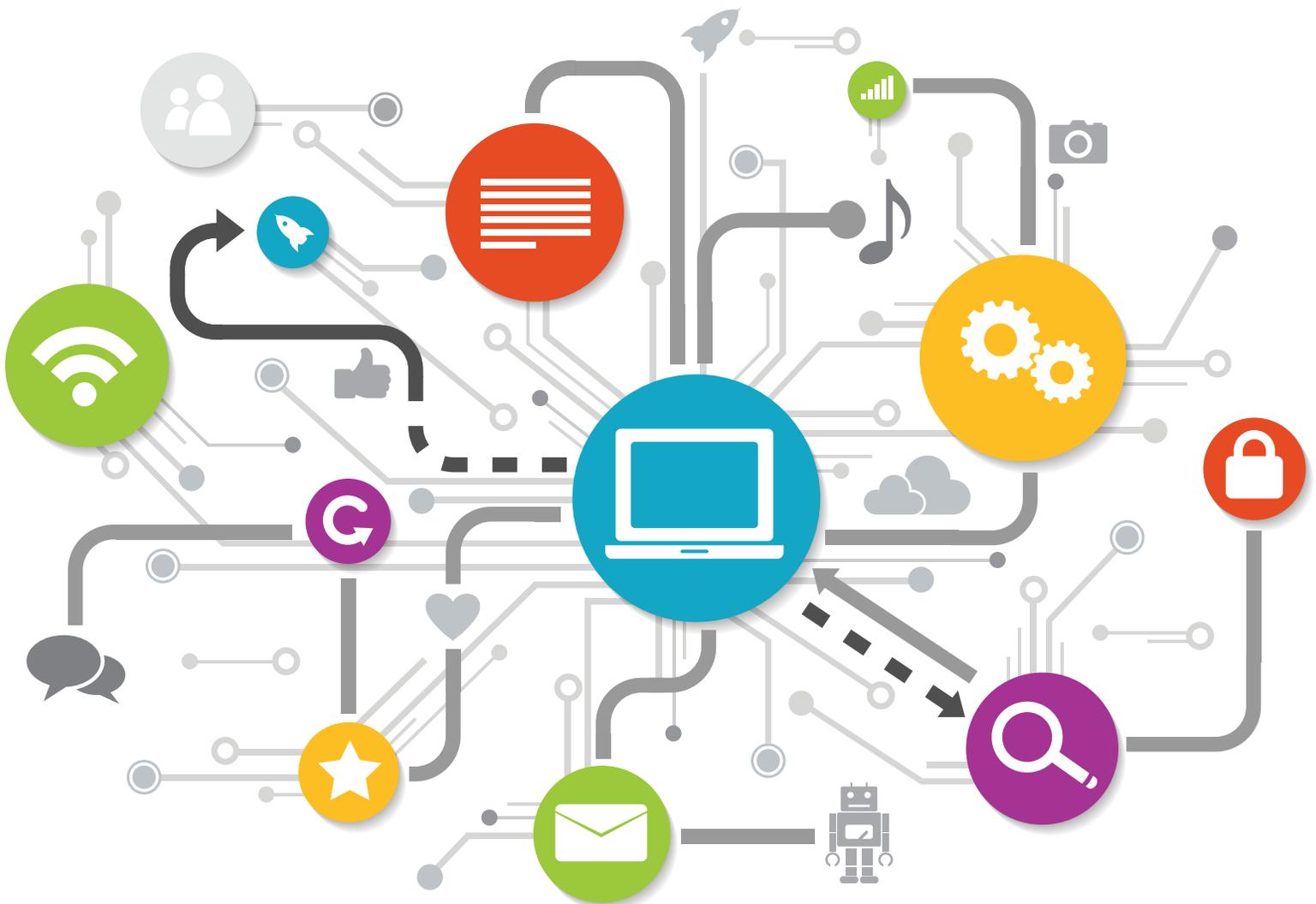




The Social Intranet

Insights on Managing and Sharing Knowledge Internally



Ines Mergel
Syracuse University

The Social Intranet: Insights on Managing and Sharing Knowledge Internally

Dr. Ines Mergel

Associate Professor of Public Administration
Maxwell School of Citizenship and Public Affairs
Syracuse University



Table of Contents

Foreword	4
Executive Summary	6
Introduction to Social Intranets in Government	7
Components of a Social Intranet Site	9
Benefits of Using Social Intranets	9
Case Studies: Social Intranet Platforms in Four Government Organizations	13
Introduction	13
Case Study One: <i>Corridor</i> at the Department of State	13
Background	13
Organizational Location of <i>Corridor</i>	14
Components of the Lightweight Collaboration Tool Suite	16
Implementing <i>Corridor</i>	17
Current Status of <i>Corridor</i>	18
Case Study Two: NASA's Goddard Space Flight Center's <i>Spacebook</i>	18
Background	18
Collaboration Features of <i>Spacebook</i>	19
Implementing <i>Spacebook</i>	19
Current Status of <i>Spacebook</i>	20
Case Study Three: Intelligence Community's <i>i-Space</i> (intelligence space)	21
Background	21
Implementing <i>i-Space</i>	21
Current Status of <i>i-Space</i>	24
Case Study Four: Government of Canada's <i>GCconnex</i>	24
Background	24
Components of <i>GCconnex</i>	24
Implementing <i>GCconnex</i>	26
Current Status of <i>GCconnex</i>	27
Insights: Successfully Implementing Social Intranets in Government	28
Insight One: Active Leadership Participation Is Essential	28
Insight Two: Three Technological Considerations Are Key	28
Insight Three: Successful Implementation Requires Key Management Involvement	29
References	31
About the Author	33
Key Contact Information	34

Foreword

On behalf of the IBM Center for The Business of Government, we are pleased to present this report, *The Social Intranet: Insights on Managing and Sharing Knowledge Internally*, by Ines Mergel, Syracuse University.

Corporate America increasingly relies on social intranets to leverage employees' knowledge and foster collaboration in ways that speed up work and reduce costs. While much of the federal government lags behind, some agencies are pioneers in the internal use of social media tools. What lessons and effective practices do they have to offer other agencies?

"Social intranets," Dr. Mergel writes, "are in-house social networks that use technologies—such as automated newsfeeds, wikis, chats, or blogs—to create engagement opportunities among employees." They also include the use of internal profile pages that help people identify expertise and interest (similar to Facebook or LinkedIn profiles), and those that are used in combination with other social intranet tools such as online communities or newsfeeds.

The report documents four case studies of government use of social intranets—two federal government agencies (the Department of State and the National Aeronautics and Space Administration) and two cross-agency networks (the U.S. Intelligence Community and the Government of Canada).

Mergel touts the value of social intranets in creating broader communities within agencies. One manager she interviewed said: "The real key was to increase the ability for people to find each other ... And to have expertise emerge that wasn't explicit in the job description of that person."

The author observes: "Most enterprise social networking platforms fail," but identifies what causes these failures and how successful social intranets can avoid that fate and thrive. She offers a series of insights for successfully implementing social intranets in the public sector, based on her observations and case studies. Mergel notes that while management support is crucial, it is equally important to invest in training and outreach with managers and employees to change their day-to-day personal work



Daniel J. Chenok



Gina Loften

habits and communication channels—incorporating this new way of doing work.

This report builds on a number of prior reports that Professor Mergel has written for the IBM Center, including:

- [A Manager's Guide to Assessing the Impact of Social Media Interactions](#)
- [Working the Network: A Manager's Guide for Using Twitter in Government](#)
- [Using Wikis in Government: A Guide for Public Managers](#)

In addition, the author cites a report that the Center supported that was recently released by the Center for Strategic and International Studies, [New Tools for Collaboration: The Experience of the U.S. Intelligence Community](#), by Gregory F. Treverton.

We hope this report serves as a useful overview of social intranets, as well as an inspiration to leverage their use in the service of better government.



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



Gina Loftin
Vice President and Chief Innovation
Officer for U.S. Federal Services
IBM Research
ginal@us.ibm.com

Executive Summary

This research report introduces the concept of the social intranet—the use of in-house social networking technologies for employees of a government organization only—and how these technologies are designed and used in the public sector. As opposed to social media tools used to engage external audiences for educational and informational purposes, social intranets are slowly spreading in government to support internal knowledge creation, sourcing, and sharing activities.

The report includes four cases of social intranets in North American government organizations. These include the Department of State's *Corridor*, NASA's Goddard Space Flight Center's *Spacebook*, the Intelligence Community's *i-Space* (intelligence space), and the Government of Canada's *GConnex*. The first two social intranets (*Corridor* and *Spacebook*) were designed to serve one department or agency. The second two intranets (*i-Space* and *GConnex*) serve many different departments and agencies, and in the case of the Canadian government, a single intranet platform provides tools for collaboration across the entire federal government.

Traditional knowledge transfer is limited to memos, the sharing of documents with a limited contact list, or administrative cables. Rarely is knowledge created in the open and observable to the whole organization. Social intranets are aiming to open opportunities for knowledge sharing with wider audiences who might all be working on similar issues, or who might be able to contribute to problems and tasks that are replicated in different parts of the organization.

The report outlines how a range of technologies is used to support core knowledge management activities, including:

- Organizational knowledge creation
- Socialization of knowledge
- Technological support of knowledge management activities

For each case study, the report highlights the goals, rollout and implementation phases, organizational locations, components, and specific collaboration features of each social intranet.

The report is based on interviews with project managers and selected users, publicly available documents, and news coverage about social intranets. The goal of this report is to highlight current projects, implementation challenges, and broader insights that might be transferrable to other government agencies interested in implementing similar approaches. Insights for the successful implementation of a social intranet include the role of leadership support, technological considerations, and successful implementation steps.

Introduction to Social Intranets in Government

Social intranets are in-house social networks that use technologies—such as automated newsfeeds, wikis, chats, or blogs—to create engagement opportunities among employees. Different terms have been used to label these technologies, including (Leonardi, Huysman, & Steinfield, 2013):

- Enterprise social media
- Enterprise 2.0
- Social intranet

What all of these terms have in common is that they describe a set of tools that helps employees to:

- Create an online profile
- Follow the updates of other employees
- Automatically receive push information from newsfeeds or curated newsletters on specific topics
- Collaboratively create knowledge

Even though social networking technologies have not been around for a long time, most social media tools currently applied in government are mainly used for external interactions with the public, professional representatives of the public, or news organizations. Third-party platforms such as Facebook, Twitter, YouTube, and Instagram are widely used in the government and institutionalized as part of the externally facing public affairs tool kit (Mergel, In Press). Government organizations use multiple outlets to inform and educate the public about their own website, additional social media channels to repost and reshare content already available on the organization's website, and to directly interact with the public.

