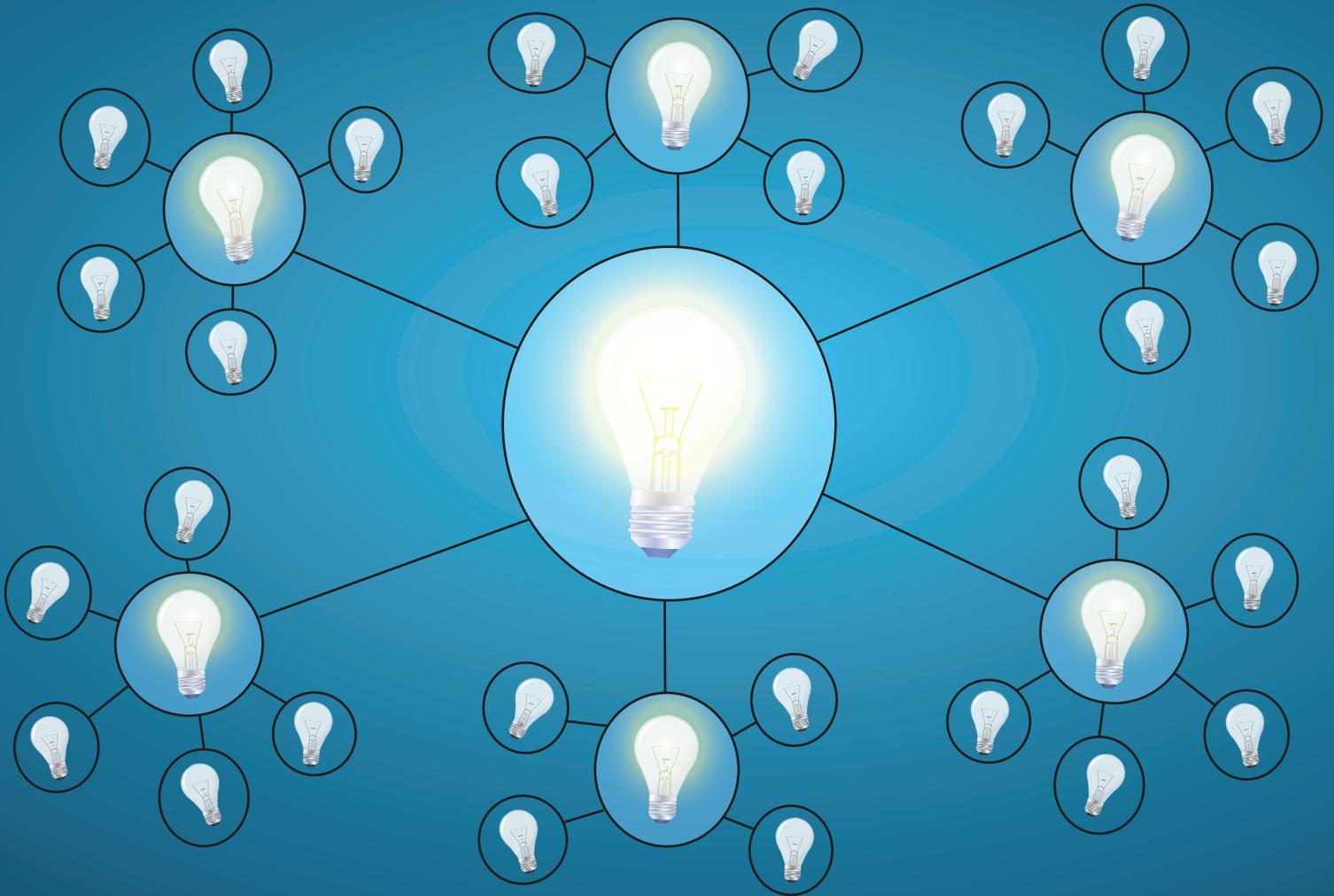




Federal Ideation Programs

Challenges and Best Practices



Gwanhoo Lee
The American University

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Foreword

On behalf of the IBM Center for The Business of Government, we are pleased to present this report, *Federal Ideation Programs: Challenges and Best Practices*, by Professor Gwanhoo Lee, American University.

Ideation platforms are modern tools predicated on an old adage, “None of us is as smart as all of us.” Though that proverb has been widely accepted, collecting and synthesizing the knowledge of “all of us” into actionable next steps has been a daunting task. The rewards for doing so, however, are potentially very high, especially for large organizations in both the private and public sector. It is no surprise that ideation platforms are so heavily used online—within the past few years alone, software developers have created numerous kinds of ideation tools that allow large organizations, including government agencies, to harness the collective knowledge within their organization.

In a basic sense, ideation platforms can be understood as a niche within the crowdsourcing universe. Crowdsourcing can refer to any task divided up and distributed to a large group, while ideation refers specifically to posing questions or concerns for collecting, synthesizing, analyzing, or prioritizing ideas and pointing to next steps.

Many ideation tools have been [approved for use](#) by federal government agencies, and more than a few agencies have created their own ideation tools to serve their specific needs. Included in this report are examples of how four federal agencies are using off-the-shelf tools and proprietary applications to harness the knowledge of crowds to help the agencies fulfill their mission.

In addition to the four case studies, Professor Lee presents strategies and tactics that can help agencies develop and implement successful ideation programs. To help readers understand ideation programs, the report outlines three distinct phases: idea generation, evaluation and selection, and implementation. The report concludes with a series of seven recommendations to sustain a federal ideation program, including institutionalizing the activity and creating a lasting organizational unit.



Daniel J. Chenok



Lori V. Feller

The report continues the IBM Center's long interest in the use of social media by federal agencies. Recent reports on subjects closely related to ideation include *Using Crowdsourcing in Government* by Daren Brabham, and *Challenge.gov: Using Competitions and Awards to Spur Innovation* by Kevin Desouza.

We hope that this report will help public managers and federal agency leaders in understanding how to best use ideation tools to improve the way they interact with stakeholders and leverage the breadth of creative thinking about how to improve federal programs.



Daniel J. Chenok
Executive Director
IBM Center for The Business of Government
chenokd@us.ibm.com



Lori V. Feller
Partner, Organizational Change Management
IBM Global Business Services
lori.feller@us.ibm.com

Executive Summary

Ideation is the process of generating new ideas or solutions using crowdsourcing technologies, and it is changing the way federal government agencies innovate and solve problems. Ideation tools use online brainstorming or social voting platforms to submit new ideas, search previously submitted ideas, post questions and challenges, discuss and expand on ideas, vote them up or down and flag them.

This report examines the current status, challenges, and best practices of federal internal ideation programs made available exclusively to employees. Initial experiences from a variety of agencies show that these ideation tools hold great promise in engaging employees and stakeholders in problem-solving.

While ideation programs offer promising benefits, making innovation an aspect of everyone's job is very hard to achieve. Given that these ideation tools and programs are still relatively new, agencies have not yet figured out the best practices and often do not know what to expect during the implementation process. This report seeks to fill this gap.

Based on field research and a literature review, the report describes four federal internal ideation programs, including IdeaHub (Department of Transportation), the Sounding Board (the Department of State), IdeaFactory (Department of Homeland Security), and CDC IdeaLab (Centers for Disease Control and Prevention, Department of Health and Human Services).

Four important challenges are associated with the adoption and implementation of federal internal ideation programs. These are: managing the ideation process and technology; managing cultural change; managing privacy, security and transparency; and managing use of the ideation tool. Some of the key issues involved with the challenges include:

- Lack of human resources to keep up with idea submissions
- Organizational culture that is not conducive to employee-driven innovation
- Resistance from the currently sanctioned innovation group
- Challenges in measuring both tangible and intangible benefits of ideation
- Risk of accidental disclosure of private or confidential information
- Other security concerns
- Unintended negative consequences such as decreased productivity

Best practices are grouped by phases of ideation process and by strategies and tactics. Some of the important best practices are presented in Table 1. (Table 2 on page 20 provides more detail.)

