot magically confer on a group of inexperienced commenters, who do not see or know one another, the ability to spontaneously engage in thoughtful, productive discussion. In the face-to-face meeting setting, agencies commonly use a trained facilitator to run stakeholder engagement meetings. Faced with a large group of physically present stakeholders, it seems obvious that much of the potential value of the engagement will be lost without the guidance and support of a skilled discussion leader. Online stakeholder engagement is no different.

13. Apart from the practical consideration that many users *will* engage in duplicative commenting if some alternative isn't available, online community research shows that users who actively participate in even a modest way report getting more benefit and satisfaction from their experience than those who merely read what others are saying. (Preece and Schneiderman 2009).

14. “Sign on” is another term that might be used, although it has the risky connection to petition signing as public participation.

A facilitative moderator can contribute in many ways to creating an environment of informed and thoughtful participation and to mentoring effective commenting behavior. Table 2 summarizes various roles the moderator can fill.

Moderation need not occur continuously; checking in on the discussion from time to time to review new comments is adequate as long as the intervals between comment and moderator response are not too long. And the goal need not be to take on every role described in Table 2, or to interact with every commenter. But even so, facilitative moderation is costly, and agencies may be tempted to try Rulemaking 2.0 without it.

What is likely to happen? It depends. In a rulemaking in which members of the general public are being asked to react to some new consumer-information device, or in which the targeted new participants are unaffiliated experts accustomed by education and practice to analytical

Table 2: Facilitative Moderation Roles and Related Interventions

Roles	Interventions
SUPERVISORY	
Social Functions	<ul style="list-style-type: none"> • Welcoming • Encouragement; appreciation of comment • Thanks for participating
Site Use Issues	<ul style="list-style-type: none"> • Resolving technical difficulties
Explaining the Role of Moderator	<ul style="list-style-type: none"> • Providing information about the goals/rules of moderation • Providing information about who we (CeRI) are
Policing	<ul style="list-style-type: none"> • Redact and quarantine • Civility policing • Wrong venue (redirecting user who wants to do something other than comment on the agency proposal, e.g., file a complaint)
SUBSTANTIVE	
Clarity	<ul style="list-style-type: none"> • Asking for clarification of comment
Wrong Information	<ul style="list-style-type: none"> • Correcting misunderstandings about the proposal or clarifying what the agency is looking for
Substantiation	<ul style="list-style-type: none"> • Pointing out characteristics of effective commenting • Asking for more information, factual details or data • Asking for examples of a personal experience • Providing substantive information about the proposed rule • Pointing the commenter to relevant information in primary documents or other data sources
Focusing Comment	<ul style="list-style-type: none"> • Getting an off-topic commenter to engage the issue post • Organizing discussion
Further Engagement	<ul style="list-style-type: none"> • Asking for more information, factual details, or data • Asking them to make or consider possible solutions/alternatives • Asking for elaboration • Stimulating discussion <ul style="list-style-type: none"> – Encouraging users to consider and engage comments of others – Posing a question or comment to the community – Developing a story or experience

reasoning and logical argumentation, valuable commenting will likely occur with little or no moderation. In most missing stakeholder contexts, however, facilitative moderation is what enables many participants to move beyond their first, often emotional or rhetorical reactions, to the sharing and discussion of relevant knowledge or experience.

The agency may still conclude that implementing *some* Rulemaking 2.0 strategies to get participation from missing stakeholders is better than nothing. We think this is a reasonable position so long as expectations about success are appropriately adjusted: A good rule of thumb is not to expect better results than would be anticipated from an unmoderated, in-the-room gathering of such stakeholders.¹⁵

Strategy Three: Making Substantive Rulemaking Information Accessible

A final barrier to effective commenting by rulemaking newcomers is information overload.