In addition to external social media tools, other communication mechanisms are used *inside* organizations to communicate news, task-oriented information, or informal information among employees. Standard internal communication tools include:

- E-mails to disseminate information among a limited number of recipients
- Newsletters with aggregated information that a department deems important to share with all employees
- Relatively static intranet pages
- Listservs—electronic mailing lists used to distribute specific content to its subscribers
- Physical face-to-face interactions in meetings, hallways, office spaces, or conference rooms

Social intranets are designed to add to these communication channels and replicate some of the knowledge creation and sharing features that have made external social media tools popular. Social intranets support the creation of topical discussion threads that are potentially observable across the whole organization. Discussions evolve among employees who otherwise wouldn't have an opportunity to know about each other's expertise on a topic, and other employees who can passively listen to these discussions to absorb useful information for their own task environment. The connections employees create on the social intranet can be interpreted as articulated knowledge networks: Employees with similar interests connect to each other and thereby create networks through which they share knowledge.

It is important to emphasize that much community knowledge would not be accessible if it were still shared only through pre-defined hierarchical and bureaucratic organizational communication structures, such as internal memos or e-mail lists with limited access or membership determined by individuals who might not know which other employees should have access to the information. In contrast, as a result of the "publicly" available conversation threads, interactions on social networking platforms result in online exchanges and knowledge generation across communities and interest groups. They potentially contribute to the de-siloization of knowledge that is otherwise hidden in text documents, shared network drives, or e-mail threads.

Social intranets combine a variety of different social media functionalities that are already used on the Internet (McAfee, 2009). The components of these integrated enterprise-level social networking platforms include, among others: social tagging, document sharing, editing and adding text in wikis, blogging, connections, and messaging.

Social intranets create the opportunity to support interactions among employees who are not part of the same functional unit but have crosscutting interests in similar topics and can collectively contribute to the organizational knowledge base. Social intranet sites are less common in government than other well-established communication mechanisms. In the U.S. federal government, only a handful of agencies have experimented with an integrated social intranet platform approach. Instead, many agencies are using single stand-alone solutions that are not necessarily integrated into an organization-wide social intranet platform. These tools include, for example, in-house microblogging tools, blogs, or chat services on the intranet.

This report reviews social intranets in four different government entities. The report concludes with a series of insights. The project's methodology is presented in the box below.

Methodology

The author interviewed public managers in charge of designing, implementing, and maintaining the four social intranet sites featured in this report. In addition to the qualitative interviews, academic literature and press coverage were traced and analyzed to understand the evolution, design elements, and perceptions of the platforms' effectiveness and efficiency.

The semi-structured interviews with project managers and social intranet users were used to understand how the design elements support social sharing, crowdsourcing activities, reputation management, and making sense of information shared on the intranet. The goal of the interviews was to understand how traditional practices of knowledge creation and sharing have changed and can potentially enhance decisionmaking in government organizations.

Components of a Social Intranet Site

Social intranet sites either use open source tools or proprietary systems developed specifically for use in one organization. They are hosted on the organization's own servers and are not accessible to outsiders. They allow employees to import external information from the Internet and share it on the intranet. Some of the most common components include:

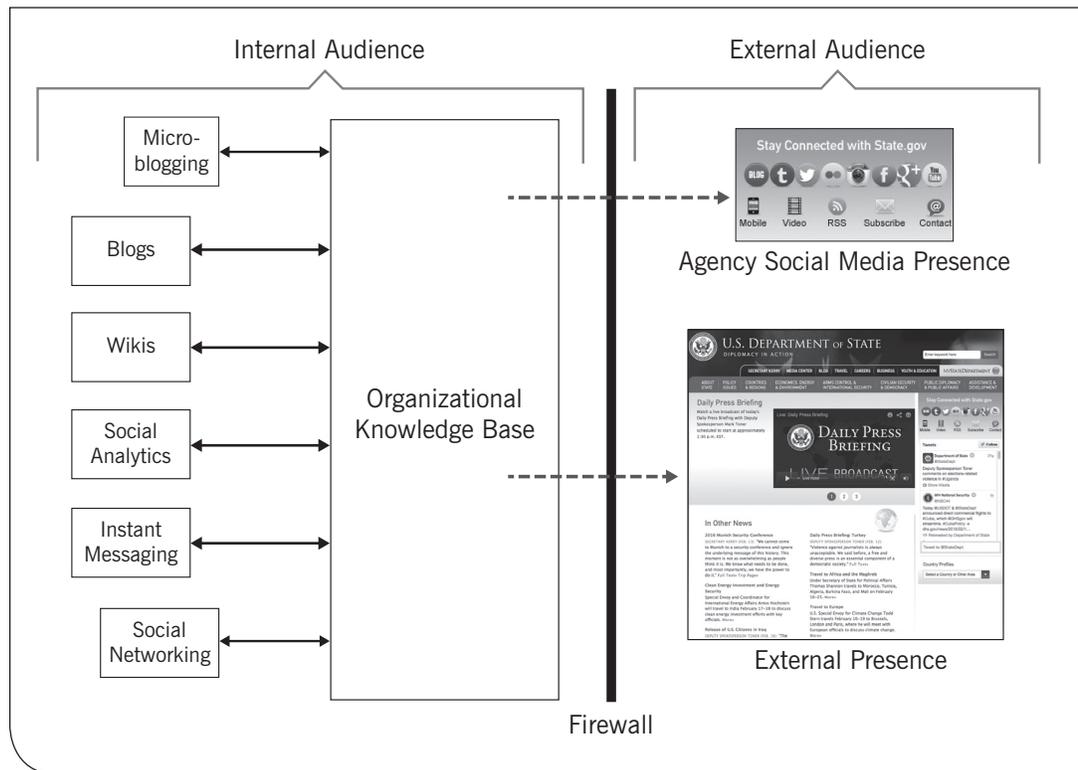
- **Wikis.** Collaboratively-created knowledge repositories, such as the Department of Defense's Techipedia and the Department of State's Diplopedia (Mergel, 2011). Wikis allow a group of employees to add knowledge to a text that is then accessible to the whole organization. This is usually information that should be available to the whole organization or information that everyone can edit and add to until people agree on the final status.
- **Blogs.** Individual employees or groups of employees frequently update a blog with (informal) information in the form of longer text to provide project updates, comment on industry developments, introduce new issues, etc. This helps to replace frequent e-mail updates and increases transparency. Other employees can subscribe to the updates so they are automatically informed by an RSS feed when a new blog post is available.
- **Microblogging.** These social messaging tools follow the example of Twitter, which launched as a public microblogging tool with limited text lengths of 140 characters. Proprietary solutions, such as Yammer with unlimited text length, have been developed for in-house use to allow employees to provide short updates to their followers. These updates can include work-related status updates, questions to followers, direct messages, or links to external information on the Internet.
- **Tagging and bookmarking tools.** Social tagging tools allow users to add keywords to content, such as files or pictures that describe and categorize the content. The keywords—or tags—make the content discoverable to other intranet users who might be interested in similar topics.
- **Social networking.** With similar functions as Facebook, social networking sites allow the creation of an online profile with employee information and “friending” functionalities to connect to other employees.
- **Other components** include:
 - Social analytics technologies for reports on how content was accessed
 - File sharing
 - Collaborative workspaces for geographically-dispersed employees to interact with each other on a joint project

The following diagram in Figure 1 shows the connection between social intranet tools, external e-government presence, and social media tools used to represent the organization. The social networking tools contribute to the organizational knowledge base on the intranet and are only accessible by employees. Information and knowledge created and shared on the intranet may also contribute to the newsfeeds displayed on the organization's external website; it can be used to populate updates on social media sites to inform and educate the public.

Benefits of Using Social Intranets

Social intranets lead to information benefits that go beyond face-to-face interactions, information e-mailed to a limited number of recipients, or actively searching in shared hard drives. As opposed to an organization's traditional knowledge-sharing systems, social intranets go beyond file-sharing activities in shared hard drives or network drives. Benefits of social intranets include:

- **Visibility.** Social intranets make communication patterns, networks, and the location of an organization's knowledge sources highly visible, even across organizational boundaries

Figure 1: Social Intranet, Agency Website, and Social Media Presence

(Cross, Borgatti, & Parker, 2002). By employees following each other on internal social networking sites, knowledge network structures become visible to the rest of the organization. In contrast to working groups or e-mail lists, the relative publicness of employees with the same interests contributing to discussions helps the rest of the organization understand who works on what and who holds knowledge that might be useful for future projects. Especially in organizations with frequent and routine changes in roles (e.g., Foreign Service employees at State or military personnel at DOD), plenty of expertise exists that is not explicit in the current role of an employee. The visibility of discussions and knowledge-sharing activities leads to increased awareness and attention among employees, and it can be exploited for future projects or information needs.

- **Persistence.** Social intranets help to trace communication streams and knowledge-creation activities (recorded and archived for future access). These communication streams otherwise would not be recorded during meetings; they would be hidden in e-mails or would disappear from instant messenger platforms and videoconferences as soon as both parties logged off (Leonardi et al., 2013). The information is available in an asymmetric format, meaning that not all parties interested in the information have to be online while the knowledge is created through online exchanges. Instead, the discussion threads are available on the front page of a user's newsfeed in real-time, but they can be accessed at times convenient for each employee. Discussion threads and newsfeeds are searchable and discoverable—unlike e-mail discussions that are only accessible to the limited group of receivers.
- **Discoverability of knowledge.** Even though employees might not be part of their colleagues' ongoing discussions about issues in other parts of the organization, knowledge is now discoverable across artificial organizational boundaries; it can be tagged with the names of employees considered the original knowledge experts, whom others can then contact. For example, employees who use blogs and microblogging tools on the intranet

can create new connections, use comments from other employees as feedback for their projects, or ask for assistance in problem-solving activities.

- **Speed of search and read activities.** Knowledge created in communications streams, newsfeeds, documents, or other types of content files such as videos or pictures is available in real-time to the whole organization and not limited to pre-defined audiences. Especially in government, most intranet collaboration platforms do not require an approval chain to publish, which lowers barriers to quick sharing.
- **Lowering geographic distance and communication barriers.** As Sproull & Kiesler have shown, computer-mediated communication often leads to the loss of social cues (Sproull & Kiesler, 1986). Similarly, Tom Allen showed how communication and awareness drops off

Creating, Sourcing, and Sharing Organizational Knowledge

Social intranets provide the opportunity for government agencies to design social sites; the intranets can be combined with existing in-house content and knowledge management systems within and across agencies, using various software tools to increase knowledge sharing. Government organizations have made progress implementing social software tools for in-house use on intranet platforms (Treverton, 2016).