Table 1: Key Best Practices in Federal Ideation

Ideation Phase	Best Practices
Generation	<p><i>Strategies</i></p> <ul style="list-style-type: none"> • Generate awareness • Create a safe environment for idea sharing <p><i>Tactics</i></p> <ul style="list-style-type: none"> • Allow anonymous posting • Do not delay posting ideas due to censorship • Pre-populate the tools
Evaluation and Selection	<p><i>Strategies</i></p> <ul style="list-style-type: none"> • Make evaluation/selection criteria and process as transparent as possible • Strike a balance between autonomy and control in evaluating ideas • Focus more on user engagement than on selecting best ideas <p><i>Tactics</i></p> <ul style="list-style-type: none"> • Ensure ideas are thoroughly reviewed/approved before implementation • Provide users with powerful search tools and analytical capability
Implementation	<p><i>Strategies</i></p> <ul style="list-style-type: none"> • Do not trivialize ideas and do implement them as new programs or initiatives • Acknowledge the innovators <p><i>Tactics</i></p> <ul style="list-style-type: none"> • Use multiple rewards programs • Encourage communication between idea owner and idea submitter
All Phases	<p><i>Strategies</i></p> <ul style="list-style-type: none"> • Secure sufficient resources • Know the organizational culture and then build a new culture • Identify key users and get help from them <p><i>Tactics</i></p> <ul style="list-style-type: none"> • Personalize user experience • Create incentives and mandates for participation • Leverage open source software

Federal government agencies have been moving in the right direction by embracing these tools and launching ideation programs in boosting employee-driven innovation. However, many daunting challenges and issues remain to be addressed. For a federal agency to sustain its internal ideation program, it should note the following:

- **Recommendation One:** Treat the ideation program not as a management fad but as a vehicle to reinvent the agency.
- **Recommendation Two:** Institutionalize the ideation program.
- **Recommendation Three:** Make the ideation team a permanent organizational unit.
- **Recommendation Four:** Document ideas that are implemented. Quantify their impact and demonstrate the return on investment. Share the return with the employees through meaningful rewards.
- **Recommendation Five:** Assimilate and integrate the ideation program into the mission-critical administrative processes.
- **Recommendation Six:** Develop an easy-to-use mobile app for the ideation system.
- **Recommendation Seven:** Keep learning from other agencies and even from commercial organizations.

Introduction

The term ideation was born from *idea generation* (Garlow). Ideation is the process of generating new ideas or solutions using crowdsourcing technologies. Ideation tools use online brainstorming or social voting platforms to submit new ideas, search previously submitted ideas, post questions and challenges, discuss ideas and expand upon them, vote ideas up or down, and flag them. While some federal ideation programs crowdsource the public, the scope of this report is to investigate the current statuses, challenges, and best practices of internal ideation programs made available exclusively to federal employees.

Federal internal ideation programs use social media tools to harness the innovation and wisdom of employees for government agencies. A federal internal ideation program can elevate ideas and concerns from the workforce, and help leaders to implement ideas that have support and buy-in from all levels of the organization.

With the introduction of new collaborative social media and Web 2.0 tools, organizations are beginning to leverage the productivity and collective intelligence of the crowd to supplement or even replace current in-house innovation processes. This phenomenon, commonly referred to as crowdsourcing (Howe), or open innovation (Chesbrough), is receiving increasing attention in scholarly literature and increased use in practice (Erickson, Trauth, and Petrick). Indeed, the potential for social media to be a tool for mass collaboration is tremendous, both in the private and public sectors. For example, the chief technology officer of Tata Consultancy Services describes how he learns from his organization's collective intelligence: "We have really launched into the exploitation of the social Web as a means for ideation, as a means of finding the expert, as a means of learning. We use the Web to form groups to look at specific problems and tap into a collective intelligence. For example, I have a blog inside the company, and I have just finished writing a blog post which will go live tomorrow morning on the ideation process" (Hopkins). Organizations have begun to look beyond the obvious uses of social media for marketing and communicating (Kiron).

The way federal government agencies innovate and solve problems is changing. Ideas for innovation are now being shared openly online. Over the last several years, an increasing number of federal agencies have adopted social media-based internal ideation tools. Furthermore, the Ideation Community of Practice, or *iCoP*, has been developed to help improve the process for federal ideation. Now, the new imperative is to view innovation as an all-the-time, everywhere capability that harnesses the skills and imagination of employees at all levels.

Ideation programs are responsive to the Open Government Directive that calls for agencies to enhance participation and collaboration among employees (Lee and Kwak). Initial experiences from a variety of agencies show these ideation tools hold great promise in engaging employees and stakeholders in problem-solving (Kittrie A). Potential benefits of federal internal ideation programs include, but are not limited to:

- Leveraging good ideas and creative thinking that exist within agencies

- Engaging federal employees in solving vexing problems
- Connecting a disparate workforce over common ideas
- Building a sense of community engagement
- Building trust and feeling of ownership by having a two-way dialogue between senior leaders and employees

While there are promising benefits to ideation programs, making innovation an aspect of everyone's job is very hard to achieve. Given that these ideation tools and programs are relatively new, agencies are still learning best practices and often do not know what to expect during the implementation process. This report aims to fill this gap. Based on scholarly and practitioner literature, field interviews, and focus group discussion sessions, best practices for federal internal ideation programs are proposed and organized by the lifecycle of the ideation process. The objective is to provide government agencies with a set of validated best practices to effectively engage the workforce in generating and implementing innovative ideas that would create public value. Using the information from this report, agencies may effectively strategize and plan for their ideation programs, minimize trial and error, and not have to reinvent the wheel.

This report describes four federal internal ideation programs. This will give readers a sense of why and how these programs are adopted and implemented and what outcomes can be expected. Important challenges, problems, and issues associated with implementing ideation programs are presented. These challenges tend to be universal across agencies, and require management attention. Best practices of federal ideation programs are organized by the phases of idea generation, idea evaluation and selection, and idea implementation. Best practices that can be applied to all phases are also discussed.

Federal Ideation Programs

Four federal internal ideation programs serve here as examples of federal employee ideation platforms.

IdeaHub (Department of Transportation)

Background

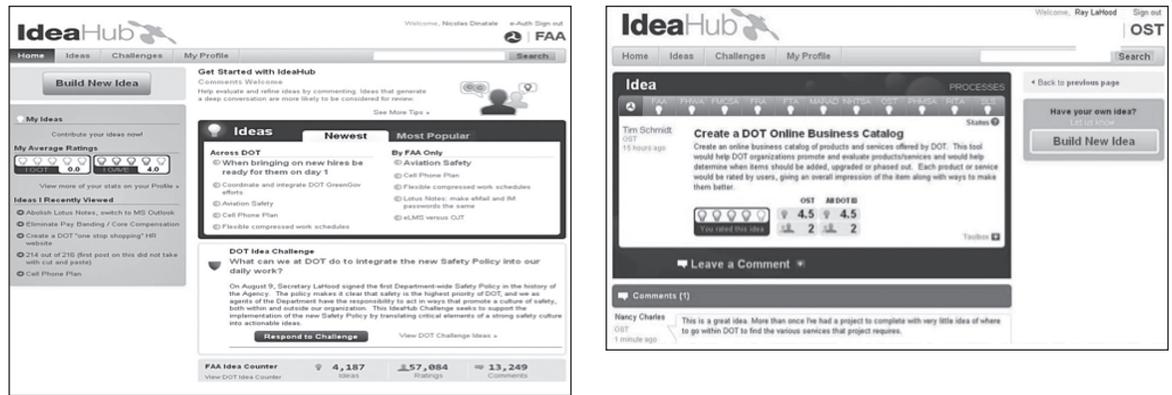
IdeaHub (<http://www.dot.gov/cio/ideahub.html>) is an internal ideation platform where Department of Transportation (DOT) employees can post new ideas. It is a platform that serves all DOT employees and provides a space to collaborate on innovative solutions for some of the department's most thorny issues. The submitted ideas not only cover transportation solutions but also suggest management improvements.

IdeaHub was initially launched by the Federal Aviation Administration (FAA) in August 2010. In response to the disappointing results of the 2008 Best Places to Work in the Federal Government Survey by the Partnership for Public Service, which ranked the agency second to last (<http://bestplacestowork.org>), the FAA started IdeaHub with two objectives in mind.

First, it aims to leverage its employees' ideas to make the agency better by creating an online community environment that enables innovation and cross-organizational collaboration within the agency and empowers its employees to develop, rate, and improve ideas for programs, processes, and technologies. Second, the agency seeks to improve employee morale through engagement by providing a conduit for great ideas and fresh perspectives to move upstream, and by recognizing employees for their contribution to the agency. In sum, IdeaHub leverages employees' ideas to help the agency accomplish its missions and continue to improve the work environment. IdeaHub rolled out to the entire department after the successful pilot test with the FAA.