Rulemaking documents are long, complex, and technical for many reasons outside the agency's control. Various analyses required by statute and executive order, the demands of reviewing courts for explanation and justification, and the inherent difficulty of many regulatory problems all contribute to NPRMs and supporting documents that may run to hundreds of pages of dense text. Rulemaking documents have thus evolved to satisfy the information demands of the major actors who traditionally have taken part in the process. Unfortunately, this same evolution has made those documents utterly unsuited to the information needs of rulemaking newcomers.

For new participants to be able and willing to learn enough about the agency's proposal to make informed and useful comments, the rulemaking information must be radically shorter and simpler.¹⁶ Also, because online users tend to scan (rather than read) text and to rapidly pick some element to click on (rather than study the entire page before acting), the information must be presented in ways that help participants quickly grasp the topics covered by the rule *and* locate content on which they wish to comment.

These objectives can be accomplished through four information design techniques: triage, signposting, translation, and layering.

Activity One: Conducting Information Triage

As its medical origin suggests, information triage is the process of assessing the relative importance of material in the NPRM and other rulemaking documents, and identifying high-priority information. This assessment must be made from the perspective of the specific types of potential new participants being targeted in the specific rulemaking. The guiding question is: "What do these participants need to know to comment effectively on this rule?"

Triage should substantially reduce the amount of content initially presented to participants. (As explained below, the "layering" technique will make available all remaining rulemaking

15. If a series of related rulemakings were offered on a Rulemaking 2.0 platform, a group of user-commenters might emerge who develop effective commenting skills and can take on the tasks of mentoring newcomers. This has happened in notable Web 2.0 communities including Wikipedia and Slashdot. However, this sort of role differentiation among users takes considerable time to develop, and typically occurs within a complex, internal rule system that evolves to structure how users advance to more responsible roles and how mentoring is done (Bryant, Forte, and Bruckman, 2005). Hence, although the emergence of participant-mentors would greatly increase the sustainability of Rulemaking 2.0 efforts, this is not a short-term solution to the resource demands of moderation.

16. This may not be as important for unaffiliated expert commenters, at least in the materials directly pertaining to their areas of expertise.

Multiple Versions of the NPRM?

Because the techniques of information triage, signposting, translation, and layering create content for the Rulemaking 2.0 site that is differently worded and organized than the text of the NPRMs, agencies may be concerned about publicizing two “versions” of what they are proposing.

This report does not provide legal advice, but it should be noted that the Rulemaking 2.0 site is open to *all* prospective commenters (whether or not targeted participant types.) And it should be prominently mentioned in the NPRM and all other communications about the rulemaking so there can be no question of a “secret” version available to only some commenters.

The more likely objection is a claimed deviation between what is said in the NPRM as published in the Federal Register and what is said (or not said) on the Rulemaking 2.0 site. Even in conventional rulemaking, it is not unusual for commenters to identify an apparent inconsistency in the rulemaking documents, or to ask the agency to clarify an ambiguity. Agencies manage these problems now, and there is no obvious reason why claims of inconsistency or ambiguity cannot be similarly handled in the Rulemaking 2.0 setting. A cautious agency might ensure this by incorporating by reference in the NPRM all of the explanatory text it provides on the Rulemaking 2.0 site.

information, but in a form that does not overwhelm users.) The triage process on Regulation Room typically produces an information structure of six to 10 topic posts. These are thematic units—that is, each deals with a particular subject (or a set of related subjects) likely to make sense to the targeted new participants as a discussion category. Because the goal is to foreground substantive material that will engage these particular participants, the structure of the topic posts may differ from the way content is organized and discussed in the NPRM and supporting documents.

Information triage is an extension of the work initially done to decide whether the specific rule is a good opportunity for Rulemaking 2.0 efforts. The triage process may lead the agency to reconsider whether the information load (what the targeted types of participants need to know about the proposal in order to make useful comments) is prohibitively high. Recall the basic rule of information load: As the information load increases, the feasibility of successfully engaging new participants in effective commenting decreases. The result of triage may be narrowing the scope of the planned Rulemaking 2.0 engagement (e.g., focusing on engaging new participants on only some issues in the rule¹⁷) or deciding that this is not, after all, a good rule for Rulemaking 2.0 efforts.

