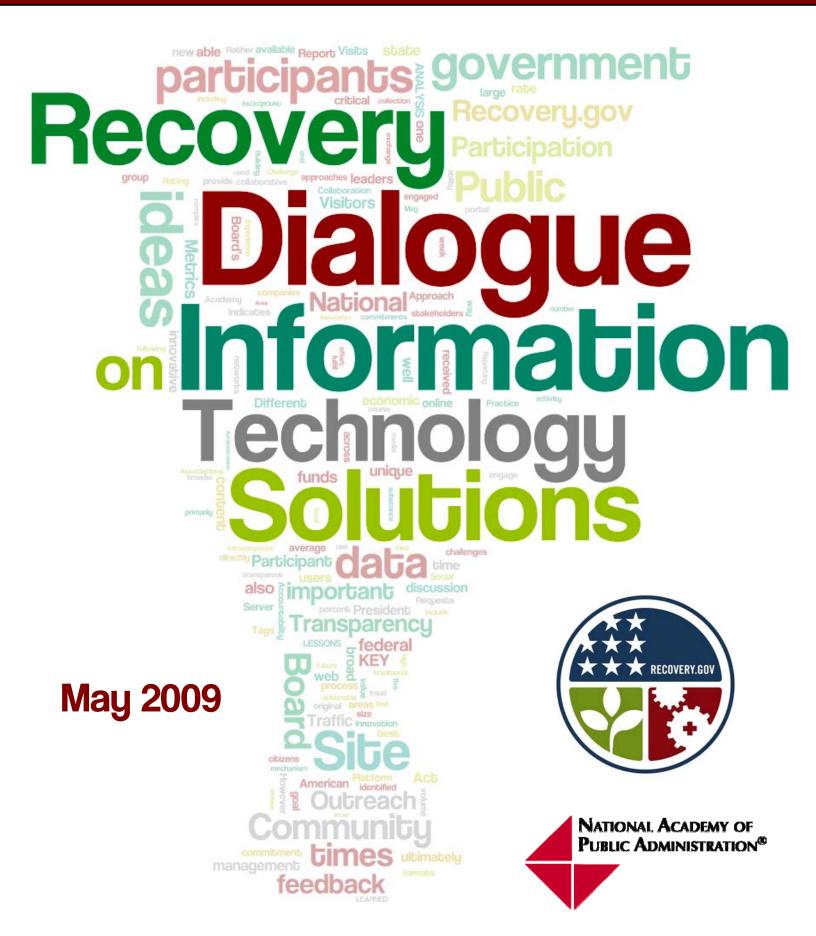
# NATIONAL ACADEMY OF PUBLIC ADMINISTRATION

for the Recovery Accountability and Transparency Board



## **ABOUT THE ACADEMY**

The National Academy of Public Administration is the preeminent independent, non-profit organization for public governance. Established in 1967 and chartered by Congress, the Academy has become an independent source of trusted advice for every branch and level of government, Congressional committees and civic organizations. The Academy works constructively with government agencies to improve their performance and management through problem solving, objective research, comprehensive analysis, strategic planning, and connecting people and ideas. The Academy is led by its elected membership of more than 600 distinguished Fellows.



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# **A Recovery Dialogue on IT Solutions**

# **After-Action Report**

Prepared by the

## **National Academy of Public Administration**

for

The Hon. Earl E. Devaney

Chairman Recovery Accountability and Transparency Board

and

G. Edward DeSeve

Special Advisor to the President Recovery Implementation

**May 2009** 





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## **ACRONYMS**

**Dialogue** The Recovery Dialogue on Information Technology Solutions

IT Information Technology

IV&V Independent Verification and Validation

National Academy National Academy of Public Administration

NASA National Aeronautics and Space Administration

**NSA** National Security Agency

**OMB** Office of Management and Budget

**Recovery Act** American Recovery and Reinvestment Act of 2009

**Recovery Board** Recovery Accountability and Transparency Board

**RFI** Request for Information

Web-based, interactive tools and media in which:

• Users are an integral part of the value that is added to the content and data online; and

• Users' interactions with the information (both collectively and individually) can significantly alter the experience of subsequent users. <sup>1</sup>

**XBRL** Extensible Business Reporting Language

**XML** Extensible Markup Language

Definition courtesy of U.S. Environmental Protection Agency.

## TABLE OF CONTENTS

INTRODUCTION	5
About the National Academy of Public Administration	7
About This Report	7
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PROJECT BACKGROUND AND METHODOLOGY	8
Background	8
The Challenge: Building Recovery.Gov	8
A New Approach to Innovation	8
SITE METRICS AND ANALYSIS	11
Information Captured	
Traffic Metrics	11
Site Participation	14
The Participant Community	15
Stakeholder Outreach and Recruitment	
LESSONS LEARNED AND NEXT STEPS	21
Overarching Lessons	21
Platform and User Experience	
Analysis and Reporting	
Next Steps: Keeping the Community Engaged	23

## INTRODUCTION

When a new president is elected, he or she enters office with a host of commitments that the American public expects to see fulfilled; the current administration is no exception. Upon taking office, two of President Obama's most visible and important commitments have been to the recovery of the American economy and to a renewed emphasis on openness and transparency.

The Recovery Accountability and Transparency Board occupies a unique position at the intersection of these commitments. Created by the American Recovery and Reinvestment Act of 2009, the Recovery Board—comprising a Chairman and ten Inspectors General—is charged with overseeing all funds dispersed under the Act. It is charged with ensuring that funds are being used in a manner consistent with the goals of economic recovery and job creation, as well as provide the American public with a transparent view of how that process is unfolding. Fulfilling these commitments is a challenge that will test the capacity of our government.