The platforms included in this report are designed to support various knowledge management activities:

- **Creating organizational knowledge.** Bureaucratic entities such as government agencies tend to codify their organizational knowledge in handbooks, and knowledge reuse has to follow hierarchical standard operating procedures. Free-floating and informal knowledge-sharing activities outside of formal forms of knowledge-sharing, such as cables and memos, are rarely supported through technological means, especially in agencies that have to facilitate the transfer of highly confidential information. This leads to restrictive norms and procedures for information transport. As a result, the transfer of knowledge is highly restricted.

The technologies described in the four case studies in this report contribute to innovative forms of knowledge creation that help employees articulate their (informal) knowledge and experiences that have not been codified in the existing handbooks and integrated into standard operating procedures. The social intranets provide elements to internalize, but also externalize, knowledge by combining information sources from inside the organization, across organizational boundaries, and between organizational units.

- **Socializing organizational knowledge.** Organizational knowledge needs to be available for two major purposes:

- Ad-hoc decision making during crisis situations
- Supporting long-term policy-making activities

The multitudes of knowledge hubs through which informal and formal information exchanges happen across many layers of the social intranet create fluid discussions. Government organizations therefore need mechanisms to make knowledge “sticky,” that is, to identify important knowledge pieces that decision makers and knowledge experts pay attention to.

- **Using technology to share knowledge.** Social intranets support the connections among employees, as well as their knowledge, skills and expertise, and internal reputation. Identifying these attributes online is seen as a core functionality to locate and connect expertise and experience. Traditional HR departments cannot deal with the complexity of this task; instead, in-house social networking sites now support these activities.

Other knowledge management activities include searching for information resources, location of expertise, idea generation and vetting, information aggregation, and data visualization.

with geographic distance in organizations (Allen, 1984; Allen & Hauptman, 1987). While some organizational design elements, such as functional organizational units, are used to pool together all employees who work on similar tasks or topics, communication drops off as soon as they are geographically separated; therefore, they won't be aware of other employees with similar knowledge interests. Social intranets help to create a steady stream of knowledge and increase the awareness of publicly discussed topics. Instead of search and discovery, relevant information is pushed to employees.

- **Strengthening social ties, creating social capital, and social capitalization.** Previous studies of internal social networking and collaboration sites in the private sector have shown that employees are creating new connections with employees located in other parts of the organization, especially when they are not co-located or part of the same work teams (DiMicco et al., 2008; Steinfield, DiMicco, Ellison, & Lampe, 2009; Wu, DiMicco, & Millen, 2010). This leads to connections that can be reactivated in the future if additional knowledge needs occur (Fulk & Yuan, 2013). In addition, the problem of “connecting the dots” and pooling similar knowledge to create a more complete picture can evolve (RAND, 2005). Publishing information on social intranet platforms can potentially strengthen (or tarnish) employees’ “personal brand.” The curator of a popular and informative blog can increase his/her reputation and that can positively affect future career opportunities. Alternatively, a person who frequents these sites too often can become “that guy.”
- **Open communication.** Employees who use external social networking sites, such as Facebook or Twitter, are more likely to be willing to update and share on internal social sites as well. Their experience with “openness” outside their professional lives has the potential to break up knowledge silos that exist in government.

Overall, social intranets will only work if there is a need for collaboration within a department or across departmental boundaries. That means employees need to fulfill tasks requiring innovative solutions that are locally not available, or they need expertise that is already available in other parts of the organization. In addition, in cases where government employees need to collaborate effectively, top-management needs sufficient buy-in to allow for collaborative capacity to be built, instead of outsourcing the tasks or contracting external knowledge.

Allowing users to conduct these activities in one central space instead of forcing them to open different independent tools creates informational benefits that can make government operations more effective and efficient.

Case Studies: Social Intranet Platforms in Four Government Organizations

Introduction

The following four cases include social intranet platforms in four North American government entities. They include the *Corridor* initiative at the U.S. Department of State, *Spacebook* at the National Aeronautics and Space Administration (NASA), *i-Space* of the U.S. Intelligence Community, and the government-wide *GCconnex* site of the Government of Canada. The sites have comparable components, but each differs in the main purpose of the platform and the ways employees use it. Table 1 summarizes the commonalities and differences of the four social intranet case studies.

Table 1: Summary of Social Intranet Case Studies

Case Study	<i>Corridor</i> U.S. Department of State	<i>Spacebook</i> U.S. National Aeronautics and Space Administration	<i>i-Space</i> U.S. Intelligence Community	<i>GCconnex</i> Government of Canada
Goals	Tacit knowledge sharing across geographically disconnected units	Knowledge sharing online across knowledge silos	Discovery and sharing across knowledge silos	Collaboration across all federal government departments and agencies in both official languages
Components	Enterprise search, wiki, blogs, social networking, ideation (Secretary's sounding board), forming groups, creating polls	Social networking, social bookmarking, collaboration, equipment sharing	Wikis, blogs, social networking	Social networking, shared workspaces, groups, instant messaging, chats, file sharing, wiki
Main use	Social connections based on shared interest leading to professional conversations	Search for collaboration opportunities, sharing/reuse of equipment (discontinued)	(Short-term) fast collaboration and knowledge aggregation, quickly moving knowledge to decisions	Connecting over 250,000 employees with people and information across 138 federal department and agencies inside and outside of Canada

Case Study One: *Corridor* at the Department of State

Background

Traditionally, the communication paradigm in the Department of State focuses on cables as the main means to share formal and authoritative knowledge. The memos are drafted, passed up the chain for comments, edited, and then approved after several rounds of editing. This

“collaborative” writing culture increases the chance that with every round of editing the information becomes more neutral and less candid. Informational benefits might be reduced during the process. The traditional practice works well in hierarchical environments to transmit official information moving between highly autonomous local units, such as embassies and bureaus.

In the 21st century however, the need for information sharing has changed. Embassy personnel move between rotations, and knowledge based on their personal experiences and individual insights moves with them to the next deployment. Knowledge is often lost to the next foreign affairs officer who arrives at the embassy. The type of tacit knowledge that does not make it into formal cables includes, for example, information about life at a specific embassy or informal information about emergency preparedness in a country. In addition, the Department of State, starting with Secretary Colin Powell (in office 2001–2005) recognized a need to create increased openness in ways to explain State’s foreign policy—externally and internally. Specifically, Powell noted at an internal conference the importance of new technologies:

“[...] The use of the tools that 21st century technology has given us [the opportunity] to communicate our foreign policy. [...] The values of openness, the values of freedom, the values of democracy, the values of an economic system that is open and free. [...] And increasingly in the modern world, these values are looked up to for inspiration. [...] So your job is not just [to show how] well we do web design and [how well] we do Internet pages, no; see it in its broadest context, of helping to take the message of the American people to the world. [...] You are helping us design the most powerful tools to do this.”

Secretary Powell saw the use of new technologies not only as a mechanism to explain foreign policy, but also to break down political boundaries and, as he said, “cultural walls” that need to be overcome to break down communication barriers. He encouraged the organization to break with its old habits and start to use new technologies to communicate instantaneously. This concept was similar to Internet companies—such as AOL at the time—knowing every minute of the day what people are talking about and what events are developing around the world. Compared to the formal intelligence reports that have to be pulled together by human beings through a thorough vetting process, unfiltered information through new technologies is available before formal reports arrive and made available to selected officials.

Organizational Location of *Corridor*

As a result of Powell’s charge to his IT staff at the time, the Bureau of Information Resource Management (IRM) was charged with building information technology and services for the Department of State’s internal and external information needs. New collaborative information development tools were introduced to provide internal and external audiences accurate and timely information sharing. IRM’s mission is: “IRM constantly strives to improve its commitment for transparent, interconnected diplomacy, information systems and to incorporate new technologies for the advancement of U.S. foreign policy.”

IRM’s office of eDiplomacy (founded in 2003), in which the collaborative technologies were developed, focuses on three divisions:

- Diplomatic Innovation Division
- Knowledge Leadership Division
- Customer Liaison Division

Each division has different audiences; they can be internal audiences, such as foreign officers in the U.S. and abroad, or external audiences and partners, such as NGOs, civil society, the

private sector, and higher education organizations. Secretary Clinton (in office 2009–2013) used the term “twenty-first century statecraft” and charged the Knowledge Leadership Division of the Office of eDiplomacy with the task of using technology to improve diplomatic outcomes. The result is the Lightweight Collaboration Tool Suite, a group of collaborative tools to create both increased levels of knowledge exchange as well as interconnectedness among employees across the knowledge silos within the organization. The tools include:

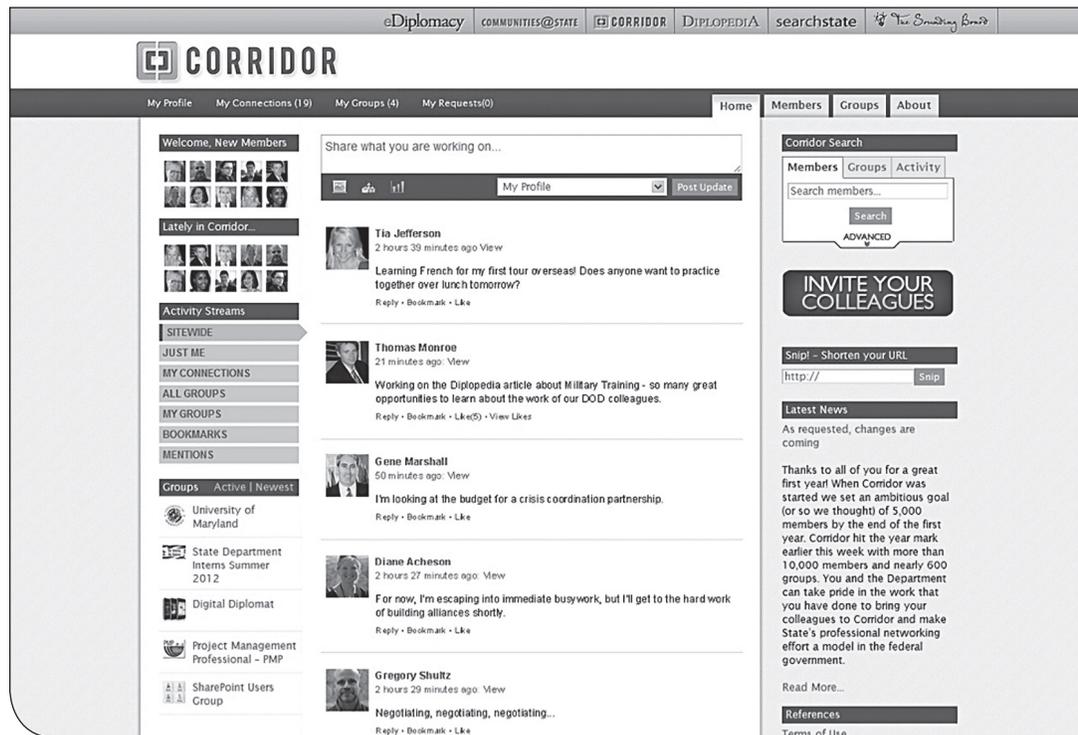
- *Corridor* (in-house professional networking platform)
- Communities @ State blogs (online communities to publish information, connect with others, and for discussions)
- Diplopedia (internal collaborative online wiki encyclopedia)
- SearchState (enterprise search)
- The Current (information aggregation, content curation, and sharing tool)

Internally, foreign affairs personnel had long had what one interviewee described as “the kind of head slaps that happen all the time, when people say ‘Ah, I wish I would have known that a week ago, or I wish I would have known about that before it happened, or I wish I could have been there for that, or I wish I could have put my input into that, or I wish I would have known that that person had that skillset when I was working on this.’ This happened as daily occurrences.”