Activity Two: Providing Signposts

Online users are not accustomed to studying large amounts of content before acting, and so participants benefit from cues that help them:

- Rapidly assess the scope of possible discussion
- Proceed quickly to the issues that interest them the most

Figure 3a (Regulation Room screenshot) illustrates how “signposting” can occur at multiple levels. The index of topic post titles is a set of links that enables participants to immediately get to what interests them most—while also informing them of other discussion topics. Within each topic post, content is divided into sections by subtopic. (This subdivision sets up

17. Remember that a decision to present only some issues in the rulemaking does not deny anyone their notice-and-comment rights, for the conventional opportunities to learn about the rule and comment on Regulations.gov will remain fully available.

the targeted commenting functionality.) Subtopic sections have a short descriptive title; these appear in an index at the beginning of the post. Within sections, users are encouraged to explore other content by cross-reference links that take them directly to the most relevant section of another topic post.

Activity Three: Translating Rulemaking Materials

The recommended readability level of materials intended for use by the public is the eighth-grade level (West, 2008). NPRMs typically have readability scores at the college or graduate school level. Actually achieving the eighth-grade-level target is probably unrealistic in this context. But rulemaking materials clearly require considerable translation to be accessible to potential new participants (except, perhaps, unaffiliated experts).

Translation is not just a matter of providing additional background or explanation. More fundamentally, it means abandoning the formal style of long, complex sentences liberally sprinkled with legal, regulatory, or other jargon. Presenting rulemaking newcomers with dense, convoluted, bureaucratic-sounding text undermines the message that government wants their participation. And it reinforces negative stereotypes about regulation and regulators. Especially on the Web, plain language efforts pay off.

Activity Four: Using Layering Techniques

Layering is the technique of using hyperlinks, glossaries, and other Web 2.0 functionality to structure information in a way that allows users, at their individual choice, to get deeper or broader information—or, conversely, to find more help than triage and translation has already provided. Through layering, all content in the NPRM and supporting documents can be made available on the Rulemaking 2.0 site. But that content is structured to give users control. Information is presented in a form less likely to overwhelm novices with too much detail, or to distract more knowledgeable participants with a lot of basic explanations.

As an illustration of how layering can be implemented, Regulation Room topic post subsections often end with a link to the NPRM or supporting analyses (e.g., “Read what [the agency] said”) and to the rule (“Read the text of the proposed rule.”). Creating an HTML version of these primary documents allows a link directly to the relevant section. References to statutes, other regulations, research studies, etc. are linked to those documents; references to government or private entities are linked to the most relevant section of their websites. For users needing additional help, a mouse-over glossary defines acronyms and terms that might be unfamiliar. Also, links may give users access to separate pages on the site that offer brief explanations of regulatory background or other relevant topics.

A Final Note on Making Information Accessible

After all the work required to prepare the NPRM and supporting analyses, expecting agencies to use these four information design techniques to create a different version of the same information may seem unreasonable. However, providing manageable, comprehensible, non-intimidating information about the proposed rule is a crucial aspect of resetting participation expectations. If the only explanatory material offered to potential new commenters are documents no one could seriously expect ordinary people to read, then the agency should not be surprised if their comments are little more than voting and venting.

When government solicits public participation, it must be prepared to provide the support people need to participate meaningfully. This is the core commitment required of agencies by Rulemaking 2.0.

Recommendations

Understanding and Getting Broader and Better Rulemaking Participation

The report has argued that Rulemaking 2.0 efforts can indeed bring new voices and useful new perspectives into the rulemaking process. However, to get broader, better public participation by using social media and other Web 2.0 technologies, agencies must make a significant investment in identifying the best rulemaking opportunities and then putting together appropriate elements of communication, website design, ongoing user support, and informational content. Based on experience with DOT and CFBP rulemakings in the Regulation Room project, this report makes the following specific recommendations for how agencies can do this.