In his speech accepting the nomination of his party, President Obama declared: "We cannot meet 21<sup>st</sup> century challenges with a 20<sup>th</sup> century bureaucracy." Nowhere is this tension more acutely felt than at the Recovery Board. Rather than resorting to traditional means, however, the Recovery Board and others with responsibility for Recovery.gov—the designated public portal for those seeking to monitor the progress of economic recovery—sought a fundamentally different approach. The Recovery Board decided to build a broader problem-solving community, leveraging the concept that "none of us is as smart as all of us."

The result was a week-long, online Recovery Dialogue on IT Solutions that assembled a broad community of vendors, thinkers, and consumers in the IT arena to answer a central question: What ideas, tools, and approaches can make Recovery.gov a place where the public can monitor the expenditure and use of recovery funds? The goal of the dialogue was to draw on the ideas and approaches offered by this community to inform how the Recovery Board will build Recovery.gov. The Dialogue allowed participants to tag and vote on the best ideas, providing the Recovery Board with a list of top priorities and key themes that made the feedback both more comprehensive and more actionable than what could have been obtained through traditional methods.

Ultimately, the week-long Dialogue yielded important ideas and insights about how to build Recovery.gov and, just as importantly, what stakeholders and the public expect from the site. Topics such as geographical mapping, XML formats, and linked open data surfaced in the toprated ideas. Information syntax, XBRL, and collaboration were among the overarching themes identified by the community.

Ideas were contributed by a diverse group of participants. Over the course of one week, more than 22,000 visitors came to the site from all 50 states and 98 foreign countries. Workers at multinational Fortune 500 companies interacted with the owners of 10-person businesses. Web designers came together with acquisition specialists, and financial services experts shared ideas with database specialists. Internet "newbies" got the chance to exchange ideas with Dialogue participants such as Tim Berners-Lee, creator of the World Wide Web; Erik Wilde, a professor and thought leader at the University of California Berkeley School of Information; and Tim

O'Reilly, who coined the term "Web 2.0." Use of social media helped to spread the word about the Dialogue to 501 Twitter followers and 361 Facebook group members. This ensured that the Dialogue was a place for anyone—experienced professional or passionate amateur—to express their ideas and expectations for Recovery.gov. As a consequence, the feedback provided by the community was diverse, yet united by common themes and concerns. This diversity is demonstrated by a word cloud based on the Dialogue:<sup>2</sup>

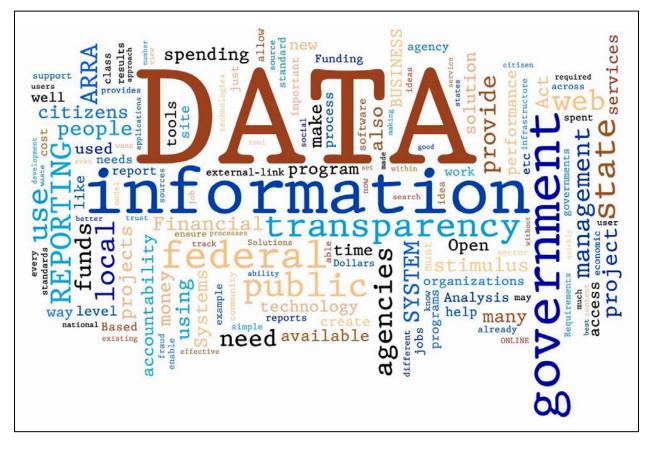


Figure 1: Word Cloud, Recovery Dialogue on IT Solutions

The Dialogue also showed that collaboration can enhance not only the quantity of feedback, but also its quality by allowing participants to communicate with each other as well as with industry leaders. Over the course of the Dialogue, vendors who posted advertising information about their solutions were compelled to defend them against questions expressed by the community. Participants representing competing vendors engaged in good natured exchanges over the potential pitfalls of each others' products. Both of these behaviors demonstrate the value gained by conducting a collaborative Dialogue, allowing knowledgeable members of the public to vet a wide array of potential ideas and solutions quickly and more thoroughly than would be possible under a more traditional model. Participants also produced suggestions about the Dialogue itself,

<sup>2</sup> Source: Sunlight Labs Blog, "What do people want from Recovery.gov?" < <a href="http://www.sunlightlabs.com/blog/2009/05/11/what-do-people-want-recoverygov/">http://www.sunlightlabs.com/blog/2009/05/11/what-do-people-want-recoverygov/</a>> Word cloud produced using Wordle (<a href="http://www.wordle.net">http://www.wordle.net</a>) and licensed under a Creative Commons Attribution 3.0 License.

proposing helpful platform changes and suggesting that the Dialogue be kept open longer or be continued in some other format.

Ultimately, the Recovery Board's vision of a truly crowd-sourced analysis of potential recovery solutions was powerfully realized. The end result was not just a repository of good ideas, but a passionate, thoughtful community that can be engaged repeatedly as Recovery.gov evolves to fulfill the President's commitment to "unprecedented transparency and accountability."

### ABOUT THE NATIONAL ACADEMY OF PUBLIC ADMINISTRATION

To execute this effort, the Recovery Board partnered with the National Academy of Public Administration. The National Academy is a non-profit, independent coalition of top public management and organizational leaders who tackle the nation's most critical and complex challenges. With a network of more than 600 distinguished Fellows and an experienced professional staff, the Academy is uniquely qualified and trusted across government to provide objective advice and practical solutions based on systematic research and expert analysis. Established in 1967 and chartered by Congress, the National Academy continues to make a positive impact by helping federal, state and local governments respond effectively to current circumstances and changing conditions.

For over a year, the National Academy has hosted the Collaboration Project, an independent forum of leaders who share a commitment to the adoption and use of collaborative technologies to solve complex problems of management. Started in 2008, the Collaboration Project drives the integration of Web 2.0 tools into government management by building a community of practice, producing and sharing knowledge and research, and aiding agencies and departments in assessing and implementing collaborative tools.

