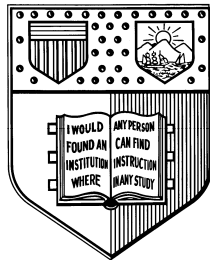# CORNELL LAW SCHOOL

LEGAL STUDIES RESEARCH PAPER SERIES

Rulemaking in 140 Characters or Less: Social Networking and Public Participation in Rulemaking

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Rulemaking in 140 Characters or Less:
Social Networking and Public Participation in Rulemaking[1]

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ABSTRACT

Rulemaking – the process by which administrative agencies make new regulations -- has long been a target for e-government efforts.   The process is now one of the most important ways the federal government makes public policy. Moreover, transparency and participation rights are already part of its legal structure. The first generation of federal e-rulemaking involved putting the conventional process online by creating an e-docket of rulemaking materials and allowing online submission of public comments.   Now the Obama Administration is urging agencies to embark on the second generation of technology-assisted rulemaking, by bringing social media into the process.

In this article we describe the initial results of a pilot Rulemaking 2.0 system, Regulation Room, with particular emphasis on its social networking and other Web 2.0 elements. (A companion article, <u>Rulemaking 2.0</u>, gives a more general overview of the project and is forthcoming in Miami Law Review). Web 2.0 technologies and methods seem well suited to overcoming one of the principal barriers to broader, better public participation in rulemaking: unawareness that a rulemaking of interest is going on. We talk here about the successes and obstacles to social-media based outreach in the first two rulemakings offered on Regulation Room. Our experience confirms the power of viral information spreading on the Web, but also warns that outcomes can be shaped by circumstances difficult, if not impossible, for the outreach effort to control.

There are two additional substantial barriers to broader, better public participation in rulemaking: ignorance of the rulemaking process, and the information overload of voluminous and complex rulemaking materials. Social media are less obviously suited to lowering these barriers. We describe here the design elements and human intervention strategies being used in Regulation Room, with some success, to overcome process ignorance and information overload. However, it is important to recognize that the paradigmatic Web 2.0 user experience involves behaviors fundamentally at odds with the goals of such strategies. One of these is the ubiquitousness of voting (through rating, ranking, and recommending) as "participation" online. Another is what Web guru Jacok Neilsen calls the ruthlessness of users in moving rapidly through web sites, skimming rather than carefully reading content

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[1] For those not among the Twitterati, 140 characters (with spaces) is the maximum allowable length of "tweets." This text has 140 characters.

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[6] In addition to the authors, the following CeRI researchers and affiliates are involved in the project described here: Claire Cardie & Dan Cosley (Computing and Information Science); Tom Bruce & Sara Frug (Legal Information Institute); Austin Eustice (lead designer); Sally Klingel (Scheinman Institute for Conflict Resolution); and Eddie Tejeda, (lead technology strategist). The complete list of current CeRI researchers and students can be found at http://regulationroom.org/whos-who/.
   The ideas and opinions expressed in this article are those of the CeRI research team and should not be attributed to the Department of Transportation, or any of its officials or employees.

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and impatiently seeking something to do quickly before they move on. Neither of these behaviors well serves those who would participate effectively in rulemaking. For this reason, Rulemaking 2.0 systems must be consciously engaged in culture creation, a challenging undertaking that requires simultaneously using, and fighting, the methods and expectations of the Web.

Web 2.0 technologies have created extraordinary opportunities for forms of social interaction that are unprecedented in their nature, scope, and immediacy. Novel human behaviors in turn create new challenges for the ordering schemes of public and private law. The other papers in this Symposium join a growing body of commentary that debates how to adapt the regimes of tort, contract, intellectual property, criminal, and constitutional law to the protean environment of the Web, and the social networks it supports. We share this interest in what happens when a legal system that values structure and stability at least as much as adaptability engages a medium that enables rapid, unpredictable, large scale change. Our focus, however, is somewhat different than the other papers. We are concerned with the implications of social media-enabled behaviors for the process, rather than the substance, of law—in particular, the process of federal agency rulemaking. Of course, process affects substance in many subtle, and not so subtle, ways and this is certainly true of rulemaking. Still, our primary interest here is the interplay of the notice-and-comment process, as conventionally structured, and the expectations and dynamics of Web 2.0-enabled public participation.

Rulemaking is the stealth engine of contemporary federal policy making. Its impact on individual and collective well-being is immense.[7] Congress passes the statutes that launch the federal government into restructuring the provision of health care or reforming the financial system, but the working content of those programs will be defined by agencies with a statutory mandate to write the implementing regulations. These recent national policy initiatives have focused public attention on the extent to which agencies share in the federal lawmaking power, but broad statutory delegations are not new.[8] More than a century of regulatory legislation—about the environment, workplace and consumer safety, energy, communications, food and drug standards, transportation, and social services—has created a legal regime in which administrative policymaking dwarfs that of Congress in quantity and rivals it in impact. Agencies pursue their regulatory missions through a range of processes, but rulemaking is the most significant.

Rulemaking is a civic paradox. It frequently has substantial direct effects on individuals, corporations, state and local governments, and non-governmental organizations (NGOs).[9] Yet few citizens and groups

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[7] *See* CORNELIUS KERWIN, RULEMAKING: HOW GOVERNMENT AGENCIES WRITE LAWS AND MAKE POLICY (3d ed. 2003).

[8] *See, e.g.*, *Government agencies will decide on the details of financial reform*, USA TODAY, June 27, 2010, http://www.usatoday.com/money/companies/regulation/2010-06-25-implementing-details_N.htm. We use the phrase "federal *lawmaking* power" advisedly. Although formalist constitutional interpretation refuses to categorize delegated agency power as "legislative," *see, e.g.* Whitman v. American Trucking Associations, Inc., 531 U.S. 457, 472–73 (2001), a bedrock administrative law principle is that properly promulgated regulations within the scope of the agency's statutory authority have the force of law. Although we acknowledge the importance of structural constitutional debates on the point, they seem to be the only place that blinks at the reality of agencies as federal lawmakers.

[9] For example, the recent rulemaking by the National Highway Transportation Safety Commission on banning texting while driving by commercial motor vehicle operators, Limiting the Use of Wireless Communication Devices, 75 Fed. Reg. 16391 (proposed Apr. 1, 2010) (to be codified at 49 C.F.R. pts. 383, 384, 390, 390, & 392), involves new conduct prohibitions that will affect 8 million individual truckers, more than 300,000 small businesses (the majority of trucking companies affected by the rulemaking), and the state and local governments of all 50 states, who are required to enforce new texting ban rules in order to keep federal highway money. Then of course there are the drivers, passengers, pedestrians and bicyclists whose safety would, presumably, be improved.

know about it, and even fewer understand how it works. Its formal legal structure is an open government ideal, with broader transparency requirements and public participation rights than any other form of federal decisionmaking. Yet only a limited range of stakeholders take advantage of their right to review the information on which the agency is making its decision, and effectively exercise their right to comment on the merit of the agency's proposal.[10]

This gap between social importance and formal structure on the one hand and civic awareness and actual operation on the other, has made rulemaking a prime target for e-government efforts. Proponents of e-rulemaking have hoped that the Internet could make the process more accessible and, so, more broadly participatory,[11] and the E-Government Act of 2002 directed rulemaking agencies to move essential elements of the process onto the Web.[12]   The result was the creation of a government-wide rulemaking portal, Regulations.gov, where users can find rulemaking materials and submit their comments.[13] This "first generation" of federal e-rulemaking essentially put the conventional rulemaking process online.[14] The materials agencies previously kept in paper form—in dockets in agency records rooms and public reading rooms—are now available online in electronic rulemaking dockets (e-dockets). The traditional methods of submitting comments—delivering a hard copy or sending a fax—are now supplemented by online comment submission. These have been useful first steps, but they have not significantly changed the scope of civic awareness of, or engagement in, rulemaking.[15]

Enter Web 2.0, and the Obama Administration's determination to use social media and other online technologies to make government more "transparent," "participatory," and "collaborative."[16] Agencies were directed to devise "open government plans" that include specific proposals for innovative uses of technology to inform and engage the public.[17]   Not surprisingly, given rulemaking's centrality to contemporary federal government policymaking, there has been considerable emphasis on taking the next steps in technology-supported rulemaking, a development we call "Rulemaking 2.0."

What Web 2.0 applications and methods can bring to rulemaking is still, to put it mildly, uncertain. Here, we offer thoughts on two dimensions of Rulemaking 2.0:

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[10] A large literature documents that the notice-and-comment process tends to be dominated by a limited range of mostly corporate participants. *E.g.*, KERWIN, *supra* note 7, at 182–84 (inter alia, collecting literature); Cary Coglianese, *Citizen Participation in Rulemaking: Past, Present, and Future*, 55 DUKE L.J. 943 (2006); Steven J. Balla & Benjamin M. Daniels, *Information Technology and Public Commenting on Agency Regulations*, 1 REG. & GOVERNANCE 46 (2007); Jason Webb Yackee and Susan Webb Yackee, *A Bias toward Business? Assessing Interest Group Influence on the Bureaucracy*, 68 J. OF POLITICS 128 (2006).

[11] *E.g.*, Beth Simone Noveck, *The Future of Citizen Participation in the Electronic State*, 1 INFO. SCI. 1 (2005). Comprehensive discussion of what technology might bring to rulemaking can be found in Cary Coglianese, *E-Rulemaking: Information Technology and Regulatory Policy*, REGULATORY POLICY PROGRAM REPORT NO. RPP-05, at   15–18,   51–58   (2004),   *available   at*   http://www.hks.harvard.edu/m-cbg/rpp/erulemaking/papers_reports/E_Rulemaking_Report2004.pdf, and Committee on the Status & Future of Federal e-Rulemaking, *Achieving the Potential: The Future of Federal e-Rulemaking*, 21–22 (Cynthia R. Farina, Reporter, 2008), *available at* http://ceri.law.cornell.edu/erm-comm.php (hereinafter "*Achieving the Potential*").

[12] E-Government Act of 2002, 44 U.S.C. § 3601 et. seq. The Act required agencies to accept comments "by electronic means" and to make available online "public submissions and other materials" included in the official rulemaking docket.

[13]   The history and development of Regulations.gov are recounted in *Achieving the Potential*, supra note 10.

[14] *See* JEFFREY LUBBERS, A GUIDE TO FEDERAL AGENCY RULEMAKING 217–39 (4th ed. 2006) (giving details of online system).

[15] *See* Coglianese, *supra* note 10; Balla & Danielse, *supra* note 10.

[16] Barack Obama, Memorandum for the Heads of Executive Departments and Agencies: Transparency and Open Government (Jan. 21, 2009), http://www.whitehouse.gov/the_press_office/TransparencyandOpenGovernment/.

[17] Peter R. Orszag, , Memorandum for the Heads of Executive Departments and Agencies: Open Government Directive (Dec.8, 2009), http://www.whitehouse.gov/omb/assets/memoranda_2010/m10-06.pdf .

(1) the use of social networking services and other social media to alert and engage stakeholders, and members of the general public, who would not otherwise know about rulemakings of interest; and

(2) when such outreach is successful, the opportunities and challenges of building online discussion communities able to support effective rulemaking participation.

We discuss these in a context of early results from a specific Rulemaking 2.0 system, Regulation Room.[18] This project, the core of which is an experimental online public participation platform, is a collaboration between the Cornell eRulemaking Initiative (CeRI) and the Department of Transportation (DOT). CeRI is a cross-disciplinary group of faculty and students at a private research university,[19] while DOT is one of the largest federal rulemaking entities. DOT chose Regulation Room as its "flagship initiative" under the Open Government Directive.[20] For its involvement in Regulation Room, DOT received one of six Leading Practices awards given by the White House after a review of projects across the federal government,[21] and, most recently, was named one of the 2010 Government Innovators by InformationWeek.[22]

I. Overview of the Regulation Room Project

Regulation Room is a website that uses selected "live" DOT rulemakings to experiment with the most effective forms of human and computer support for broader, better civic engagement in rulemaking. DOT is actively involved in selecting the rules offered on the site, and promoting public use of the site, but Regulation Room is not affiliated with the federal government. The site is conceived and operated by CeRI researchers from computing and information science, communications, conflict resolution, law, and psychology; CeRI is solely responsible for its substantive content and research strategies. The team works closely with design and programming professionals[23] who are interested in the research aspects of the project. Regulation Room is hosted by the Legal Information Institute (LII),[24] which also provides technical support and experience in legal informatics.[25] We attempt to fund the project through grants to the extent possible[26] (although DOT provided partial funding for the most recent rulemaking), from a variety of sources, including grants from the National Science Foundation and Google. Details about the origin, operation and technology of the site, and about the nature of the DOT-CeRI collaboration, are available elsewhere.[27] Here we provide a brief overview.

The Regulation Room project proceeds from the premise that a successful Rulemaking 2.0 system must attempt to lower three substantial barriers to broader, better public participation in rulemaking:

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[18] http://regulationroom.org/

[19] http://ceri.law.cornell.edu/

[20] Department of Transportation Open Government Plan, Ch. 4 (2010), http://www.dot.gov/open/plan/op-ch4.html.

[21] *Id.*

[22] Information Week 500: Government Innovators identified projects in which "federal, state, and local agencies demonstrate that they, too, can apply IT in critical and novel ways." http://www.informationweek.com/news/galleries/government/leadership/showArticle.jhtml?articleID=227300277&pgno=5&isPrev=

[23] Eddie A. Tejeda, Chief Technologist, creator of the Digress-It application discussed below. See http://eddietejeda.com/; Austin Eustice, Lead Designer, http://www.austineustice.com/.

[24] http://www.law.cornell.edu/

[25] Sara Frug, Wayne Weibel and LII Director Thomas Bruce.

[26] Thus far, grant support has come from the National Science Foundation and the Google Faculty Research Award Program.

[27] *See* Cynthia R. Farina, Mary J. Newhart, Claire Cardie & Dan Cosley, *Rulemaking 2.0, Symposium on the Administrative State*, 65 U. MIAMI L. REV. No. 2 (January 2011).

1) *Ignorance* about the rulemaking process;
(2) *Unawareness* that rulemakings of interest are going on; and
(3) *Information Overload* from the length, and linguistic and cognitive density, of rulemaking materials. [28]

Regulation Room uses a combination of human and technology strategies to address each of these barriers. In Fall 2009, the site had a limited public beta test.[29] From March to September 2010, two live DOT rulemakings were offered on the site: a proposed ban on texting while driving by commercial motor vehicle operators[30] (the "texting rule") and a proposed extension of airline passenger rights in areas such as bumping, tarmac delay, and fee advertising [31] (the "APR rule"). Site design and functionality, as well as operating protocols,[32] have already evolved considerably in the first year of the project. We expect this pattern to continue, as we learn how better to motivate and support broad-scale online public engagement in complex government policymaking like the drafting of new federal regulations. We discuss some of the planned changes for Version 4 at various points in this article.

To address the barrier of information overload, the website presents the major topics of the proposed rule in the form of "Issue Posts" on which users can comment. The content of these posts is drawn from the agency's official announcement of the rulemaking: the Notice of Proposed Rulemaking (NPRM). A team of Regulation Room students and faculty "translates" the relevant NPRM section on each issue into a plain English summary of what the agency is proposing to do, and why. The result is a set of posts that reduce a 20–40 page single-spaced Federal Register document, written at a college or graduate school readability level, to a length and complexity that most users are able to manage. (Whether they are *willing* to manage the information load is a separate question.[33]) A new application, Digress-It, allows targeted commenting—that is, users can attach comments to specific segments of the Issue Post. Threaded commenting (which allows users to reply directly to others' comments in a visually connected stream) facilitates dialogic, rather than merely parallel independent, commenting.

The discussion is actively moderated by students trained in law and in group facilitation techniques, supervised by senior researchers. The moderators police inappropriate content and help with site use questions but, far more important, they help lower the barriers of both information overload and ignorance of the rulemaking process by mentoring effective commenting. They point users to relevant information, prompt them to provide more details, facts, etc., and encourage them to react to different positions. To directly address lack of knowledge about rulemaking, the site offers educational materials about the process itself and about effective commenting, which users can consult on their own and to which moderators will sometimes direct them. In the most recent rulemaking, moderators responded to one out of every 4.5 user comments.

DOT has taken the position that it does not want all the online comments, in their raw form, submitted to the rulemaking record. Rather, it wants a summary of the discussion. Therefore, roughly two weeks before the end of the official comment period, the Regulation Room team produces a Draft Summary. In a form of crowdsourcing, the Draft is posted on the site and registered users are emailed in invitation to review it and suggest revisions. In both the texting and APR rules, this has produced a small but helpful

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[28]   For more extended discussion of why we consider these the principal barriers to participation, see *id.*
[29]   The version of the site used in the beta is available at http://www.federalregister.gov/articles/2010/09/27/2010-23861/limiting-the-use-of-wireless-communication-devices.
[30] Limiting the Use of Wireless Communication Devices, 75 Fed. Reg. 16391 (proposed Apr. 1, 2010) (to be codified at 49 C.F.R. pts. 383, 384, 390, 390, & 392). The Regulation Room presentation of the rule can be found at http://regulationroom.org/texting/.
[31] Enhancing Airline Passenger Protections, 75 Fed. Reg. 32318 (proposed June 8, 2010). The Regulation Room presentation of the rule can be found at http://regulationroom.org/airline-passenger-rights/.
[32]   Current protocols include writing issue posts, communications outreach, moderation, and summarizing.
[33]   *See infra* Part C.3.

set of comments that improved the Final Summary.[34] The team reviews the suggestions and produces a final Summary of Discussion, which is posted on the Regulation Room site and submitted to DOT, via Regulations.gov, as an official public comment in the rulemaking. As we discuss more below,[35] agencies are required by law to provide an explanation of their reasoning with the rule ultimately adopted. Since this explanation must include review of and response to comments received, the Summary of Discussion should assist rulewriters in accurately assessing and taking account of the content of large quantities of online discussion. A key aspect of the computing and information science research in the project is finding ways for technology to support summarizing hundreds, or thousands, of online comments.

To lower the barrier of unawareness, a major component of the project (not directly visible on the website) is an outreach campaign tailored to each rulemaking. Section B describes the combination of conventional and social media strategies used in the texting and APR rulemakings to alert members of stakeholder groups and invite them to participate through Regulation Room. Based on this early experience, we discuss the potential and the challenges of using technology-enabled social networking to alert and engage stakeholders unlikely to participate in the conventional process. There is cause to be optimistic about the potential: In the two rulemakings offered so far, well over 90% of registered users report never having commented in a federal rulemaking before.[36] Hence, it *is* possible for Rulemaking 2.0 systems to bring new stakeholders into the process. However, we have also discovered significant obstacles that will require different strategies to overcome. Section C then turns to what happens when outreach is successful. We discuss some of the opportunities and difficulties of using Web 2.0 to lower the barriers of ignorance and information overload when people with no previous experience of federal rulemaking engage the process for the first time online. The Web 2.0 environment opens up dramatically new possibilities for stakeholder participation, but it also comes with a set of habits and expectations that do not serve users well when the goal is informed and thoughtful engagement in complex policy issues.

II. The "Outreach Mix": Using Web 2.0 to Promote Rulemaking Participation

A. From Billboard to Discussion Board to My Board

Advances in Web technology have simultaneously enabled, and been driven by, the emergence of the Internet as a prime venue for social and political engagement. Initially, the Web gained popularity as a place where organizations could place information for easy retrieval by large numbers of geographically dispersed users.   Effectively electronic billboards, these early efforts were largely one-way communication, with content provided and controlled by the site operator.