Recommendation One: Agencies should understand the three barriers that currently prevent effective commenting by a broader range of stakeholders and members of the public *before* trying to use Rulemaking 2.0 technologies and techniques to increase participation.

The three barriers are:

- Lack of awareness that rulemakings in which they have a stake are being proposed
- Low participation literacy that prevents new participants from knowing how to comment effectively
- Information overload caused by the length and complexity of rulemaking materials

Recommendation Two: Agencies should maximize their Rulemaking 2.0 investment by focusing on rulemakings in which (a) new participants are likely to have useful information and (b) it is feasible to provide the participation support necessary to elicit this information from them.

Agencies should:

- Determine whether a specific rulemaking involves a significant group (or groups) of missing stakeholders with relevant situated knowledge, for this is a good predictor of value from a Rulemaking 2.0 investment.
- Consider whether the rulemaking involves issues on which comment by experts not affiliated with an interested party would be useful, for the likely value of such new participation justifies efforts to elicit it.
- Use Rulemaking 2.0 efforts to actively solicit participation by members of the general public *only* if the agency can be reasonably confident that such participation will generate information rule makers will actually use.
- Don't expect new participation tools to change the behavior of sophisticated commenters unless the agency is prepared to create powerful incentives for them to use these tools.

Recommendation Three: Before committing to Rulemaking 2.0 efforts in a specific rulemaking, agencies should assess how high the information load of effective participation will be for the type(s) of new participants desired, because the feasibility of obtaining useful new participation decreases as information load increases.

Agencies should consider the possibility of using Rulemaking 2.0 tools and techniques selectively—that is, of targeting only certain types of potential new participants or only certain issues in the rulemaking.

Recommendation Four: Agencies should recognize that raising awareness among missing stakeholders and other types of potential new participants will require new outreach strategies, in addition to what the agency traditionally does for its rulemakings.

Thus, agencies should:

- Develop a communications plan specifically tailored to the rule and to the types of missing stakeholders or other potential new participants the agency is trying to engage.
- Not underestimate the power of conventional media or overestimate the ease or likely impact of using social media.
- In outreach messages, give information about participation as much emphasis as information about substance, emphasizing that the agency wants their participation and will take it into account.
- To motivate action, be clear and specific about how the proposed rule would affect the targeted participants, positively or negatively.
- When asking organizations to pass on the participation message to members or followers, recognize that they may need persuasion about why such individual participation will not hurt organizational interests.

Recommendation Five: Agencies should help rulemaking newcomers learn the skills of effective commenting.

Agencies should undertake the following activities:

- Provide readily accessible, user-friendly educational materials about rulemaking and effective commenting—but recognize that many will not use these materials.
- Design the Rulemaking 2.0 environment to signal clearly the expectation that all participants will learn about the proposed rule and make it the focus of their comments. Consider using a targeted commenting structure that encourages users to attach their comments to specific sections of the text explaining the agency's proposal.
- Avoid tools that allow participants to vote on, rate, or rank either the agency proposal or comments of other participants. Provide such tools only when the anticipated benefits of their use can be predicted to outweigh the risks of reinforcing “drive-through participation” behaviors.
- To the extent possible, provide facilitative moderation to mentor new participants in effective commenting.

Recommendation Six: Agencies should recognize that rulemaking documents as now written are utterly ineffective in informing most potential new participants about the agency's proposal, and commit to creating shorter, simpler explanations suited to the online environment.

As a consequence, agencies should:

- Distill from rulemaking materials the information that potential new participants must understand to make meaningful comments (information triage).

- Provide cues that help users quickly locate the topics and issues that interest them most (signposting).
- Make content user-friendly by pruning unnecessary words and simplifying sentence structure and vocabulary (translation).
- Use linking and other Web 2.0 functionality to provide information in a way that allows individual participants to choose the level of detail they want or need (information layering).