### ABOUT THIS REPORT

This after-action report provides a brief overview of the Recovery Dialogue on IT Solutions. It provides and analyzes key metrics about the Dialogue, as well as lessons learned that can be applied to future public consultations in online forums.

This report, which is a product of the National Academy, does not discuss the substantive content of the Dialogue, nor does it make explicit recommendations to the Recovery Board regarding Recovery.gov. While the feedback obtained through the Dialogue will remain available at <a href="http://www.thenationaldialogue.org">http://www.thenationaldialogue.org</a>, it is the prerogative of the Recovery Board to determine which ideas are the most valuable and applicable to its mandate. While the Dialogue was an expression of the Recovery Board's emphasis on transparency and openness, it was intended to solve a genuine problem: the need to gather innovative ideas and perspectives and survey the landscape of possible solutions, and to do so more quickly, from a broader audience and in a more collaborative way than a standard Request For Information (RFI) process allows.

## PROJECT BACKGROUND AND METHODOLOGY

#### **BACKGROUND**

In February 2009, Congress passed and President Obama signed the American Recovery and Reinvestment Act of 2009, commonly referred to as the Recovery Act. This legislation is a critical component of the government's effort to rebuild the American economy and invest in the nation's critical infrastructure.

Implementing the Recovery Act requires the federal government to disperse funds to state and local governments, individuals, contractors and other stakeholders with unprecedented speed and efficiency. Equally important is that these funds be dispersed in a way that is fully transparent and accountable to the American people, as outlined in the Office of Management and Budget (OMB) guidance concerning the Act's implementation.

To this end, the Recovery Act created the Recovery Accountability and Transparency Board (the Recovery Board), which has responsibility for following through on the commitment to "coordinate and conduct oversight of covered funds to prevent fraud, waste, and abuse." In addition to this specific mandate, the Recovery Board has broad responsibility for Recovery.gov, a web portal designated by the President to provide the public with real-time information about the implementation of the Recovery Act. The site's purpose is to "feature information on how the Act is working, tools to help [the public] hold the government accountable, and up-to-date data on the expenditure of funds."

## THE CHALLENGE: BUILDING RECOVERY.GOV

To most Americans using the site, Recovery.gov will simply be a web portal that provides them with information on government spending. However, designing and building the infrastructure to support that experience is a daunting task. It requires providing real-time information on the funds allocated in the Recovery Act, including how those funds are being used and their tangible impact on economic growth and job creation. Much of this information exists, but it is widely dispersed across agencies and different levels of government, has different stewards and owners, and is collected in different formats. The frequency and thoroughness of data collection processes varies widely.

At the same time as these challenges were identified by the Recovery Board, Congressman Edolphus Towns (D-New York), Chairman of the House Committee on Oversight and Government Reform, called for the convening of a "roundtable of federal, state, and private sector IT leaders to come up with a uniform approach to track and account for Recovery Act spending."

### A NEW APPROACH TO INNOVATION

The scale of the challenges inherent in building Recovery.gov, as well as Chairman Towns' suggestion that leaders outside government be involved in solving them, reinforced the Recovery Board's decision to seek out a new approach. Rather than attempting to address the challenges

internally, the Board sought a broader problem-solving community to generate original ideas and innovations, and ultimately invited the public, whose economic well-being depends on the progress of our economic recovery, to help shape the vision for the site. This approach also allowed the Recovery Board to fulfill President Obama's commitment to transparency throughout the Recovery Act implementation.

The Recovery Board sought to accomplish two core goals:

- To engage a diverse community of relevant participants in a dynamic, real-time dialogue aimed at generating innovative ideas and approaches for tracking and accounting for stimulus spending and determining how this data should be reported upon; and
- To foster a durable community of thought leaders that can be engaged repeatedly over time to inform and bring innovation to our nation's recovery.

In particular, the Recovery Board identified five discrete areas in which innovative solutions were needed to fulfill their mandate:

- Data Collection—Recovery data will be coming from disparate areas in different formats. Information and ideas were sought regarding best approaches, off the shelf solutions including applicable middleware, and other innovative ideas to assist in the collection of financial and other reporting information from a wide array of sources including federal, state, local and contractor/grant recipients. Data collection solutions needed to address the large variety of financial and reporting systems software/hardware platforms, the variety of data formats at all levels, as well as issues regarding the use of legacy systems. Ideas regarding quality assurance and the integrity of information will be valuable, as well as suggestions for collecting data or information key to the law's purposes, such as energy efficiency or how to apply for jobs.
- Data Storage/Warehousing—Recovery data that is collected at the federal, state, local, and tribal levels to monitor progress, provide transparency and explanations regarding use of Recovery Act funds may be stored in a variety of ways, including staging databases(s) or data warehouses. The data will be coming from disparate areas in different formats, and it will be important to collect and rationalize it in order to provide transparency and make it available for analysis by both government and the public. Best approaches and innovative ideas for data storage or mechanisms to access data feeds and methods to transfer large volumes of data to end users were solicited.
- Data Analysis and Visualization—It is anticipated that many different types of users will
  want tools that enable transparency. Therefore, it will be important that this system be
  able to present the complex interrelationships between data in formats that are easy to
  understand. Some additional core elements are reporting templates and geospatial
  mapping.
- Website Design—A goal for the Recovery.gov website is to provide a state of the art, intuitive public interface with immediate visual appeal to the user. Design suggestions

were solicited for key solutions such as enhanced mapping or best practices for displaying complex data files.