It did not take long for groups and individual users to recognize that Web's immediacy could make possible two-way conversations occurring in (or near) real-time. Threaded discussion boards emerged, where users could respond to one another via text postings usually organized around a common theme. These boards quickly developed into early online communities in which lovers of old movies or owners of Ford Mustangs could exchange information and share ideas. Organizations like Greenpeace and the Red Cross soon recognized the potential of online community building for soliciting donations and mobilizing members.

Soon, Web users wanted the next step: Rather than having to rely on others to create a site that pushed information or allowed discussion about topics that interested or concerned them, users should be able to

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[34] Draft and Final Summaries, with all summary comments, remain available on the site for all rules.

[35] *See infra* Part C.3(a).

[36]   Only 2% of registered users in the texting rule reported having submitted a comment in a federal rulemaking before; the comparable figure in the APR rule was 6%. Response rate on this voluntary survey was 100% in the texting rule and 92% in the APR rule.

create their own sites. The (relatively) primitive two-way interactions of the early discussion boards gave way to a model in which each user could have a discussion board of his or her own. The first wave of this technology took the style of a private journal, albeit one on which others could post comments. These "Web logs" (soon shortened to "blogs") were the earliest instantiation of what has become a distinctively Web 2.0 phenomenon: technology that enables fully self-determined individual expression, with the world as audience. The desire of users for both publishing autonomy and community interactivity led to creation of social networking services such as My Space and Facebook, media sharing sites such as Flickr (photos) and You Tube (videos), and collaborative work applications such as MediaWiki (the software of Wikipedia) and Google Docs (originally Writely). Success fueled user demands for more and easier functionality, leading services like Facebook and WordPress (blogware), which initially had offered a particular, relatively specific set of functionalities, to evolve into stand-alone multimedia web publishing platforms.

The development of Web 2.0 technologies, and the rapidly growing number of "ordinary" people willing to use them, created opportunities for mass social and political engagement that were qualitatively, as well as quantitatively, novel. One of the first major efforts to exploit these opportunities on a national scale was the 2003 campaign of presidential hopeful Howard Dean for the Democratic nomination. Non-profit groups had been using some of the same techniques (e,g, multimedia websites, blogs) to share content and rally support, but the Dean campaign took these efforts to a new level of grassroots organizing. Blog messaging was used for online community building, while "meet-ups" helped extend virtual community to the world outside the Web. In a well-organized attempt to bring citizen campaigning to the Internet, the campaign encouraged users to send links and email messages to their friends, to build the community of Dean supporters.[37]

The Dean campaign presaged a new approach to engaging the public's attention and engagement. Over the course of the last decade, organizational communications strategy has increasingly become less about pushing the message to people, and more about connecting people to the message via their own friends and followers. The sheer number of users, and volume of activity, in today's online social networks means that organizers must now deliberately make use of these networks if they are to follow the age-old advertising maxim of "going where the audience is."[38]

The unprecedented opportunities presented by online social networking come, however, with some potentially unpleasant strings attached. It is no longer enough for the organization to focus on building a better website (although this is still important in a world of dramatically rising user expectations about design and functionality). Today's users are living in large online communities like Facebook and Twitter that are immediate, expansive, individually defined and customized, and largely self-policed. They are not easily led away to interact on an organization's site—unless, that is, one of their friends has already done so and promoted his or her action within a larger community space like a Facebook wall. Organizations therefore must adapt from the model of a single voice broadcasting a message via multiple media, to a model in which information spreads "virally" from user to user. The downside, from a "marketing" point of view, is that the organization quickly loses control of the message as users

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[37] For accounts of the Dean campaign's use of the Web, *see, e,g.,* Andrew Chadwick, *Web 2.0: New Challenges for the Study of E-Democracy in an Era of Informational Exuberance*, 1 I/S: A JOURNAL OF LAW AND POLICY FOR THE INFORMATION SOCIETY 9 (2008-09); Grant Gross, *Election 2004: Howard Dean Profits from Web Campaign*, CIO ONLINE (Jan. 15, 2004).

[38] Statistics abound on the explosion of online social networking in all demographic categories. Here is one we find especially compelling: According to a recent ComScore study, in August 2010 Facebook's more than 500 million active users spent 41.1 million minutes on the site, which represented nearly 10% percent of the total time they spent online. This number exceeds time spent on all Google sites (including You Tube, g-mail, Google Books, and Google Maps).   Facebook   had   surpassed   time   on   Yahoo   sites   the   previous   month.   *See* http://mashable.com/2010/07/22/facebook-500-million-infographic/.

redistribute it. The promise of free access to a potential audience of millions thus comes with the threat of countless users who can attack or pervert the message as easily as share and recommend it. As a result, organizations are forced to become not just *proactive* communicators but *reactive* ones as well, as the fortuity of circumstance and the capriciousness of word-of-mouth are magnified by the immediacy and reach of the Web.

In this environment, how does Rulemaking 2.0 promote rulemaking engagement with audiences who have a stake in a proposed rule but do not know it? Certainly a central part of the strategy must be relying on individual user and organized groups to help spread the message and call to action in a viral way. Still, even in a Web 2.0 world, communications strategists rely on "outreach mix": the balance of media, message, and vehicle that offers maximum return on promotional investment. Our early experience with Regulation Room confirms that traditional media resources and promotional tactics will continue to play an important role in getting the right message to the right audiences. Successful outreach means identifying targeted audience segments and developing a mix of Web 2.0 and conventional media to reach these segments—with the mix, as well as the segments, varying with the particular rule. The strategy must provide for both proactive push and reactive response and, perhaps most important, it must be able to adapt to a broad range of events and circumstances that even the most foresighted planning will be unable to anticipate or control.

B. The Texting Rule: "Scooped"

The outreach plan for the DOT rulemaking proposing to ban texting while driving by commercial motor vehicle (CMV) operators identified more than one hundred groups that might have an interest in the proposed rule. We categorized these groups into six audience segments for targeted messaging: Safety Interest (motor vehicle accident victims' rights groups; parenting groups; general safety advocate groups; medical groups; cycling/pedestrian/motorbike organizations); Driver Interest (school bus directors/drivers; limousine drivers; truck driver associations; auto driver associations); Business Interest (small business associations; auto and truck manufacturer associations; wireless device industry companies; insurance companies); Public Servant Interest (local and state law enforcement; local and state government officials); Open Government Interest (open government advocates; government publications; selected Hill staff and elected officials); and Academic Interest (administrative law professors; research groups; law librarians). We sought out these latter two groups in the hope that they would be interested enough in a Rulemaking 2.0 project to publicize it, and to provide feedback on the materials and methods we were using to engage the public.

Our outreach mix included traditional media, targeted outreach to constituent groups concerned with the rule's core issues, proactive messaging to issue-specific groups on social networks, and reactive responses to social network users who posted personal status updates about the issues.

1. Traditional Methods. Coinciding with DOT's press release on the rulemaking,[39] we delivered a separate press release to 73 identified media contacts covering transportation, technology, government, business, and the law. Outlets included national media (New York Times, Washington Post, AP), as well as local media and industry publications. A search using Meltwater News[40] showed over 550 articles on the rulemaking after its opening on March 31. Both DOT's press release and its Notice of Proposed Rule

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[39] Press Release, Department of Transportaiton, U.S. Transportation Secretary Ray LaHood Proposes Rule to Ban Texting for Truck and Bus Drivers (Mar. 31, 2010), *available at* http://roadwaytocollege.com/go/page.pl/000000A/http/www.fmcsa.dot.gov/about/news/news-releases/2010/Ban-Texting-for-Truck-and-Bus-Drivers.aspx

[40] Meltwater News is a professional-grade enterprise level news tracking service. In addition to search and archiving, it offers a variety of metrics, such as geographical distribution. *See* http://meltwaternews.com.

Making (NPRM) (which formally announces the proposal and requests public comments) specifically pointed commenters to Regulation Room. Nonetheless, only some of these articles mentioned that people could go to the site to learn more and comment.

Each of the 100 constituent groups received an email 24 hours after the rule opened, and a follow-up phone call 10 days later. Some groups were not interested in the rulemaking or did not wish to help promote it to their members. Others reported promoting it via email, newsletter, or social networking, although we had little success obtaining independent verification of this, and our experience in the APR rule (described below) makes us at least skeptical that organizations actively spread the word to their members. The total *potential* audience from these groups was estimated to be well over 250,000 individuals; groups who said they shared our message had an audience of roughly 90,000 people. One group in particular, the League of American Bicyclists, did promote Regulation Room via social networking and an email notification to their members. This caused a slight spike in user visits to the site accompanied by some comments on the danger to cyclists from distracted drivers.[41]

2. Social Networking . We identified Facebook Groups and Pages affiliated with the various constituent groups. We also tried to locate groups whose online existence occurred solely within the Facebook site (that is, they had no independent website or other web presence that we could discover). We made similar efforts with Twitter. When the rule opened, we asked the owners of the group to post the message about the rulemaking and Regulation Room. Where permitted by the group's privacy setting, we also posted directly on their wall. Unfortunately, this was considered spamming by Facebook and the posting persona we had used was shut down. (The obstacles this presents to social networking outreach became more evident in the APR rule, and are discussed below.) To organizations on Twitter, we delivered an invitation to participate via direct messaging their Twitter account. Some ignored the message while others reposted or re-tweeted it. We estimate the total number of followers who were exposed to this initial tweet at nearly 35,000. We also encouraged people to "friend" the Regulation Room Facebook page or follow us on Twitter to receive updated information as the rulemaking period progressed.[42] These fans and followers received messages each day that focused on specific issues in the rulemaking and asked them to visit or revisit Regulation Room to comment.

In addition to these proactive efforts, we engaged in reactive posting. Using the social media monitoring tool Social Mention,[43] we continually watched social networks for phrases such as "distracted driving" or "texting and driving" and uncovered nearly 100 blogs about the rulemaking. We visited the blogs and, where it was possible to post a comment, left an invitation to participate through Regulation Room. The HootSuite[44] software makes possible similar reactive posting on Twitter. So for example, if someone tweeted "Saw someone texting and driving today…idiot!" we would reply to that Tweet with an invitation to have their say on distracted driving at Regulation Room. Reactive posting is far more difficult to use with Facebook, for most individual posts are available only to people the individual has "friended."

3. Outcomes. The texting rule was open for 34 days—an atypically short comment period. In that time, 1999 "unique visitors" made 3729 visits to the site;[45] 54 of these registered as users and 18 submitted a

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[41] An unanticipated consequence of our outreach to this group seems to have been a large number of cyclist comments posted on the official government rulemaking portal, Regulations.gov.

[42] At the end of the period, however, we had only 19 Facebook fans and 75 Twitter followers.

[43] Social Mention tracks search strings in real time "across the universe" of user-generated content (blogs, comments, bookmarks, etc.). *See* http://www.socialmention.com/about/.

[44] http://hootsuite.com/

[45] Google Analytics, which measured the data reported in the text, explains:

> *Visits* represent the number of individual sessions initiated by all the visitors to your
> site. If a user is inactive on your site for 30 minutes or more, any future activity will be

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total of 32 comments. 94% of registered users reported that they had never before submitted a comment in a federal rulemaking and another 4% answered that they were unsure if they had ever done so.

We felt the results were disappointing (although it is difficult to identify "comparables" by which to gauge the success of efforts to alert and engage people to visit a new kind of website in order to participate in a completely unfamiliar government decisionmaking process). On the one hand, almost all of those who registered had not previously participated in the rulemaking process. On the other, the volume of response was far less than we, and DOT, had expected. The unusually short comment period may have played some part in the low "turnout" (compare the airline passenger rights rule, open for 110 days, discussed in the next section), but we believe the major factor was an event outside our control which significantly altered the media and social networking environment in which we were trying to push our message—and which carries an important lesson for Regulation Room and other Rulemaking 2.0 efforts.

On January 26, just over two months *before* the texting rule opened for comment, Secretary of Transportation Roy LaHood held a live press conference, with the President of the American Trucking Association on the dais and representatives of the major media and trade associations present.[46] He announced that, beginning immediately, DOT was banning texting while driving. The legal explanation for this surprising development will make sense to administrative law mavens: DOT was issuing "guidance" that interpreted an existing, more general trucking safety regulation to encompass texting, and guidance generally requires no process beyond publishing it in the Federal Register. The larger socio-political explanation is not hard to reconstruct. During late 2009 and early 2010, the level of public and media attention to distracted driving was high. In September the Secretary LaHood launched a highly publicized and well-attended Distracted Driving Summit, at which he promised that DOT would take prompt action.[47] Shortly thereafter, the President issued an executive order prohibiting federal employees from texting while driving.[48] In January, Oprah Winfrey did a show on texting,[49] "America's New Deadly Obsession," that that became the core of an aggressively promoted campaign by Oprah to raise public awareness of the issue. The texting rule was moving through DOT on an expedited schedule but, even so, the process would extend until late summer or early fall.[50] The new "interpretation" announced by the Secretary at the January 26 press conference was a stop gap measure that responded to public pressure while the rulemaking could be completed.

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attributed to a new session. Users that leave your site and return within 30 minutes will be counted as part of the original session.
     The initial session by a user during any given date range is considered to be an additional *visit* and an additional *visitor*. Any future sessions from the same user during the selected time period are counted as additional *visits*, but not as additional *visitors*.
http://www.google.com/support/analytics/bin/answer.py?hl=en&answer=57164. A further complication not mentioned here is that "visits" and "visitors" are recognized by IP address. An IP (Internet Protocol) address is a number assigned to each computer's network interface, in order to distinguish one network interface from another (see: http://en.wiktionary.org/wiki/IP_address). So, recording "visitors" is actually recording a computer or other networked device's "address." This means that repeat visitors could be the same individual returning to the site or a different family member on a home computer, or a different patron using a public computer at, e.g., a library. Similarly, a new visitor could be the same individual using a different computer.

[46] *See* Ray LaHood, Secretary of Transportation, Remarks at Moter Carriers Distracted Driving Press Event (Jan. 26, 2010), *available at* http://www.dot.gov/affairs/2010/lahood01262010.htm.

[47] Press Release, Department of Transportation, Transportation Secretary Ray LaHood Kicks Off Historic Summit to Tackle Dangers of Distracted Driving (Sept. 30, 2009), *available at* http://www.dot.gov/affairs/2009/dot15509.htm

[48] Exec. Order No. 13,513, 74 Fed. Reg. 51225 (Oct. 6, 2009).

[49] Oprah.com, Oprah's No Phone Zone, http://www.oprah.com/packages/no-phone-zone.html (last visited Oct. 8, 2010).

[50] The final rule was promulgated in September 2010. *See* 75 Fed. Reg. 59,118 (Sept. 27, 2010) (to be codified at 49 C.F.R. pts. 383, 384, 390, 390, & 392).

The consequences for rulemaking participation were, however, dramatic.   The texting NPRM raised some difficult issues—including the definition of the activities prohibited[51] and the practicality and methods of enforcement—that would not only directly affect the 8 million drivers who could be disqualified from CMV driving for a violation,[52] but also would almost certainly have implications for other planned DOT distracted driving regulations. But for a public who barely knows that the rulemaking process exists (let alone appreciates the difference between a non-binding general interpretation and a detailed regulation backed up by fines and more serious sanctions), the moment for debating whether and how the federal government should regulate texting by truck and bus drivers had come, and gone, long before the comment period opened. In the first seven days after the Secretary's January 26 press conference, the story of the texting "ban" was picked up in more than 1500 online news stories and blog posts. A count by the Regulation Room team found that more than 430 individual comments on these various articles; 41 comments were made on the Secretary's own blog, "FastLane."[53] By contrast, two months later when the texting rule was published for comment, only about one-third as many online news stories and blog posts mentioned the rulemaking. The difference in comments by individual users was even more dramatic: not even 10% as many comments (34) on these various articles, and only 8 on the FastLane blog.[54] Banning texting by CMV drivers had become old, and uncontroversial, news.

In the end, the texting rule told us more about what can stymie outreach than about what communications strategies are most effective. Neither traditional media nor social networking efforts could give life to an issue on which the news cycle had already run and public interest faded. Perhaps, with a longer comment period, we could have elicited some additional participation from within the large population of CMV operators, although we have since realized that convincing representative organizations to act as channels of information to their members is extremely difficult (see below). The most important lesson we took away from the texting rule is the importance of an outreach plan that is attuned, and to the extent possible responsive, to external circumstances including the level of traditional media coverage of the rule. This lesson proved important in our next rule, the airline passenger rights rulemaking.

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[51] Although everyone referred to it as banning texting, the proposed rule was actually entitled "Limiting the Use of Wireless Communications Devices," and the definition of texting at least potentially covers a lot more than texting:

> **Texting** means manually entering alphanumeric text into, or reading text from, an electronic device.
> (1) This action includes, but is not limited to, short message service, e-mailing, instant messaging, a command or request to access a World Wide Web page, or engaging in any other form of electronic text retrieval or electronic text entry, for present or future communication.
> (2) Texting does not include:
> > (i) Reading, selecting, or entering a telephone number, an extension number, or voicemail retrieval codes and commands into an electronic device for the purpose of initiating or receiving a phone call or using voice commands to initiate or receive a telephone call;
> > (ii) Using an in-cab fleet management system or citizens band radio;
> > (iii) Inputting or selecting information on a global positioning system or navigation system; or
> > (iv) Using a device capable of performing multiple functions for a purpose that is not otherwise prohibited in this rule.

75 Fed. Reg. 16403.

[52] First time violation would trigger only a fine (although a sizable one, especially for independent owner operators); multiple violations with a specified time period would result in a 60 to 90 day disqualification to operate a CMV. *See* 75 Fed. Reg. 16403.

[53] FastLane, "New distracted driving restrictions on commercial truck and bus drivers," http://fastlane.dot.gov/2010/01/commercial-truck-and-bus-drivers-prohibited-from-texting-while-driving.html   (last visited Oct. 8, 2010).

[54] FastLane, "Proposed texting ban for commercial truck and bus drivers pioneers innovative e-rulemaking partnership,"   http://fastlane.dot.gov/2010/03/proposed-texting-ban-for-commercial-truck-and-bus-drivers-pioneers-innovative-erulemaking-partnershi.html (last visited Oct. 8, 2010).

C. The Airline Passenger Rights Rule: The Power of User-To-User Communication

The ARP rule was actually DOT's second round of rulemaking in the area: new regulations on tarmac delay and other high-profile air travel issues took effect in April 2010.[55] Although a this event generated a fair amount of media attention, the issues of overbooking and bumping, flight status information, separate baggage and other fees, and even tarmac delay continued to plague air travelers. Therefore, both our team and DOT anticipated substantial public interest in the follow-up rulemaking. The comment period was initially scheduled for 60 days, which would allow more opportunity for viral spread of information among stakeholders. At the same time, we were concerned about whether interest could be sustained over this period, a concern that was heightened once it became clear that DOT would likely grant an extension of the comment period if asked. (Airlines did ask, and the official comment period ultimately stretched to 113 days,[56] practically forever in Web-time.) We therefore planned to meter our outreach efforts, in order to keep the communications stream flowing throughout most of the comment period.