Building a New Culture of Rulemaking Participation—From Inside the Agency Out

This report has explained why Rulemaking 2.0 efforts must be directed at changing the participation expectations of rulemaking newcomers, but public commenters are not the only actors whose expectations and behaviors must change if Rulemaking 2.0 is to succeed. Whether Web 2.0 precipitates a new culture of broader rulemaking participation depends far less on technology than on the attitudes and actions of rulemaking agencies.

Recommendation Seven: Agency leadership should commit to a pilot Rulemaking 2.0 project over the course of several carefully selected rulemakings. This commitment should provide for the additional time and effort that will be demanded of the rulemaking team and agency communications professionals, and should include some advance agreement about how success will be defined.

Rulemaking 2.0 is very much a work in progress. In our view, it is still an open question whether the time and effort required to achieve meaningful new participation represent the best investment the agency can make in improving its rulemaking processes. This question won't be answered by the outcomes in one or two rulemakings.

A fair test requires committing the resources to reach out to and adequately support new rulemaking participants in a series of rulemakings. In assessing success, quantitative metrics (e.g., number of visits, registered users, or comments) will tell only part of the story. More important, and far more difficult to measure, is the quality of what new participants bring to the rulemaking. This assessment rests primarily with the rulemaking team, the subject of the next recommendation.

Recommendation Eight: Agency leadership should make every effort to create active support among the rulemaking team for using Rulemaking 2.0 in the particular rulemaking.

We repeatedly encounter members of rulemaking teams who are highly skeptical of (if not openly hostile to) Rulemaking 2.0. They associate more public participation—and, in particular, more online participation—with mass e-mail campaigns and similar high-volume/low-value comments. Rule writers have had to manage this material, along with all the other information generated in the rulemaking, often under time pressure and almost always without additional resources. They have little reason to expect net value from new participation initiatives.

Although quite understandable, resistance by rulemaking team members is likely to be fatal to Rulemaking 2.0 efforts if it cannot be overcome. These people will have a central role in shaping the communication outreach plan and preparing the online substantive content. Even more crucial is their role in reading and evaluating the comments made on the site, the subject of the next recommendation.

Recommendation Nine: Rulemaking team members should be educated about how and why the online comments of rulemaking newcomers will likely sound very different than the formal written comments of experienced commenters. They should be encouraged to intentionally practice active listening and open-mindedness when assessing the usefulness of new participants' comments.

The comments of rulemaking newcomers on a Rulemaking 2.0 site will not sound like the comments rule makers are accustomed to get from experienced, sophisticated commenters. In part, this is because writing on the web is characteristically informal: more personal, more emotive, and more stream-of-consciousness. More fundamentally, rulemaking newcomers sound different from sophisticated commenters because they are different from sophisticated commenters. With the possible exception of unaffiliated experts, new participants will not be practiced in making formal technical, legal, or regulatory policy arguments. They will not have the vocabulary, the history, or the context. They are, in a real sense, outsiders to the rulemaking process—and even the most supportive Rulemaking 2.0 site cannot transform them into insiders.

In our experience, rulemaking newcomers (especially missing stakeholders) often use personal narrative: they tell stories that communicate both what they know and how (or why) they know it. Like most stories, these comment-narratives have a message, or make a point. But this is rarely spelled out as an objectively framed conclusion, preceded by “therefore” or a similar signal.

For all these reasons, reading the comments of rulemaking newcomers to extract their value calls for both a particular attentional orientation—active listening—and a particular mental state—an open mind. Although these qualities are desirable in reading all comments, they are essential in adjusting to the nonstandard style and form of many newcomer comments. Resentment about the burdens, or skepticism about the value, of new public participation is incompatible with active listening and open-mindedness—and is therefore likely to be a self-fulfilling prophecy: Rule makers who don't expect to learn much probably won't. And their qualitative assessment of the success of the Rulemaking 2.0 venture will be correspondingly negative.

Recommendation Ten: In the preamble to the final rule, the agency should make particular efforts to acknowledge and address the comments of rulemaking newcomers.