• Waste, Fraud and Abuse Detection—At the heart of a responsible recovery is ensuring that basic principles of accountability can be applied to the expenditure of recovery funds. Information on fraud detection methodologies that work by analyzing recovery data will be needed. Other necessities include innovative ideas and solutions for leveraging the transparency of the recovery data to identify fraud, waste, and abuse, including best practices and techniques for collecting tips and complaints from the public.

The chosen methodology for gathering solutions on these topics was a week-long online dialogue — called the "Recovery Dialogue on Information Technology Solutions" — in which the public could submit original ideas, refine them in open discussion, tag and rate the best ones, and organically grow the network of participants. The Recovery Board partnered with the National Academy of Public Administration to execute this approach, based in part on the National Academy's prior experience hosting a similar Dialogue in the fall of 2008 on health information technology and privacy.<sup>3</sup> The Recovery Dialogue took place from April 27<sup>th</sup> to May 3<sup>rd</sup>, 2009.

<sup>3</sup> See: http://www.thenationaldialogue.org/healthit

## SITE METRICS AND ANALYSIS

Bringing together a large number of participants who might not otherwise have had a chance to impact the direction of Recovery.gov was a key goal of this Dialogue. Several metrics provide a good indication of the breadth and quantity of participation in this Dialogue, as well as some qualitative descriptions of that group in the aggregate.

### INFORMATION CAPTURED

Two broad categories of metrics about the Dialogue were captured: traffic and participation.

- *Traffic metrics* generally measure the amount of overall activity on the site. Traffic metrics collected for this Dialogue include Unique Visitors, Total Visits, Page Views, and Server Requests. The National Academy also used a separate Google Analytics tool to capture information such as the average time spent on the site by a user, the average number of pages viewed per visit, the geographic origin of visits, and the "bounce rate"—a measure indicating the "percentage of single-page visits or visits in which the person left [the] site from the entrance (landing) page."
- *Participation metrics* measure active involvement in the Dialogue. Participation metrics collected for this Dialogue include Registered Users,<sup>5</sup> Ideas, Comments, Votes, and Tags. Participation metrics also include facts about site moderation, including the extent to which inappropriate content was removed from the site in accordance with the stated moderation policy.

### TRAFFIC METRICS

The most basic measures of engagement with the Dialogue gauge site traffic. While these metrics do not reveal who participated in the Dialogue in terms of contributing content, they do provide information about the relative success of outreach efforts, as well as the ability of the Dialogue to engage its intended audience on a sustained basis.

Over the course of the seven days that the Dialogue was open:

- The site received 34,519 visits from 22,376 unique visitors, who spent an average of seven minutes and 32 seconds on the site.
  - o 5,924 visitors accessed the site directly through the main Recovery.gov portal.

<sup>4 &</sup>quot;What does Bounce Rate mean?" Google Analytics. <a href="http://www.google.com/support/analytics/bin/answer.py?hl=en&answer=81986">http://www.google.com/support/analytics/bin/answer.py?hl=en&answer=81986</a>> November 19, 2008.

A registered user is any individual who creates a unique username on the Dialogue site; this step is necessary in order to submit, comment on, rate, or tag an idea, or to explore other users' profiles.

- There were 288,224 page views, with the average visitor looking at between seven and eight pages.
- The site had a "bounce rate," of 39.49 percent (includes single page visits or visits in which a visitor leaves the site directly from the landing page); this is nearly 14 percentage points lower than that for other sites of comparable size.<sup>6</sup>
- There were at least 10 visits from every U.S. state and territory, as well as visits from 98 foreign countries and territories.
- The site generated 4,230,846 server requests, each of which represents an individual taking some action that generates a request to the site's central database. This statistic can be used as a rough proxy for the volume of activity occurring on the site.
- The average rate of server requests ranged between 18 and 22 per second.

Based on these figures, a few broad conclusions can be drawn about the character of this Dialogue with regard to public engagement:

- The opportunity to shape Recovery.gov was valued. Despite the relatively specialized nature of the topic at the center of this Dialogue, the effort ultimately activated a network of over 22,000 unique participants over the course of one week, with relatively little lead time. This indicates strongly that, regardless of how deeply users engaged with the content of the site itself, the opportunity to shape Recovery.gov was important to many people.
- Visitors engaged with the material on the site. An average visit time of approximately 7.5 minutes indicates that visitors stopped and engaged with the site for a relatively long period of time. Particularly since the site offered few interaction opportunities that required more than a few seconds to complete—commenting, voting, tagging, and other functions—it is reasonable to conclude that much of this time was spent submitting unique ideas and/or reading, voting, tagging, and commenting on multiple items. While the National Academy did not collect duration data for each individual visit to the Dialogue site, mean visit times over each hour of the Dialogue have a median value of 6:53, indicating a high probability that the overall average site visit time of 7.5 minutes is not strongly influenced by outliers in either direction.
- Visitors repeatedly took advantage of interaction opportunities. In addition to the site's low bounce rate, two figures indicate that visitors to the site not only engaged with the material presented, but took advantage of opportunities to contribute to or interact with the content. First, the ratio of server requests to unique users—approximately 189:1—indicates that the average user generated a large amount of activity by interacting with the

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<sup>6</sup> Source: Google Analytics benchmarking.

site. Second, the consistent pace of server requests over the five weekdays of the Dialogue—nearly a quarter of the capacity that the overall infrastructure powering Google Apps is able to handle, for example—indicates that engagement neither leveled off nor spiked over the course of the week, but rather remained steady throughout.