1. Traditional Media. In the APR rulemaking, Secretary LaHood's charismatic media presence dramatically kicked off Regulation Room outreach efforts. The media announcement of the rule's opening was a conference call with more than 70 transportation writers representing major media outlets. During the call, Secretary LaHood made several significant mentions of Regulation Room, and urged air travelers to go to the site to comment. Within 24 hours, Google News captured more than 600 stories that mentioned the rulemaking – nearly twice many as had occurred during the entire comment period of the texting rule.[57] In the first week, 3482 visitors made 4204 visits to the site from 174 different sources— 1.75 times as many visitors as had come during the entire texting rule.

Despite the Secretary's strong endorsement in the news conference, fewer than 20 of the hundreds of news articles in the first week actually mentioned Regulation Room. Therefore, members of the team visited each of these online stories, and where possible, posted a message in the article's comment section promoting Regulation Room as a participation resource.[58] We can find little direct evidence that this reactive posting was effective. Visits originating at online news sites came from articles that mentioned Regulation Room in the article text.

As in the texting rule, we had previously identified stakeholder groups that were less likely to hear about the rulemaking through conventional channels. These fell into six categories: sellers of air travel (travel agents, online travel merchants); travel information sites and travel bloggers (e.g., tripadvisor.com, lonelyplanet.com); pilots and flight attendants; air traffic controllers and regional airport management; airport ground personnel (mechanics, baggage and food service crews, and gate agents); and travelers. Given the large amount of traffic generated by the initial media response, we decided to wait to reach out proactively to these groups. Although traffic dropped (expectably) from the first week peak, a fairly steady stream of new visitors continued to come through June and the first half of July, with occasional

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[55] *See* Press Release, Department of Transportation, New DOT Consumer Rule Limits Airline Tarmac Delays, Provides Other Passenger Protections (Dec. 21, 2009), *available at* http://www.dot.gov/affairs/2009/dot19909.htm. The rule itself can be found at 74 Fed. Reg. 68983.

[56] *See* 75 Fed. Reg. 45562.

[57] We used GoogleNews rather than Meltwater, *supra* note 40, for this purpose because it was easier to share search results across the outreach team.

[58] The lines between "traditional media" and "social media" blur in the case of online news articles. Mainstream news sites now often offer blog-like participation from readers by allowing comment on some or all of their online stories. These sites can be differentiated from pure blogs because they have an editorial staff that determines what is covered and in what form, and usually a traditional component of print, television or radio. Thus, most offer a mix of one-way and two-way stories. Where two-way stories were posted, we left comments promoting Regulation Room.

peaks from follow-up news stories on CNN and in the Washington Post. In late July, when it became clear that an extension of the comment period was likely, we looked at the results of the survey in which we ask registered users to identify their interest in the rulemaking. The overwhelming number of respondents identified themselves as airline travelers; only a handful self-identified as working in the air travel industry. These results were consistent with what the moderators were observing in the comments. Because we believed that those employed in the industry would likely have a different perspective than either air travelers or the airlines themselves (who would doubtless file comments directly on Regulations.gov), we targeted four audience segments for proactive outreach: pilots, flight attendants, air workers (air traffic controllers), and ground workers (mechanics, baggage handlers, airport workers, and security personnel). Emails were sent to 12 groups, whose total membership approaches 5 million individuals. We made follow-up phone calls to the groups 10 days later.

The follow-up calls were illuminating—and sobering. Several groups, including four unions and professional associations, told us that an organizational decision had been made not to submit comments in this rulemaking.[59]   They acknowledged their members' right to comment individually in the rulemaking via Regulation Room, but they were unwilling to pass along to them a message that might be seen as encouraging them to do so.

2. Social Media. Beginning with the Secretary's announcement on June 2, we posted messages about the rulemaking on the Regulation Room Facebook wall and to our Twitter stream. Given our experience with perceived spamming in the texting rule, we were able to do no proactive posting on Facebook walls of constituent groups. On Twitter, we posted reactively to a few feeds that had mentioned the rule by name, hoping that these seemingly well-attuned individuals would retweet or further promote the site. We could find no evidence that they did so.
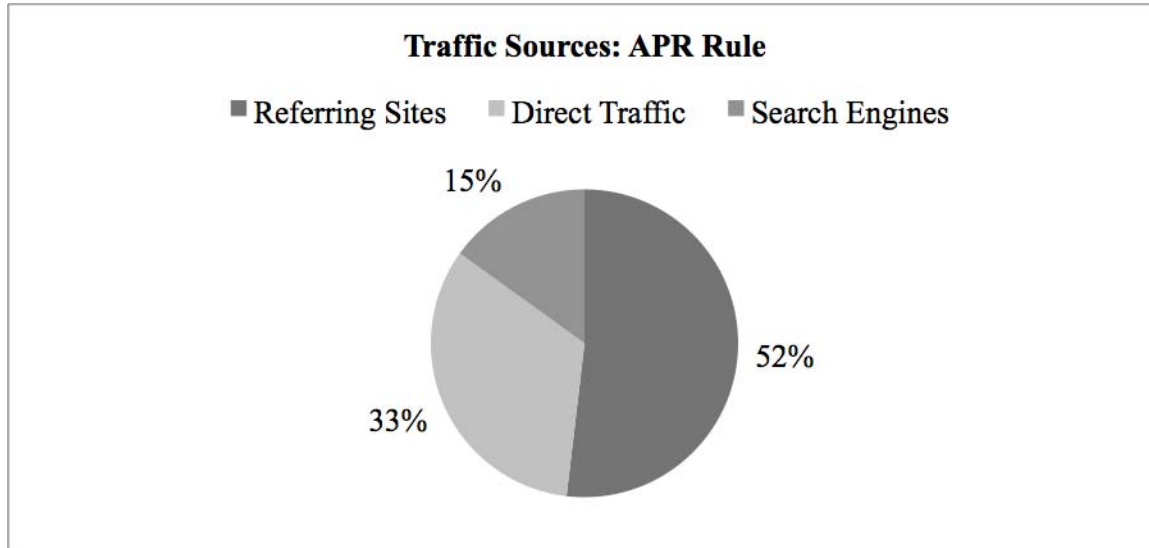
In late July, when it became evident that targeted outreach to workers in the air travel industry was necessary, we sent email messages to 11 constituent groups who have a social media viewership of about 48,000. We did not receive any response from the site owners, nor did we see any sign of our announcement being promoted further via social media. Based on this poor response, and in light of the substantial response generated by traditional media, we cut back our proactive social networking to concentrate resources on personal outreach to these groups and traditional media outlets. However, we did continue to post regular messages on Regulation Room's Facebook page and Twitter account, weekly at first, and then daily in the early weeks of the targeted outreach to air travel industry workers.

In general, reactive tweeting was not a particularly effective form of outreach for this rule. To our surprise (and more than a little ironically), there had been much more Twitter traffic about texting and other forms of distracted driving than there appeared to be about problems people encountered in air travel. This, combined with the moderating demands on our smaller summer staff, led us to engage in only sporadic reactive tweeting efforts. In the last weeks of the comment period, we increased proactive tweeting, focusing on each major issue in the rulemaking in turn and trying to add a sense of urgency to the tweets as the discussion period closed. In general, proactive tweeting was only mildly successful.[60]

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[59]   Taking a public position in the rulemaking posed a dilemma—anger their employers with pro-regulation comments, or anger their customers with anti-regulation comments—that air travel worker groups avoided by saying nothing.

[60] From June 2 to Sept 20, we had only 31 clicks on Tweets that we posted, 15 of them in the first week the rule opened.

c. Outcomes. During the 110 days the rule was open on Regulation Room[61], a total of 19,320 unique visitors made 24,441 visits; of these, 1189 registered as users. 348 users actually participated in the discussion, posting a total of 931 comments.[62] 94 % of those who registered as users reported that they had no prior experience with federal rulemaking or were unsure whether they had previously participated. Here is a global breakdown of how these visitors came to the site[63]:

One-third of the visits came "directly," which means not from someplace else on the Web. People who typed Regulationroom.org into their browser or who came from links in an email message are "direct traffic." As we detail below, a considerable subset of direct traffic appears to have come from the print versions of news articles in the Washington Post Travel Section and other newspapers. Direct visitors tended to be more engaged than the typical visitor to the site: They averaged considerably more time per visit on the site (4:11 minutes versus 3:17 minutes for all users) and looked at considerably more material (3.36 pages per visit versus 2.77 pages per visit for all users). Slightly over 15% of traffic came from people who found the site by using a search engine. Visitors who came via a search engine tended to be slightly less engaged than the typical visitor: They averaged 2:54 minutes per visit (versus 3:17 minutes for all users) and looked at 2.44 pages (versus 2.77 pages for all users). Finally, more than half of visits originated from some other website. The top three referring sites were CNN, Facebook, and Frommers, which together accounted for about 23% of all traffic.[64] Overall, visitors who were referred by another site also tended to be slight less engaged, averaging 2.50 minutes per visit (versus 3.17 minutes for all users) and looking at 2.49 (versus 2.77 pages for all users). However, visitors who came from the top three referring sites averaged only 2.05 minutes and 1.92 pages per visit.

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[61] Regulation Room closed three days before the official comment period ended to allow for completion of the Final Summary and submission to Regulations.gov.
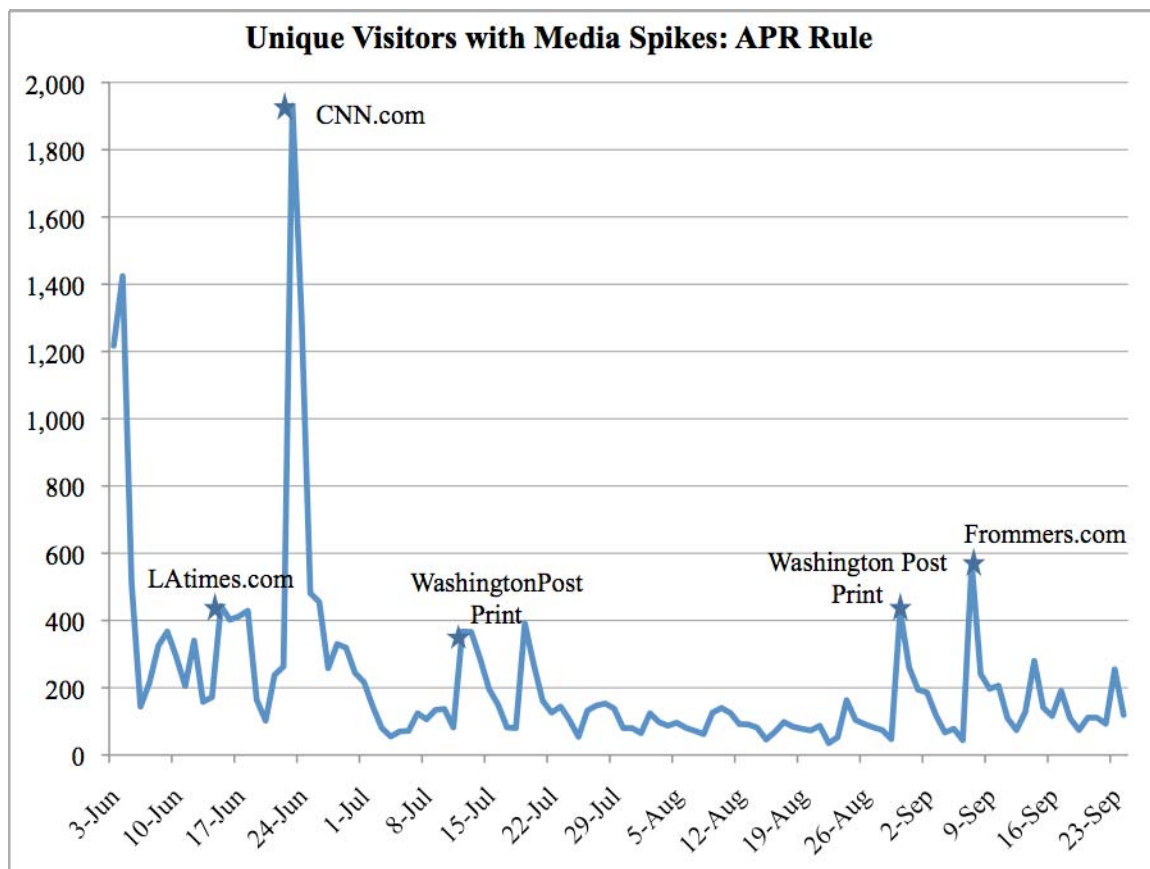
[62] Moderators made 203 comments.

[63] Traffic Sources, average time on site, average number of pages visited, and average time per page metrics were gathered by Google Analytics. These are considered first-level web metrics and are not suitable for statistical analysis for a number of reasons, including how the data are collected and presented. For example, average time on page is calculated by subtracting the initial view time for a particular page from the initial view time for a subsequent page. Therefore, time on page can't be calculated if someone enters and exits on the same page (see: https://www.google.com/support/googleanalytics/bin/answer.py?hl=en&answer=99118). Also, statistical analysis requires the complete set of information that is known; the first level metrics lack the data on variance that are required. Analysis of advanced Web metrics will be a focus of future project efforts. On the use of advanced web metrics and Google Analytics, *see* BRIAN CLIFTON, ADVANCED WEB METRICS WITH GOOGLE ANALYTICS (2010).

[64] DOT's website was fourth.

SOURCE	Average Time on Site (minutes)	Average Number of Pages Visited	Average Time per Page (minutes)
Overall (100%)	3.17	2.77	1.14
Direct (33%)	4.11	3.36	1.22
Search Engine (15%)	2.54	2.44	1.04
Referred (52%)	2.50	2.49	1.00
Top 3 sites (CNN.com, Facebook, Frommers.com)	2.05	1.92	1.07

After the first week, most spikes in site traffic are associated with stories by conventional news media; some of these stories appeared only online (e.g., a June 22 CNN story[65]); others appeared both in print and online (e.g., two Washington Post stories[66]).

Unique Visitors with Media Spikes: APR Rule

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[65]   Tas Anjarwalla, *Should peanuts be banned from planes?*, CNN TRAVEL (June 22, 2010), http://articles.cnn.com/2010-06-22/travel/ban.peanuts.planes_1_peanut-allergy-air-carrier-access-act-buffer-zone?_s=PM:TRAVEL.

[66] Christopher Elliott, *Airline passengers get a chance to be heard on proposed regulations*, WASHINGTON POST (July 11, 2010), http://www.washingtonpost.com/wp-dyn/content/article/2010/07/06/AR2010070603957.html; Christopher Elliott, *Last call for consumer comments on proposed new airline rules*, WASHINGTON POST (Aug. 27, 2010), http://www.washingtonpost.com/wp-dyn/content/article/2010/08/27/AR2010082702605.html.

We were particularly interested to observe that, contrary to conventional communications wisdom, a print version of the message apparently *can* drive an electronic response. The July 11 article in the Sunday Washington Post Travel Section appeared online 4 days earlier. However, users who came to Regulation Room from a link in the online version accounted for only 25% as many visits as users who came directly to the site from IP addresses in the Washington DC, Maryland and Virginia areas. (People who read the article in the Sunday print version, and then typed the Regulation Room address into their computer's browser, would show up as "direct" visitors.) There is no way to prove conclusively that the spike of direct visits from the geographical area primarily served by the print edition originated from people who read the Sunday Post, but the inference seems reasonable. We observed a similar effect from a second Washington Post article, on August 27, when the ratio of direct visitors from DC, Maryland, and Virginia to visitors from washingtonpost.com was about 3 to 1. Articles near the opening of the rule, in newspapers in New York, Philadelphia, Atlanta and Seattle, similarly show a pattern of substantial direct visits from the relevant geographical areas as compared with referrals from the online versions.

In general, social media were less effective outreach vehicles than conventional media in the rule. Overall, only about 4.5% of all visits originated from Facebook or Twitter; of the subset of visits that came from some other website, Facebook accounted for just over 7%. However, within these modest overall statistics lies a fairly remarkable demonstration of how a focused group of stakeholders—in this case, peanut allergy sufferers—can leverage the power of social networking to disseminate a call to action.[67]

In a short section near the end of the NPRM, DOT announced it was considering whether to require airlines to make specific accommodations for travelers with severe peanut allergies. In contrast to the other passenger protection issues, DOT proposed no specific rule text on this topic; rather, it generally invited reaction to the possibility of peanut regulation. The result was, at least to us, completely unexpected. In the first week the rule was open, the Peanut Allergy post got more than 300% more traffic than any other issue post, and 44% of that traffic came from Facebook. By the end of the rule, visits to the Peanut Allergy post were more than 3.5 times as high as the next most popular issue (tarmac delay). More than four times as many different users commented on that post as on the next highest issue post; these 185 users made almost as many comments on peanut allergy regulation as users made on *all* other issues *combined* (454 of 931 total comments). These comments were overwhelmingly in favor of regulation. A CNN article about the peanut issue three weeks into the rulemaking[68] certainly helped spread the word of DOT's possible intervention to help severe allergy sufferers. More than one-third of total traffic to the peanut allergy post came directly from a link in this article. Still, nearly 18% of total traffic came from Facebook—a considerably larger percentage than Facebook's 4.5% contribution to overall site visits.

Because we had read the NPRM as making possible peanut regulation fairly peripheral to the core issues of the rulemaking, we had not identified this stakeholder group in our initial outreach plan. We did no targeted promotion to them. The peanut allergy constituency thus seems to present a textbook example of grassroots viral marketing. Through Facebook, several blogs,[69] probably email, and perhaps print newsletters, members of this group managed from the outset of the rulemaking to mobilize each other to come to the site and comment in larger numbers than any other stakeholder group.

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[67] On use of social media to rally for social change, *see* JENNIFER AAKER & ANDY SMITH, THE DRAGONFLY EFFECT: QUICK, EFFECTIVE, AND POWERFUL WAYS TO USE SOCIAL MEDIA TO DRIVE SOCIAL CHANGE (2010).

[68] *See supra* note 65.

[69] These included nut-freemom.blogspot.com, peanutallergy.com, allergysupport.blogspot.com, allergyfreeshop.com, peanutallergy.com, foodallergyawareness.com.

The peanut allergy phenomenon is an important reminder that users promoting something *person*-to-*person* will be a more effective form of social media communication than any *entity*-to-*audience* promotion. The challenge—especially when a stakeholder group is not as focused and vigilant as the peanut allergy constituency (many of whom self-identified as parents or grandparents of children with peanut allergies)—is finding ways initially to alert enough group members to the rulemaking that the viral spread of information through social networking can begin. In the case of pilots, flight attendants, ground crews and travel agents, our efforts to use organized associations to pass the initial word to their members were stymied, and the voices of these important stakeholders were never a significant part of the discussion on Regulation Room. Of the 621 registered users who ultimately responded to the interest survey question, only 7 self-identified as working for a US air carrier and 4 as working for a travel agent; no user said he/she worked at an airport or for a non-US air carrier. Because only slightly more than half of registered users answered this question, it is possible that members of these groups were disproportionately unwilling to declare their affiliation. However, the Regulation Room team was primed during summary building to be alert for any indication from the *content* of the comments that the speaker was other than an air traveler. The results of their search were consistent with the survey: Little in the comments revealed a perspective other than that of the airline passenger.