IdeaHub functions as an online community rather than a suggestion box. It works as an interactive tool that facilitates innovation and collaboration exclusively for the department's employees. Employees can offer suggestions and ideas, and once an idea is posted, the employee community can vote it up or down. Naturally, outstanding ideas tend to attract more votes and generate improvement comments. These ideas are presented to the department's IdeaHub liaisons and the Innovation Council. After the ideas are evaluated, excellent ideas are put into practice. The IdeaHub community allows the department to post challenges to employees as a way of getting people to think about specific questions or problems. This two-way communication and interaction make idea generation and selection more efficient. Figure 1 shows screenshots of the IdeaHub site.

Figure 1: Screenshots of IdeaHub



Activities and Use

Since its inception in August 2010, IdeaHub has been widely used. Although the usage data for the entire DOT are not available, the cumulative FAA usage data from August 2010 to July 2013 are summarized below.

- Number of ideas submitted: 5,527
- Number of ideas that have been implemented or are being implemented: 86
- Number of alternative actions taken (i.e., the agency can't do exactly what the employee's idea asks for, but the agency is going to do a variant of the idea or take other action to address the root cause of the problem): 55
- Number of accepted ideas that could not be implemented: 88
- Number of myths busted (i.e., the idea was based on rumor or misunderstanding): 23
- Number of comments on ideas: 24,725
- Number of ratings: 94,486
- Number of users: 17,299
- Average number of visits per month: 4,000
- Ratio of repeat users: 62%

Outcome and Impact

One important objective of IdeaHub is to improve employee morale and thus improve lagging Best Places to Work scores for the DOT and the FAA. In 2013, the Partnership for Public Service recognized the DOT as the most improved large federal organization in employee satisfaction (Partnership). In addition, the FAA was noted as one of the top five most improved subcomponents in 2013, moving from the second-to-last place to a place in the top third in just four years. The DOT recognized that these significant gains in its Best Places to Work scores over the last several years are linked to the efforts made through IdeaHub.

One of the most consequential ideas implemented through IdeaHub has to do with aviation safety. Some airports used the same phonetic alphabet name (Alpha, Bravo, Charlie, etc.) for a parking area and the ramp area of an airport, which could lead to confusion on the airfield. The idea was to create guidance that discouraged this confusing practice. The Office of Airports agreed and went through the process of making the guidance for U.S. airports. They also presented the matter to the International Civil Aviation Organization (ICAO), which issued

the same guidance internationally for non-U.S. airports. As a result, this idea made a significant contribution to improved aviation safety, not only in the U.S. but in other parts of the world. Department budget issues are another case in point, demonstrating the potential value of IdeaHub. DOT employees have submitted a number of cost-cutting ideas to date. These ideas have already resulted in substantial cost savings and the DOT estimates that considerably more cost savings will be realized in the future (DOT 2011).

The Sounding Board (Department of State)

Background

The Sounding Board (<http://soundingboard.state.gov>) is an internal platform (discussion forum) for State Department employees to exchange ideas. At the behest of former Secretary of State Hillary Clinton, the State Department's Office of eDiplomacy launched the Sounding Board in February 2009. Employees are encouraged to submit non-policy ideas and solutions about how to improve the department's operation and management. The Sounding Board is designed to promote communication between employees and to collect ideas and suggestions for innovations and reform (Cull).

The overall process of the system is as follows. Employees submit ideas concerning problems. Then, other users can comment on the ideas. In this way, employees work together to build an integrated proposal by adding diverse perspectives, highlighting concerns, and filling in details that may be missing. The Sounding Board works as an online forum that opens the conversation to every employee interested in participating during the idea generation process. The community is based on interactive dialogue. Discussions and shared thoughts between users lead to the best ideas and solutions. Ideas are sorted by different categories. The supervising team tracks the status of individual ideas, providing quick and direct responses to employees on their proposals. The aim is to provide clear and well-defined proposals for review and action by the department's management.

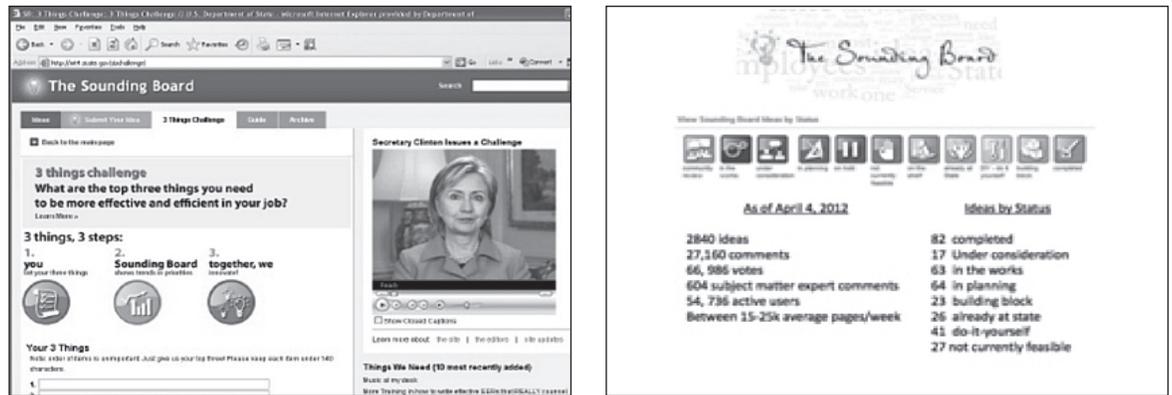
The topics discussed in the Sounding Board cover much ground. Employees submit ideas about cost savings, resource requirements, and any obstacles or challenges faced in carrying out their missions. The discussions can be set as anonymous. The Feedback feature of the Sounding Board gives management the opportunity to answer questions and update reform decisions. The ideas are marked in a different status when it is time for the employees to follow the feedback given by the management team. Figure 2 shows screenshots of the Sounding Board.

Activities and Use

As of April 2012, the Sounding Board had about 55,000 users, who together have made 27,160 comments on 2,840 ideas submitted since February 2009. It has registered 66,986 votes and 604 subject matter expert comments (Hanson). Furthermore, 82 ideas were implemented, 17 were under consideration for implementation, 64 were in planning, and 27 were judged to be not currently feasible (Hanson).

Outcome and Impact

One example of a new program initiated by an idea submitted to the Sounding Board is a bike-share program to facilitate local trips to interagency meetings, which involves building more showers for bicycle commuters. Another example is that the Harry S Truman Building and the Foreign Service Institute cafeterias introduced "greenware," disposable food packaging; and committed to reducing non-biodegradable waste (O'Connor, Moran, and Martin). The Sounding Board has been recognized as a model for employee outreach and was named one

Figure 2: Screenshots of the Sounding Board

of the most innovative programs studied by the National Economic Council and the White House Office of Science and Technology Policy.

IdeaFactory (Department of Homeland Security)

Background

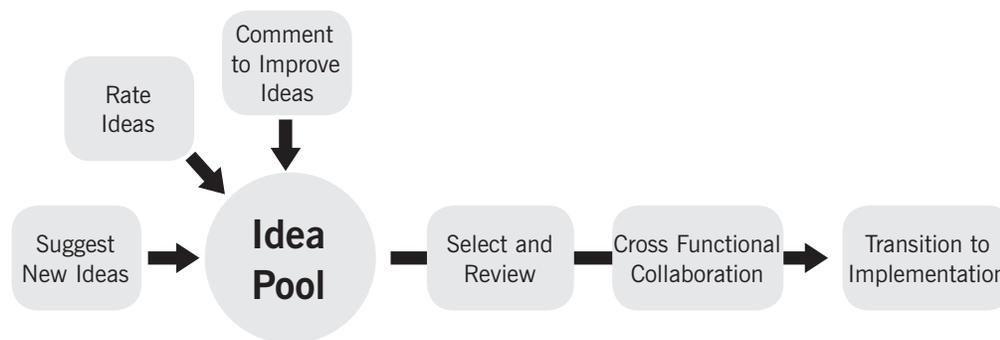
IdeaFactory (<http://ideafactory.dhs.gov>) is a web-based ideation tool that uses social media concepts to enable innovation and collaboration within the U.S. Department of Homeland Security (DHS). The Transportation Security Administration (TSA) within DHS has used the IdeaFactory since 2007 to enable its employees to suggest ideas to programs within the agency (White House). To keep the nation's transportation systems secure, IdeaFactory empowers the TSA's large and dispersed workforce to submit and collaborate on innovative ideas.