• The Dialogue attracted a geographically diverse community. The geographic diversity of site traffic indicates that this initiative was able to reach beyond the known government and IT vendor communities. Within all 50 states, visits were spread broadly across urban, suburban, and rural centers, indicating that the initiative reached not only those who have input into the future of Recovery.gov, but those who will ultimately rely on it for information about projects that affect their own economic well-being. A map of traffic distribution in the state of Ohio is characteristic of the pattern seen across all 50 states. (See Figure 1.) The representation of 98 foreign countries indicates that people around the world were able to view firsthand the Recovery Board's commitment to transparency and openness in soliciting feedback from the public.

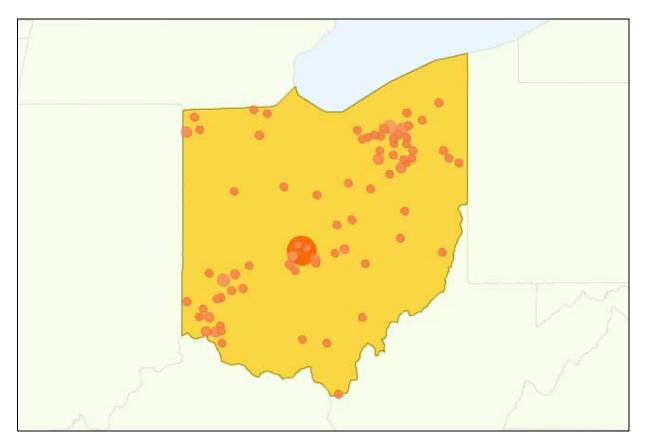


Figure 2: Site Traffic Distribution, State of Ohio

#### SITE PARTICIPATION

While traffic metrics are important in quantifying the reach of the National Dialogue, metrics relating specifically to participation help us understand the extent to which visitors were compelled to take part in the Dialogue.

Over the course of a week, the National Dialogue generated:

- 1,806 registered users (about eight percent of unique visitors).
- 542 unique ideas, which prompted 1,330 comments, 2,220 votes, and 559 tags.

Based on these figures, a few broad conclusions can be drawn about the substance of this Dialogue:

- The site generated and sustained a high participation rate. One important goal of any online deliberation is to convert "browsers to buyers"—to ensure that a high proportion of those who visit the site ultimately participate. Since registration was not required to view submitted ideas, this Dialogue's "conversion rate" of about 8 percent—or one out of every 12 people who visited the site—reflects the proportion of visitors who were compelled to submit an original idea or discuss, vote on, or tag a preexisting idea. Given the relatively specialized subject matter at issue in the Dialogue, this conversion rate is substantial. It indicates that the content and format of the Dialogue were compelling, and that barriers to entry on the site were appropriately low.
- Rating appeared to be an effective content sorting mechanism. The ability to rate ideas was the primary mechanism through which the participant community could "sort" feedback so that the most compelling or popular ideas rose to the top. The ratio of votes to ideas was a little over 4:1. Moreover, over the course of the week, this ratio grew from less than 3.5:1 to over 4:1, implying that voting became a more popular activity for participants as the week went on.
- Tagging produced discernable buckets of content. A key feature of the Dialogue site was the ability to attach topic tags to ideas, and for any participant to add tags to any idea regardless of the idea's original author. While the Recovery Board specified five pre-set tags to prompt participants, the Dialogue ultimately generated 559 tags, indicating that participants identified numerous unanticipated topics and groupings. Of these 559, only 21 of these tags, including the five specified by the Recovery Board, were utilized 10 or more times. This indicates that while the participant community was able to identify numerous topic areas for discussion, most ideas ultimately clustered around only a small proportion of them:<sup>7</sup>

Tags in bold indicate those pre-populated by the Recovery Board.

**Table 1: Most Tagged Idea Topics** 

data analysis and visualization (309 times)	semantics-then-syntax-then-technology (23 times)
data collection (289 times)	management controls (16 times)
waste fraud and abuse detection (196 times)	information syntax (16 times)
data warehousing (185 times)	strategic management life cycle (15 times)
website design (171 times)	information technology (14 times)
terminology (70 times)	collaboration (14 times)
vendor (54 times)	transparency and accountability (14 times)
national terminology (36 times)	xbrl (11 times)
information semantics (29 times)	gis (11 times)
Off target (23 times)	web 2.0 (10 times)
management life cycle (23 times)	

### THE PARTICIPANT COMMUNITY

In addition to the quantity of traffic and participation on the site, analyzing information about the participant community itself can provide valuable insights, particularly given the Recovery Board's desire to reach out to a broad community.

The Dialogue platform collected several pieces of demographic data from registered participants. Zip Code was a required field; Practice Area, Company/Organization Name, and Company/Organization Size were optional fields. Several caveats, therefore, apply to the analysis that follows:

- Because submitting certain data was optional, it is not possible to draw absolute
  conclusions about the composition of the participant group as a whole with respect to
  those characteristics. Therefore, this analysis represents only those Dialogue participants
  who volunteered answers to these questions. The data offers a way to characterize the
  diversity of voices that participated in the Dialogue and provided identifying
  demographic information, but should not be considered a "representative sample" of the
  broader participant universe.
- The Dialogue site contained no mechanism to verify the truth of responses submitted to these questions.
- The analysis presented below aggregates responses provided by individual Dialogue participants, not the companies or entities that are claimed by those participants. For example, actions by a participant claiming to be affiliated with Microsoft should not be interpreted as a response from Microsoft in any official capacity.