One other outreach outcome may provide support for the importance of finding ways to "seed" person-to-person social networking. Among the surprises of the peanut allergy issue was emergence of an intense, sometimes heated, debate[70] about the existence and validity of evidence on the incidence, severity, and exposure methods of peanut allergies. Moderators prompted participants to support their arguments with studies or other material, and the result was a sizeable list of citations to articles in medical and other professional journals.[71] When the extension of the comment period gave us additional time for outreach, we found email contacts for as many of the authors of these studies as possible. We sent an email to 27 researchers, explaining the rulemaking and inviting them to assist DOT by responding to some of the questions raised by Regulation Room participants. The email contained special user IDs and passwords that would give the experts access to a separate Expert Discussion page on the site.[72] Anyone could *read* what was being said on the page but, as we explained in the email and on the site, only invited experts could add comments.

A few experts acknowledged receiving our email,[73] but no one actually added comments. Obviously no firm conclusions about outreach to experts can be drawn from this single experience. However, we think a reasonable hypothesis is that experts—as much if not more than "ordinary" users—will be more responsive to information coming peer-to-peer than to information that comes from a source outside the expert community.

D. Looking Forward

One of the challenges in communications and marketing over the last two decades has been defining the "marketing mix," what we at Regulation Room call the outreach mix. How can the blend of print media, email, traditional web media, and social media be optimized to deliver the biggest return on investment of

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[70] See *infra* Part 3.

[71]   These   are   collected   on   Regulation   Room   at http://issuu.com/regulationroom/docs/peanut_articles_and_links_final?mode=embed&viewMode=presentation&layout=http%3A%2F%2Fskin.issuu.com%2Fv%2Fcolor%2Flayout.xml&backgroundColor=348ACE&showFlipBtn=true, and were submitted to DOT as an appendix to the Final Summary of Discussion.

[72] http://regulationroom.org/airline-passenger-rights/experts-discussion-peanut-allergies/

[73]   One expert thanked us for the invitation but said "Unfortunately I have very limited to no national data on allergies specifically to peanuts. That is something that is really lacking in our national data sets." Another expressed interest but was unable to meet the submission deadline because of travel. We also received a few automated "out of office" responses.

communications time and money? To complicate things, the communications environment can shift rapidly and without warning, requiring readjustment of the outreach mix.

In the texting rule, such a shift came when the Secretary announced what the media interpreted as a texting ban two months ahead of the rulemaking. Because we had already invested in significant site preparation, we went ahead with our plans—and discovered principally that neither conventional nor social media outreach can revive interest in an issue on which the momentum of public interest has already played out. In the APR Rule, the news cycle worked in our favor, primed by the Secretary's strong endorsement of public participation in Regulation Room. The unexpected elements were the emergence of the peanut-allergy contingent, and the lack of cooperation by constituent groups on whom we were counting on to help disseminate information to their members. With hindsight, the same lack of cooperation probably occurred in the texting rule, but we did not recognize it as a separate element of the general level of disinterest. The peanut allergy contingent demonstrated the incredible power of social networking as an engagement device. Our unsuccessful efforts to use groups to alert and engage air travel industry workers demonstrated that this power cannot be tapped unless the message first reaches some critical mass of network members.   We have come full circle to a 21st century electronic version of simple word-of-mouth.

In the next, as yet unidentified, rulemaking, we will emphasize to our agency partners the importance of a single, coordinated announcement in which the Secretary can command the attention of traditional media and which we can aggressively monitor and supplement by direct outreach to reporters. We will continue to plan conventional and social media outreach targeted to segments of the stakeholder spectrum unlikely to participate in the conventional process. Identifying and contacting representative groups and organizations will still be a part of this strategy, but we also need better strategies for reaching members directly. One of these will be experimenting with Facebook paid advertising. Advertising gives us access to the screens of individual members of identified groups (e.g., all Facebook users who have the word "pilot" in their profile), to convey an invitation to the rulemaking targeted to that group. We will determine the cost-effectiveness of such ads: will people read them and visit the site? If so, will they in turn promote participation to others in their networks?   We will also try to create a posting persona that complies with Facebook rules so that messages we post on group walls can be seen by individual members without being considered spam.   On the Regulation Room site itself, we will increase the number of opportunities for visitors to share or recommend site content within their social networks by enabling users to post their Regulation Room participation directly on their Facebook walls or Twitter accounts.

III. Virtual Rulemaking Participation: The Good, the Bad, the Ugly, the Unknown

Early Regulation Room experience confirms the potential of Web-enabled social networks for alerting individuals and groups unlikely to learn of and participate in traditionally-conducted rulemaking. It also confirms that finding effective ways to initiate, and maintain momentum in, social media-based outreach will take a fair amount of effort. User-to-user viral transmission of information can lower the barrier of rulemaking unawareness, but users have to be motivated to attend to, share, and act on the information. Particularly in the time-bounded frame of a 60-day public comment period, this will require far more investment in creative, audience-targeted proactive and reactive communication than most agencies have been accustomed to make in rulemaking outreach.

Will such investment be worth it? The answer depends on what happens when outreach is successful, and new participants enter the commenting process. Experience with first generation e-rulemaking has made many rulemakers understandably wary of broader public participation: Electronic comment submission in the form of emails has had dramatically negative consequences in several high-profile rulemakings. E-postcard campaigns by interest groups have flooded agencies with hundreds of thousands of duplicate or

near-duplicate comments that must be individually reviewed but contain virtually no information useful to decisionmakers.[74]

Whether Rulemaking 2.0 can do better at eliciting participation that is worth the effort will depend, we believe, on a number of factors. These include the nature of the particular rulemaking; the extent to which Rulemaking 2.0 systems help users successfully manage the information overload of rulemaking materials; the ability of system designers and operators to educate users about the rulemaking process and induce online behavior that is, in fundamental respects, Web 2.0 *counter*cultural; and finally, the way in which "value" in the context of public rulemaking participation is defined. In this section we offer some preliminary thoughts on these topics.

A. The Good: The Potential for Better Information

> *Knowledge is widely dispersed in society, and public officials benefit*
> *from having access to that dispersed knowledge.*
> *Executive departments and agencies should offer Americans*
> *increased opportunities to participate in policymaking*
> *and to provide their Government with the benefits*
> *of their collective expertise and information.*
> *~ Barack Obama, Memorandum on Transparency & Open Government[75]*

> *Is it realistic to think that ordinary people with jobs to do,*
> *families to attend to, and lives to lead*
> *will be able to provide helpful information to an agency*
> *engaged in a rulemaking…?*
> *Do we really think that the regulations will be*
> *"better" for the increased volume of public comments?*
> *~ Prof. William Funk, Progressive Reform Center scholar[76]*

In the early 1980s, dissatisfaction with the quality of information coming out of the conventional notice-and-comment process led a few innovative rulemaking agencies (including the Department of Transportation) to experiment with a new approach to public participation: negotiated rulemaking (or "reg neg").[77] The basic idea, created by conflict resolution specialist and law professor Philip Harter, was to bring all the affected interests together and, with the help of a trained facilitator, attempt to reach consensus on the content of the rule the agency would propose.

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[74] Stuart Shulman is the expert on the nature, effect, and motivation of these campaigns. *See, e.g.,* Stuart W. Shulman, *The Case Against Mass e-Mails: Perverse Incentives and Low Quality Public Participation in U.S. Federal Rulemaking*, 1 POLICY & INTERNET (2009); Stuart W. Shulman, *Whither Deliberation? Mass e-Mail Campaigns and U.S. Regulatory Rulemaking*, 3 J. E-GOVERNMENT, 41 (2007); Stuart W. Shulman, *The Internet Might Still (But Probably Won't) Change Everything*, 1 I/S J. 111 (2004).

[75] Memorandum for the Heads of Executive Departments and Agencies: Transparency and Open Government, *supra* note 16.

[76] Bill Funk, *The Public Needs a Voice in Policy, But is Involving the Public in Rulemaking a Workable Idea?* CPR BLOG (Apr. 13, 2010), http://www.progressivereform.org/CPRBlog.cfm?idBlog=F74D5F86-B44E-2CBB-ED1507624B63809E.

[77] EPA was the other principal experimenter with negotiated rulemaking; not coincidentally, it has also been at the forefront of Web-based rulemaking innovation. For an excellent collection of materials on the history and process of negotiated rulemaking, *see* ADMINISTRATIVE CONFERENCE OF THE UNITED STATES, NEGOTIATED RULEMAKING SOURCEBOOK (David M. Pritzker & Deborah Dalton, eds. 1995) [hereinafter ACUS SOURCEBOOK].

Prof. Harter had observed that the conventional commenting process tends to encourage adversarialness and extreme position-taking, rather than information-sharing and collaborative problem-solving.[78] Ideally, the public comment period would create a knowledge-advancing exchange during which participants react to the agency's proposal, respond to each other's comments, vet claims and data, and discuss alternative approaches. Instead, sophisticated repeat players typically wait until the last minute to file lengthy advocacy pieces that offer only knowledge favorable to their position.[79] Moreover, these comments are more likely to contain a laundry list of objections stated in the strongest possible terms than a measured discussion of sensible alternative suggestions. Negotiated rulemaking is premised on the belief that when representatives of all stakeholders come together in the same room, a trained facilitator can foster interchange that moves the parties past the stance of staking out extreme positions and leveling all conceivable criticisms, to a recognition of common undertaking in which real interests can be uncovered, information shared, and consensus developed. From this might emerge more effective regulatory solutions that everyone can "live with."

In current terminology, negotiated rulemaking tried to create an environment more conducive to peer production of knowledge. It sought to replace the collection of isolated monologues that traditional written comments often represent with genuine responsive dialogue among stakeholders including the agency. This was a revolutionary approach to how stakeholders should be involved in the process, but reg neg went even further in reconceptualizing the traditional model of rulemaking participation. One of its most radical innovations got very little attention or discussion at the time: a phase of proactive effort to identify the full range of stakeholders and ensure that all interests have adequate representation at the table.

The conventional notice-and-comment process is adversarial not just in the sense that commenters tend to position themselves as competing advocates rather than collaborative problem-solvers. More deeply, the agency's stance vis-à-vis public participation is essentially passive: Its responsibility is to give notice through legally sufficient means and to accept and review all comments it receives during the specified period.[80] To be sure, its ultimate legal responsibility is to create a rule that serves the public interest (however that may be defined in the authorizing statute), and to do so in a way that involves a defensible allocation of regulatory burdens and benefits across the range of stakeholders. But the requirement to accept public comments has never been understood as an affirmative, inquisitorial duty to seek out members of all affected groups and ensure a broadly representative range of participation.

By contrast, in negotiated rulemaking, the agency's first step must be to determine whom the affected individuals and entities are likely to be, and to identify who might be "willing and qualified" to represent these various stakeholder groups.[81] It may engage a "convenor" to assist with this,[82] but regardless of whether a convenor is involved, the agency must then announce its intention to negotiate a rule on a particular topic. It must identify what it believes to be the relevant stakeholder groups and seek public input on not only who should represent these groups, but also whether other interests should also be at the table.[83] This objective of this process is to create a negotiating committee "with a balanced representation" of all interests "significantly affected by the rule."[84] Even after the negotiating group is

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[78] *E.g.*, Philip J. Harter, *Negotiating Regulations: A Cure for Malaise*, 71 GEO. L. J. 1 (1982).

[79] In the APR rulemaking, for example, the 62-page comment of the Air Transport Association of America was filed on September 23, the last day of the comment period. No regulated industry group filed comments before Sept. 15, when Malaysia Airlines commented. The International Air Carrier Association filed on Sept. 20. All other airlines and industry groups filed on September 23.

[80] 5 U.S.C. § 553(c).

[81] 5 U.S.C. § 563(b)(2).

[82] 5 U.S.C. § 563

[83] 5 U.S.C. § 564.

[84] 5 U.S.C. § 563(a).

formed, a good facilitator will push the agency on proactive outreach if it becomes apparent that a significant interest is not present.

The academic literature has debated negotiated rulemaking's success in solving the problems of the traditional notice and comment process,[85] and the practice fell on hard times during the eight years of the George W. Bush Administration. Still, the agencies with most reg neg experience were generally quite positive about the process.[86]

Certain aspects of the negotiating rulemaking experiment seem particularly relevant to assessing the potential of Rulemaking 2.0 to produce better information. First, Rulemaking 2.0 outreach can adopt, and perhaps even extend, reg neg's redefinition of how rulemaking participation *ought* to be constructed. A deliberately-strategized, multi-media communication plan, tailored to the *particular* stakeholder populations affected by the *particular* rulemaking, should be able to leverage the viral information-spreading capacity of the Web. Outreach can be targeted to stakeholder groups that the Federal Register—even in its creative new Web 2.0 version[87]—cannot reach. Second, Rulemaking 2.0 systems can be designed to encourage commenters to engage more dialogically with others' comments. Some of these design elements are relatively simple: Threaded commenting allows users to comment not only on the agency proposal but also on what others are saying, in visible discussion "threads," and so long as users are required to register and provide a valid email address, an email can be automatically generated that alerts a commenter when someone replies to her comment and provides a direct link to that reply.[88] Other elements that encourage responsive commenting are more ambitious: human moderation or automated suggestion systems that prompt users to consider and reply to particular contributions by other users.[89]   A final group of elements, including collaborative drafting opportunities and efforts at online consensus building, are quite speculative in this context but surely worth investigating.[90]

It is probably unrealistic to expect that the online environment can support the degree of stakeholder information exchange and collaborative problem-solving that a gifted facilitator can sometimes achieve in

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[85] *See* Laura I. Langbein & Cornelius M. Kerwin, *Regulatory Negotiation versus Conventional Rule Making: Claims, Counterclaims*, and Empirical Evidence, 10 J. PUB. ADMIN. 599 (2000). *Compare* William Funk, *When Smoke Gets in Your Eyes: Reg-Neg and the Public Interest – EPA's Woodstove Standards*, 18 ENVTL. L. 55 (1987) and Cary Coglianese, *Assessing Consensus: The Promise and Performance of Negotiated Rulemaking*, 46 DUKE L. J. 1255 (1997) (critical of the process) *with* Neil Eisner, *Regulatory Negotiation: A Real World Experience*, 31 FED. BAR NEWS & J. 371 (1984) *and* Daniel J. Fiorino & Chris Kirtz, *Breaking Down Walls: Negotiated Rulemaking at EPA*, 4 TEMPLE ENVTL. L. & TECH. J. 29 (1985) (recounting DOT and EPA's positive experiences)

[86] *See, e.g.*, Eisner, *supra* note 85; Fiorino & Kirtz, *supra* note 85.

[87] http://www.federalregister.gov/.

[88] Regulation Room offered threaded commenting in both rules; automatic email notification will be added in the next version. On how participation is spurred by knowing that others are reading one's comments, see Michael J. Brzozowski, Thomas Sandhol, & Tad Hogg, *Effects of Feedback and Peer Pressure on Contributions to Enterprise Social Media*, PROCEEDINGS OF THE ACM 2009 INTERNATIONAL CONFERENCE ON SUPPORTING GROUP WORK, *available at* http://portal.acm.org/citation.cfm?id=1531684; David R. Millen & John F. Patterson, *Stimulating Social Engagement in a Community Network*, PROCEEDINGS OF THE 2002 ACM CONFERENCE ON COMPUTER-SUPPORTED COOPERATIVE WORK, *available at* http://portal.acm.org/citation.cfm?id=587078.587121.

[89] Regulation Room currently uses human moderation. Future versions will experiment with the second. We are especially interested in comparing the results of prompting users with comments similar, and dissimilar, to their own comment. *See* Pamela Ludford, Dan Cosley, Dan Frankowski, & Loren Terveen, *Think Different: Increasing Online Community Participation Using Uniqueness and Group Dissimiliarity*, PROCEEDINGS OF THE SIGCHI CONFERENCE ON HUMAN FACTORS IN COMPUTING SYSTEMS 631 (2004), *available at* http://portal.acm.org/citation.cfm?id=985772; Dan Cosley, Pamela. Ludford & Loren Terveen, *Studying the Effect of Similarity in Online Task-Focused Interactions*, PROCEEDINGS OF THE INTERNATIONAL ACM SIGGROUP CONFERENCE ON SUPPORTING GROUP WORK, 321 (2003), http://portal.acm.org/citation.cfm?id=958212&dl=GUIDE.

[90] These are also future areas of investigation for Regulation Room.

face-to-face negotiating sessions. But, compared to first generation e-rulemaking systems—which leave agencies in the passive mode of waiting for stakeholders to show up, and which continue to structure commenting as a solitary, unilateral act accomplished by typing into a form or attaching a file, and hitting "Submit"—the methods and technologies available for Rulemaking 2.0 have far greater potential to engage *more* stakeholder groups in more *dialogic* participation.[91]

Still, the question remains whether the result, in the end, will be better information than the conventional process produces. (We bracket, for the moment, the question whether generation of new information is the only valuable dimension of rulemaking participation.[92]) The two quotations at the outset of this subsection make opposing predictions. The Regulation Room project is proceeding on the hypothesis that *both* are correct. Federal agencies issue 4,000 to 8,000 new rules each year.[93] These range from the momentous and value-laden, to the interstitial and mind-numbingly technical. As Professor Funk predicts, the public *in general* likely has little useful knowledge to add to federal rulemaking *in general*. This does not mean that *segments* of the public have nothing useful to add to *specific* rulemakings. The President's prediction is likely to be true depending on the type of rulemaking and the target population(s) for outreach.

We consider three circumstances in which a purposefully designed and thoughtfully applied Rulemaking 2.0 system might produce better information.

1. Broadening the Range of Expertise. We have long known that the conventional notice-and-comment process tends to be dominated by large regulated entities, trade associations, and professional groups. After all, these are the stakeholders with the resources as well as the motivation to monitor the agency's rulemaking agenda, have ongoing informal contacts with the agency prior to the issuance of the NPRM, and orchestrate the creation of detailed, sophisticated comments once they have reviewed the details of the agency's proposal. These participants clearly have (or can generate) information that the agency needs to write sound regulations. But do they have *all* the information the agency needs?

In an ideal world, the agency would be a repository of expertise about the areas it regulates -- expertise that extends to the crucial insight of knowing what it does *not* know. Moreover, it would have the time and resources to undertake the research, commission the studies, etc. needed to fill its knowledge gaps. But agencies regulate under conditions that are far from ideal. Statutes create unrealistically short deadlines for long lists of rulemaking topics.[94] Expertise acquired by experienced regulators is lost when a cohort of employees retires.[95] Domestic program budget-cutting requires agencies continually to do

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[91] A considerable problem is posed by the practice by sophisticated commenters predominantly industry) of waiting until the very end of the comment period to submit lengthy comments. See *supra* note 79 for description of this practice in the APR rule. The solution generally advocated is a second, reply comment period. In Regulation Room, we have not focused effort on trying to engage such commenters in online discussion.

[92] *See infra* Part 4.D.

[93] The smaller number is the more commonly given statistic; the latter has been used by the official federal rulemaking portal, Regulations.gov.   *See, e.g.*, E-Gov, Presidential Initiatives, http://georgewbush-whitehouse.archives.gov/omb/egov/c-3-1-er.html (last visited Oct. 8, 2010).

[94] The estimated 243 rulemakings and 67 studies required by the Wall Street Reform Act must be completed over the next 6-18 months. Margaret E. Tahyar, Summary & Implementation Schedule of the Dodd-Frank Act (July 15, 2010), http://blogs.law.harvard.edu/corpgov/2010/07/15/summary-and-implementation-schedule-of-the-dodd-frank-act/.