The TSA employees contribute to innovative ideas by submitting new ideas of their own and also by suggesting solutions to existing problems. After a new idea is submitted, other users can express their opinions by rating the idea and adding comments. The built-in toolbox allows users to track ideas and collaborate with peers to further develop them. All participants involved in creating and shaping an idea are informed when the idea is recognized and implemented. TSA specialists monitor the ideation site and help put ideas into action. The supervising team manages the ideas and determines how to implement them. After an idea is approved to be implemented, the IdeaFactory team works with program offices to communicate strategically with the workforce. Figure 3 shows the overall process of IdeaFactory and Figure 4 shows a screenshot from the IdeaFactory site.

Activities and Use

After years of experimentation and improvement, IdeaFactory has become a center for employee-driven innovation and idea generation. IdeaFactory has led to the implementation of more than 45 innovative ideas that positively impact policies, procedures, and quality of work life. More than 25,000 TSA employees have actively participated on the site. In October 2009, the Department of Homeland Security expanded the use of TSA's IdeaFactory to all agencies in the department. As of January 1, 2010, on average, 10 ideas are submitted each day, and each idea receives eight comments and 30 ratings (Homeland Security). Approximately 100 new users visit the site each week, 5,000 users visit the site each month, and 40 percent of the visitors actively contribute. In total, as of January 1, 2010, there are almost 10,700 ideas, 84,000 comments, 318,000 ratings, 28,000 users, and more than 50 new programs that have resulted from these ideation activities (Homeland Security).

Figure 3: IdeaFactory—Ideas to Programs



Source: Adapted from U.S. Department of Homeland Security, "IdeaFactory: Using Social Media to Engage Employees at TSA."

Figure 4: Screenshot of IdeaFactory



Outcome and Impact

The White House named TSA's IdeaFactory as a model of open governance. As IdeaFactory's service provides a voice for employees and fosters information sharing, it is also organizing agency operations and improving morale. It connects senior leadership with front-line employees. Through IdeaFactory, the program managers receive meaningful and diverse input from the workforce.

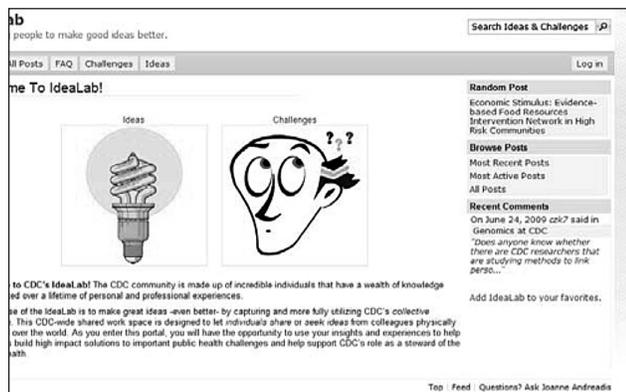
IdeaLab (Centers for Disease Control and Prevention, Department of Health and Human Services)

Background

IdeaLab is a web-based ideation system that serves employees of the Centers for Disease Control and Prevention (CDC). It launched in August 2009. CDC has about 14,000 employees, including full-time, part-time, and contractual. The workforce is geographically dispersed in 19 states in the United States and in 54 countries around the world. The diverse workforce can be a management challenge, but is also a great resource. IdeaLab is designed to break through geographic barriers and to leverage wisdom of CDC employees stationed around the world (Capturing Employee Ideas; Hanson).

IdeaLab connects employees from all divisions by creating an idea network. CDC employees are encouraged to use IdeaLab to post their ideas, to comment on others' posts, and to vote on the quality of the posts and comments. Employees may post their "Ideas" or requests for "Help Wanted." Hence, the ideas are built on a peer-to-peer network. Submissions are attributed in real time. The real-time authentication and application enables the rapid adoption and implementation of the best ideas. Ideas are categorized according to CDC organizational goals, and related ideas are affinity-grouped using tag clouds, which helps users to quickly find the information they need. Figure 5 shows a screenshot of IdeaLab.

Figure 5: Screenshot of IdeaLab



Outcome and Impact

IdeaLab is expected to bring a number of benefits. It increases connectivity among CDC employees who support multidisciplinary, evidence-based solutions, promotes scientific crowdsourcing and peer-to-peer networking in building ideas, enables virtual piloting and refinement of ideas, fosters retention and sharing of institutional memory, improves interactions among networks of knowledge, accelerates health impacts by increasing employee-driven innovation, and improves organizational efficiency (White House). In December 2009, IdeaLab was accepted into the White House Open Innovation Gallery.

Challenges in Managing Ideation Programs

In part due to limited experience, federal agencies have yet to develop a sound understanding of how best to use employee-driven idea generation, encourage it through agency-sponsored challenges and contests, and design prizes to unlock the creative energies of federal employees (Kittrie B). Important challenges, issues, and risks are associated with the adoption and implementation of federal internal ideation. These are presented here and have been identified through:

- A literature review
- Field interviews and surveys with ideation managers
- A focus group discussion

Because these ideation programs have been implemented in only a handful of federal agencies and for a relatively short period of time, it is important for federal agencies to be aware of the risks and challenges posed by them (Erickson, Trauth, and Petrick).

Challenge One: Managing the Ideation Process and Technology

Securing the necessary resources to support the ideation process and technology is critical to the successful implementation of ideation programs. The staff supporting an ideation site could be overwhelmed by a large number of submissions and user interactions. As a result, the staff may be unable to keep up with submissions in terms of monitoring, response, and evaluation (O'Connor, Moran, and Martin). This problem is more pronounced when an idea challenge event is announced, leading to a massive amount of idea submissions in a short period of time. The criteria and process by which a submitted idea is adopted or rejected are not very transparent. Consequently, employees do not have the same expectation about the way in which their ideas will be handled, which in turn affects their willingness to participate. Furthermore, many great ideas do not end up being turned into action due to the unpredictable nature of the online ideation community (Garlow).

When it comes to ideation technologies, federal agencies have yet to optimize Web 2.0 technologies and social media to facilitate participation and collaboration (Kittrie B). Moreover, there is no formal centralized organization that facilitates the exchange of ideas and experiences with respect to the use of technologies for federal ideation programs (Garlow). Fortunately, *iCoP* (Federal Ideation Community of Practice) has been created to address this issue. Nevertheless, it remains challenging to nurture and sustain this community of practice, given the lack of personnel and financial investment.

Federal agencies need to ensure compliance with Section 508, which requires that electronic and information technology is accessible to people with disabilities. Within many federal government agencies, there are no agreed-upon standards for what constitutes compliance with the law for electronic tools used internally. Furthermore, because of the novelty and fast-paced

growth of ideation tools and social media, there remain many issues to be resolved with regard to the appropriate use of these tools (The Innovation Tools Subgroup).

Challenge Two: Managing Cultural Change

Since Web 2.0-based federal internal ideation programs are a novel practice, cultural changes are needed to assimilate an ideation program into the extant organizational structure and process. For example, incentivizing ideation-related activities is an important cultural change. Currently, idea submitters are not sufficiently recognized in general. Most agencies do not provide monetary incentives for their employees' idea generation efforts. Failure to incentivize idea submitters could decrease the likelihood of sustainable ideation sites (Glassman).

Ideation tools allow for a new relationship between rank-and-file employees and leadership. Because they allow for direct communication of ideas between employees and leadership, they may challenge the traditional hierarchy. Harnessing the collective wisdom of the crowd and ideas from all levels of employees may challenge traditional notions of who can be considered an expert within the organization (The Innovation Tools Subgroup). Opening up innovation to employees outside the currently sanctioned innovation group presupposes that all employees, regardless of position and training, can add value to the innovation process. It presumes that an employee's value is a function of their contribution, not their job title or the implications of their job description (Erickson, Trauth, and Petrick). While some managers within sanctioned innovation groups may see the benefit of organization-wide ideation, others may feel threatened or fail to see the value "outsiders" can bring to the process.

Managers of innovation teams may see company-wide ideation initiatives as encroaching on job responsibilities and bucking the current chain of command. As such, these managers may attempt to protect their turf by instituting onerous processes within their groups or denying support to those tasked with managing the ideation process (Erickson, Trauth, and Petrick). Obtaining buy-in from mid-level management (e.g., the program offices that would ultimately be reviewing, responding to, and potentially adopting the innovations) is crucial, but it can be very challenging unless there is strong support from senior management.