Overall, 79 percent of all registered users filled out the Practice Area field, 45 percent the Organization Name field, and 51 percent indicated their organization's size. The following charts illustrate the demographic breakdown according to the information supplied by Dialogue participants:

Table 2: Dialogue Participants by Practice Area

Practice Area	No. of Participants	Pct. of Participants
Audit/IV&V	9	0.5%
Telecommunications	10	0.6%
Help Desk	13	0.7%
Document Management	14	0.8%
Web Administration	15	0.8%
Case Management	16	0.9%
Information Security/Assurance	20	1.1%
Content Management	28	1.6%
Financial Services	45	2.5%
Acquisition Support	46	2.5%
Web Development	73	4.0%
Education/Training	76	4.2%
Communications/Advertising/Marketing/ Public Relations	94	5.2%
IT Engineering	106	5.9%
Application Development	107	5.9%
Knowledge Management	110	6.1%
Data/Database Management	111	6.1%
Consulting	216	12.0%
Other	300	16.6%

These results demonstrate a strong level of diversity among various practice areas, and indicate that the participant community was able to provide the Recovery Board with a more diverse range of perspectives than would likely have been available through traditional means.

While the participant community represented a broad range of individual practice areas, the individuals also represented various companies and organizations that potentially have a stake in the information technology solutions that ultimately power Recovery.gov. Analysis of the companies represented by participants—information that was voluntary and not verified independently—yields some important insights.

First, the Dialogue was not dominated by employees of large corporations, although a number of large companies were the employers of Dialogue participants. These companies, generally bring experience in implementing large-scale solutions and, in most cases, are highly familiar with the needs and requirements of government. For example, an indexing of participants who identified their organizational affiliations against the Forbes Fortune 500 list of companies yields the following totals:

Table 3: National Dialogue Participation Indexed Against Fortune 500 Companies

Company	Fortune 500 Rank	No. of Participants
IBM	15	42
Microsoft	44	32
Google	150	29
UAL	124	6
ITT	285	5
KBR	284	4
Lear	157	4
Oracle	137	4
Unisys	429	3
HCA	89	2
Cisco	71	2
Lockheed Martin	57	2
United Stationers	496	1
Symantec	461	1
PPL	346	1
SAIC	289	1
Knight	230	1
EMC	201	1
Computer Sciences	170	1
Southern	166	1
CHS	145	1
Intel	60	1
MetLife	43	1
Johnson & Johnson	35	1
Dell	34	1
Cardinal Health	19	1
Verizon	17	1

Small businesses and independent consultants, who often have important and innovative solutions to contribute, made up the majority of those who indicated of the size of the organization for which they worked. Of those who categorized the number of employees at their company, more than half were from firms with fewer than 100 employees.

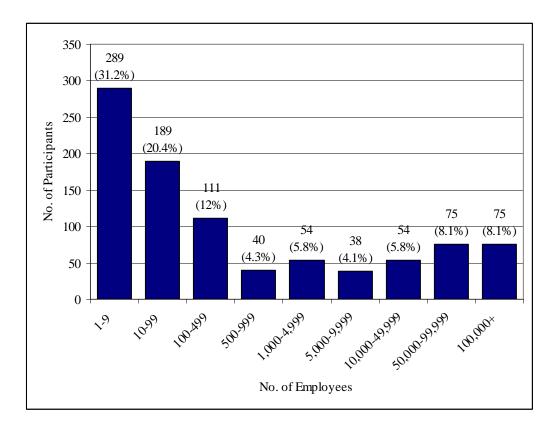


Figure 3: Company Size Reported by Dialogue Participants

Finally, Dialogue participants were required to specify a zip code. Mapping the submitted zip codes reveals a geographically diverse group of participants, in line with overall traffic to the Dialogue site.

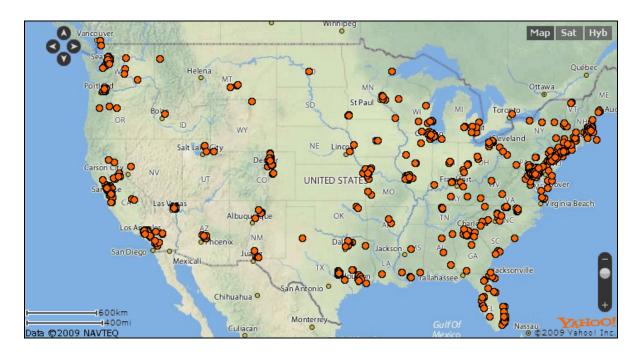


Figure 4: Dialogue Participation by Zip Code (Source: Batchgeocode.com/Yahoo! Maps)

### STAKEHOLDER OUTREACH AND RECRUITMENT

In addition to outreach to the public at large through traditional media, three specific "lanes" of outreach activity were employed to recruit participation in the National Dialogue. These were roughly delineated by the various audiences whose voices could be important to the discussion:

- Associations—Included IT practitioner and vendor communities, state and local governments (as well as umbrella groups such as the National League of Cities, National Association of Counties and National Governor's Association), some academic institutions, and other centers of thought leadership.
- *Federal Government*—Included federal employees and contractors associated with the federal government.
- Social Media & Open-Source—Included individuals who receive content primarily through popular social networks and/or focus on social media and collaborative principles.

Each of these segments had a corresponding strategy associated with it. Since associations are often umbrella groups representing thousands of individual firms or organizations, they were identified early as potential "connectors" who could disseminate content to their broad membership. Outreach to this group consisted primarily of an e-mail sent directly to the heads of 30 major associations, with follow-up phone contact for those who did not immediately open the e-mail. Associations that disseminated the announcement to their membership included:

- The Northern Virginia Technology Council;
- TechAmerica (a new entity that combines the American Electronics Association and the Information Technology Association of America);
- Industry Advisory Council;
- World Wide Web Consortium;
- Association of Government Accountants; and
- National Association of State Chief Information Officers, along with 40 regional and local IT associations—a critical component, as it represents outreach to IT vendors who are generally not in the federal government space.

A good example of how critical networks are to successful outreach was IBM, which received notice about the Dialogue and communicated it to its 400,000 employees through its internal intranet site. Based on voluntary self-identification, there were more participants affiliated IBM than any other company. In each category of outreach, the ability to leverage this "viral" effect—whether through social networks or simple e-mail and phone outreach—is consistently a core component of successful outreach and recruitment strategies.