Just as outreach messages must expressly assure potential new participants that the agency wants their comments and will consider them (Recommendation Four), so the outcome must clearly demonstrate that this has happened. Specifically calling out new commenters' views and concerns throughout the preamble is proof that government listened even if it didn't always do what they wanted it to. This powerful reinforcement of participatory behavior is the first step in training new rulemaking participants to do what sophisticated commenters already do: pay attention and engage when future proposed rules affect their interests.

Recommendation Eleven: Agency lawyers should commit to becoming advocates of Rulemaking 2.0 within and, if necessary, outside of the agency.

Rulemaking is a high-stakes venture for agencies. Judicial reversals or remands can tax scarce resources, delay needed regulatory responses, provoke political criticism, and cause embarrassment. It is therefore very understandable that government lawyers tend to be very risk-averse to any significant change in the process. Still, there is no informed and realistic case to be made that missing stakeholders and other potential rulemaking newcomers can participate effectively in the process as it currently stands. Unless the agency takes action proactively to lower the barriers that cause participation inequities, those inequities will remain.

The challenge for agency lawyers is to become informed, responsible advocates of Rulemaking 2.0. This advocacy could involve identifying, and seeking action on, obstacles that can be overcome within the agency itself (e.g., changes in internal policies or procedures) or by entities such as the Office of Management and Budget or the Office of Information and Regulatory Affairs. It could involve action within good-government organizations such as the Administrative Conference of the United States or the Administrative Law Section of the ABA. It could even involve preparing a litigation strategy if the agency's Rulemaking 2.0 efforts are attacked as part of a challenge to a new rule.

In our experience, agency lawyers can be powerful champions for Rulemaking 2.0—or they can be powerful stumbling blocks. These are not easy times to be a visionary within government. But especially those who believe in the potential of regulation to advance the public interest should recognize the value of citizens who understand what regulators are trying to do and contribute relevant knowledge to the regulatory enterprise. Rulemaking 2.0 might or might not ultimately succeed, but it deserves the chance to prove its value.

References

- Atkinson, J. W., and Birch, D. (1974). The dynamics of achievement-oriented activity. In J. W. Atkinson and J. O. Raynor (Eds.), *Motivation and Achievement* (pp. 271–325). Washington, D.C.: Winston.
- Balla, S. J. and Daniels, B. M. (2007). Information technology and public commenting on agency regulations. *Regulation & Governance*, 1(1), 46–67.
- Barabas, J. (2004). How deliberation affects policy opinions. *American Political Science Review*, 98(4), 687–701.
- Bryant, S. L., Forte, A., and Bruckman, A. (2005). Becoming Wikipedian: transformation of participation in a collaborative online encyclopedia. In *Proceedings of the 2005 International ACM SIGGROUP Conference on Supporting Group work* (GROUP '05). New York, NY: ACM, 11–20.
- Brzozowski, M. J., Sandholm, T., and Hogg, T. (2009). Effects of feedback and peer pressure on contributions to enterprise social media. In *Proceedings of the ACM 2009 international conference on Supporting group work* (GROUP '09). ACM, New York, NY, 61–70.
- Coglianesi, C. (2006). Citizen participation in rulemaking: Past, present, and future. *Duke Law Journal*, 55(5), 943–968.
- Denver, D., Hands, G., and Jones, B. (1995). Fishkin and the deliberative opinion poll: Lessons from a study of the Granada 500 television programme. *Political Communication*, 12(2), 147–156.
- Farina, C.R., Epstein, E., Heidt, J., and Newhart, M.J. (2012). Knowledge in the people: Rethinking “value” in public rulemaking participation. *Wake Forest Law Review*, 47(5), 1185–1241.
- Farina, C. R., Newhart, M. J., and Heidt, J. (2013). Rulemaking vs. democracy: Judging and nudging public participation that counts. *Michigan Journal of Environmental & Administrative Law*, 2(1), 123–172.
- Field, A. B., and Robb, K. E.B. (1990). EPA rulemakings: Views from inside and outside. *Natural Resources and Environment*, 5(1), 9–13, 50–53.
- Fishkin, J. S. (2009). *When the people speak: Deliberative democracy and public consultation*. Oxford: Oxford University Press.