While measuring the outcome of the ideation program is important, focusing mainly on the tangible traditional measures of innovation can exclude the intangible benefits that internal ideation may bring to the federal government (Erickson, Trauth, and Petrick). These intangible benefits include positive changes in employee morale, enhanced cross-functional collaboration, and the building of an innovative company culture.

Challenge Three: Managing Privacy, Security, and Transparency

One important issue concerns privacy and disclosure (Orluskie). With no central control and with autonomous ideation activities, there could be instances of accidental disclosure of private information. There is also the potential for federal internal ideation to produce bad publicity and possibly affect the agency's reputation. Many of the ideas submitted by federal employees have to do with improving their benefits or working conditions. While some are constructive and legitimate suggestions, others can be seen as overly demanding. If these posts somehow become public, they could give the impression that federal employees would waste taxpayers' money just to increase their own benefits.

Federal internal ideation tools are typically housed on federal entities' intranets and not accessible by the public. However, some agencies are using ideation tools to tap into the wisdom of the public. For example, agencies such as the U.S. Department of Health and Human Services

have sought public input on issues such as health reform (The Innovation Tools Subgroup). This may raise a number of security issues such as unauthorized data breach and hackers' attacks.

Challenge Four: Managing the Use of an Ideation Tool

Information technology often produces unintended negative consequences. Federal employees might spend an excessive amount of time with the ideation system (The Innovation Tools Subgroup). As a result, there is a risk that their productivity could be undermined. Furthermore, federal employees might use the ideation tool not to promote innovative ideas but to broadcast grievances, rumors, or personal opinions about political or sensitive social issues.

Another important issue is that federal agencies need to determine how ideation tools best mesh with existing platforms, and decide which types of tools are best suited to each purpose. Ideation tools are a terrific forum for stimulating innovation and building new ideas, but they are not as suitable for general discussions among employees. It is critical to ensure that federal agencies are using the optimal tools for the intended purposes, and that there are linkages between the platforms so that employees can easily direct their attention and energy to the most appropriate places (The Innovation Tools Subgroup).

Best Practices For Federal Ideation Programs

Best practices that can be applied to all phases of federal internal ideation are organized here according to three distinct ideation phases:

- Idea generation
- Idea evaluation and selection
- Idea implementation

The practices are grouped by strategies and tactics within each phase. Strategic-level best practices help to create overarching environment, culture, structure, and process to promote federal internal ideation programs. On the other hand, tactical-level best practices help address more micro-level, local, short-term challenges that are small bumps rather than big barriers to successful implementation of ideation programs. Nevertheless, these tactical-level best practices can often save substantial time and cost and boost employee participation. These best practices are based on various academic and practitioner literature, as well as government documents. Also, the data obtained through personal interactions and field studies with the federal managers who are responsible for internal ideation programs have been instrumental in developing them. Table 2 summarizes these best practices.

Best Practices in the Idea Generation Phase

The key challenge in the idea generation phase is to motivate federal employees to submit their ideas and engage with others' ideas. As federal employees are occupied with their main jobs, they might perceive ideation to be something outside their duty or responsibility. The following strategic and tactical best practices are effective for encouraging and motivating employees to participate in ideation.

Strategies

Generate awareness. In cases where participants report successful outcomes of ideation programs, proactive leaders are personally involved in generating awareness of the internal ideation program. For example, the leader championing the internal-crowdsourcing initiative invites employees who have contributed breakthrough ideas to executive meetings. This type of recognition helps to generate awareness that any employee could contribute valuable input. Proactive leaders also meet with other executives to address their concerns, to help them understand the value such ideation programs bring to the organization, and to set expectations regarding support of and contribution to the new initiative (Erickson, Trauth, and Petrick).

Create a safe environment for idea sharing. Given the organizational and cultural challenges associated with implementation of the ideation tools, as well as the potential for abuse, it is critical to provide users and program managers with rules of engagement. It is through strategic, vigilant, and consistent moderating that ideation tools can provide users with a safe, fair, and reliable environment within which to share ideas (The Innovation Tools Subgroup).

Table 2: Summary of Best Practices by Ideation Phase

Ideation Phase	Best Practices
Generation	<p><i>Strategies</i></p> <ul style="list-style-type: none"> • Generate awareness • Create a safe environment for idea sharing • Use challenges and HQ-sponsored ideas to spur interests and participation <p><i>Tactics</i></p> <ul style="list-style-type: none"> • Allow anonymous posting • Do not delay posting ideas due to censorship • Authenticate and categorize submitted ideas in real time • Pre-populate the tools • Provide guidelines for submissions on the ideation site • Have users sign Terms of Use agreements
Evaluation and Selection	<p><i>Strategies</i></p> <ul style="list-style-type: none"> • Make evaluation/selection criteria and process as transparent as possible • Strike a balance between autonomy and control in evaluating ideas • Do not create unrealistically high user expectations • Focus more on user engagement than on selecting best ideas • Design effective organizational structures • Get senior managers involved in the process <p><i>Tactics</i></p> <ul style="list-style-type: none"> • Keep everyone informed of idea status • Ensure ideas are thoroughly reviewed/approved before implementation • Provide users with powerful search tools and analytical capability
Implementation	<p><i>Strategies</i></p> <ul style="list-style-type: none"> • Do not trivialize ideas, and do implement them as new programs or initiatives • Track metrics of the impact of implemented ideas • Acknowledge the innovators <p><i>Tactics</i></p> <ul style="list-style-type: none"> • Use multiple rewards programs • Encourage communication between idea owner and idea submitter • Engage idea owner early in the process to ensure buy-in • Let high priority ideas take precedence in implementation
All Phases	<p><i>Strategies</i></p> <ul style="list-style-type: none"> • Secure sufficient resources • Know your organizational culture and then build a new culture • Define metrics to measure the program's success • Identify key users and get help from them • Clearly define the responsibilities of the ideation program office • Develop a strategy and plan for the roll-out • Assess privacy impact • Focus on public value • Get strong senior leadership support <p><i>Tactics</i></p> <ul style="list-style-type: none"> • Personalize user experience • Use self-policing as a governance mechanism • Make small changes fast • Create incentives and mandates for participation • Support interagency knowledge transfer • Leverage open source software • Make access to the tool easy • Integrate the ideation tool with other existing tools • Communicate, communicate, communicate

Agencies should understand that site moderation is an intensive effort that requires significant resources. For example, TSA program staff monitor the ideation website on a daily basis, reading every idea to ensure compliance with the submission guidelines and reviewing each item for possible elevation to the next phase of process. Staff adjudicate ideas and distribute them to the appropriate program offices, and identify key trends by conducting daily, weekly, and monthly site analyses. Similarly, program staff at the State Department's Sounding Board have found that, as volume of traffic on the site increases, more staff time is needed to moderate the site.

Use challenges and headquarters-sponsored ideas to spur interests and participation. The ultimate vision of federal internal ideation systems is to provide an ongoing, sustainable online forum for idea generation. However, to sustain interest and participation from users, it is important to occasionally organize events. For example, in the case of IdeaLab, there is a weekly Featured Challenge Event highlighting a challenge that has broad agency interest across multiple national centers and offices (The Innovation Tools Subgroup). Another effective approach is for federal agencies to ask employees to respond to headquarters-sponsored ideas. This changes the direction of the dialogue between headquarters and employees and gives the employees the opportunity to play a different role. It sends a message to employees that idea generation is not necessarily bottom-up, but rather a combination of bottom-up and top-down. In IdeaFactory, a similar program called "We Ask You" engages employees to respond to headquarters-sponsored ideas (Homeland Security).

Tactics

Allow anonymous posting. Users feel safer in submitting a radical idea that might interfere with others' interest if they can submit the idea anonymously. Although requiring use of their real name might help prevent users from posting offensive, unproductive ideas, it discourages them from submitting ideas that are innovative, yet potentially controversial or sensitive. For example, in the case of the Sounding Board, users can choose to enter their name or an invented name, so the system is dependent upon self-identification of its users. Users who wish to remain anonymous can enter their name as "anonymous" in the username field (The Innovation Tools Subgroup).

Do not delay posting ideas due to extensive reviews. Compared with commercial organizations, government agencies tend to value control more than autonomy. This culture is understandable, as accountability is often perceived to be more important than innovation in government. Therefore, it is tempting for federal agencies to review submitted ideas before posting them online. However, such review delays posting submitted ideas, which discourages idea submitters because in the era of real-time data processing, users are used to and expect real-time interactions.