[95] *See, e.g.*, William Jackson, *Social Media Helps NRC Combat Brain Drain*, FEDERAL COMPUTER WEEK (Sept. 2, 2010), http://fcw.com/articles/2010/09/06/nrc-gov-2.0.aspx; Carl Fillichio, *Getting Ready For The Retirement Tsunami: Linda Springer, Director Of The U.S. Office Of Personnel Management, Discusses What The Federal Government Needs To Do Before Its Retirement Peak in 2008–10*, THE PUBLIC MANAGER (Spring 2006), *available at* http://findarticles.com/p/articles/mi_m0HTO/is_1_35/ai_n24988081/?tag=content;col1.

more with less. As a result, observers now worry about "information capture:" agencies relying on regulated entities to for the information they need to regulate.[96]

It would be utopian to suggest that Rulemaking 2.0 will solve problems of information bias. Still, observed Web behavior suggests that it could help. Wikipedia and Slashdot[97] are well-known examples of Web-enabled "donation" of expertise to the public domain,[98] but there are others, including the innovative PeerToPatent project that enlists the broader community in helping patent examiners identify "prior art."[99] It may be that experts prove less willing to donate their knowledge to the federal government (who might be perceived as able and willing to pay for it), but it is seems premature to assume this. After all, fifteen years ago the concept of an open-source web-based online encyclopedia produced by unpaid contributors would have seemed equally implausible. To be sure, there will be questions about the credentials and motivations of "volunteer" experts—but these problems are *not* unique to Web-enabled participation. If agencies aren't asking the same questions about expertise and information paid for or proffered by regulated entities in the conventional process, they certainly should be.

Although we were disappointed by the lack of response by allergy researchers in the APR rule, we certainly do not consider it proof that experts can't be engaged in rulemaking.[100] Our outreach effort was quickly conceived and executed, when an unanticipated direction in the commenting coincided with an unpredictable extension of the comment period. It involved a single email from a university research team: We hoped that a researcher-to-researcher framing might distinguish our message from the bulk of unsolicited email, but we are under no illusions that it had the same weight as a request from the Office of the Secretary of Transportation. Perhaps most important, we did not attempt to identify peer-to-peer networks that might include allergy researchers; as discussed above, experts, even more than stakeholder groups in general, are likely to be most responsive to engagement invitations that come from members of a community of practice[101] rather than outsiders.

2. Uncovering Local Knowledge. Balanced expertise is not the only kind of specialized information that may be under-produced in current rulemaking practice. "Local knowledge"—the first-hand experience of those who deal directly with the objects and targets of rulemaking—may not find its way easily into the conventional commenting process. Agencies that engaged in negotiated rulemaking reported one of the

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[96]   *E.g.*, Wendy E. Wagner, *Administrative Law, Filter Failure, and Information Capture*, 59 DUKE L. J. 1321 (2010).

[97]   Slashdot, with the tagline "News for Nerds," is a technology-related site with discussion forums on a variety of science and technology related discussion forums.

[98]   The quality of Wikipedia articles continues to be debated and studied. The literature is collected on Wikipedia itself. http://en.wikipedia.org/wiki/Reliability_of_Wikipedia. For one of many scholarly assessments, see Denise Anthony, Sean W. Smith, & Tim Williamson, *The Quality of Open Source Production*: *Zealots and Good Samaritans in the Case of Wikipedia* (Dartmouth College Department of Computer Science, Technical Report TR2007-606, 2007), *available at* http://129.170.213.101/reports/TR2007-606.pdf.

[99] *See Peer To Patent First Anniversary Report* (Center for Patent Innovations, New York Law School, 2008), *available at* http://dotank.nyls.edu/communitypatent/P2Panniversaryreport.pdf [hereinafter *Peer to Patent First Anniversary Report*]. *See generally* BETH SIMONE NOVECK, WIKI GOVERNMENT: HOW TECHNOLOGY CAN MAKE GOVERNMENT BETTER, DEMOCRACY STRONG, AND CITIZENS MORE POWERFUL (2009) (exploring the potential of Web 2.0 to bring dispersed expertise into government decisions).

[100] Four Regulation Room participants self-identified as physicians. In the peanut allergy discussion, they talked about experience with children with severe allergies and the effectiveness and practicability of alternative solutions like having children travelers wear surgical masks; one also provided cites to the literature.

[101] On the organization and functioning of communities of practice, *see* Jennifer Preece, *Etiquette, Empathy and Trust in Communities of Practice: Stepping-Stones to Social Capital*, 10 J. OF UNIVERSAL COMPUTER SCIENCE 294 (2004); Etienne C. Wenger & William M. Snyder, *Communities of Practice: The Organizational Frontier*, 78 HARV. BUS. REV. 139 (2000).

most significant benefits to be discovery of practical, "on-the-ground" information that improved enforceability, avoided unnecessary regulatory burdens, and closed unrecognized loopholes.[102]

Local knowledge may not be relevant in *all* rulemakings but surely it can be useful to the agency in some. In the APR rule, for example, pilots, flight attendants, gate personnel and ground crews will predictably have a perspective on the impact and causes of tarmac delays, overbooking protocols, unbundling baggage and other fees, and dealing with peanut allergies that neither air travelers nor airline industry analysts can offer the agency. The one Regulation Room participant who self-identified as an airline pilot joined the Tarmac Delay discussion to explain how the compensation structure for flight crews interacted with delay at the gate versus on the taxiway, and also pointed out ways in which limitations on ground delay could perversely hurt, rather than help, travelers. This same commenter also joined the Peanut Allergy discussion on air circulation, explaining how the "the advent of more efficient turbofan engines" resulted in less fresh air exchange, and greater reliance on non-safety related maintenance of changing expensive air filters. Similarly, two of the three Regulation room participants who self-identified as working for a travel agent or global distribution system discussed the practicability of requiring air travel sellers to state the lowest possible available fare, and made specific suggestions on how and where fare information should be presented. This is a perspective unlikely to be supplied by either the airline industry or angry consumers.

It is true, as some observers point out, [103] that such stakeholders often have membership organizations, unions, or other advocacy groups that participate in the conventional notice and comment process. However, Regulation Room experience thus far cautions against assuming that these groups will have the ability and/or motivation to contribute the local knowledge of their members to the discussion. In the APR rulemaking, most organizations representing employees in the air travel industry made a strategic judgment not to file comments. (The Association of Airline Pilots did ultimately file a comment addressing one issue: the proposal that the flight crew have to "make reasonable attempts to acquire information about the reason(s)" for flight delays).[104] As a result, they did not convey the range of knowledge that pilots, flight attendants, gate agents and ground workers could bring to this rulemaking. When they also declined to pass along information about individual participation to their members, the consequence was to make this knowledge largely unavailable to DOT.[105]

As we discussed in Part II, the challenge is *reaching* individuals with local knowledge to invite them to engage them in direct participation. Organizations that have developed in the non-virtual world to be the voice of these individuals in traditional representative ways may not embrace a new role in they become facilitators of social networking among their members, or gateways for information that could motivate members not only to act directly but also to rally others to direct action. The flip side of Web empowerment of the individual is loss of control by the organization—and Rulemaking 2.0 may expose

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[102] ACUS SOURCEBOOK, supra note 77, at 3–5, 29–30.

[103] *E.g.*, Funk, supra note 76.

[104] It opposed this requirement because it would add to pilots' workload during already stressful situations. Instead, flight crews should be able to rely on information received from Air Traffic Control without having to affirmatively go out and search for information.

[105] One commenter on Regulations.gov self-identified as a 30-year pilot; much like the pilot who commented in Regulation Room, he opposed the tarmac delay regulations on grounds that they often hurt passengers—even if there is space to deplane passengers, which there often is not, another flight crew often has to be brought in, resulting in an even longer delay. He reported his experience that when passengers were asked if they would rather deplane and have a longer delay/cancellation, or just wait it out, no more than a couple of passengers wanted to deplane. A handful of other Regulations.gov commenters identified themselves as pilots but their comments did not reflect this particular perspective (e.g., they suffered peanut or other allergies).

the point at which the interest of the group diverges from the interest of its members.[106]   Some organizations will predictably be highly resistant to any effort at disintermediation. Unions, for example, instantiate belief in collective action.[107]   Encouraging individual participation cannot be reconciled with the group's constitutive understanding of what it means to provide members with effective voice. Other kinds of organizations may be more able to reframe their institutional role to include not only giving their members a voice collectively, but also providing information that enables members to speak directly as individuals if they choose. An important part of outreach will be discovering ways to form alliances with representative organizations when possible, so that they are motivated to pass on the message to their members, and, when such alliances are not possible, finding methods to reach their members without them.

3. <u>Gauging Public Reaction.</u> Finally, the general public—or at least very broad sections of it—will sometimes have something important to add to the process. Majority rule is not the decision making principle in rulemaking, but there are rulemakings in which broad-based public reaction is directly relevant to the issues, or in some other way useful to the agency. For example, in Summer 2009 DOT proposed a new tire labeling rule in response to a Congressional mandate that consumers be provided with information on how tire choices can affect vehicle fuel economy.[108]   Although this rulemaking raised various highly technical issues of metrics and testing protocols, the core questions were about how best to provide the newly required information, given existing tire labeling requirements and consumer tire-purchasing behavior. DOT sought general public reaction to various label designs and configurations, as well as to different methods of disseminating the rating information.

In the APR rulemaking, DOT was eager to use Regulation Room to obtain more participation from the air traveling public. We have no "inside information" on the agency's reasons, but we can imagine several possibilities. Most obviously, air traveler experiences are potential sources of local knowledge on, for example, whether current procedures adequately inform travelers of their rights and options in oversale situations. More broadly, knowing the strength of public reaction on various aviation consumer issues may help DOT prioritize its regulatory interventions. The airline industry had been struggling financially, and new restrictions on overbooking, fee structure, and tarmac delay are likely to be strenuously resisted on economic grounds. Faced with potential consequences of fare hikes or further service cuts, DOT may need to choose its consumer-protection battles. Finally, the possibility of restricting the service of peanuts has provoked strong, regionally-based Congressional opposition. Hearing from those advocating regulation (including, in the words of the NPRM, "scientific *or anecdotal evidence* of serious in-flight medical events"[109]) may make it easier to overcome political opposition if DOT were to conclude that peanut restriction is medically justified.

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[106] Prof. Shulman has compellingly described the institutional interests of advocacy groups that motivate them to generate mass e-mail campaigns in high-profile rulemakings, even as the group leadership recognizes that this is not substantively effective rulemaking participation for their members. Shulman, *Perverse Incentives*, *supra* note 74, at 30 n.7; Stuart Shulman, Remarks at Participation in Rulemaking at the American University Center for the Study of Rulemaking (Mar. 16, 2005) (transcript available at http://www1.american.edu/rulemaking/panel4_05.pdf).

[107] In 2008, 46% of all workers in the air transportation industry were union members or covered by union contracts, compared to 14% of workers throughout the economy. Bureau of Labor Statistics, Career Guide to Industries, 2010–2011 Edition: Air Transportation, http://www.bls.gov/oco/cg/cgs016.htm (last visited Oct. 8, 2010).

[108] Tire Fuel Efficiency Consumer Information Program, 74 Fed. Reg. 29542 (proposed June 22, 2009). This rule was the basis of the Regulation Room limited public beta test, which did not occur until after the official comment period on the rule had closed.

[109] 74 Fed. Reg. at 32332.

Accepting "public reaction" as a kind of "better information" worries some rulemaking observers.[110] They fear it is likely to end in reducing rulemaking to a highly politicized plebiscite. And, in the small handful of cases where public reaction might be truly relevant, they reject online participation as an unreliable and unrepresentative vehicle for agencies to get it. These are not trivial concerns, but we believe they rest on assumptions that should at least be made explicit and examined.

The unspoken assumption behind the first objection is that the conventional comment process usually functions as something *other* than a way for agencies to gauge the reaction of the stakeholders. In fact, we know relatively little about what the notice-and-comment process typically adds to rulemaking. Systematic data gathering has been difficult given the volume of rulemaking records and, until very recently, the inability to use even basic automated information retrieval techniques.[111] In a 2005 survey of the existing research, political scientist William West identified three areas of agreement: (1) organized groups will often submit comments on issues that affect them; (2) agencies spend a good deal of time and effort evaluating the comments they receive; and (3) agencies change proposed rules fairly often in ways that are consistent with some of those comments (although, he notes, researchers disagree about the significance of those changes).[112] Note that neither these findings, nor the well-documented belief of organized groups that participation in the comment process is effective,[113] tells us precisely *what* the comments contain that agencies are attending and (to some disputed degree) responding to. In particular, they do not establish how often comments, even by sophisticated commenters, give agencies specific new substantive information. Prof. West's own study, involving 42 rules, concluded that the role comments played most successfully was providing information about constituent views.[114] A subsequent larger study by political scientist Stuart Shapiro concludes that the likelihood of the agency changing the proposed rule was significantly affected by the extent of commenting activity, but points out that his finding that comments make a difference does not resolve whether this is so because comments provide new information to agencies or because they provide signals to political overseers that changes are necessary.[115]

As it turned out, the texting rule presented a good example of comments functioning primarily to apprise the agency of the scope, nature, and intensity of support and opposition within affected groups. In announcing the final rule, the Federal Motor Carrier's Safety Administration (FMCSA) described and responded to the comments it received; nothing in its five Federal Register-page explanation suggests a regulatory epiphany.[116] Organizations representing large vehicle fleets defended the initial proposal to exempt fleet management devices from the rule; the association representing independent owner operators complained about the unfairness of this exemption. The organizations representing large fleets wanted

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[110] *E.g.*, Funk, supra note 76; Stuart M. Benjamin, *Evaluating E-Rulemaking: Public Participation and Political Institutions*, 55 DUKE L.J. 893, 905-08 (2006).

[111] For most of the modern rulemaking era, most rulemaking dockets are in hard copy. Even once electronic dockets emerged, the common use of image-based PDFs has hampered search and other information retrieval techniques. Even now, much of the comment material on regulations.gov is not readily searchable because of the format in which it is submitted.

[112] William West, *Administrative Rulemaking: An Old and Emerging Literature*, 65 PUB. ADMIN. REV. 655, 661-62 (2005).

[113] See KERWIN, supra note 7, at ***.

[114] William West, *Formal Procedures, Informal Processes, Accountability, and Responsiveness in Bureaucratic Policy Making: An Institutional Policy Analysis*, 64 PUBLIC ADMIN. 66 (2004).

[115] STUART SHAPIRO, WHY DO AGENCIES CHANGE THEIR PROPOSED RULES? (2007). It should be noted that the finding that change correlates with number of comments does not mean that rulemaking in actuality operates as a plebiscite. 33% of the 860 rules in his datasets had 0 comments. Another 40% had 1–10 comments, and 20% had 10–100. Of the 7% that had more than 100 comments, only a handful had more than 2000, indicating the kind of grassroots, get-out-the-vote campaign that presents plebiscite concerns.

[116] Limiting the Use of Wireless Communication Devices, 75 Fed. Reg. 59118 at 59125-59130 (Sept. 27, 2010).

the provision on employer liability for employee texting weakened; the unions wanted stiffer provisions about employers. The association representing insurance companies argued that the proposed exception for manually entering a phone number or voice mail code was equally distracting and should be banned; safety groups argued that the agency hadn't gone far enough in the type of vehicles or the activities covered. The union wanted the agency to exempt public transit workers; the association of state legislatures complained that three years for passage of implementing laws before loss of highway funding was not enough time. No one provided new distracted driving data.[117] In the end, FMCSA narrowed the exemption for fleet management devices to use of those devices for other than texting, and it adjusted the scope of covered vehicles to reach a small group of drivers the proposed rule had discretionarily omitted.

Reviewing the comments made on Regulation Room about halfway through the texting rule, Professor Funk observed with concern that "none of them provide any usable data or identify any new concern or perspective."[118] The problem with this observation is not its accuracy, but rather the implication that something else was going on in commenting by industry and other organized groups in the conventional process. These groups did flag aspects of the texting proposal as especially important, or troubling, to them, and FMCSA did make some responsive changes. But none of the support or criticism in the comments seems surprising. Rather, in this rulemaking the conventional comments appear to serve largely to apprise the agency of the nature, depth and focus of stakeholders' reaction, and to confirm that the state of the relevant information is pretty much what FMCSA supposed.

So, the question is whether Rulemaking 2.0 should be held to what is, in effect, a higher standard of justification than conventional commenting. Here is the argument that it should: Because of the power of social networking, the Web can amplify the impact of public participation that is little more than a bare expression of preferences. The sheer volume of sentiment that can be generated in online forms of participation is likely to compel behavior by rulemakers and their political overseers that undermines sound regulatory decisionmaking.

We agree that broad-scale Web-based participation is vulnerable to plebiscite problems. Indeed, for reasons we explore in the next section, we believe it is even *more* vulnerable than the skeptics have recognized, and that agencies should be very wary of mistaking Rulemaking 2.0 for low-hanging open government fruit. We also agree that politicization of rulemaking is, in general, a bad thing. But interest group-generated political interference in regulatory decisionmaking is not a new problem. In the APR rulemaking, peanut growers had politicized the peanuts-on-a-plane issue back in 1999—long before most people ever heard of the World Wide Web. They induced their congressmen to use an appropriations rider to ban DOT from even issuing guidance on the topic.[119] As DOT tries to reengage the issue a decade later, peanut growers have not been content just to file comments in the rulemaking like everyone else. They again mobilized congressional intervention—so quickly that, less than a month into the comment period, DOT issued a "clarification" of its legal authority in the area.[120] If Web-enabled public participation does increase politicization of rulemaking, it will do so by increasing the number of directions from which political pressure on the agency is generated. It is hardly self-evident that the

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[117] *Id.* at 59,129.

[118] Funk, *supra* note 76.

[119] *See* Pub. L. No. 106–69, § 346, 113 Stat. 1023 (1999).

[120] Clarification to Notice of Proposed Rulemaking, 75 Fed. Reg. 36300 (June 25, 2010). According to published reports, two Georgia congressmen "contacted top ranking officials at the agency" to express opposition. *See* Halimah Abdullah, *Proposed Federal DOT Peanut Ban on Airlines Crunched*, MACON.COM, June 24, 2010, http://www.macon.com/2010/06/24/1173503/proposed-federal-dot-peanut-ban.html   One   of   them, Congressman Bishop, posted on his website the letter he has sent to Secretary LaHood, under the caption "Bishop to LaHood: This is Nuts," http://bishop.house.gov/index.php?option=com_content&view=article&id=475:bishop-to-lahood-this-is-nuts&catid=19:latest-press-releases&Itemid=62.

ultimate outcome of the battle over peanuts-on-a-plane will be less rational, or public interest-regarding, if those favoring regulatory intervention also have political champions in the fray.