Corridor, created in 2010, is one of the social networking tools offered by the Bureau of Information Resource Management’s Office of eDiplomacy. As one of the public managers interviewed for this report states: “The real key was to increase the ability for people to find each other, regardless of whether they happened to work in the same place or work on the same issue. And to have expertise emerge that wasn’t explicit in the job description of the person.” The need to discover existing personnel with expertise and knowledge of issues that either go beyond their job description or that they developed potentially as a by-product of their work was a central design decision for *Corridor*. This discovery mechanism goes beyond every phone book search, aggregation mechanisms of HR files, and individual collections of business cards that require face-to-face interactions. As one interviewee states: “The core function was to build a robust kind of a LinkedIn-type profile, so that people would have a sense of what you could do. Not just what was explicit in your job description, but other skills, knowledge that could be useful to your job or to other people’s jobs.”

A core function of *Corridor* is to quickly and “socially” share information about upcoming events or information that might not be communicable through formal cables. As an example, one of the interviewees discussed a case in which a congressional delegation visited the country where a foreign affairs officer was stationed, traveling from Country A to Country B. The two embassies involved in the visits can share information via e-mail, but they can also now share their experiences and informal observations, such as “really glad that I had a Diet Dr. Pepper [available], because the congressman loves Diet Dr. Pepper.” This example demonstrates how information can be shared socially to anybody on *Corridor* who is working on preparing a delegation visit, in contrast to trying to randomly e-mail people who might be interested in delegation visit information.

Corridor is often used as a “workaround” for tasks that are too bureaucratic or obsolete to add value. Employees share their workarounds on *Corridor*, stating that “on a day-to-day basis, people were able to do their job better with less friction and devote more time to the task at hand, not doing the kind of things that were frustrating.”

Figure 2: Screenshot of Social Networking Platform *Corridor*—Department of State

The screenshot shows the *Corridor* entry page, with a newsfeed of friends' updates in the center; an opportunity to publish one's own updates at the top of the newsfeed; a search button of the whole *Corridor* site in the right column; and access to groups such as Communities @ State, Diplopedia, and SearchState. The activity stream in the newsfeed can be customized to show site-wide updates, only one's own updates, or updates from connections; all groups on *Corridor*, or only one's own groups; bookmarks; and posts in which the account owner was mentioned.

Components of the Lightweight Collaboration Tool Suite

The Lightweight Collaboration Tool Suite includes the following components:

- **Wiki: Diplopedia.** The tool allows for collaborative editing of text, similar to Wikipedia (Mergel, 2011). This collaborative online wiki encyclopedia supports shared article creation and editing. It is used to create an organizational knowledge base that is also open for intergovernmental communication. U.S. diplomats can, for example, invite their foreign counterparts and use the platform in preparation for their upcoming foreign assignments. Information aggregated in threaded discussions on *Corridor* can feed into an article published in Diplopedia to create persistent knowledge that is not hidden in discussion threads.
- **Social Network: Communities @ State.** This site supports the creation of online communities to publish information and connect with employees across the department. The communities are blog-based using BuddyPress, a WordPress extension, and serve as places for narrower conversation, both episodic updates or longer conversations and updates on a certain topic. Employees are encouraged to link between Communities and *Corridor*.
- **Aggregator: The Current.** This is an information aggregation tool to provide topical internal and external information in one place. It is seen as a filter for both internal and external newsfeeds for specific information. Information found on The Current can also be posted to

Corridor with a one-button feature “Share on Corridor” to create a knowledge continuum across platforms.

- **Search: Search State.** This is an enterprise search service that allows employees to discover and access information across many databases and websites.

Implementing *Corridor*

Design and Rollout

The design of *Corridor* was initially planned by the Office of eDiplomacy under the leadership of former Director Richard Boly and followed a highly inclusive approach: “We approached this with kind of radical collaboration, radical openness.” The project team reached out to everybody they thought could possibly become hurdles to the project. They presented the site mock-ups with wire frames and best guesses at what elements these people wanted to include. They reached out to stakeholders who might have concerns about personal and identifiable information and external threats to security. Examples of stakeholders include unions and IT personnel who dealt with the system side and systems requirements of the project. More than 55 stakeholders were involved from the beginning and provided questions. They were asked to come back over the course of several weeks to see how the Office of eDiplomacy was progressing in addressing their concerns. Every stakeholder was asked the main question: “Is there any reason you believe we shouldn’t move forward?” The uniform answer was: “No.”

The Office of eDiplomacy implemented a phased rollout approach starting in 2010:

- **Phase One: Selection of beta testers.** Users were invited to sign up. Their profiles represented geographic diversity, different levels within the organization, and different skillsets. In the early phase about 300 employees participated and helped with feedback to make sure the intended functionality worked before the system was opened to the whole organization.
- **Phase Two: Beta tester invites.** In the second phase, each of the beta testers had 10 invites, similar to early users of LinkedIn or Twitter when those sites first launched.
- **Phase Three: Targeted outreach campaign.** In a third phase, the Office of eDiplomacy started a targeted outreach campaign to engage those who hadn’t signed up. The main motivator for employees was a top-management endorsement: Secretary Clinton endorsed the use of *Corridor* in a video message that was posted on the front page of the intranet and invited everybody to join. After that the team recognized a dramatic jump in sign-ups.

Implementation Strategies

Top-level support. The main implementation challenge was not the technological functionalities, but rather that the site was considered a secondary communication mechanism. As one of the public managers interviewed for this report states: “Frankly, one of the challenges that we always had was getting very senior people, say a deputy assistant secretary and above, you know, the top 500 people, including ambassadors [to sign up].” Among the group of top-level employees, the Office of eDiplomacy had very small relative penetration in comparison to other representatives. An interviewee states: “I think that ultimately determines the success of any internal professional social networking platform.” Without continuous top-management support and buy-in from managers who visibly participate and care about the use of the platform, use drops off; then, the platform is seen as a secondary communication channel, not as an official primary channel for sanctioned and authoritative knowledge exchanges.

Incentives. Simple incentives were sent to those who participated, such as reminders to finish profile descriptions or upload a profile picture. In addition, interns—digital natives—were used for “reverse mentorship” to help employees understand how to complete their digital profiles on *Corridor*.

How Employees Use Social Intranets

Employees initially create connections based on a shared interest or membership, such as the class of incoming foreign service officers. Not only do they come to *Corridor* to develop their profiles, but also to create a group for their members to share information more easily. Oftentimes, networking evolves around non-professional topics first, such as travel, food, and alumni affiliations. However, these interests do have value for the organization, because they bring together employees who otherwise would not have connected with each other. One of the public managers explained the informal knowledge sharing through social sharing mechanism: “The social feeds into the professional.”

Training. The Office of eDiplomacy provided training at the Foreign Service Institute, the State Department’s training center, as part of the introductory class for new employees who join the State Department. In addition, targeted training was provided for the deputy ambassadors and deputy chiefs of mission before they went on their new deployments. These training sessions captured both newcomers and senior employees.

Publicity/Dissemination. The Office of eDiplomacy put together summaries of certain employees’ highly visible or useful *Corridor* use. The summary of why his or her specific *Corridor* use mattered to the organization and how s/he conducted tasks was then sent to the employee’s supervisor for inclusion in the employee’s annual performance evaluation. Another way to highlight and make positive contributions visible to the larger community is by recommending employees for awards when contributions are innovative or relevant.

Current Status of *Corridor*

Currently, *Corridor* is one of the State Department’s five collaborative intranet tools, including Communities @ State blogs, Diplopedia, The Current, and Search State. Participation is voluntary and follows an organic approach: Employees are encouraged to connect based on personal interests to encourage bottom-up connections and conversations that might later lead to professional exchanges and task-related knowledge sourcing and sharing. In addition, an introduction to the collaborative intranet tools has become part of the onboarding process for new employees, so that early exposure might lead to use as part of the standard operating procedures instead of relearning later on.

Case Study Two: NASA’s Goddard Space Flight Center’s *Spacebook*

Background

NASA’s Goddard Space Flight Center created a similar social networking platform to the Department of State’s *Corridor*. *Spacebook* started with an idea in 2006 and was suggested to senior management in 2008. The original goal was to unify all of the agency’s communication vehicles and to be able to integrate the information so employees could understand what was available to them, how they could participate, and how they could get their questions answered. Other goals included improving the business processes, building effective relationships with internal stakeholders and partners, and also driving innovation and knowledge discovery across workgroups and teams.

Similar to Yahoo groups, the initial idea included creating group functions to capture threaded discussions that are archived or stored so the knowledge can be accessed months later. In addition, file sharing and file tagging with metadata added to the discoverability of already-existing knowledge.

Another goal was to avoid profile blank spaces and additional burden on employees by auto-populating employees' skills and experience sections based on their own updates, teams, and project affiliations.

Finally, NASA's culture of knowledge sharing relies heavily on existing (oftentimes long-term) relationships, which facilitate direct access to people's knowledge but remain hidden and inaccessible to newcomers. A social networking site with individual profile pages was envisioned to contribute to the hierarchy flattening and gaining access to people's knowledge.