Delaying posting ideas for hours, or sometimes even for days, has a significant, negative effect on the dynamics of user participation and interaction. To overcome this issue, in the case of the IdeaFactory, all submissions are posted immediately to the internal ideation site and do not receive review prior to posting. The ideation site is, however, reviewed daily by IdeaFactory program managers who have the discretion to remove inappropriate comments or ideas. Through this process, IdeaFactory program managers regain the control they have given up earlier in order to boost idea submission. Self-policing, or community policing, play an important role in reassuring control. For example, an icon on the IdeaFactory system allows users to report abuses of the system, such as inappropriate language or disparaging comments directed at an individual. These reports are sent to the IdeaFactory program managers and are reviewed immediately (The Innovation Tools Subgroup). IdeaLab uses a similar process in that posts and comments are made in real time, though the administrator has the option to remove inappropriate posts.

Authenticate and categorize submitted ideas in real time. For easy search and data management, ideas should be indexed and grouped by meaningful categories. In IdeaLab, submissions are attributed and authenticated in real time. Ideas are categorized according to CDC organizational goals, and related ideas are affinity-grouped using tag clouds (Capturing Employee Ideas). Given that an idea may belong to multiple categories and that the categories themselves might evolve over time, the use of tags would be an effective way to categorize submitted ideas. In the case of the Sounding Board, users post their submission idea in a free text format, and one of the editors assigns a category or categories to the submission. A field is also available for users to identify tags to help guide the categorization of their submissions (The Innovation Tools Subgroup).

Pre-populate the tools with initial data. Agencies should involve the early adopters during the “soft launch” of the ideation system to generate initial ideas and materials for their communities. Pre-populating data is important to create an initial momentum and interest for users as ideation is subject to network externality.

Provide guidelines for submissions on the ideation site. Employees often misunderstand the true purpose of ideation tools and use them to share rumors, complaints, or personal opinions. To ensure that the ideation platform is mainly used to facilitate innovation, agencies should provide clear guidelines for what is accepted as an idea in the context of ideation. For example, the Sounding Board recommends that ideas suggest newer, smarter ways of enabling our nation’s foreign policy goals as opposed to providing any foreign policy recommendations (The Innovation Tools Subgroup).

Have users sign terms of use agreements. To ensure the accountability for what is happening on the ideation site, federal agencies should consider having users sign a terms of use agreement. Although this alone cannot guarantee fair use of the ideation tool, it helps increase employees’ awareness of potential risks and issues. For example, a key governing element of the IdeaFactory is a “TSA IdeaFactory Terms of Use” agreement that employees must sign electronically each time they access the tool (The Innovation Tools Subgroup). The agreement addresses a wide range of issues regarding the use of IdeaFactory, the identification of participants, the exchange of sensitive security information, ownership of submissions, liability for comments, rights of the administrators, and terms of use violations. Through this process, agencies can strike a better balance between autonomy and management.

Best Practices in Idea Evaluation and Selection Phase

Once ideas are submitted to the ideation system, users make comments, vote for or against ideas, and sometimes engage in excessively escalated discussions. The ideation team and senior managers need to effectively manage highly unpredictable dynamics during the ideation process, while striking a balance among efficiency, effectiveness, autonomy, and control.

Strategies

Make the evaluation/selection criteria and process as transparent as possible. By making the evaluation and selection criteria and process transparent to all employees, agencies can establish a shared understanding and expectation across the organization about how submitted ideas will be evaluated and selected. This is an important governing strategy because employees’ perceived fairness of the process affects their willingness to participate in the ideation program. For example, in the case of IdeaFactory, ideas garnering 75 votes and a score of 4.0 out of 5.0 by the user community are considered “threshold” ideas and are guaranteed a formal evaluation in response by the appropriate program office (The Innovation Tools Subgroup).

Strike a balance between autonomy and control in evaluating ideas. When evaluating submitted ideas, it is important to involve not only employees but also experts in the process. By doing so, agencies can maintain the right balance between autonomy (i.e., employee-driven evaluation) and control (i.e., expert-driven evaluation). Although the wisdom of the crowd works well in many cases, it does not work all the time. Getting experts involved in the evaluation and selection process ensures that the best ideas are selected for implementation. In the case of IdeaFactory, the IdeaFactory staff and subject matter experts review the ideas and select the most promising ones for further review, regardless of the overall score given by employees.

Do not create unrealistically high expectations, and expect ebb and flow in participation.

Normally, idea evaluation and selection take longer than employees expect. For example, during the holiday seasons, employees need to have a realistic expectation about the timeline of idea evaluation and selection.

Focus more on user engagement than on selecting best ideas. In the long term, it is the level of employee engagement that matters most for the success of ideation programs. Although selecting best ideas might produce short-term positive impacts, continuous participation of a large number of employees will produce more innovative ideas in the long run. Therefore, it is more important to ensure the fairness of idea evaluation criteria and process than just to increase efficiency of the process. For example, in the case of IdeaFactory, program office experts respond to all evaluated ideas, whether or not they make the cut for implementation (Homeland Security).

Design effective organizational structures. Another useful strategy is to make sure that each program office is represented on a cross-functional review team that must bless an idea before it is submitted to senior leadership (The Innovation Tools Subgroup). It also appears that placing the program management team within the highest possible echelon of an organization's hierarchy maximizes the chance of success and signals to the rest of the organization the importance of employee-based idea generation tools.

Get senior managers involved in the process. It is important to get senior managers involved in the idea evaluation and selection process. This sends a signal to employees that top management takes ideation programs very seriously and that important inputs from top management are incorporated. In the case of IdeaFactory, senior managers and program managers communicate with employees by debunking myths and responding to ideas with specific explanations and details (White House).

Tactics

Keep everyone informed of idea status. It is recommended that employees be informed of the current status of submitted ideas through multiple channels. In particular, keeping everyone posted about the status of the highly popular and most promising ideas is important to help employees continue to engage throughout the entire ideation process. For example, idea status updates on the most promising ideas are provided on IdeaFactory's landing page. The same information is also captured in the agency's monthly newsletter. Similarly, in the case of IdeaLab, a weekly Bright Idea highlights a submission that has broad agency interest and popularity across multiple centers and offices. All communications are stored in a searchable archive that anyone at CDC can review at any time (Capturing Employee Ideas).

Ensure ideas are thoroughly reviewed and approved before implementation. One of the responsibilities of the ideation program staff is to ensure that ideas, especially ideas under review for implementation, are based on facts, not on myths. The popularity of an idea is not

a reliable indicator of the veracity and validity of the idea. If anyone misleads others with inaccurate facts accidentally or purposefully, the ideation staff is responsible for correcting them. In addition to fact-checking, ideas need to be reviewed and approved by all important stakeholders before implementation. For example, in the case of IdeaFactory, because most high-impact ideas involve more than one program office, ideas receiving support at the program office level are then subjected to a cross-functional review by the IdeaFactory Review Board. This board is comprised of 15 to 20 people representing leadership from program offices, relevant staff offices such as legal and budget, and IdeaFactory program managers.

Provide users with powerful search tools and analytical capability. The ideation system should be designed such that users can determine how they want to see the information and can easily identify the most popular ideas. Powerful search and filter tools should be in place to allow users to conduct advanced searches based on keyword, idea status, ideas they have contributed towards, and category (Homeland Security). Furthermore, due to the dramatically increased interest in and demand for big data analytics, numerous data analytics tools have become available over the last few years. As ideas are accumulated in the ideation system, it is important for users to be equipped with advanced analytical capabilities that help analyze and make sense of massive data. For example, the Sounding Board provides users with analytical functionality through advanced filters, dashboard functions, and more sophisticated uses of crowdsourcing (The Innovation Tools Subgroup). In addition, IdeaLab uses Omniture, a product compatible with CDC's web analytics platform, to track usage metrics for the ideation site.

Best Practices in the Idea Implementation Phase

Because the history of federal internal ideation is short, a coherent set of best practices in the idea implementation phase has yet to be developed. Nevertheless, the following practices emerge as effective ones. Implementing ideas not only requires resource commitment but also comes with important consequences. As such, special attention and care need to be devoted to the implementation phase. Idea implementation is critical feedback to employees, and depending on how ideas are implemented, it could encourage or discourage their future ideation activities.

Strategies

Don't trivialize ideas and implement them as new programs or initiatives. Do not trivialize selected ideas by making them one-off deals or temporary solutions to problems. Establish a formal program or initiative to implement a selected idea so that the organization takes it seriously. Idea submitters and others involved in the evaluation and selection process will keep track of how the organization implements the ideas they generate and select. It is crucial to send a signal to employees that a meaningful change can be brought by an idea submitted to the ideation system.