The second objection—that even when public reaction is relevant, it is not properly gauged through online forms of engagement—raises the "digital divide" concern that has plagued e-government from the outset. Systematic differences in technology access and proficiency by age, gender, race and economic status surely still exist.[121] The 2009 Pew Internet and American Life Project's report on "The Internet and Civic Engagement" concluded, "Just as in offline politics, the well-off and well-educated are especially likely to participate in online activities that mirror offline forms of engagement."[122] However, patterns of online usage are becoming more complex, and, as with so much else about the Web, are evolving rapidly. The 2010 report found that African Americans and Latinos were significantly more likely than whites to consider government use of social media as helpful and informative.[123] More generally, Pew has found that use of social media by Blacks and Latinos far outpaces that of whites.[124] In terms of age demographics, younger users still make up a disproportionate share of those online, but shifts are occurring here as well. A 2010 survey of users on nineteen poplar social networking sites found that the dominant group is 35–44 year-olds; users in the 45–54 age group participate at a rate equal to that of 25–34 year olds and considerably higher than younger users.[125] Although people over 55 are still the smallest Facebook user group by a long shot, this group is also the fasted growing, increasing from 2.3% to 9.5% of users in 2009 alone.[126]

Whether, and how, changing patterns of Internet access and social media use will affect online engagement in rulemaking remains to be seen.[127]   The youth bias of online usage may be counterbalanced, in this particular context, by the fact that even the most publicly accessible issues of federal rulemaking are likely to have little interest for teens and young adults. In both the texting and APR rules, what demographic information we could obtain about those who commented on Regulation Room is consistent with this hypothesis.[128]   Certainly, agencies should be aware of selection biases

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[121]   The focus of current concern is on broadband access—that is, a form of Internet access that allows faster data transmission. Users experience the difference between broadband and dialup primarily as the speed with which a webpage loads—something that can be especially significant for Rulemaking 2.0 sites like Regulation Room that contain both a lot of information (e.g., comments) and interactive functionality.

[122] Aaron Smith, Kay Lehman Schlozman, Sidney Verba & Henry Brady, *The Internet and Civic Engagement* (Pew Internet & American Life Project) Sept. 1, 2009, *available at* http://www.pewinternet.org/Reports/2009/15--The-Internet-and-Civic-Engagement.aspx.

[123] Aaron Smith, *Government Online* (Pew Internet & American Life Project) Apr. 27, 2010, *available at* http://www.pewinternet.org/Reports/2010/Government-Online.aspx.

[124] Lauren Coleman, *The Power of the Rising Social Media Class*, BUSINESS INSIDER, May 4, 2010, http://www.businessinsider.com/the-power-of-the-rising-social-media-class-2010-5. For example, Blacks make up 25% of Twitter users; they represent about 12% of the general US population. *See* Nick Saint, *Everything You Need to Know About Who's Using Twitter*, BUSINESS INSIDER, Apr. 30, 2010, http://www.businessinsider.com/everything-you-need-to-know-about-whos-using-twitter-2010-4.

[125]   *Study: Ages of Social Network Users*, PINGDOM, Feb. 16, 2010, http://royal.pingdom.com/2010/02/16/study-ages-of-social-network-users/.

[126] Peter Corbett, *Facebook Demographics and Statistics Report 2010– 145% Growth in 1 Year*, ISTRATEGYLABS, Jan. 4, 2010, http://www.istrategylabs.com/2010/01/facebook-demographics-and-statistics-report-2010-145-growth-in-1-year/.

[127]   The large emerging literature on how the Internet will effect civic participation includes Kay Lehman Schlozman, Sidney Verba & Henry E. Brady, *Weapon of the Strong? Participatory Inequality and the Internet*, 8 PERSPECTIVES ON POLITICS 487 (2010); Helen Z. Margetts, *The Internet & Public Policy*, 1 POLICY & INTERNET 1 (2009).

[128] In the texting rule, 13 users responded to a survey sent by email to registered users (143). In the APR rule, at the time this article was written 54 people had responded to a survey emailed to registered users (1362) and posted on the website.

introduced by online participation.[129]   But, once again, the real question is whether Rulemaking 2.0 should be held to a higher standard than conventional processes. Selection bias exists in *any* public participation method. Do we really believe that the individuals and groups who show up to participate in public regulatory hearings, or in the traditional notice-and-comment process, are a reliably representative sample of the population by age, gender, race, economic status, or viewpoint? The inequities introduced by traditional public participation methods are not less problematic than those introduced by online participation, they are simply more familiar.

B The Bad: The Voting Instinct and Drive-By Participation

> *My suggestion is to . . . ask for votes,*
> *using for example 5 choices from strongly agree to strongly disagree . . .*
> *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?*
> *What you already have is useful but too time consuming for me.*
> *~Email from Regulation Room visitor*

Effective commenting requires an investment of attention and time. This is not just because rulemaking agencies are trying to solve problems that are complex, interrelated and often dependent on scientific, technical, and other forms of specialized knowledge. More fundamentally, it is because of the nature of the federal rulemaking process.

1. **"Regulatory Rationality" & Information Overload**.   Judicial review of new regulations at the behest of unhappy stakeholders has constructed federal rulemaking as a particular form of reasoned decisionmaking.[130]   Rulemakers must not only act within, but also *correctly perceive*, the scope of their legislatively delegated discretion. They must identify the statutory goals they are trying to further and explain how the new rule will further those purposes. They must assemble and consider the relevant facts, explain the connection between the facts found and the choices made (including distinguishing or otherwise explaining away facts that don't fit), respond to salient questions and criticisms raised by commenters, and discuss why alternative solutions were not chosen. In sum, they must conduct themselves according to a *legal* model of how a rational decisionmaker approaches the task of solving a difficult and important problem. On top of the demands of judicial review, Presidential oversight has demanded that agencies demonstrate the *economic* rationality of their proposed regulations through

	Texting Rule (R=13)	APR (R=54)
Under 30	0	3.8%
30-39	16.7%	9.4%
40-49	8.3%	17%
50-59	33.3%	26.4%
60 or older	41.7%	43.4%

We do not suggest this limited number of responses resolves demographics questions, but it is consistent with the other information we have. In the APR rule, several commenters on the peanut allergy issue gave some indication of their age: at least 19 people identified themselves as parents; the stated ages of their children ranged from 2 to 23 years. Three people identified themselves as grandparents. A few people specifically stated their own ages (28, 37, and "late twenties"), while others gave implicit age information: One was an "experienced pilot"; one had been "flying for 59 years"; one had been a flight attendant for "19+ years"; two said they were physicians.

[129] Agencies can take several measures of public reaction. In the tire labeling rulemaking, for example, DOT had conducted focus group trials of various label designs and configurations.

[130] For more detailed discussion of the legal requirements summarized in this paragraph, see LUBBERS, *supra* note 14, at 376–85.

cost/benefit   analysis.[131]   And finally, both Congress and the President have required rulemakers to demonstrate particular kinds of *political* rationality by showing that they have attended to a variety of politically favored interests and groups, including the environment, privacy, private property, small businesses, state and local governments, Native tribes, children's health and safety, and the national energy supply.[132]

The resulting amalgam—which we will shorthand as agencies' duty to demonstrate "regulatory rationality" in rulemaking—has consequences that are an object lesson in the blessing and the curse of transparency. On the one hand, stakeholders wanting to participate in rulemaking have access to a great deal of information about how the agency assesses the situation and what it is trying to accomplish. On the other hand, stakeholders wanting to participate *effectively* in rulemaking have to master a great deal of information in order to provide the kind of comments to which the agency must attend. As rulemakings go, neither the texting rule nor the APR rule was technically complicated. Yet, the texting NPRM was a 13 page, 12,800 word document, written at a college reading level.[133] The regulatory impact analysis and preliminary environmental assessment added another 39 pages and 14,731 words. And then there were the 7 citied studies. In the APR rulemaking, the NPRM was 22 pages and 24,800 words, at a post-graduate reading level, with a 107 page, 35,178 word regulatory impact analysis.

Rulemaking 2.0 systems have two basic strategies for helping users manage the cognitive demands of rulemaking: thoughtful design of the site's information architecture, and human assistance.[134] Regulation Room is experimenting with both strategies. As explained above, the team of students and faculty divides the agency proposal into conceptually coherent issues manageable for discussion. The complete set of these issues can be reviewed, and accessed, through a "rule dashboard." The issue post on each issue summarizes relevant content of the NPRM and "translates" it into (reasonably) plain English. Information layering, through hyperlinks and a glossary application, allows users wanting more depth to access the NPRM, rule text, impact analyses, and other legal and scientific material—while providing additional explanation for users who require it.[135] Human facilitative moderation supplements this information design. Trained moderator teams mentor more effective commenting by pointing users to relevant information, by prompting them to provide explanations, factual details, and data for their statements, and by encouraging them to consider and engage the points of other commenters.[136]

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[131] *See* Office of Information and Regulatory Affairs, Reginfo.gov, http://www.reginfo.gov/public/ (last visited Oct. 8, 2010).

[132] LUBBERS, *supra* note 14, at 241-72..

[133] Reading levels here are estimated using the Flesch-Kincaid scale, a widely used measure of readability.

[134] Drawing on cognitive psychology and learning theory, Arthur Lupia describes the basic objectives that must guide the information design of an online system aimed at increasing civic deliberative participation: 1) "attract the audience's attention and hold it for a non-trivial amount of time;" 2) "affect the audience's memories in particular ways" – specifically, by causing information to be processed from short-term to long-term memory; and 3) cause the audience "to retain subsequent beliefs – or choose different behaviors – than they would have had without deliberation." Arthur Lupia, *Can Online Deliberation Improve Politics? Scientific Foundations for Success*, *in* ONLINE DELIBERATION: DESIGN, RESEARCH, AND PRACTICE, 59, 59 (T. Daives & S.P. Gangadharan eds., 2009).

[135] Technology will increasingly assist in building such information architectures. Applications already exist to enable users to automatically access legal sources like statutes, cases, and the Code of Federal Regulation. *See, e.g.,* LII Citer, *available at* http://topics.law.cornell.edu/lii/citer. Eventually, research in natural language processing techniques is likely to automate, or at least significantly support, summarization and plain-English translation. Automatic categorization and sentiment detection research is creating systems increasingly adept at collecting and presenting all comments on a topic that support, or oppose, the agency proposal.

[136] On the value active moderation can add to online knowledge management and creation, *see* J. Gairin-Sallan, D. Rodriguez-Gomez & C. Armengol-Asparo, *Who Exactly is the Moderator? A Consideration of Online Knowledge Management Network Moderation in Educational Organisations*, 55 COMPUTERS & EDUCATION 304 (2010).   In some online communities, users themselves take on the tasks of orienting new members, articulating and enforcing community norms, and pointing users to other areas of likely interest. Sometimes, as in Wikipedia and Slashdot, this

2. Bad Habits. At the end of the day, however, even the best Rulemaking 2.0 system can go only so far in managing the rulemaking information overload for users. Making comments that count in the rulemaking process—rather than merely expressing supporting or opposing sentiment—requires people to pay careful attention to the information on the site and, perhaps, to thoughtfully engage what others are saying. Unfortunately, this is not what most visitors to a rulemaking participation website will come predisposed to do.

Americans increasingly report using the Web, rather than conventional media, as their source of news,[137] but they do not invest much time in the process. Pew's 2010 State of the News Media study reports that the average visit to an online news site lasts 3 minutes and 4 seconds.[138] (We have, for this reason, been encouraged that the more than 24,000 visits to Regulation Room during the APR rule averaged 3.17 minutes.[139]) Of course, some users and some sites show much higher attentional investment.[140] But Web designers have long recognized a basic Web-use pattern: "What [users] actually do most of the time (if we're lucky) is *glance* at each new page, scan *some* of the text, and click on the first link that catches their interest…."[141] According to one recent estimate by a social media expert, 64% of web pages are never scrolled – meaning that more often than not, people don't even bother to check what lies "below the fold" of their monitor screen.[142] These basic habits of Web use do not prepare people for the attentional investment required by a rulemaking participation site.

The second problematic predisposition users bring to rulemaking is that American popular culture equates public participation in government decision making with voting—either in formal elections, or through the continual stream of opinion polls conducted by every major media outlet, many interest groups, and several prominent research services. And this culture supports (or at least tolerates) a very low level of informational investment in citizen participation. The level of political literacy in the U.S. population is notoriously low. Studies repeatedly show that a majority of citizens cannot correctly answer basic civics questions,[143] and that a high proportion of voters are mistaken about the position of even the major

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is a formal division of labor, with users being promoted to moderating/administering powers; other times it happens informally. *See* Dan Cosley, Dan Frankowski, Sara Kiesler, Loren Terveen, & John Riedl, *How Oversight Improves Member-Maintained Communities*, PROCEEDINGS OF THE SIGCHI CONFERENCE ON HUMAN FACTORS IN COMPUTING SYSTEMS (2005), *available at* http://portal.acm.org/citation.cfm?id=1054972.1054975 (describing approach of various sites). We are uncertain about the extent to which this sort of behavior can be cultivated on a Rulemaking 2.0 site, given the diverse content and episodic nature of rulemaking, combined with the short duration of the comment period. Clearly it is desirable, not only because it spreads the moderation workload but also because it strengthens the sense of online community and common enterprise. *See id*.; Rosta Farzan, Joan M. DiMarco, & Beth Brownholtz, *Spreading the Honey: A System for Maintaining an Online Community*, PROCEEDINGS OF THE ACM 2009 INTERNATIONAL CONFERENCE ON SUPPORTING GROUP WORK (2009), *available at* http://www.joandimicco.com/pubs/farzan-group09-honeybees.pdf.

[137] Kristen Purcell, Lee Rainie, Amy Mitchell, Tom Rosenstiel & Kenny Olmstead, Understanding The Participatory News Consumer: How Internet And Cell Phone Users Have Turned News Into A Social Experience 3 (Pew Internet Project for Excellence in Journalism), Mar. 2010, *available at* http://www.pewinternet.org/~/media//Files/Reports/2010/PIP_Understanding_the_Participatory_News_Consumer.pdf.

[138] *The State of the News Media: An Annual Report on American Journalism* (Pew Project for Excellence in Journalism) 2010, *available at* http://www.stateofthemedia.org/2010/online_nielsen.php.

[139] Average time spent on the Issue Post pages ranged from 2:47 on Customer Service to 4:13 on Peanut Allergies.

[140] For example, the Huffington Post and the New York Times site.

[141] STEVE KRUGG, DON'T MAKE ME THINK: A COMMONSENSE APPROACH TO WEB USABILITY 45 (2000).

[142] Dana VanDen Heuvel, American Marketing Association Advanced Social Media Workshop, Sept 21, 2010.

[143] *E.g.*, ILYA SOMIN, CATO INST., WHEN IGNORANCE ISN'T BLISS: HOW POLITICAL IGNORANCE THREATENS DEMOCRACY 1 (Sept. 22, 2004), http://www.cato.org/pub_display.php?pub_id=2372 (collecting studies).

presidential candidates on highly publicized issues.[144] Anyone can respond, without any demonstrated information or competence, to a telephone survey about health care legislation[145] or vote in an online poll about whether "Iranian Jews should take the incentives and emigrate to Israel,"[146] thereby creating what is solemnly reported as what Americans think. As a national political community, we are not acculturated to regard knowledge and preparation as the entry ticket to participation in government decision making.

Finally, this expectation of a universal, noncontingent right of participation is reaffirmed, and generalized, in current social media culture. Web 2.0 technologies have democratized the Internet: Now *all users,* not just those with knowledge or resources, can determine content. In this radically leveled environment, anyone with an Internet connection is not only enabled, but encouraged, to review books, movies, restaurants, electronics, legal and medical care, college professors, and news stories, and then have their views presented to the world on an equal footing with anyone else's. More accurately, their views are *initially* presented, for in social media culture (as in popular political culture) social value is determined by voting. Anyone with an Internet connection can, by rating or ranking, determine which photos, videos, opinions, answers, and ideas are the best, the most interesting, or the most important. Usually, the one with the most votes wins and, because of the power of social networking, ordinary people can mobilize geometrically increasing numbers of like-minded others to vote up, or vote down, content. This is the blessing and the curse of Web-enabled crowdsourcing. Depending on the nature and structure of the project, it can result in remarkable accomplishments like the Linux operating system, Wikipedia, and Amazon's Mechanical Turk.[147] Alternatively, it can produce sobering collective judgments like a White House Open Government brainstorming that put resolving questions about President Obama's birth certificate and legalizing marijuana at the top of national priority list.[148]

3. Using, and fighting, Web 2.0. For these reasons, users unfamiliar with rulemaking are likely to come to a Rulemaking 2.0 site primed with all the wrong instincts and expectations. This presents system designers with hard questions about using familiar social media technologies and methods.

Consider, for example, voting devices. There are at least two good reasons why so many social media applications (including many of online participation tools agencies now have available through General

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[144] *E.g.*, Richard Lau, David Anderson, & David Redlask, *An Exploration of Correct Voting in Recent U.S. Presidential Elections*, 52 AM. J. POL. SCI. 395, 406 (2008) (examining data from 1972-004 presidential elections to conclude that, on average, "about one-quarter of all voters voted incorrectly" in light of their expressed policy preferences). Additional studies are collected in Cynthia R. Farina, *False Comfort and Impossible Promises: Uncertainty, Information Overload, and the Unitary Executive*, 12 J. CONSTIT. L. 357, 387–83 (2010).

[145] For a list of roughly 100 polls taken on the health care legislation by national media and polling organizations, and correlation of their results to show majority opposition, see http://www.pollster.com/polls/us/healthplan.php.

[146] This is the actual wording of one of the "Top rated" polls on Youpoll.com.

[147] Amazon's Mechanical Turk is an Internet marketplace in which programmers identify tasks done more efficiently by humans than computers ("human intelligence tasks" or HITs)—such as identifying objects in a photo or video or transcribing audio recordings – and pay a small amount per item to anyone who comes forward and satisfies the requester's criteria for qualifications and work quality. *See* Amazon Web Services, Amazon Mechanical Turk http://aws.amazon.com/mturk/ (last visited Oct. 8, 2010).

[148] Open Government Dialogue, All Ideas, http://opengov.ideascale.com/a/ideafactory.do?id=4049&mode=top (last visited Oct. 8, 2010). Similarly, in the National Dialogue on ideas and tools to increase the success of Recovery.gov, the two ideas receiving the "Most Comments" were about products submitted by their creators and voted up with numerous brief endorsements. *See* PAUL JOHNSTON, CISCO INTERNET BUSINESS SOLUTIONS GROUP, OPEN GOVERNMENT: ASSESSING THE OBAMA ADMINISTRATION'S EFFORTS TO MAKE GOVERNMENT TRANSPARENCY A   REALITY   (2009), http://www.cisco.com/web/about/ac79/docs/pov/Open_and_Transparent_Government_Formatted_120209FINAL.pdf.

Services Administration-procured terms of service agreements[149]) offer some sort of rating, ranking, or thumbs up/down functionality. First, information science research confirms that the ability to give, and get, recommendation can be a powerful user-engagement device.[150]   The ability to star or otherwise register an opinion satisfies Web 2.0 users' expectation of being able to interact quickly with content on the site; the possibility of being starred or otherwise endorsed motivates people to continue to contribute content. Second, these voting mechanisms can help manage information volume. Regardless of comment quality, an aggregation mechanism that allows fifty people to join one comment is more efficient than fifty separate comments making the same point.   And, at least in contexts where users can make knowledgeable judgments, rating mechanisms can help sort out valuable content from a large and indiscriminate mass.

Ironically, however, the more successful Rulemaking 2.0 outreach is, the more problematic it becomes for the site to offer these features. Rating comments is not like rating movies or restaurants. Users who have never participated in the conventional process are highly unlikely to be knowledgeable about what makes a "good" rulemaking comment.   And voting devices are worse than useless if they reinforce users' starting assumption that the agency will respond to the position that has the most supporters.