Outreach through federal government channels was accomplished primarily through umbrella networks or forums that are widely read and viewed across government. Primary among these venues were FedBizOpps.gov, a centralized portal that connects government with vendors; USA.gov, the federal government's central web portal with an associated distribution list of over 50,000 users; and the Federal Web Managers Council, an interagency group of almost 30 senior web managers from the federal government.

Outreach through social media networks was critical in attracting an audience focused on issues such as transparency, data, and the use of consumer-level applications. This outreach was conducted primarily through Twitter and Facebook. The Twitter feed—available at http://www.twitter.com/natldialogue—functioned as a two-way communications medium, allowing the Dialogue to broadcast important updates to the community, as well as hear from the community to better understand their needs and perspective. Some of the most important contacts produced through Twitter were Tim O'Reilly (http://twitter.com/timoreilly), the founder O'Reilly Media. followers; Craig with 390,574 and (http://twitter.com/craignewmark), the founder of Craigslist, with 11,157 followers. Dialogue's own Twitter feed amassed 504 followers by the end of the Dialogue. Facebook was also a highly useful outreach platform for recruiting potential participants and virally spreading periodic updates about the Dialogue. The Dialogue's Facebook group, "Recovery Dialogue: IT Solutions," attracted 368 members. In addition, this strategy included of outreach to GovLoop, a government-oriented social network dubbed "Facebook for Feds" that boasts over 10,000 members. Outreach to this group was critical in bringing voices to the table that were familiar both with the unique circumstances of government and the rich potential of online networks and collaborative communities to tackle complex problems.

## LESSONS LEARNED AND NEXT STEPS

While the Recovery Dialogue provided valuable feedback from participants about ideas and approaches for standing up Recovery.gov, it also has value as a test of the viability of using the Internet to engage stakeholders and citizens in such endeavors. By trying new processes like the Dialogue, government will continue to find more effective ways to include stakeholders, experts, and the public in the process of governance.

In identifying the lessons that follow, the National Academy draws on a growing body of knowledge and expertise about public engagement and consultation. The approach of choosing an online collaborative Dialogue is a response to a problem not of technology, but of management; specifically, the problem of assembling a large and diverse community of interested stakeholders, soliciting large volumes of focused feedback around a specific topic, and gathering that feedback in a way that makes it digestible and actionable for leaders in government. This is a challenge of public administration that eclipses consideration of any particular technology platform. While the lessons and suggestions presented here are relevant to the technology platform chosen for this engagement, they reflect primarily on the same question that motivated the Recovery Board: how to effectively engage the public in the work of government.

#### **OVERARCHING LESSONS**

Perhaps the most important lesson to be learned from the Dialogue is that, when asked and presented with a clear problem statement, citizens and stakeholders are eager to engage in shaping the actions of government. This observation is reinforced by a number of comments made on the Dialogue site during the week:

- "As a work in progress I think you must agree this is an extraordinary step, which lacks precedence."
- "[Participation] involves a commitment to allowing public contributions to the dialogue. It's the holy grail of online democracy, and seems to be one of the driving motivations of this 'National Dialogue' site."
- "Traditionally the US Gov has only really been a successful early IT adopter via NSA or NASA, and actions such as this National Dialogue give me hope that may change."

The Dialogue produced a substantial number of ideas and fostered discussions of those ideas in which participants responded directly to each others' arguments. This suggests the value of harnessing the energy and ideas of a diverse community and allowing them not only to respond to a single point of contact, i.e. directly to leaders in government, but to interact with and respond to each other, as well. Ultimately, these factors validate the Recovery Board's decision to solve problems by building collaborative communities, rather than turning inward to a more traditional, centralized process.

## PLATFORM AND USER EXPERIENCE

A multi-stage process might produce more actionable feedback. As noted earlier, rating seemed to be an effective mechanism for sorting ideas that participants found most appealing. However, many ideas submitted towards the end of the Dialogue were not present long enough to be rated comprehensively. Moreover, many ideas, while not entirely duplicative, contained similar substance and thus could have been more effectively assessed through the rating and commenting mechanisms. These findings suggest that in the future, consideration should be given to a platform that allows separate stages for the submission, refinement, and rating of ideas. A similar lesson was identified in the National Academy's Dialogue on Health IT and Privacy, conducted in October 2008 in partnership with the Office of Management and Budget.

A multi-stage process could produce a more distilled, actionable set of ideas, but would require an extended timeframe and a high level of involvement from participants. It might also encourage higher participation rates among those who already have staked out a firm position in the debate. In other words, such a process might gain a more productive deliberation, but it could negatively affect the volume of participation.

A scalable infrastructure is critical. The basic challenge that platforms like the Dialogue seek to overcome is to obtain a large volume of detailed input from a broad community that is both manageable and actionable. In other words, content sorting features must scale to the size of the participant community engaged; ideally, the larger that community, the more clearly sorted the ideas and priorities become. Within this Dialogue, it appears that rating and tagging features were effective sorting mechanisms.

Nonetheless, scalability in other elements presented a challenge in managing the volume of participation the Dialogue received, particularly with regard to the server infrastructure that supported it. Although the site was configured to handle a large number of participants—it utilized Amazon.com's EC2 "cloud" hosting service—the proportion of those participants who immediately engaged in server-intensive activities such as registering and posting multiple ideas was higher than anticipated. For example, after the first full day of the Dialogue, 6,500 unique visitors had already generated over 960,000 server requests. Ultimately, this volume of activity caused many users to experience technical difficulties in loading or interacting with the site during the first day of the Dialogue, and some of these difficulties persisted residually throughout the week. While frustrating for those affected, it does not appear to have adversely affected participation, which continued at a consistent pace across all five weekdays of the Dialogue. It does, however, highlight the importance of ensuring that the physical infrastructure that supports interactive platforms like the Dialogue be able to sustain high levels of participation.