Track metrics of the impact of implemented ideas. In addition to recognizing the idea generators, it is also important to demonstrate the value of ideation programs to senior management and all employees. To that end, ideation program managers should keep track of metrics showing the status and impact of implemented ideas. Often, it is not easy to quantify the impact of implemented ideas. Therefore, both quantitative and qualitative metrics need to be employed to fully grasp the broad impact of innovative ideas.

Acknowledge the innovators. Sustained engagement by the federal workforce is largely dependent on recognizing both the innovators and the value of the ideas submitted. It is also important to acknowledge constructive comments that shape and refine ideas. The reward and recognition component of ideation strategy is integral to its long-term success. In particular, recognition by top leadership through announcements or rewards ceremonies in acknowledging

a successful idea can go a long way in enticing employees to continue to submit ideas and provide comments.

Tactics

Use multiple rewards programs. Instead of using a single reward program, successful agencies use multiple rewards programs to motivate federal employees to continue to participate in idea generation (The Innovation Tools Subgroup). Both non-financial and financial rewards should be used. For example, TSA recently offered a bonus that represented a portion of the savings accrued in response to a cost-saving challenge. Furthermore, TSA recognizes the success of idea generators through mechanisms such as a signed letter and certificate of appreciation from the TSA administrator; recognition and stories in various internal newspapers; a feature story or webcast on the TSA's intranet home page; and the opportunity for the idea creator to help with the implementation of the idea. In several instances, the idea generator has been invited to TSA headquarters to participate in the implementation of the idea.

Encourage communication between idea owner and idea submitter. One of the daunting challenges in implementing an idea has to do with the transition from idea submission to idea implementation. During this transition, it is easy for the idea owner to misunderstand the original idea and lose the context in which the idea was formulated and submitted. Knowledge transfer between an idea submitter and an idea owner can be very challenging, especially if the nature of knowledge is tacit rather than explicit (Nonaka). To ensure a smooth transition from idea submission to idea implementation, it is important to encourage frequent communication and close collaboration between idea submitters and idea owners. By so doing, agencies can also build accountability in the transition process.

Engage idea owner early in the process to ensure buy-in. Even if an idea is favorably evaluated by other employees and experts, there is no guarantee that the organizational unit that should implement it would buy into the idea. Instead of forcing or mandating the idea owner to implement the idea, a more effective approach is that ideation program managers engage the prospective idea implementation unit early in the idea evaluation and selection phase to ensure their buy-in of the selected ideas. By allowing the idea implementation unit to co-create an idea with the idea submitter, one may increase the likelihood of implementing the idea successfully.

Let high-priority ideas take precedence in implementation. Normally, the speed of implementation cannot keep up with the rate of idea selection. A likely result is a backlog of ideas waiting for implementation. To address this issue, federal agencies should prioritize ideas based on their impact and likelihood of success and let high-priority ideas take precedence in implementation.

Best Practices in All Ideation Phases

The following best practices are universally important for all phases of the ideation process.

Strategies

Secure sufficient resources. While it is relatively easy to set up an ideation program, it is more difficult to ensure that the organization has an infrastructure and process in place to deal with the suggestions. An ideation tool creates a significant amount of work up front and does require a set of dedicated resources, including people and infrastructure, to be successful (Erickson, Truth, and Petrick). Because these tools are relatively new, it is hard to assess the optimum size of program staff needed to manage an ideation program. Instead of hiring new employees to run the ideation program, agencies should use a collaborative approach involving existing

employees across the organization. For example, the State Department is using a collaborative approach to manage its ideation program. Six people contribute to the running of the program: one full-time program manager, assisted by time lent from five additional staff members across the State Department (The Innovation Tools Subgroup). The TSA currently employs the equivalent of five full-time employees to manage the IdeaFactory tool for a workforce of 50,000.

Know your organizational culture and then build a new culture. The ideation program staff should be aware of their organizational culture and develop a coping strategy accordingly. Since organizational culture changes at a much slower pace than the speed at which the ideation tool can be developed, the organizational culture often may not be ready to accept a full-blown ideation tool. It may be best to develop a first-generation tool with simple software and improve the software over time in response to the organization's uptake of the tool (The Innovation Tools Subgroup). This approach has been taken by the TSA, the State Department, and CDC. For example, the TSA is a relatively new organization with a relatively homogeneous workforce, whereas the State Department is an older and more diverse organization in terms of employee functions. As a result, creating an innovation culture at the State Department has been more challenging than at the TSA.

Once the current organizational culture is understood, a new culture should be built, emphasizing transparent, open innovation. The “build it and they will come” philosophy does not apply to ideation tools. Developing a culture in which idea generation is promoted, celebrated, and rewarded should not be overlooked. For this reason, federal agencies should use an iterative and gradual approach to the development and implementation of ideation tools. Senior managers can address cultural barriers by living the vision of the ideation tool and using organizational change levers such as one-on-one coaching for inappropriate content and leading by example.

Define metrics to measure the program's success. Metrics are crucial for sustained ideation programs. After the honeymoon period around the initial launching of an ideation program, senior management will soon demand evidence to show the business and the public the value of the program. Ideation program teams should identify metrics in the early phase of adopting an ideation tool and then expand to a more comprehensive set of metrics. Metrics that can be used in the early phase may include number of ideas submitted, number of comments posted, number of votes/ratings, number of ideas evaluated, number of unique visitors per date range (daily, monthly, etc.), total unique visitors, average time spent on site, and number of new users for each date range. Metrics that can be added in a later phase include money saved, increased ability to meet a mission objective, increased employee satisfaction, and improved delivery of service.

Identify key users and get help from them. Key users play an important role in creating initial buzzwords and interests. By using a Social Network Analysis (SNA) during pre-pilot planning, the ideation program team should first identify key users such as Connectors—the “hubs” of a social network that connect different groups, Mavens—people who know about many things, and Salespersons—the persuaders and evangelists (Gladwell), and invite social media explorers (SMEs) and advocates to participate in the new tool, to lead by example. The ideation team should brainstorm with early adopters and advocates to think about the most appropriate use of the ideation tool for the agency. Furthermore, lead users can provide early feedback so that the ideation team can resolve many issues early in the process (McCarthy).

Clearly define the responsibilities of the ideation program office. Since the ideation program office is a new organizational unit, senior managers and employees might have different expectations of the office. Therefore, it is important to clearly define the responsibilities of the office and communicate them to the entire organization. The major functions of the ideation program office should include monitoring the tool's website, reading every idea to ensure compliance

with the submission guidelines, reviewing each item for possible elevation to the next phase of the process, distributing ideas to the appropriate program offices, identifying key trends by conducting site analysis on a regular basis, following up with ongoing requirements for user-interface improvements to enhance user experience, interfacing with all stakeholders, working to optimize the site and business processes to increase engagement, developing and launching strategic communication efforts, designing and documenting program processes, identifying areas for improvement, and tracking progress against a strategic plan for the program (The Innovation Tools Subgroup).

Develop a strategy and plan for the rollout. When launching an ideation program, federal agencies need to develop an effective communication and marketing strategy and plan to grab employees' attention and interest. Seeding the rollout with a challenge question, attention grabber, or incentive can be an effective strategy (The Innovation Tools Subgroup). In the case of IdeaFactory, the TSA administrator launched the tool via a webcast to the entire TSA. The Sounding Board was announced by Secretary Clinton at a town hall meeting, and the very first entry on the site was from the secretary herself. The CDC launched IdeaLab through enterprise communications articles on Connects, its intranet homepage newsletter. The CDC is also exploring the use of incentives such as preferred parking and lunch with leadership to promote employee engagement and high quality idea generation.

Assess privacy impact. As one of the concerns about ideation tools has to do with privacy disclosure, agencies need to assess the privacy impact of their ideation program and take actions before launching the program (Orluskie).

Focus on public value. Federal employees are driven by a noble mission: pursuit of increasing public value. Although federal internal ideation programs can benefit employees, the ultimate value should be evaluated by public value. For example, in the private sector, frameworks such as a Business Value Assessment (BVA) can be used to identify business value of a new initiative. Federal agencies need to develop and use a similar framework that can be applied to the federal government in order to assess public value of ideation programs.