Collaboration Features of *Spacebook*

The site evolved in two steps:

- Redesigning the existing intranet
- Adding social features to the already existing intranet

Inspired by the popularity of external social media use, NASA's *Spacebook* includes the following group collaboration features:

- **User profiles** updated by employees writing their own searchable information about their expertise, skills, and experiences. Profiles include contact information, interests, certifications, and status updates. The system automatically adds metadata based on the individual information shared on the profile in the form of a word cloud. Each employee sees automatically populated activity feeds from their group workspaces and other discussion forums to quickly discover new information. In addition, employees can connect with each other online through the user profiles and receive each other's updates, similar to the function on Facebook.
- **Group workspaces** in the form of forums that employees can join, contribute to discussions in, and share files to. Members can advertise short-term collaboration opportunities (less than eight hours) to add skills to their project. Depending on the nature of the content, groups are either private or public.
- **Equipment exchange** is a free Craigslist-style sharing forum for equipment to be internally shared, traded, or sold. Property no longer needed in one part of the organization can be advertised and shared or sold to other business units.
- **Social bookmarks** is a tagging system, similar to Delicious.com, to identify subject matter experts and find expertise.

Implementing *Spacebook*

Spacebook included several important building blocks that were designed to reduce entry barriers. *Spacebook* took advantage of NASA's existing Identity, Credential, and Access Management service. The end result for users was the same single username and password access—making use of NASA's existing capabilities. In addition, many of the employees' profile fields and other types of information were prepopulated to reduce the burden on employees. The design phase started in 2008, an initial review and beta testing took place in early 2009, and *Spacebook* was released in May 2009.

NASA scientists also requested an improved expert locator system—similar to a Match.com application—that matches scientists with the right expertise; the system has been implemented. These matches are mostly useful for short-term collaboration opportunities that go beyond the existing competency management system. Experts automatically “bubble up” in the search based on their articulated expertise through participation in discussions, work groups, their answers, and self-identified project descriptions. However, being automatically identified as an expert in any enterprise expert system comes with a potential burden. The

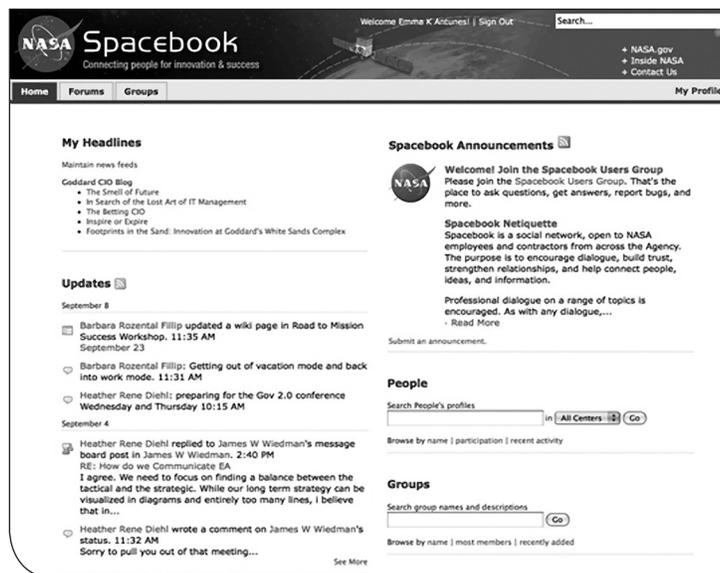
expert might spend his/her time on giving advice, which takes away time from accomplishing the task for which s/he was hired.

At NASA it was also important to ensure the appropriate use of the networking tools and minimize the threat of unpredictable employee behavior. Employees may waste time or act unprofessionally online and guidelines for harassment or discrimination had to be developed. In addition, Generation Y employees needed to be trained to distinguish between the personal and professional use of the sites. Guidelines for differentiating content and behavior were developed to address what constitutes shareable and professional content, and what the limits of transparency and openness are on the intranet. From an organizational standpoint, these rules might help to limit erroneous information from getting published.

NASA managers also recognized a shift in training requirements, including the new community's need to learn rules and conventions around web publishing. As an example, information release procedures might need to be updated to reflect the expectation of timeliness and immediacy online, as well as the definitions of authoritative and formal content.

The screenshot below shows *Spacebook*, which includes customized headlines, updates from the network, specific *Spacebook* announcements, a search for other employees' profiles, existing groups, and an RSS feed with collaboration opportunities.

Figure 3: NASA's *Spacebook* Screenshot



Current Status of *Spacebook*

Parts of *Spacebook* are still in use, while others, such as the social networking piece, were not scaled up to the whole organization. Lack of top-down leadership support and an organizational champion for the project—because he was moved into a new position—contributed to the failure of adopting and initiating the behavior change across the whole organization. However, parts of the initial social networking platform are still in use, such as the equipment exchange platform and social tagging functionalities. Most importantly, the organization has learned to use social media tools, which the public manager interviewed for this report states is an important step toward organizational change and acceptance of new technologies.

Case Study Three: Intelligence Community's *i-Space* (intelligence space)

Background

The U.S. Intelligence Community consists of 16 different departments and agencies under the umbrella of the Office of the Director of National Intelligence (ODNI). The ODNI's mission is to integrate intelligence collection and analysis across the member organizations to inform decisions. One of its main goals is to ensure responsible and secure information sharing. As part of the intelligence community reform after the 9/11 terror attacks, a failure to "connect the dots" has often been cited as an organizational knowledge-sharing challenge (Chomik, 2011; RAND, 2005). As a result, ODNI and other agencies have started to use Web 2.0 tools on the intranet, such as wikis, blogs, and other social networking tools adapted from private sector technologies (microblogging tools similar to Twitter, or profile pages similar to Facebook) (Andrus, 2005; Treverton, 2016).

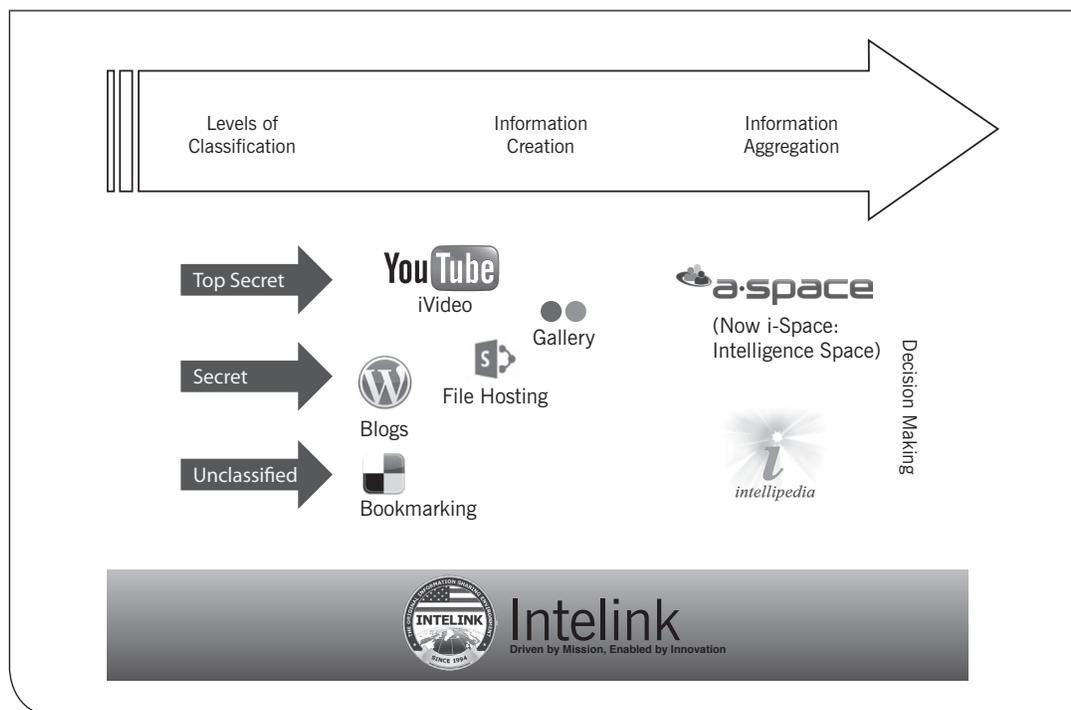
The social networking tools are used to create information, access already existing information, share information with analysts in other departments, and contribute to faster decision making. The general brand name for the social intranet is Intellipedia and rollout started in 2005. However, this brand name includes a suite of tools that has been made available via the Intelink intranet. It includes the Intellipedia wiki, but also blogs, microblogging, a capability to upload and share files via a web-based shared drive, and a tagging capability similar to Delicious.

These tools have been deployed as a social networking suite and made available to the intelligence community to capture knowledge and allow for back-and-forth conversations, especially on contentious issues. The collaborative debate on blogs and Intellipedia is used to aggregate information through a robust discussion. As one of the interviewees for this report said: "It's more about capturing our knowledge and then, as a result of capturing that knowledge in a shared space, we can have a lot of those discussions back and forth on issues that we disagree on." A second interviewee added: "[It] really allowed the connection of the who with the what and the what with the who. It allows sort of the linkage between a prospect or an idea, and people that are interested in it, and vice versa. So it's a connection engine. It's an engine for interweaving our community in a way that was not possible before."

Contributions and access are divided into three levels of classification (top secret, secret, and unclassified), and analysts link together knowledge, aggregate knowledge across organizations, and ultimately identify an analyst in another agency working on the same issue. Figure 4 shows the different types of tools used to create, aggregate, and share information on the intranet.

Implementing *i-Space*

Creating Incentives to Shift Culture to More Collaboration. In bureaucratic, command-and-control organizations in which analysts are trained to closely hold top secret information, it is challenging to change the culture to allow for cross-boundary knowledge sharing. Before the social technologies were implemented, analysts shared information in e-mails as attachments or had occasional conferences that brought together the whole community. The intelligence community created incentives to ensure that analysts recognize the information benefits of a collaborative knowledge-sharing environment. As one of the public managers interviewed for this report noted: "We talk about vibrancy. [The social intranet] is the place to go. It is the party that everyone wants to be at. Socialness: Are people talking at the party, or are they all there just to represent themselves, or are they all just creating pages about their organizations and that's where it stops, or they are they just throwing up meeting notes or whatever, or are they actually engaging in conversation about key topics that are important to the organization? And the third thing is relevance: When you implement the [social technologies] within the organization, immediately some people think, oh, well you're just catering to this younger crop of people that are expecting these tools when they come in, and that's not where the 'real

Figure 4: *i-Space* of the U.S. Intelligence Community

work' is happening." The content therefore needs to be relevant for the tasks, the organization's operations, and both the tools and the collaborative integrations have to measure up to these three metrics: vibrancy, socialness, and relevance.