For these reasons, we have been very cautious about incorporating rating and endorsement devices into Regulation Room. The most recent version tried to capitalize on the engagement potential of voting without triggering its negative side-effects. In the APR rule, a colorful and conspicuously placed poll allowed visitors to select among several passenger rights issues in answer to the question "What matters to you?" This question, modeled after an engagement strategy group facilitators use in non-virtual settings, was carefully framed *not* to suggest that users were voting for any particular regulatory response. The poll also served a channeling function: After a visitor "voted for" an issue, she was prompted with a link to the Issue Post that she apparently would be most motivated to read about and discuss.[151]

We have no current plans to add voting functionality connected with individual comments (beyond enabling users to "recommend" or "share" the comment on Facebook, Twitter and other social networking media). Without a more broadly shared understanding of what an effective comment looks like, we believe that enabling users to rate comments with stars, or thumbs up or down, is likely only to reinforce the rulemaking-as-plebiscite assumption. Creating such an understanding by educating users about the rulemaking process is a key objective of a Rulemaking 2.0 site. However, based on our experience so far, simply providing materials about the process and effective commenting is relatively unsuccessful when users assume they already know how public participation works.[152]   In the next version, we will allow moderators to star (or otherwise recommend) high-quality comments. Our goal is to see whether identifying exemplars will, over the course of the comment period, induce better understanding of comment "value," especially if facilitative moderation is simultaneously nudging all commenters to improve the quality of their comments by adding reasons, facts, alternatives, etc. If this "expert" rating system succeeds, we may be able to "promote" users who have mastered good commenting by giving them moderator-like powers.

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[149] See the list at https://forum.webcontent.gov/Default.asp?page=TOS_agreements. Ideascale (brainstorming) and Mixed Ink (collaborative drafting) were used in the Open Government Dialogue.

[150]   *E.g.*, Farzan, DiMicco & Brownholtz, *supra* note 136; *see also* Ludford & al., *supra* note 89.

[151] The poll did generate interest: more than 13,000 votes were cast (1189 visitors registered as users; 348 users made comments).   The results of the poll are visible on the site; we did not report them to DOT in the Final Summary of Discussion.

[152]   During the APR rule, the Learn About Rulemaking pages on the site were viewed 251 times; total page views during the rule exceeded 67,700.

We are curious whether a function like "*This comment was useful to me*" could allow all users to recognize (and so incentivize) thoughtful participation without encouraging the voting instinct. This is an area for future experimentation – as is the question whether a carefully structured opportunity to "*Sign on*" to comments can decrease the incidence of multiple, substantively overlapping comments without creating the appearance of "majority rules," and the consequent temptation to use social networking simply to run up the vote.

The basic point is that Rulemaking 2.0 systems will have to work diligently to tame the voting instinct and to change the habits of low-investment participation. Our early experience suggests that some progress can be made: The sheer novelty of a site like Regulation Room disrupts visitors' assumptions about what to do and how to behave, thereby creating a window in which a distinctive culture can arise. One of our student team members first noticed that comments posted on Regulation Room differ from "typical" blog comments. Almost universally, our commenters write in full sentences, use punctuation and correct spelling and grammar, and avoid abbreviations. And they respond surprisingly often to moderator requests that they "improve" their comments.[153]

At the same time, our experience is that some people will push back, and push back hard. Drive-by participation is all that some users want, and they expect to be able to do so immediately, with minimal thought or effort. Their reaction to a site that doesn't conform to these expectations can be more vehement than simply a making a quick exit. Rulemaking 2.0 system designers are thus tempted to seek a middle ground: to challenge and support as many users as possible to participate through informed commenting, but also to provide those who insist on "just voting" with ways to do so that don't interfere with, or overwhelm, genuine participatory engagement. We repeatedly debate this "containment" strategy within the design team, simultaneously recognizing its appeal and skeptical that it will work. The voting instinct may be so strong (particularly in the context of public participation in government decisionmaking on a Web 2.0 site) that *any* accommodation will sabotage efforts to create a new participatory culture that makes higher demands on online community members.

C. The Ugly: Of Flaming, Trolls and Snarks

> *"Methinks you have an agenda. Highly suspicious that the child*
> *of a physician who is hyper aware of bad things that can happen*
> *coincidentally has not one, but three life threatening allergies.*
> *Have you heard of Munchasen by Proxy?*
> *Do you realize that most kids have mild reactions to various food items*
> *that they invariably grow out of by the age of 5?*
> *Food allergies have to be the most overblown imagined health problem*
> *of our time. Hypochondriacs all."*
> *-- "Howie" responding to "Doctor Mom"*
> *in APR peanut allergy discussion*

> *"Gullible parents telling their kids not to eat peanuts*
> *because they are or might be allergic causes needless anxiety*
> *for those children, and when they finally are exposed to peanuts or peanut dust,*
> *they end up having an allergy. That's irresponsible parenting."*

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[153]   In the texting rule there were thirteen instances where moderator response was designed to elicit additional information or elaboration; nine (69%) resulted in response from users and four (31%) resulted in no response. Preliminary data analysis from the APR rule follows a similar trend, with moderator receiving a response to questions approximately 70% of the time. Sometimes the response comes from the original commenter; other times, another commenter responds.

--"Mulder" in APR peanut allergy discussion

Drawing the line between robust debate that advances knowledge-creation and speech that harms civic deliberation is a familiar dilemma in democracies. It has even greater salience for public participation websites because of the "online disinhibition effect": People will say things to one another online that they would never say in non-virtual conversation.[154]

The phenomenon was first observed and studied in the context of email, but Web 2.0 has raised uncivil discourse to new levels of prevalence and intensity. "Flaming" is the general term for adding online content that is hostile, aggressive, or insulting.[155] The behavior exists on a spectrum. "Trolls" engage in the most extreme form: cruising the Internet to deliberately insert inflammatory, offensive, or off-topic content to disrupt or divert online discussion. Mainstream Web norms clearly regard trolling as misconduct. The status of less extreme forms of flaming is more ambiguous. There is a growing movement to practice (and, in the case of blog owners, to enforce on others) standards of online civil discourse.[156] At the same time, there is at least tacit acceptance of flaming as an embedded element of online behavior. For example, the Netiquette Guidelines (a sort of model code of conduct for online users and administrators) advise that "[i]n general, rules of common courtesy for interaction with people should be in force" and recommend against "heated messages."[157] But a later section suggests that the real netiquette violation is failing to give fair warning: If a user has "really strong feelings about a subject" he ought to bracket his message in a "FLAME ON/FLAME OFF" enclosure.[158] Milder forms of incivility like "snarkiness" are an established social media voice: In the 2009 State of the Blogosphere survey, conducted by blog monitor Technorati, 16% of bloggers described themselves as "snarky" and 18% as "confrontational."[159]

In Regulation Room, uncivil discourse was not an issue in the texting rule but, as illustrated by the quotes from Howie and Mulder at the start of this section, the problem emerged in the APR rule. Flaming is generally associated with discussion of issues that have a heavy non-rational or emotional component (e.g., religion, politics, sports) or are otherwise socially divisive. We were unprepared for peanuts-on-a-

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[154] *See* Adam N. Joinson, *Disinhibition and the Internet*, *in* PSYCHOLOGY AND THE INTERNET: INTRAPERSONAL, INTERPERSONAL, & TRANSPERSONAL IMPLICATIONS 76 (Jayne Gackenbach, ed., 2007). Over the years various explanatory theories, including deindividualization, lack of social cues, and lack of opportunity for reflection, have been proposed, and disputed. A useful review can be found in Elaine W. Ng & Benjamin Detenber, *The Impact Of Synchronicity And Civility In Online Political Discussions On Perceptions And Intentions To Participate*, 10 J. OF COMPUTER-MEDIATED COMM,, art. 4, *available at* http://jcmc.indiana.edu/vol10/issue3/ng.html.

[155] *See* Ann K. Turnage, *Email flaming behaviors and organizational conflict*, 13 J. OF COMPUTER-MEDIATED COMM., art. 3 (2007), *available at* http://jcmc.indiana.edu/vol13/issue1/turnage.html (reviewing various definitions of flaming).

[156] In 2007, leading Web figure Tim O'Reilly proposed a Bloggers' Code of Conduct, and called on bloggers not only to be civil in their posts but also to moderate comments for civility. Tim O'Reilly, Call for a Blogger's Code of Conduct (Mar. 31, 2007), http://radar.oreilly.com/archives/2007/03/call-for-a-blog-1.html. Examples of bloggers who have responded to the call include biologist John S. Wilkins, whose initial post on moving to a new blog platform included a phrase that has been widely quoted "this is still my living room, so don't piss on the floor," http://evolvingthoughts.net/2009/05/23/welcome-to-et-3/, and legal academic Jack Balkin, explaining his decision to switch the default setting on his blog to no comments: "Generally speaking, there are two things you want from a comments section: quality of comments, and civility. If you cannot have one, at least you want the other. Recently, with some exceptions, it has become obvious that neither is occurring in our comments sections here." http://balkin.blogspot.com/2009/01/new-comments-policy-at-balkinization.html.

[157] Sally Hambridge, *Netiquette Guidelines*, Oct. 24, 1995, http://www.dtcc.edu/cs/rfc1855.html

[158] *Id.* § 2.1.1.

[159] Matt Sussman, *Day 2: The What and Why of Blogging – SOTB 2009*, TECHNORATI, Oct. 20, 2009, http://technorati.com/blogging/article/day-2-the-what-and-why2/.

plane to be such an issue. Howie and Mulder were two of three Regulation Room users (the third was King Slav) who posted comments that were sarcastic, derisive, gratuitously nasty, and at times insultingly personal. These comments began with a salvo by King Slav two days after the comment period opened[160] and ended in mid-July. Mulder and Howie (who were two of the three most frequent commenters on the entire site) routinely violated a core guideline for online civility: "Comment on the content, not on the contributor."[161] Still, all of them avoided the epithets or threats that would have put them unambiguously outside the Regulation Room site use guidelines, and their comments—especially those of Mulder—were on-topic and often well-reasoned.[162]

Such commenters present a tough challenge for Rulemaking 2.0. Uncivil discourse can be contagious, leading in the worst cases to full-fledged "flame wars."[163] For reasons discussed in the previous subsection, a Rulemaking 2.0 site must attend to culture-building more consciously and carefully than the typical social media site. In Regulation Room, the more formal style of user commenting, combined with moderator interventions that point users to relevant information and otherwise mentor more effective commenting, implicitly signals is that this is a place for thoughtful engagement with serious policy issues, not an opportunity for unfiltered venting or roving target practice. How much snarkiness can be tolerated before that emerging culture is endangered? At the same time, the site is committed to broader public participation, supported by proactive, facilitative moderation. Precisely because moderation is such an important and visible dynamic in the discussion. moderators must not only be but also be *perceived by users to be* viewpoint-neutral. Howie, Mulder and King Slav were firmly planted in the anti-peanut regulation camp, which was a small minority of users making comments. Invoking our site use guidelines to rein them in could easily have been construed as content-based, diverting attention from issues in the rulemaking to the neutrality of our process.[164]

A separate concern raised by uncivil discourse is that once site visitors observe the real possibility of being attacked for their views, they will be chilled from joining or returning to the discussion.[165] At the

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[160] "Do NOT in any way regulate the service of peanuts on airlines. This is a ridiculous intrusion on free enterprise and personal freedom. Not to mention, it will simply encourage freedom loving travelers to bring large amounts of peanuts on the aircraft themselves. Someone should stuff a bag of peanuts up the backside of Ray LaHood for proposing this stupid proposal." Kingslav was the most verbally aggressive, but did not personalize his attacks the way the other two did.

[161] Wikipedia, Wikipedia: No Personal Attacks, http://en.wikipedia.org/wiki/Wikipedia:No_personal_attacks (last visited Oct. 8, 2010).

[162] Mulder was more articulate than Howie, who often took on the role of sidekick and cheerleader. (e.g., **"**My hat's off to you Mr. Mulder (Fox isn't it?). You seem to be the only voice of reason in this entire thread.") One user (Antanagoge, see *infra*) implied at one point that Muldar and Howie were the same person. This was certainly possible. Users could not register (and so comment) without supplying a working email address, but many Web users have multiple email addresses for perfectly legitimate reasons.

[163] *See, e.g.*, R. A. Friedman & S. C. Currall, *Conflict Escalation: Dispute Exacerbating Elements Of E-Mail Communication Conflict*, 56 HUMAN RELATIONS 1325 (2003). *See also* S. Wojcik, *The Three Key Roles of Moderator in Municipal Online Forums* (presented at Politics: Web 2.0 International Conference, Apr. 17–18 2008), *available at* http://newpolcom.rhul.ac.uk/politics-web-20-paper-download/Wojcik,Web 2.0 London,April 2008.pdf (study of French municipal forums observing how failure to act on caustic, highly emotional comments could result in escalation and deter participation).

[164] *See* Scott Wright, *Government-run Online Discussion Fora: Moderation, Censorship & the Shadow of Control*, 8 BRIT. J. OF POLITICS AND INT'L RELATIONS 550 (2006) (study of two UK political discussion boards revealing, inter alia, allegations of bias and censorship that came from moderator removal of comments). Prof. Wright suggested this problem might be lessened by bifurcating the moderator role into a facilitator and a separate "censor."

[165] The importance of site policies that assure new users they can participate safely has been recognized in various online contexts. *See, e.g.,* Wojcik, *supra* note 163 (municipal online discussion forums); I. Beschanstnikh, T .Kriplean & D.W. McDonald, *Wikipeidian Self-Governance in Action: Motivating the Policy Lens*, PROC. OF THE AAAI INTERNATIONAL CONF. ON WEBLOGS & SOCIAL MEDIA (2008), *available at*

same time, however, online community research shows that snarkiness can actually spur participation, at least in some settings.[166]   Moreover, some deliberative democracy research argues that online disinhibition can have positive effects when physical absence and the absence of social cues allows a more open and direct exchange of ideas, especially unpopular ones.[167] We are still analyzing the complex patterns of discussion on the peanut allergy post during this period, but so far we have found no evidence that other commenters were chilled. Indeed, there is some indication that comment was stimulated. A key dynamic was the emergence, about a week after Mulder first posted, of a powerful pro-regulation commenter, Antanagoge. Antanagoge (who was the third of the three most frequent commenters on the site) participated intensely in a one week period between 6/18 and 6/22. More than half of these comments directly responded to Mulder. Articulate, confident and prepared to engage Mulder both substantively and in style,[168] Antanagoge was both an independent advocate of regulation and a "protector" of commenters who had been Mulder's and Howie's targets. The result was an extended, robust, and well-supported interchange that thoroughly vented the issues pro and con peanut regulation. It was probably the highest quality discussion on the site.[169]

How far the First Amendment allows government-operated Rulemaking 2.0 sites to control the various degrees of flaming is a question that Regulation Room, as a private university research site, does not have to answer. Still, we expect that for even for government agencies, debates about when and how to respond to uncivil online discourse won't come down to legal prohibitions. Web 2.0 has accustomed users to largely unregulated freedom in the tone and content of what they post to blogs, social networking sites, and other forms of social media. This heightens the already highly developed American sense of entitlement to freedom from any sort of censorship, particularly in the context of speech about government action. Thus even when site administrators have the power to control flaming, using it is likely to be costly.[170]

The optimal solution is for other users, rather than the site administrator, to manage the problem. In the APR rule, Antanagoge provided an effective counter to Howie and Mulder: She[171] was as persistent as they were, and as articulate as Mulder—and she was willing to respond periodically to both with criticisms as sharp as they leveled. Antanagoge not only held her own in direct exchanges with Howie and Muldar, but also responded substantively when they attached other users. She seemed to embody a powerful pro-regulatory group response to their provocation; this, perhaps, contained the degree of inflammatory reaction and reestablished that it was safe to participate. Certainly, other users continued to discuss the issues with surprising restraint towards the snarks; despite repeated baiting, the discussion

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http://citeseerx.ist.psu.edu/viewdoc/download?doi=10.1.1.113.9806&rep=rep1&type=pdf.   On   the   role   of moderation here, see, see Gairin-Sallen, Rodriguez-Gomez & Armengol-Asparo, *supra* note 136.

[166] E.g., Moira Burke & Robert Kraut, *Mind Your Ps and Qs: The Impact of Politeness and Rudeness in Online Communities*, PROC. OF THE ACM CONF. ON COMPUTER SUPPORTED COOPERATIVE WORK 281–284 (2008), *available   at*   http://www.thoughtcrumbs.com/publications/328-burke.pdf   (finding   that   politeness   increased participation in some technical groups, but that rudeness was more effective in some political groups).

[167] *E.g.*, Jennifer Stromer-Galley, *Diversity of Political Conversation on the Internet: Users' Perspectives*, 8 J. COMPUTER MEDIATED COMMUN. No. 3 (2003), http://jcmc.indiana.edu/vol8/issue3/stromergalley.html.

[168] *E.g.*, "Mulder's statement is both mean-spirited and inaccurate. There is currently NO safe effective desensitization for peanut allergy (or any other food allergy) available."

[169] Howie and King Slav—but not Mulder—returned to comment on the draft summary. Both made helpful suggestions, although Howie (who complimented the moderators for a good overall summary) wanted us to insert that many claimed allergy sufferers are hypochondriacs, and he did get caught up in vociferously rehashing the merits with a pro-regulation summary commenter.

[170] *See* Wojcik, *supra* note 163; Wright, *supra* note 164.

[171] The moderator team believed that Mulder, Howie and King Slav were men and Antanagoge was a woman, although there is no direct confirmation of this in the comments. The feminine pronoun is used here largely because repeated use of the "he/she" construction proved distracting to readers.

never escalated into a flame war. Even with additional analysis, we probably cannot be certain that no users were deterred from participating by Howie and Mulder. But once Antanagoge established herself as a redoubtable counterforce, we believe that the cost-benefit calculus clearly shifted against intervention by the moderators.

In some well-established online communities devoted to peer knowledge production, users manage uncivil discourse by addressing it directly as a violation of community norms.[172] Apart from Antanagoge's occasional references to "meanspirited" comments, no one directly confronted Howie or Mulder for the tone and style of their comments. This raises the question whether a sense of common enterprise, protected by standards of civil discourse that users are willing to invoke explicitly in response to incipient flaming, can arise during the average 60-day comment period. Certainly a Rulemaking 2.0 site should strive for some cross-rule continuity of users, which would greatly aid the formation and transmission of a distinctive commenting culture. It is not clear, however, that substantively related rulemakings will occur with enough frequency, in most regulatory programs, to maintain the attention of stakeholders other than sophisticated, repeat players who have little incentive to leave the familiar environment of the conventional process to invest in creating a more broadly participatory commenting community.

D. The Unknown: Lurkers and Legitimation

> *"I have been watching this discussion for a couple of days now,*
> *and want to weigh in on a few issues that have been raised*
> *by both supporters and opponents of a proposed peanut ban."*
> **--** *raiseyourvoice commenting in APR rule*

A basic fact of social media life is that a small percentage of users supply a large percentage of content. Sometimes referred to as the "participation inequality" power law,[173] the pattern of intense participation by a small portion of the population has been observed across platforms: listservs, newsgroups, discussion forums, blogs, wikis and other collaborative work applications. Although the degree of inequality can vary dramatically with context,[174] the general rule of thumb is 90-9-1,[175] where the first number is those who just read ("lurkers"), the second is those who participate at a low level, and the third is active participants. Blogs typically have a steeper inequality curve: 95-5-.01,[176] while the ratio for Wikipedia, with its high participation demands, is 99.8-0.2-0.003.[177] On Regulation Room, the participation statistics for the APR rule were:[178]

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[172] This is well-documented in Wikipedia, *e.g.*, Beschanstnikh, Kriplean & McDonald, *supra* note 165, and to a lesser degree in Slashdot.