Get strong senior leadership support. Strong support from senior leadership is necessary not only for building credibility but also for driving people toward the ideation site (McCarthy). Commitment from agency leadership and mid-level organizational management is the essential ingredient in the success of ideation programs. It is important especially in the early stages of an ideation tool's adoption to obtain buy-in from both top and mid-level leadership. Leadership engagement is also necessary for ongoing communications with agency staff about the value of the tool as well as the reward system.

Tactics

Personalize user experience. Users want personalized experience in online communities. Ideation tools should provide capabilities for users to customize views, preferences, settings, etc. For example, in IdeaFactory, the profile tab allows users to enter information about themselves, create a personal signature, view favorites lists, view idea statistics, and sign up for category alerts (Homeland Security).

Use self-policing as a governance mechanism. Saving time is often more important than the quality of the initial system. Therefore, federal agencies should not waste too much time fine-tuning rules and instructions; people do not read them anyway. Use self-policing as an effective governance mechanism to control online behavior (Homeland Security). As evidenced by Wikipedia and other online communities, self-policing works surprisingly well in crowdsourcing applications. To some extent, agencies should let rules be shaped by users over time.

Make small changes fast. One of the critical success factors for virtually all online applications and services is adaptability. A very popular and effective site can become obsolete and irrelevant very quickly. Federal agencies need to be able to make quick, small changes to their ideation tool. It is very hard to predict how the site will be used, so small changes allow agencies to keep pace with their employees' elusive and ever-changing demands (McCarthy).

Create incentives and mandates for participation. Effective ideation programs create incentives to encourage employee participation. This includes bonuses, awards, and public recognition of contributors either via company-wide e-mail or at company events. In addition, federal agencies may require employees to participate. For example, submission of ideas once a week or month to the agency-wide ideation platform could be required. This can be particularly powerful in ensuring the contributions of innovation groups who are hesitant to share their best ideas on open platforms (Erickson, Trauth, and Petrick).

Support interagency knowledge transfer. Since federal ideation practice is still in early stages of adoption and experimentation, it is important to learn from other agencies' experiences. One effective way to do so is to create a community of practice: *iCoP* (Federal Ideation Community of Practice) has been established and includes several federal agencies, such as the Department of Health and Human Services, the Department of State, DOT, and the Department of Homeland Security. *iCoP* has become an important vehicle for transferring knowledge and experience about ideation to other agencies.

Leverage open source software. Although commercial ideation tools such as IdeaScale are available on the market, federal agencies should consider using open source software to implement their ideation site quickly and at a low cost. This can eliminate financial barriers to adopting ideation. For example, IdeaLab was developed by the Office of Strategy and Innovation at CDC using the open source WordPress publishing platform. Publicly available WordPress plugins were used for voting, user login, and notifications, and some custom code for unique layouts and information presentations were used to provide additional functionality (The Innovation Tools Subgroup).

Make access to the tool easy. To promote continued community engagement, access to the ideation tool needs to be easy. For example, by providing a link to the tool on the main landing page of the organization's intranet, the tool becomes readily visible and available and is likely to promote employee use (The Innovation Tools Subgroup). In addition, the tool needs to be easily accessible by a variety of different computing devices such as tablets and smartphones.

Integrate the ideation tool with other existing tools. Due to the explosive growth of social media tools and other information technologies, federal agencies have numerous software tools for their employees to use. It is very important to embed the new ideation capability into existing ways of working so that ideation becomes an integral part of work routine. The ideation program staff needs to develop a strategic plan that addresses how ideation tools will integrate with existing tools, work routines, and programs.

Communicate, communicate, communicate. The importance of communication throughout the adoption and implementation of ideation programs cannot be overstated. More communication is always better than less communication, even if it sometimes means redundant messages sent to employees (Homeland Security). In addition to frequency, use of multiple communication channels is important, as there is no single channel in which all employees are actually engaged.

Recommendations

Ideation programs based on the concept of crowdsourcing are becoming pervasive. Given the rapid development of social media and other related information technology, these ideation programs will become more technologically sophisticated, and they are here to stay, as the power of the crowd's wisdom will soon produce tangible benefits. Federal government agencies have been moving in the right direction by embracing these tools and launching ideation programs to boost employee-driven innovation.

However, many daunting challenges and issues remain to be addressed. In addition to incorporating the best practices discussed above, federal agencies should figure out how to make their ideation program sustainable over a long period of time. Based on the findings of this research, the following recommendations will enable federal agencies to launch and sustain an internal ideation program:

- **Recommendation One:** Treat the ideation program not as a management fad but as a vehicle to reinvent the agency as innovation-centric.
- **Recommendation Two:** Institutionalize the ideation program so that ideation activities are viewed as legitimate tasks.
- **Recommendation Three:** Make the ideation team a permanent organizational unit and rotate staff periodically.
- **Recommendation Four:** Document ideas that are implemented. Quantify their impact and demonstrate the return on investment. Share the return with the employees through meaningful rewards.
- **Recommendation Five:** Assimilate and integrate the ideation program into the mission-critical administrative processes.
- **Recommendation Six:** Develop an easy-to-use mobile app for the ideation system as increasingly more employees will use mobile devices to access the system.
- **Recommendation Seven:** Keep learning from other agencies and even from commercial organizations.

The best practices in this report can help agencies to speed up the learning curve, make the most of other agencies' experience, and prepare for the future. When innovation becomes a daily routine for federal employees, the power of the ideation tool will be fully realized and thus make a difference to agencies and to the public.

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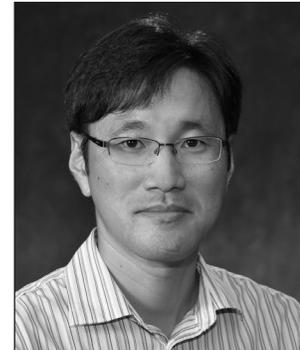
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About the Author

Gwanhoo Lee is an Associate Professor of Information Technology Management in the Kogod School of Business at the American University, Washington, D.C. He earned his doctorate in management information systems from the University of Minnesota. He is also the Director of the Center for IT and the Global Economy (CITGE) at the American University in which senior IT executives from the public and private sectors engage in collaborative research programs.



Dr. Lee's research areas include social media and Web 2.0, IT-enabled open collaboration and innovation, software development agility and complexity, distributed software teams, project management, technology adoption, and CIO leadership. His research has been published in *MIS Quarterly*, *Journal of Management Information Systems*, *IEEE Transactions on Software Engineering*, *European Journal of Information Systems*, *Communications of the ACM*, *Information & Management*, *Government Information Quarterly*, *Information Technology and People*, *IEEE Pervasive Computing*, and *Journal of Information Technology Management* as well as in the proceedings of the International Conference on Information Systems, Academy of Management Best Papers, the Hawaii International Conference on System Sciences, and the Americas Conference on Information Systems. In addition, his articles have appeared in *CIO magazine*, *IGM Business Review*, and *American Society for Quality*.

Dr. Lee is a recipient of European Union's Erasmus Mundus Scholarship, UPS Scholarship, Kogod Endowed Fellowship, Juran Fellow, and several teaching and research awards. In various capacities, he has consulted and worked closely with senior IT executives from a number of organizations including 3M, A.G. Edwards, Amtrak, American Red Cross, Cargill, Computech, CSC Consulting, Department of Health and Human Services, Department of Homeland Security, Deloitte, Federal Aviation Administration, Freddie Mac, General Motors, Howard Hughes Medical Institute, IBM, LG CNS, Marriott, Medtronic, Northwest Airlines, Pillsbury, Samsung Electronics, Samsung Economic Research Institute, Samsung SDS, SAP America, St. Paul Companies, and the World Bank.

Key Contact Information

To contact the author:

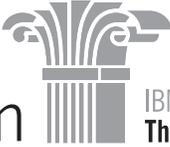
Gwanhoo Lee, Ph.D.

Associate Professor of Information Technology
Director, Center for IT and the Global Economy
Kogod School of Business
The American University
4400 Massachusetts Ave. NW,
Washington, D.C. 20016-8044
(202) 885-1991

e-mail: glee@american.edu

Website: www.american.edu/kogod/faculty/glee.cfm

Twitter: @GwanhooLee



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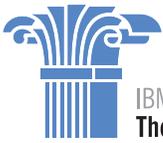
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For more information:

Daniel J. Chenok

Executive Director

IBM Center for The Business of Government

600 14th Street NW

Second Floor

Washington, DC 20005

202-551-9342

website: www.businessofgovernment.org

e-mail: businessofgovernment@us.ibm.com

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