Chat rooms, in conjunction with blogs, web pages, research and development environments, and a whole series of social technologies that are integrated in the Intellipedia and *i-Space* architectures, support information sharing both within an organization and to and from an organization. The intelligence community took a grassroots movement approach by including analysts in their current roles; they started moving their Microsoft Word processes into the intranet wiki and let the analysts become the advocates for the social technologies. This approach has proven to be successful, especially because current employees can speak the (accepted) language of their organization.

Incentives to create a collaborative culture need to be designed to reward not just contributions to the knowledge base, but also the act of "connecting the dots" and bringing people together. The intelligence community aims to encourage positive levels of collaborative reinforcement, in the form of positive influence in a collaborative space. An interviewee noted: "It's not so much about the tool, it's really about the culture. Really about how we as organisms of multiple people reward the participation in that [collaborative] activity." Many of the contributions to a shared space have to be altruistic in nature—a reward might never occur—because the current culture might not even encourage collaboration. One of the interviewees explained the need for collaboration as follows: "If I put my information out here, and if I coordinate with or if I collaborate with my colleagues over at NSA, or at CIA, or NGA, any of the three-letter agencies out on Intellipedia, first, then I'm going to be able to get their ideas, their opinions, earlier in the analytic process. So that way when I actually end up having to write my product, it already has the benefit of their input. Rather than how we typically approach it now, which is 'Oh, well, I'm going to write my product, I'm going to squirrel myself away in a cubicle.'"

The Experience of the Intelligence Community with Social Intranets

from Gregory F. Treverton, *New Tools for Collaboration: The Experience of the U.S. Intelligence Community*, Center for Strategic & International Studies, January 2016

The functions of the tools in the Intelligence Community might be grouped in five categories, again recognizing that the categories cannot be entirely discrete, for most tools serve more than one purpose.

- **Discovery.** NSA's Tapioca Neighborhood function, which locates expertise, is a good example. But chatting (instant messaging, IM) and blogging also can aid discovery. One interlocutor refers to chatting and blogging as the "water cooler" function. Yet even chat can cover a range of purposes—from pure logistics (Can I get a ride home?), to mundane discovery (When is the meeting?), to more substantive discovery (Who knows about x?). So, too, blogs can range from curating (setting down ideas for further analysis later), to crowdsourcing (by inviting others to critique an idea or argument), to discovery (by seeing who responds to a blog or asking a question).
- **Curating, reference, and research.** Here, the signature tool is Intellipedia. Like Wikipedia, it contains pages arranged by topic, which officers can add to or edit, with all the metadata available. People also have their own home pages on Intellipedia. It is a handy, living reference.
- **Managing.** Here, the principal tools are probably IM, chats, and blogs, and most of the managing is done through agency-specific tools, for most agencies have their own internal chats and blogs. In principle, though, Intelink chat and blogs could be used to manage projects—from analysis to development—across agencies. Tapioca is suggestive of the possibilities, for NSA makes it available to its "five eyes" international partners (Britain, Canada, New Zealand, and Australia).
- **Producing original content.** This has been the ambition for several tools, notably A-Space and Intellipedia. Indeed, Intellipedia's managers regret that the association with Wikipedia induces users to think of Intellipedia only as a living encyclopedia, not a forum for producing original content. And A-Space, now i-Space, is valued more for its discovery function—helping analysts with convergent interests locate each other behind the security wall.
- **Outreach.** Here, the signature example is the WIRe (World Intelligence Review), the CIA's daily "publication" that is no longer published in hard copy, only available online. WIRe uses collaborative tools for outreach. For instance, feeds on eChirp are based on topical groups, and provide notice of thought-provoking or special items.

Getting a series of organizations to change their collaborative culture has proven to be the most challenging part. The social technology itself is not the hurdle, instead it is important to understand and experience the information benefits individually. As one of the public managers said: "I would say you just, you have to start using it for yourself. You have to create the energy and the vibrancy in the tool, so that others start finding value in it. You have to create the party that everyone wants to join. So, you cannot expect that everyone else is going to run and join your parties immediately. You have to create this environment and then stay in it long enough so that others start saying, 'oh, this is kinda real.'"

However, it is also important to recognize that the community itself might not provide all the solutions to a collaborative problem in the public sector. Even though analysts will find a lot of valuable information while they interact with their counterparts online, they might not find all the answers. Instead, as one of the interviewees said: "It can probably be your 80 percent solution, and then work on that 20 percent somewhere else." Some information might not be available through the social channels; it might always remain proprietary information, incidental information that cannot be shared in real time, or must held in a proprietary database with

access control. The main information benefit is that the predominant amount of information can still be shared openly on the platform, and it can be leveraged by the entire community rather than be locked up.

Current Status of *i-Space*

i-Space is fully rolled out and used in the intelligence community. Training is part of the onboarding process, and formal as well as informal knowledge is created and shared. While first conversations might lead to the combination of informal knowledge sharing within one subject area, formal knowledge is moved into the open space once all collaborators agree to it. For example, the formal information can be moved to Intellipedia and made available to the whole organization. A more detailed review is available from Treverton (2016). Overall, *i-Space* is the most advanced of the four social intranet platforms reviewed for this report.

Case Study Four: Government of Canada's *GCconnex*

Background

The Chief Information Officer of the Government of Canada (GC) is located in the Treasury Board's Secretariat. Within the CIO's office, the GC2.0 Tools team is responsible for maintaining, developing, and upgrading the Government of Canada's digital collaboration tools, collectively known as the GCtools, which include:

- *GCconnex*, a professional collaboration platform or enterprise social network, started in 2009
- GCpedia, the Government of Canada's official wiki started in 2008

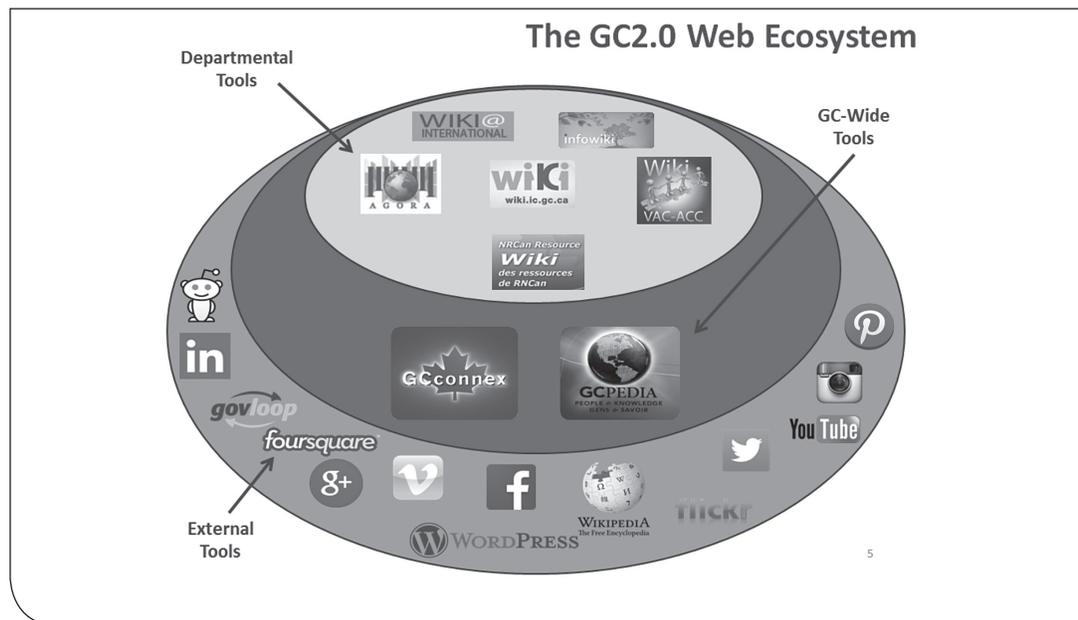
The Web 2.0 ecosystem in the Government of Canada follows an onion model approach. The outer layer includes external social media tools that many government employees use to collaborate on Twitter and Facebook. Information they find useful on the Internet can then be moved to the second layer (GC2.0 Tools), which includes government-wide tools that can be used behind the firewall by all employees. According to the manager interviewed for this report, the GC2.0 Tools are the only existing option for online collaboration between all federal organizations inside the secure Government of Canada firewall and are available in both French and English. This layer includes GCpedia, a wiki-based collaborative workspace and knowledge-sharing platform, and *GCconnex*, a professional networking platform for meeting and collaboration purposes. Individual department-level tools for collaboration purposes constitute the inner layer which is only accessible to specific employees with department-level access rights. The inner layer of tools can be used to communicate department-specific information that employees need to do their job and can include local SharePoint instances and/or departmental intranets.

The Web 2.0 tools, *GCconnex* and GCpedia, are accessible to over 250,000 public servants across 138 federal agencies in the Government of Canada.

Components of *GCconnex*

Generally, the Government of Canada's GC2.0 team is committed to an open-source approach: GCpedia is built on free and open-source collaboration software, MediaWiki, and *GCconnex* is built using the free and open-source social networking software, Elgg. The GCtools are built on open-source principles and all code for both platforms is available on Github and designed for easy deployment.

Figure 5: The Web 2.0 Ecosystem in the Government of Canada



Source: Treasury Board of Canada Secretariat, Government of Canada.

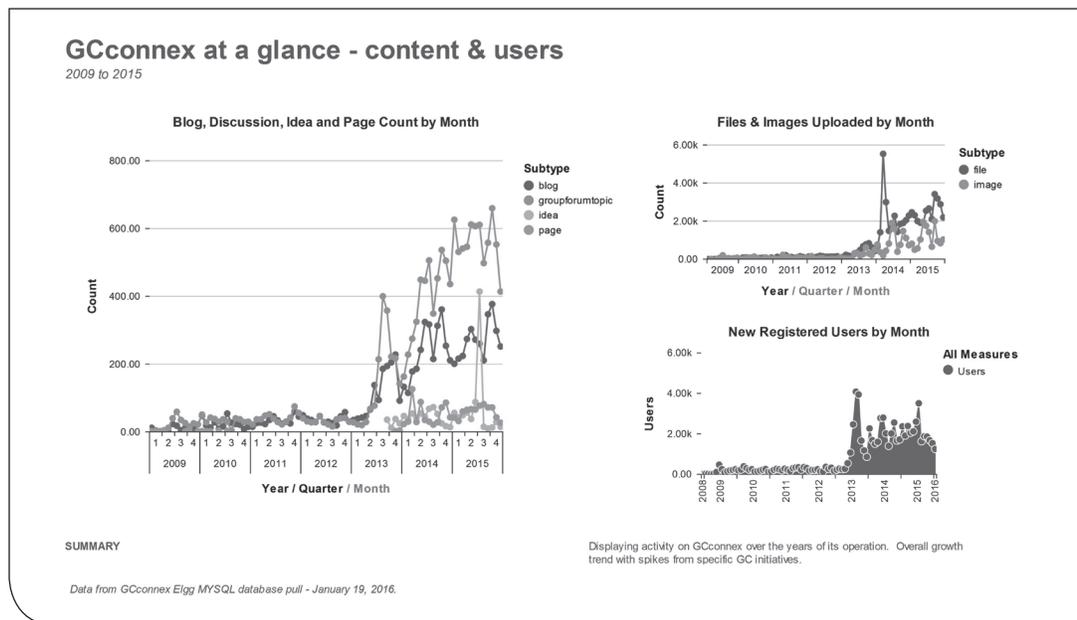
GCPedia has over 65,000 registered users, over 28,000 content pages, and over 1.5 million page edits. Since its launch in 2008, GCPedia has received almost 50 million page views.