Gastil, J., and Dillard, J.P. (1999). Increasing political sophistication through public deliberation. *Political Communication*, 16(1), 3–23.

Hoffman, M. E. (2012). *The political economy of TARP: A public opinion approach* (working paper). Retrieved from http://papers.ssrn.com/sol3/papers.cfm?abstract_id=1998384.

Kahneman, D., and Tversky, A. (1984). Choices, values, and frames. *American Psychologist*, 39(4), 341–351.

Kerwin, C. M. (2003). *Rulemaking: How government agencies write laws and make policy* (3rd ed.). Washington, D.C.: CQ Press.

Kuklinski, J. H., Quirk, P. J., Jerit, J., Schwieder, D., and Rich, R. F. (2000). Misinformation and the currency of democratic citizenship. *The Journal of Politics*, 62(3), 790–816.

Lampe, C., Wash, R., Velasquez, A. and Ozkaya, E. (2010). Motivations to participate in online communities. In *Proceedings of the SIGCHI Conference on Human Factors in Computing Systems* (CHI '10). ACM, New York, NY, 1927–1936.

Lampe, C., and Resnick, P. (2004). Slash(dot) and burn: Distributed moderation in a large online conversation space. In *Proceedings of the SIGCHI Conference on Human Factors in Computing Systems* (CHI '04). ACM, New York: NY, 543–550.

Mendelson, N. A. (2011). Rulemaking, democracy, and torrents of e-mail. *George Washington Law Review*, 79(5), 1343–1380.

Muhlberger, P. and Weber, L.M. (2006). Lessons from the Virtual Agora Project: The effects of agency, identity, information, and deliberation on political knowledge. *Journal of Public Deliberation*, 2(1).

Nielsen, J. (1997). How users read on the web. *Alertbox Newsletter*. Retrieved from <http://www.nngroup.com/articles/how-users-read-on-the-web/>.

Nielsen, J. (2006). Participation inequality: Encouraging more users to contribute. *Alertbox Newsletter*. Retrieved from <http://www.nngroup.com/articles/participation-inequality/>.

Pingdom (2013). Internet 2012 in numbers. Retrieved from <http://royal.pingdom.com/2013/01/16/internet-2012-in-numbers/>.

Preece, J. and Shneiderman, B. (2009). The reader-to-leader framework: Motivating technology-mediated social participation. *AIS Transactions on Human-Computer Interaction*, 1(1), 13–32.

Pring, C. (2012A, January 11). 100 social media statistics for 2012. Retrieved from <http://thesocialskinny.com/100-social-media-statistics-for-2012/>.

Pring, C. (2012B, February 13). 100 more social media statistics for 2012. Retrieved from <http://thesocialskinny.com/100-more-social-media-statistics-for-2012/>.

Sheizaf, R., Ravid, G. and Soroka, V. (2006). Invisible participants: How cultural capital elates to lurking behavior. In *Proceedings of the 15th international conference on World Wide Web* (WWW '06). New York, NY: ACM, 163–172.

Shulman, S. W. (2009). The case against mass e-mails: Perverse incentives and low quality public participation in U.S. federal rulemaking. *Policy and Internet*, 1(1), 22–52.

Wagner, W. E. (2010). Administrative law, filter failure, and information capture. *Duke Law Journal*, 59 (7), 1321–1432.

West, D. (2008). State and federal electronic government in the United States, 2008. Retrieved from <http://hdl.handle.net/123456789/963>.

Yackee, J. W., and Yackee, S. W. (2006). A bias towards business? Assessing interest group influence on the U.S. bureaucracy. *The Journal of Politics*, 68(1), 128–139.

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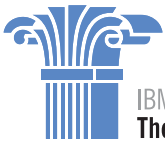
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