### ANALYSIS AND REPORTING

Participants place high importance on a value exchange. One of the most critical success factors in any public engagement is the value exchange—the feedback or result that participants

can expect to receive in exchange for their time and ideas. In this case, the Dialogue site offered the following explicit value exchange:

The aim of this National Dialogue is to produce concrete, actionable suggestions for the leaders charged with implementing a transparent and accountable economic recovery. Upon the close of this dialogue on May 3rd, 2009, the President's Recovery Accountability and Transparency Board will review the results of this discussion. This feedback will directly influence how Recovery.gov is built and operated.

This statement accurately characterizes the Recovery Board's planned use of the Dialogue feedback, but did not explicitly offer a concrete or "trackable" next step that participants could anticipate. At the same time, such a step would be hard to define, as the Recovery Board's next steps in acting on the received feedback inevitably depend on its content and quality. This observation points to a broader issue that exists in the context of soliciting feedback through a Dialogue-type mechanism: Because the platform allows users to generate their own original ideas and areas of interest, rather than constraining their input as would a survey or other more traditional methods, it is often impossible to define in concrete terms how that feedback will influence policy until the feedback itself is received and evaluated. This tension is especially important when a rating mechanism is used to delineate the "best" ideas, because this can create the expectation that these ideas will automatically be adopted and acted upon. In future Dialogues or other similar web-based, large-scale deliberations, this constraint should be made explicit to users, perhaps accompanied by a commitment to report back to the public once it does become clear how their feedback will influence policy or action.

#### NEXT STEPS: KEEPING THE COMMUNITY ENGAGED

Perhaps the most important lesson to come out of this and the previous Dialogue is that they should not be "one-and-done" experiences. Such civic engagement efforts should serve as a starting point in building a productive and durable relationship between government and the public. As the report on the previous Dialogue noted: "No civic engagement used in isolation, online or otherwise, can deduce consensus where none existed previously. Ultimately, initiatives like the National Dialogue must mark the beginning, rather than the end, of public debate on any given issue."

Moreover, although the Recovery Dialogue itself has concluded, the purpose it serves—informing the creation of Recovery.gov—continues to be an important and challenging one. The feedback that was provided through the Dialogue can help to meet this challenge in a number of ways.

First and foremost, the substance of the feedback can guide the Recovery Board in its efforts to seek out new solutions or platforms, and provide visibility into IT vendors and practitioners who might not otherwise have been able to share their solutions with the Board. In this way, the Dialogue functioned analogously to an RFI process, allowing for the collection of information about, and comparison between, the capabilities offered by different solutions. However, the Dialogue was different from an RFI process in two critical respects: Its scope and format allowed the surveying of more potential solutions more quickly than is possible with a traditional RFI process; and the ability of other participants to ask probing questions of those offering

products and services produced a more critical, informed assessment than would otherwise be available.<sup>8</sup>

In addition to discussion around specific products, many Dialogue participants offered their overall expectations of Recovery.gov. These comments provide the Recovery Board with another layer of information for analysis, allowing solutions for individual elements of the Recovery.gov system to be organized and prioritized relative to the user experience that Dialogue participants have articulated a desire to see. In an environment defined by tight timelines and limited resources, the ability to prioritize effort in alignment with desired outcomes is a critical success factor.

Finally, the Dialogue also holds value in building a durable problem-solving community that can be repeatedly engaged by the Recovery Board. By its very nature, web-based consultations that are open to the public allow for the creation of what Harvard Professor Andrew McAfee has called "emergent expertise"—communities of people who are not formally designated as "experts" on a given topic, but who are nonetheless knowledgeable, passionate, engaged, and willing to devote non-trivial amounts of time and creativity towards advancing a particular goal or topic. Because the Dialogue was open to the public and made use of a viral outreach strategy, it was able to convene emergent communities around topics like technology, transparency, innovation, governance, and economic recovery. The data supplied to the Recovery Board following the Dialogue will allow it to identify user communities associated with any individual idea or tag, or collection of groups or tags, and to continue interacting with them to gain additional feedback as the review process continues.

One way to immediately begin realizing this potential would be to ensure that the feedback obtained through the Dialogue remains transparent and accessible. Currently, the National Academy doing so by preserving the Dialogue itself at <a href="http://www.thenationaldialogue.org">http://www.thenationaldialogue.org</a> in perpetuity. Increasingly, however, data itself—rather than the portals at which it originates—should be a foundational component of collaborative innovation. With this in mind, the Recovery Board should consider making all data received through the Recovery Dialogue available in more accessible and reusable formats, such as extensible markup language (XML). Doing so would create a highly portable structure around the data, enabling other users to potentially discover hidden patterns and novel insights in the feedback, and display these in new and compelling ways. Taking this step would also further demonstrate the Board's commitment to transparency. Already, relatively simple projects such as the Sunlight Foundation's Recovery Dialogue word cloud, as well as initial feedback from those who observed and participated in the Dialogue, indicate that there is a broad community that is eager and able to engage in a durable partnership with the Recovery Board towards the goal of building Recovery.gov.

<sup>8</sup> The Recovery Dialogue platform offered a separate, secure e-mail option for those vendors wishing to submit confidential material not appropriate for a publicly-accessible forum. During the week of the Dialogue, approximately 25 such e-mails were received, suggesting that the Dialogue platform provided an appropriate mechanism for capturing most of the information offered by vendors regarding specific products.

<sup>9</sup> See graphic and reference on p. 4.



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