GConnex, the professional social collaboration platform, has over 80,000 registered users as of February 2016 and is growing by approximately 2,000 users per month. Users have a variety of classifications and varying levels of tech savviness. So far they have shared more than 68,000 files and 30,000 photographs, and they have created over 6,300 groups and 10,800 blogs. Figure 6 shows the uptick in use across all GTools since their inception. A clear increase happened since 2013 with increasing popularity of blogs, discussions, and forum contributions, which is also reflected in the increasing number of users.

Each user creates a profile and can join existing or start new discussion groups. In a standard profile template, Canadian public servants fill in their personal information, like work experience and skills, and upload a profile photo. Some widgets are available to help employees highlight certain information about themselves. In addition, public servants have the ability to search for other people throughout the federal government of Canada; but employees usually find each other through participation in groups, or through activities such as posting questions on the platform. As an example, the newsfeed displays a post by someone who contributed information about an area of interest. Users can click through to the person's profile page and select the "Add colleague" button.

In groups, public servants can connect with each other to share experiences, knowledge, or common interests. Examples have included functional communities, senior-level committees, policy crowdsourcing, government-wide employee engagement, code-fests, charitable campaigns, open-source computing, and environmental interests. Other interested employees join existing groups, where discussion threads can be started. Certain open-source widgets are available to add to a group. Groups are either open or closed with access control, and they provide users with discussion pages, forums, blogs, instant messaging, group chat, idea voting,

Figure 6: GConnex at a Glance



bookmarks, and file-sharing functions. Actively monitoring a page's discussion thread is not necessary because the person who started a post is notified as soon as a new comment or feedback is received. One advantage of groups is that the breadth of feedback public servants receive increases as sharing and team interactions increase. In addition, informational benefits occur because group members can access a diverse body of innovative knowledge beyond their local teams or agencies.

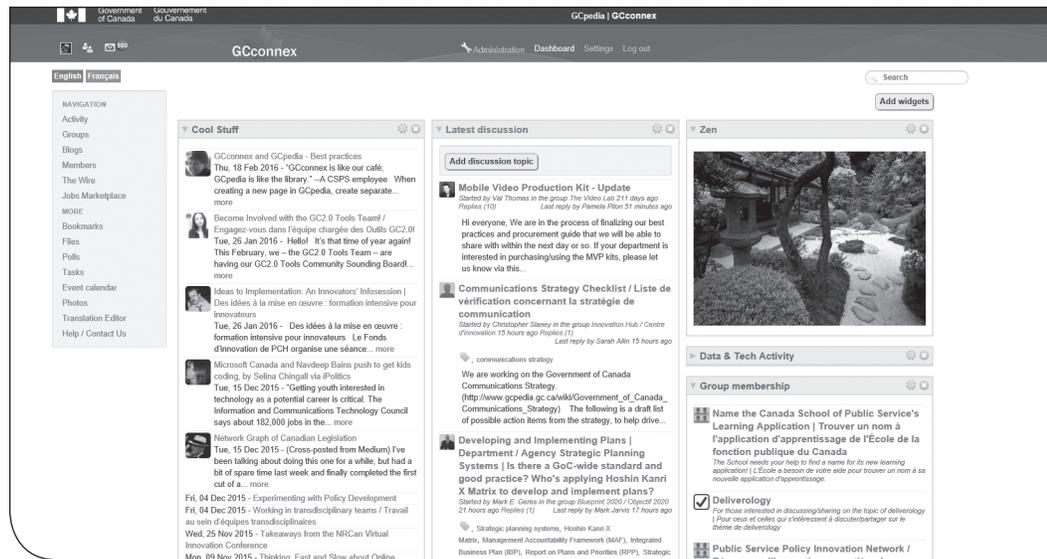
A search function allows users to search all groups, blogs, and profile pages. The search result will display discussion threads, links to groups that already exist, and blog posts. The search function connects content with people, so those who are seeking already-existing expertise and skills can directly connect to each other or make recommendations for connections. In the future, the search functionality will include light HR activities, such as mentoring, coaching, job shadowing, etc. The search also will allow users to search for someone willing to coach an employee or help them to figure something out.

Implementing GConnex

At the moment, the use of the social intranet tools is not part of the official training or HR onboarding activities of new government employees. Instead, three outreach and engagement officers actively promote the tools across all Government of Canada departments and agencies. Their task is to change learned behavior of hierarchical knowledge sharing and siloed communication structures to open communication and open knowledge sharing on the Web 2.0 platforms. They help managers to engage employees and involve them in online discussions. The engagement officers visit teams and show them step-by-step how to increase engagement.

In addition to the engagement officers, 250 grassroots ambassadors (or "super users") have volunteered to help their colleagues use the GConnex tools. They give presentations at lunchtime seminars to increase awareness for the tools and what employees can do with them. Their task is to alleviate the hesitation to post questions and problems and to overcome the historic challenges of accessing knowledge through the hierarchy. The GConnex 2.0 team would also like to guide

Figure 7: Government of Canada—GCconnex Screenshot



users in their searches and help them find groups. An onboarding feature that guides new users and helps them to connect with their peers will be added in spring 2016.

Current Status of GCconnex

The GTools are continuously and iteratively improved and, together with other social networking tools, are actively promoted through roadshows, in-person visits, trainings, and most importantly, through active use and observed outcomes. The GC2.0 team uses advanced social network analysis techniques to evaluate networking connections among government employees—along with their contributions to groups or documents—to better understand the effectiveness and efficiency of social intranet tools.

GCconnex will be receiving a major upgrade in March 2016 to streamline and improve collaboration on the platform and improve the overall user experience.

The Government of Canada renewal initiative, Blueprint 2020, launched in 2013 and has been a significant enabler of the GC2.0 Tools GCconnex in particular. This initiative currently manages the largest group on GCconnex with over 6,000 members and consistently uses the GC2.0 Tools to engage employees and share information.

Insights: Successfully Implementing Social Intranets in Government

The following insights are derived from interviews with public managers in charge of designing and implementing in-house social networking platforms in three U.S. federal government agencies and the Government of Canada.

Insight One: Active Leadership Participation Is Essential

Two levels within the organization need to be models for social networking adoption:

- **Top leadership.** Top leadership buy-in cannot only occur as a passive confirmation that the use of the sites is approved, but it has to be active and observable; managers need to comment on updates to validate that they themselves pay attention to and use the platform. Otherwise, employees will get the impression that their updates are duplicating efforts or that social networking platforms are only a secondary communication mechanism that is not worth their time.
- **An agency champion.** Especially in organizations that are divided into many segments, it is important to have in place an agency champion with a respected voice that is heard by the department leadership. The agency champion can serve as the “owner” of the project and aim for top leadership buy-in to support the scaling up and out of the social intranet functions.

Insight Two: Three Technological Considerations Are Key

Based on our interviews, we found the following technological considerations to be key in the design of a social intranet:

- **Radical transparency in design and change is needed.** Practice radical transparency and openness during the design and implementation phases of the social intranet. Include everyone inside (and potentially outside) the organization who might have a stake in the successful use of the social intranet. This can be legal staff who might bring up intellectual property rights issues, HR staff who might have to deal with online misconduct or “friend-ing” behavior, or unions who aim to protect staff. This procedure will create trust in the process, the tools, and the final outcome by showing how effective and efficient information benefits can make the organization.
- **Allow deliberative knowledge discovery.** Social networking technologies enhance collaborative knowledge creation and sharing approaches. This also means that knowledge is not necessarily only created by authoritative sources or organizational roles responsible for providing formal knowledge products. Instead, discussion threads, wikis, blogs, and other social networking tools follow a more deliberative approach of knowledge creation: They include opinions in posts and comments, not necessarily just the final authoritative top-down command. This approach allows for innovative voices to be heard and decision makers to have more data points as the basis for their decision making. The downside is

that opinions and information in draft form can be difficult to analyze; public sector managers need to be ready to interpret and assess information from multiple sources.

- **Allow external and internal knowledge sources.** Opening the boundaries of the internal organizational units can be enhanced by allowing access to external knowledge sources on the internet (assuming the government site is secure). Many government organizations don't allow employees to access information distributed through external social media tools. However, allowing search and discovery online and disseminating the information on the intranet can enhance productivity. This approach needs to be carefully implemented, though. Many managers believe surfing the Internet makes their employees less productive, so education and training is needed to incorporate this cultural and managerial change.

Insight Three: Successful Implementation Requires Key Management Involvement

Based on our interviews, we found the following set of actions essential to the successful implementation of social intranet:

- **Investing in training, education, and outreach.** Employees need training on social media concepts to understand the new community rules and conventions. There is also a need for “gardening” content. Remind employees about the community standards and merge similar information pieces, but make sure that employees are aware of the interventions.

As part of this outreach, it is crucial to define the “social” context of the collaborative online work environment. As an example, *Corridor* at the State Department was purposefully branded as a “professional networking site.” It is important to (re)define the “friending” concept and terminology in the professional environment. What does it mean to friend or defriend your boss? In work environments, following or unfollowing certain employees does not necessarily imply any special relationship. However, defriending might have implications for the offline relationship. In addition, it is important to set governance rules. Employees need to know that users publish and edit content without interference from or cleaning by webmasters.

- **Moving from siloed to open communication.** It is crucial to abandon siloed knowledge-sharing practices and replace them with social intranet components for sharing and retrieval. This can be designed in a phased approach. Start with individual calendar functions, such as requiring employees to find meetings and appointments on the social intranet rather than relying on external software to populate their calendars. Another option is to change the meeting style to assume that meetings are not used to share information that is already available on the intranet; instead employees have to come prepared with the knowledge that they retrieved from the intranet.