[173] Christopher Allen, *Community by the Numbers, Part III: Power Laws*, LIFE WITH ALACRITY, Mar. 19, 2009, http://www.lifewithalacrity.com/2009/03/power-laws.html. *See* Jakob Nielsen, *Participation Inequality: Encouraging More Users to Contribute*, USEIT.COM, Oct. 9, 2006, http://www.useit.com/alertbox/participation_inequality.html.

[174] *See* Jenny Preece, Blair Nonnecke & Dorine Andrews, *The Top Five Reasons for Lurking: Improving Community Experiences for Everyone*, 20 COMPUTERS IN HUMAN BEHAVIOR 201, 202 (2004) [hereinafter *The Top Five Reasons for Lurking*] (describing health support communities with rates as low as 45.5%, software support communities with 82% lurkers).

[175] Allen, *supra* note 173; Nielsen, *supra* note 173.

[176] *Id.*

[177] *Id*.

[178] Numbers in the texting rule were much smaller:
Unique Visitors: 1999
Visitors who registered as users: 54 (2.7% of unique visitors)

Unique visitors: 19,320
Visitors who registered as users: 1189 (6.2%)
Users who submitted comments: 348 (1.8% of unique visitors; 29.2% of registered
                              users)
Users who submitted multiple comments: 163 (0.8% of unique visitors; 13.7% of registered users; 46.8% of all users who submitted comments)

A large academic and commercial literature exists on how to decrease participation inequality through site design that lowers the "overhead" of contributing, moderation tactics, increasing member commitment through recognition or rewards, etc.[179] The intense interest in converting "lurkers" to active users reflects more than just a desire to sustain the health of online communities by getting more visible participation, although this is vital if the amount of new content is low.[180] The conventional view sees lurkers as undesirable in principle: they are selfish free-riders, taking value from the efforts of others while contributing nothing themselves.[181]   A slightly less negative alternative view is that lurkers lack communicational competence; therefore, the goal should be to create an environment in which they would "graduate" to active participation. A different kind of concern is that participation inequality means participation nonrepresentativeness, on the assumption that the 1% (or .01%) who provide most content differ from the silent 90% (or 95%) percent in relevant ways.[182]

In recent years, however, the picture of lurkers has shifted, largely due to the work of Jenny Preece, now dean of the University of Maryland College of Information Studies, and Blair Nonnecke, on the faculty of Computing and Information Science at the University of Guelph, Ontario. Their work, based on surveys and interviews with members of MSN bulletin board communities among others,[183] challenges the view of lurkers as shirkers or incompetents who contribute nothing to the online community. The responses of MSN users revealed five principal reasons for lurking: 1) do not need to post – reading was enough; 2) want to learn more about, or get a feel for, the group before posting; 3) others had already made their

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Users who submitted comments: 18 (0.9% of unique visitors; 33% of registered users)

Users who submitted multiple comments: 8 (0.4% of unique visitors; 14.8% of registered users)

[179]   *E.g.*, Cliff Lampe, Rick Wash, Alcides Velasquex, & Elif Ozkaya, *Motivation to Participate in Online Communities*, PROCEEDINGS OF THE 28TH INTERNATIONAL CONFERENCE ON HUMAN FACTORS IN COMPUTING SYSTEMS 1927 (2010), *available at* http://portal.acm.org/citation.cfm?id=1753616; Jennifer Preece & Ben Shneiderman, *The Reader-To-Leader Framework: Motivating Technology-Mediated Social Participation*, AIS TRANSACTIONS ON HUMAN-COMPUTER INTERACTION 13 (2009), *available at* http://aisel.aisnet.org/thci/vol1/iss1/5/. Still, experts agree that participation inequality cannot be eliminated; the percentage of active contributors can be doubled, perhaps even quadrupled, but not increased by an order of magnitude. See sources cited in note 161 (Nielsen and Allen).

[180] Ludford, Cosley, Drankowski & Turveen, *supra* note 89; *The Top Five Reasons for Lurking*, *supra* note 174, at 203.

[181]   The literature described in this and the next sentence is reviewed in Blair Nonnecke & Jenny Preece, *Why Lurkers Lurk*, AMERICAS CONFERENCE ON INFORMATION SYSTEMS (2001), *available at* http://www.virtual-community.org/index.php/Why_Lurkers_Lurk [hereinafter *Why Lurkers Lurk*].

[182]   *E.g.*, Nielsen, *supra* note 173.

[183]   Profs. Preece and Nonnecke have also done substantial work on lurking in email discussion lists (listservs). Their overall conclusions about lurking being a complex phenomenon—and often a community supportive form of participation—are the same as for the research discussed in the text. *See* Blair Nonnecke & Jenny Preece, *Silent Participants: Getting to Know Lurkers Better*, *in* FROM USENET TO COWEBS: INTERACTING WITH SOCIAL INFORMATION SPACES 110 (C. Lueg & D. Fisher eds., 2003) [hereinafter *Silent Participants*]. However, they found additional reasons for lurking, many of which apply to email environment more than to online discussion site (e.g., volume of emails; concern about privacy and safety; desiring a way to leave a group quietly.) *Id*. *See also Why Lurkers Lurk*, *supra* note 181 (based on interviews of mixed media users: email discussion lists, newsgroups, chatrooms and online bulletin boards).

points, or otherwise didn't feel they had anything useful to add; 4) could figure out the software or make it work; and 5) didn't like the group dynamics or otherwise thought the community was not a good fit.[184]

This work provides a new perspective on the large percentage of site visitors who do not add content, and is, in some respects, particularly relevant for Rulemaking 2.0 sites. There are many reasons why people lurk, and some of them affirmatively help, rather than selfishly exploit, the community: Lurking, in other words, is not necessarily a "problem." Orienting oneself to the culture and expectations of the particular online environment before adding content is desirable community-serving behavior,[185] as is refraining from adding repetitive or nongermane comments—especially when other users (and site operators) are trying to manage large amounts of content.[186] Site design and operating protocols should be attuned to meeting the needs of such users by, for example, making it easy for visitors to understand what kind of participation is desired in the community, and helping them find where they can add value to the discussion.[187] But the fundamentally important point of this newer work is that a substantial subset of lurkers are making choices that reference the online community as well as their own needs. They are, in a real sense, participating—a recognition that has led Profs. Preece and Nonnecke to argue that references to "participants" and "lurkers" should be replaced with a more descriptive, less judgment-laden vocabulary such as "public users" and "non-public (or anonymous) users."[188]

On Regulation Room, we have relatively little evidence about the large number of individuals who read only (the methodological problem, as others have identified, is that "lurkers do not leave visible traces"[189]), but results from a small group of survey responses are consistent with this newer research.[190] Combing responses for both the texting and APR rules, 23 of 66 responders said they had not submitted a comment. Three of these had come to the site for the first time after the discussion period had closed,[191] so only 20 really count as lurkers. When asked their reason, 6 of the 20 (33%) chose "other people had already said what I thought." Five others (25%) said they couldn't figure out how to submit their comment.[192] The remaining 42% gave a variety of reasons: two (10%) said they lacked the knowledge or expertise to comment; two (10%) felt their employment status precluded participation (one was employed by a federal agency; the other was an airline employee); one did not comment because of comment quality ("Peanuts! I thought most of it hysterical and not responsible"); and one said "too complicated" with no indication whether this referred to information about the rule, the process, or the site. Obviously,

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[184] *The Top Five Reasons for Lurking*, *supra* note 174, at 208 et seq.

[185] Indeed, such behavior is recommended in the Netiquette Guidelines, supra note *** section ***.

[186] The information overload of too many comments tends to decrease participation levels; lurking, and leaving, increase. *See, e.g.*, Sheizaf Rafaeli, Gilad Ravid & Vladimir Soroka, Invisible Participants: How Cultural Capital Relates to Lurking Behavior at 2(?), Proceedings of the 15th international conference on World Wide Web, ACM 2006.

[187] *The Top Five Reasons for Lurking*, *supra* note 174, at ***.

[188] See, e.g., Blair Nonnecke, Dorine Andrews & Jenny Preece, *Non-public and public online community participation: Needs, Attitudes & Behavior*, 6 ELECTRONIC COMMERCE RES. 7 (2006). *Accord* Lampe, Wash, Velasquez, & Ozkaya, *supra* note 179.

[189] Rafaeli, Ravid, & Soroka, *supra* note 186, at 1.

[190] Regulation Room surveys users about their experience after each rule closes. In the texting rule, the survey link was emailed to registered users; in the APR rule, the link was not only emailed to registrants but also placed on several locations on the website, including the draft and final summaries.

[191] These users apparently took the survey from a link in the draft or final summaries; each expressed frustration about learning of the site only after the discussion period closed.

[192] For a brief period in July technical problems made it difficult for users to comment in the APR rule; for an additional period, visitors using certain had problems. However, some users reported difficulty even when the site was functioning properly. We continue to look for design approaches that help users adapt to the atypical format of paragraph-targeted commenting, *supra* Part I—although we note with bemusement the user ingenuity that manages to place comments on the site feedback page and in the survey, as well as emailing them to us.

the number of responses is too small to draw any definitive conclusions, but these reasons align with what Profs. Preece and Nonnecke found.

With respect to users who watch the discussion for a period before joining in, we have some indirect evidence. In the APR rule, the difference between 19,320 unique visitors and 24,441 total visits (26.5%) is a rough indicator of return activity.[193] Of users who commented in the APR rule, 5% (17/348) submitted their first comment at least 24 hours after the site visit in which they registered. This does not *prove* that these users were learning about the group before posting, for our monitoring software does not enable us to verify the number of times any particular user returned to Regulation Room,[194] but the lurker research would predict some such behavior, and several APR comments do include references to reading others' comments.

Users whose needs are satisfied by just reading constituted the other major category of lurkers in the Precce & Nonnecke study. These are the lurkers who most closely resemble the free-riders of early lurking assessments—although Profs. Preece and Nonnecke point out that the reasons why people feel they don't need to post are complex.[195] For Rulemaking 2.0 sites, however, "just" reading may represent a form of engagement that increases social capital, independent of whether reading leads to commenting.

One of the most consistent, and frustrating, contradictions of modern American political opinion is that most people want (even expect) government to protect the environment, ensure safe products and workplaces, provide equal educational opportunities, protect civil rights and, at least to some extent, alleviate poverty while *simultaneously* insisting that government is too large and powerful, that programs run by government tend to be wasteful and ineffective, and that government regulation of business usually does more harm than good.[196] Those who know about regulation understand that we can't have it both ways. Most Americans, however, are clueless about how environmental protection, or the other goals they expect their government to attain, comes about. The admittedly small set of Regulation Room survey responses suggests that Rulemaking 2.0 could change this. To the question whether they gained a greater understanding of the rulemaking process from visiting Regulation Room, 50% of the 66 respondents answered yes (about 20% said they already knew about the process; 30% said no). To the question whether they gained a better understanding of others' positions, 83% said yes (7.5% were unsure; 9.5% said no). Finally, to the question whether they gained a greater understanding of what DOT is doing (asked only in the APR survey), 78% said yes (9% were unsure; 13% said no). Respondents who commented were more likely to report a gain in knowledge about the rulemaking process and (in the APR rule) about what the agency was doing than those who only read, but level of learning among lurkers was still substantial (43% reported better understanding of the process; 56% reported better understanding of the agency's action[197]). With respect to learning about others' positions, there was no difference between commenters and lurkers. Thus, early Regulation Room experience gives cause for optimism that Rulemaking 2.0 participants can gain new knowledge from their experience, and, furthermore, that some of these gains can result from "just" reading.

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[193] These data from Google Analytics do not definitively establish that more than a quarter of the individuals who visited the site returned at least once, both because "visitors" is not the same as individuals, *see supra* note 45, and because there is no way to determine how many "unique visitors" accounted for the more than 5100 return "visits." However, the differential is a rough measure of return activity.

[194] For the same reason, we cannot tell how many of the 95% of commenters who posted within 24 hours of registering had been reading on the site *before* the visit on which they registered.

[195] *The Top Five Reasons for Lurking*, *supra* note 174, at 216. Other researchers categorize such browsing as "passive participation." *E.g.*, Rafaeli, Ravid, & Soroka, *supra* note 186, at 2–3.

[196] The existence of, and evidence for, these conflicting opinions dating back to at least the 1980s and the Reagan Administration is discussed in Farina, *supra* note 144, at 370–71, 378–83.

[197] Lurkers were much more likely than commenters to be "unsure" whether they better understood what the agency was doing.

Will a greater level of understanding— of the rulemaking process, of the particular rulemaking proposal, and of the arguments of other stakeholders—create greater public approval, or at least acceptance, of the enterprise of regulation? We don't know the answer to that question, but we are especially curious about how Rulemaking 2.0 experiences might mesh with findings of psychologist Tom Tyler that people who have a meaningful opportunity to "make their case" to the responsible government decisionmaker, and feel they have been heard with respect, are more likely to regard the ultimate decision as legitimate *even when the outcome is not what they sought.*[198] Will online rulemaking participation create any of the civic value that Prof. Tyler discovered in face-to-face encounters with the responsible decisionmaker? Is it necessary for the individual to actually submit a comment to feel that they have participated, or is an experience of participation created in those who choose not to add content for community-supportive reasons, or because they feel that reading is enough to satisfy their needs?[199]

These questions about the value of broader public participation in Web-enabled rulemaking *to members of the public themselves* seem to us some of the most important (and difficult) areas for future investigation. If engagement in a Rulemaking 2.0 site increases social capital by positively affecting how individuals understand regulatory government, then we can answer the question "Is it worth the effort?" in a way that that has nothing to do with better informational inputs to the rulemaking process—and everything to do with better societal outputs.

Conclusion: Rulemaking in 140 Characters or Less

> Q: *"Please tell us about any specific problems you had using [Regulation Room]."*
> A: *"unable to navigate on my mobile device".*
> *-- Response to APR user survey*

> *Social networks are effective at increasing participation—*
> *by lessening the level of motivation that participation requires.*
> *-- Malcolm Gladwell*
> *Small Change: Why the revolution will not be tweeted.*[200]

In the momentum towards Web-enabled open government, it's easy to forget that law and Web 2.0 are very strange bedfellows. Law is authoritarian, hierarchical and bounded; the Web is fluid, infinitely possibilistic, even anarchic. The boundaries between yours and mine blur as content is created, shared, claimed, and recreated. Identity as a social construct is realized in the extreme: On the Internet, nobody knows you're a dog. Multiple personalities are not psychopathology, but merely avatars. Law prizes stability, predictability and rationality; Web 2.0 is constituted of contradiction. Radical leveling coexists with relentless ranking. The self-effacing collectivism of wikis and other collaborative work platforms is enabled equally with the self-absorbed individualism of My Amazon, My Google and other species of

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[198] TOM TYLER, WHY PEOPLE OBEY THE LAW (2006). Compare reports of an increased sense of legitimacy and higher voluntary compliance among participants in negotiated rulemaking. E.g., Langbein & Kerwin, supra note **, at 602-05, 625-27.

[199] In general, Profs. Preece & Nonnecke have found that lurkers feel like they are community members and are perceived by other participants as members, *see* Blaire Nonneck & Jennifer Preece, *Shedding Light on Lurkers in Online Communities*, although the MSN user study found that lurkers' sense of community and satisfaction with their experience was lower than that of posters. *Top Five Reasons for Lurking*, *supra* note 174 at 207.

[200] Small Change: Why the revolution will not be tweeted, The New Yorker Online (Oct. 4, 2010), http://www.newyorker.com/reporting/2010/10/04/101004fa_fact_gladwell?printable=true&currentPage=all

"mass customization." Encouragement to practice the reflective tolerance of mutual engagement and collaboration coincides with enticement to expect immediate gratification and demand absolute satisfaction. Law is the structured order of Henry James' Boston or Edith Wharton's New York; Web 2.0 is the chaotic autarky of the Wild West.

The implications of this incongruity for the whole idea of Government 2.0 have, perhaps, not received enough attention. But they cannot be avoided in designing a Rulemaking 2.0 system. Rulemaking is simultaneously the most transparent and participatory *and* the most esoteric and circumscribed of government policymaking processes. There are many rules for this game – and they are all set by external authority. They define what sort of questions agencies can pose, what kind of participation matters, and which community-generated knowledge counts. They – not the community of users – determine the purpose of a Rulemaking 2.0 site.

We, as system designers and moderators, mediate between these externally fixed rules and those who come to the site. Our expertise is finding ways to make it as easy as possible for users to do, not what they *wish* to do, but what they *have* to do if they want their participation to matter. We exploit the tools and practices of Web 2.0 while trying to remake its culture. Small wonder that users are often confused, and sometimes angry. A Rulemaking 2.0 site gives them what they need, rather than what they want.

Studies of the adoption of new technologies reaffirm the common sense notion that dispersion of novel ideas takes time.[201] With Rulemaking 2.0, the novelty for most citizens is not only using social media to learn about and discuss complex policy questions but also, more deeply, participating personally in the creation of new federal regulations. In their essay on the economics of new technology adoption, Professors Hall & Kahn point out that diffusion of innovation is the aggregate result of individual decisions weighing the benefits of adopting the new technology against the costs of change, in conditions of uncertainty and limited information.[202] Viewed from this perspective, the task of Rulemaking 2.0 advocates and providers is helping those who have a stake in regulation (but don't know it) understand why they should make the considerable investment in time and effort that meaningful participation requires. Based on early Regulation Room experience, we believe that this is a far more challenging undertaking than e-rulemaking proponents have imagined. At the same time, the experience also gives us reason to believe that Rulemaking 2.0 can indeed be the vehicle through which some portion of the public – certainly not all, probably not most, but *some* portion – chooses to move from a state of civic ignorance and uninvolvement to a state of understanding and perhaps even empowerment. But this is not the stuff of quick, dramatic e-government gains that can be trumpeted by agencies, or their overseers. For this reason, answering the question "Is Rulemaking 2.0 is worth it?" may be most important for testing the depth and durability of the commitment to a more open, participatory government.

"I think I understood the general idea behind most of the proposed rule changes, but the legal/technical language was dense (as usual). Other commenters' participation helped me understand better, and also helped clarify some of my own thoughts, leading (in some cases) to a modification of my initial opinion."
-- response to APR rule user survey

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[201] The literature is reviewed and synthesized in Viswanath Venkatesh, Michael G. Morris, Gorden B. Davis & Fred D. Davis, User Acceptance of Information Technology: Toward a Unified View, 27 MIS Quarterly, 425 (2003).

[202] Bronwyn H. Hall & Beethika Kahn, Adoption of New Technology, in New Economy Handbook (D. Jones ed, 2003). See also Ann Zimmerman & Thomas A. Finholdt, Growing an Infrastructure: The Role of Gateway Organizations in Cultivating New Communities of Users, GROUP '07 (Nov. 4-4 Sanibel Island, FL (emphasizing additionally the importance of "awareness knowledge" – that is, information that an innovation exists).

"I didn't really have time to read through everything, but I will say that I wish more people had posted. I think what you have is excellent and glad you put that up there for all of us to discuss. I will go back though the site to better understand the rule making process."
-- response to APR rule user survey