Most enterprise social networking platforms fail. Employees tend to open the site once, but they do not return to the site because their personal day-to-day operating procedures have not changed and their communication structures are already established. The goal of the social intranet is to move conversations out of e-mail threads for topics that don't make sense to be discussed in silos, such as discussions that may need to be retrieved for future use.

- **Demonstrating innovativeness, effectiveness, and ease of use.** Demonstrate to every single employee some of the informational benefits so they understand “what's in it for me.” Demonstrate that the social networking site solves an organizational problem that is not solvable with other technologies or face-to-face interactions. Demonstrate that the social networking site helps employees discover knowledge or connections they are otherwise not able to access or didn't know they could access. Demonstrate that the social

intranet allows employees to conduct their tasks in a more effective and efficient way. A recent study by McKinsey's Global Institute found that knowledge workers' productivity can be enhanced by 20 to 25 percent if they use social technologies to discover information (Chui et al., 2012). Allow private discussion groups, but use a "front porch" approach: Let employees know these groups exist, but protect sensitive information where necessary.

- **Making the social intranet the new standard operating procedure.** During onboarding activities, introduce new employees to the site's functions in parallel with other communication modes, but make sure they see the value immediately and encourage them to use all tools. Don't emphasize the voluntary nature of use. Use a phased approach for longtime employees who will need to change their ways. Start with simple applications first: Show them what they can contribute and use social analytics to demonstrate how their contributions are used, who pays attention, and what their potential impact is.
- **Phasing in implementation, but consider a wider spread of testers.** Technology projects are usually rolled out in phased approaches; after the IT department, volunteer users are selected to test the application. Technologists often aim for a broad spread of testers, but social intranet applications such as collaborative working spaces or groups have different needs. Bring in a group of collaborators and let them test the applications at the same time. These groups need to understand the value of the tools and see that the new tools help them to collaborate in a more effective and efficient way.

References

- Allen, T. J. (1984). *Managing the Flow of Technology: Technology Transfer and the Dissemination of Technological Information Within the R&D Organization*. Cambridge, MA: MIT Press.
- Allen, T. J., & Hauptman, O. (1987). "The Influence of Communication Technologies on Organizational Structure: A Conceptual Model for Future Research." *Communication Research*, 14 (5), 575-587.
- Andrus, D. C. (2005). "The Wiki and the Blog: Toward a Complex Adaptive Intelligence Community." *Studies in Intelligence*, 49 (3). Retrieved from http://papers.ssrn.com/sol3/papers.cfm?abstract_id=755904
- Chomik, A. (2011). "Making friends in dark shadows: An examination of the use of social computing strategy within the United States intelligence community since 9/11." *Global Media Journal*, 4 (2), 95.
- Chui, M., Manyika, J., Bughin, J., Dobbs, R., Roxburgh, C., Sarrazin, H., . . . Westergren, M. (2012). *The social economy: Unlocking value and productivity through social technologies*. Retrieved from http://www.mckinsey.com/insights/high_tech_telecoms_internet/the_social_economy
- Cross, R., Borgatti, S., & Parker, A. (2002). "Making invisible work visible: Using social network analysis to support strategic collaboration." *California Management Review*, 44 (2), 25-46.
- DiMicco, J., Millen, D. R., Geyer, W., Dugan, C., Brownholtz, B., & Muller, M. (2008). *Motivations for social networking at work*. Paper presented at the 2008 ACM Conference on Computer-Supported Cooperative Work.
- Fulk, J., & Yuan, Y. C. (2013). "Location, Motivation, and Social Capitalization via Enterprise Social Networking." *Journal of Computer-Mediated Communications*, 19, 20-37.
- Leonardi, P. M., Huysman, M., & Steinfield, C. (2013). "Enterprise Social Media: Definition, History, and Prospects for the Study of Social Technologies in Organizations." *Journal of Computer-Mediated Communications*, 19 (1), 1-19.
- McAfee, A. (2009). *Enterprise 2.0: New collaborative tools for your organization's toughest challenges*. Boston, MA: Harvard Business Press.
- Mergel, I. (2011). *Using Wikis in Government: A Guide for Public Managers*. Retrieved from <http://www.businessofgovernment.org/report/using-wikis-government-guide-public-managers>

Mergel, I. (In Press). "Social media institutionalization in the U.S. federal government." *Government Information Quarterly*, xxx-xxx. doi:10.1016/j.giq.2015.09.002

RAND. (2005). "Connecting the Dots" in *Intelligence: Detecting Terrorist Threats in the Out-of-the-Ordinary*. Retrieved from http://www.rand.org/content/dam/rand/pubs/research_briefs/2005/RAND_RB9079.pdf

Sproull, L., & Kiesler, S. (1986). "Reducing social context cues: Electronic mail in organizational communication." *Management Science*, 32 (11), 1492-1512.

Steinfeld, C., DiMicco, J. M., Ellison, N. B., & Lampe, C. (2009). *Bowling online: social networking and social capital within the organization*. Paper presented at the Fourth International Conference on Communities and Technologies.

Treverton, G. F. (2016). *New Tools for Collaboration: The Experience of the U.S. Intelligence Community*. Center for Strategic & International Studies, January 2016.

Wu, A., DiMicco, J. M., & Millen, D. R. (2010). *Detecting professional versus personal closeness using an enterprise social network site*. Paper presented at the SIGCHI Conference on Human Factors in Computing Systems.

About the Author

Dr. Ines Mergel is Associate Professor of Public Administration at the Maxwell School of Citizenship and Public Affairs at Syracuse University. Professor Mergel teaches courses on social media management in the public sector, managing digital innovation in the public sector, and public organizations and management. Her research interest focuses on managerial and technological innovations in the public sector that make government organizations more effective and efficient.



Professor Mergel received a BA and MBA equivalent in business economics from the University of Kassel, Germany. She received a Doctor of Business Administration in Information Management from the University of St. Gallen in Switzerland. She spent six years as a pre- and postdoctoral fellow at Harvard's Kennedy School of Government, where she conducted research on public managers' informal social networks and their use of technology for knowledge sharing.

Professor Mergel's work has been published in, among others, *Government Information Quarterly*, *Journal of Public Administration Research and Theory*, *Public Administration Review*, *Public Management Review*, *American Review of Public Administration*, *Journal of Public Affairs Education*, *International Public Management Journal*, and *Government Information Quarterly*.

Her books, *Social Media in the Public Sector: A Guide to Participation, Transparency and Collaboration in the Networked World* and *Social Media in the Public Sector Field Guide: Designing and Implementing Strategies and Policies*, were published in 2012 with Jossey-Bass/Wiley.

The IBM Center has published four previous reports by Dr. Mergel: (1) *Using Wikis in Government: A Guide for Public Managers*, (2) *Working the Network: A Manager's Guide for Using Twitter in Government*, (3) *A Manager's Guide to Designing a Social Media Strategy*, and (4) *A Manager's Guide to Assessing the Impact of Government Social Media Interactions*.

Professor Mergel currently serves as the associate editor of *Government Information Quarterly* and as a member of the Public Management Research Association's board of directors.

Key Contact Information

To contact the author:

Dr. Ines Mergel

Associate Professor

Department of Public Administration and International Affairs

Maxwell School of Citizenship and Public Affairs

Syracuse University

215 Eggers Hall

Syracuse, NY 13244

(315) 443-1462

e-mail: iamergel@maxwell.syr.edu

Social media contacts:

Twitter: [@inesmergel](https://twitter.com/inesmergel)

LinkedIn: <http://www.linkedin.com/in/inesmergel>

Blog: <http://inesmergel.wordpress.com>



Reports from **IBM Center for The Business of Government**

For a full listing of IBM Center publications, visit the Center's website at www.businessofgovernment.org.

Recent reports available on the website include:

Acquisition

Beyond Business as Usual: Improving Defense Acquisition through Better Buying Power by Zachary S. Huitink and David M. Van Slyke

Eight Actions to Improve Defense Acquisition by Jacques S. Gansler and William Lucyshyn

Collaborating Across Boundaries

Inter-Organizational Networks: A Review of the Literature to Inform Practice by Janice K. Popp, H. Brinton Milward, Gail MacKean, Ann Casebeer, Ronald Lindstrom

Adapting the Incident Command Model for Knowledge-Based Crises: The Case of the Centers for Disease Control and Prevention by Chris Ansell and Ann Keller

Improving Performance

Balancing Independence and Positive Engagement: How Inspectors General Work with Agencies and Congress by Dr. Charles A. Johnson, Dr. Kathryn E. Newcomer, and Angela Allison

New Jersey's Manage By Data Program: Changing Culture and Capacity to Improve Outcomes by David Lambert and Julie Atkins

Innovation

A Playbook for CIO-Enabled Innovation in the Federal Government by Gregory S. Dawson and James S. Denford

Making Open Innovation Ecosystems Work: Case Studies in Healthcare by Donald E. Wynn, Jr., Renée M. E. Pratt, and Randy V. Bradley

Leadership

Best Practices for Succession Planning in Federal Government STEMM Positions by Gina Scott Ligon, JoDee Friedly, and Victoria Kennel

Risk

Improving Government Decision Making through Enterprise Risk Management by Douglas W. Webster and Thomas H. Stanton

Risk Management for Grants Administration: A Case Study of the Department of Education by Young Hoon Kwak and Julia B. Keleher

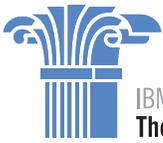
Strengthening Cybersecurity

Defining a Framework for Decision Making in Cyberspace by Dighton Fiddner

Using Technology

Using Mobile Apps in Government by Sukumar Ganapati

Creating a Balanced Portfolio of Information Technology Metrics by Kevin C. Desouza



IBM Center for
The Business of Government

About the IBM Center for The Business of Government

Through research stipends and events, the IBM Center for The Business of Government stimulates research and facilitates discussion of new approaches to improving the effectiveness of government at the federal, state, local, and international levels.

About IBM Global Business Services

With consultants and professional staff in more than 160 countries globally, IBM Global Business Services is the world's largest consulting services organization. IBM Global Business Services provides clients with business process and industry expertise, a deep understanding of technology solutions that address specific industry issues, and the ability to design, build, and run those solutions in a way that delivers bottom-line value. To learn more visit: ibm.com

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

Stay connected with the
IBM Center on:



or, send us your name and
e-mail to receive our newsletters.