

The Connected Republic 2.0

New Possibilities & New Value for the Public Sector

A Point of View from the
Cisco Internet Business Solutions Group (IBSG)

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“The Web gets its value not from the smoothness of its overall operation but from its abundance of small nuggets that point to more small nuggets. And, most important, the Web is binding not just pages but us human beings in new ways. We are the true ‘small pieces’ of the Web, and we are loosely joining ourselves in ways that we’re still inventing.”

–David Weinberger, *Small Pieces Loosely Joined: A Unified Theory of the Web* (2002)
www.smallpieces.com/content/preface.html

Introduction

In the United Kingdom, a new service is being trialed that allows people to report graffiti, broken streetlights, or other minor issues by going to a Website and putting a flag in a map of their local area with a description of the problem that needs to be fixed.¹ The Neighbourhood-Fix-It service provides a shared public space where people can track how the problems are being resolved and join in discussions about how to prevent difficulties from occurring in the first place.

In the Philippines, the country’s 16 million mobile phone users have become freelance environmental protection officers able to report smoke-belching public buses and other vehicles via text messages. They can also seek emergency assistance and report crimes and wrongdoing by police officers in the same way.

In the United States, a group of friends recently launched Change.org, a Website designed to link people who want to influence social change. The site enables activists to find like-minded people and share photos, videos, and information in support of a particular cause. They can also highlight events or actions, raise money, or comment on nonprofit projects.

¹<http://www.neighbourhoodfixit.com/>

Think of these stories—and there are thousands more—as dispatches from the frontline in a revolution characterized by the simple but radical fact that we increasingly live in a world where everyone is connected to everyone else. It is a world where Skype built a phone system from the connected computers of millions of individuals around the world; where Wikipedia tapped the wisdom of crowds to produce the world's most comprehensive encyclopedia; and where Google Maps provided a platform that is being used to pull together remarkably diverse data sets.

The guiding principle of this world is “small pieces, loosely joined.” It is a world where value comes from orchestrating the productive interaction of lots of different people and organizations animated by a common goal and enabled by shared processes. It is a world in which clumsy hierarchy and monolithic institutions are fracturing into smaller pieces and looser, more open and democratic affiliations and practices. In this new, connected world, speed, agility, and responsiveness are the hallmarks of top performance. Results are delivered not through the deployment of tightly controlled, centralized plans and instructions, but through the empowerment of millions of end points linked in ever-changing combinations.

These trends are changing every aspect of the world in which we live, bringing challenges and opportunities for every kind of organization. On the one hand, people's expectations are changing—they want faster, better service and expect to be engaged in new ways. On the other hand, new operating models are emerging, animated by new methods of connection and collaboration to create value and drive performance. What is clear is that traditional processes, structures, and organizations are often no longer the best way to get things done. Confronting this issue is crucial for all organizations, but especially for those in the public sector, given the unforgiving scale and complexity of the challenges governments are trying to solve.

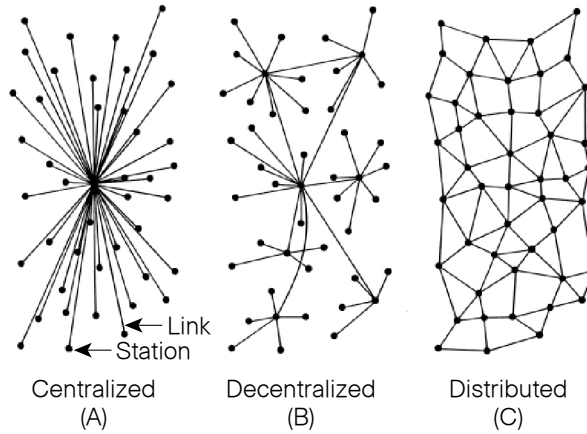
Our aim in this paper is to explore the implications of a connected world for the public sector. Our intention is not to offer simplistic prescriptions, but to provoke new thinking about ways in which the emerging technologies of communication and collaboration can improve the basic operations of the public sector and fuel a deeper process of innovation and transformation.

A New Organizational Model

To understand the nature of this transition, it is worth going back to the origins of the Internet itself. Writing for the RAND Corporation in 1964,² Paul Baran explored the issue of creating a communications network that could operate when many of its nodes (and the links between them) were no longer functioning. The context for his analysis was work for the U.S. Air Force in relation to a possible first strike by the Soviet Union; as Baran himself pointed out, however, the implications went beyond the military. In fact, his idea of a distributed network provides a radical alternative to the traditional options of either a centralized or decentralized network. The power of this idea is that it offers a new model for how resources can be organized to achieve a particular goal.

² Memorandum RM 3420 PR; see: http://www.rand.org/pubs/research_memoranda/RM3420/

Figure 1. Distributed Networks: A New Paradigm



Source: Paul Baran, RAND

Over the last 20 years, we have seen the implications of this new model in a world where technology is making it easier to connect people, places, and things. Furthermore, the possibilities inherent in this new approach keep growing as the network becomes more intelligent. No longer is the network a dumb highway transporting data around an office or across the world; rather, it is a platform that can recognize the differing nature of the demands being placed on it and respond accordingly.³

Small Pieces, Loosely Connected

The best example of a distributed network is, of course, the Internet itself. In his book *Small Pieces, Loosely Joined*, David Weinberger set out his views on the defining characteristics of the new Internet world. What he describes is a world in which meaning and value increasingly derive from the ability to connect people, ideas, and organizations in new patterns of communication and collaboration. This implies a radical shift away from hierarchy and centralized control.

Weinberger illustrates his point by describing the Web's impact on publishing and writing. The old model, he suggests, is about control: a group or individual is responsible for a document's content and releases it to the public when they consider it completed. The point of the model is that once a document is published, no one can change it except the original publisher. The Web ditches that model and says instead, "You have something to say? Say it. You want to respond to something that's been said? Reply and link to it. You think something is interesting? Link to it from your home page. And you never have to ask anyone's permission." By removing the central control points, the Web enables a self-organizing community whose interaction can generate ideas at an unprecedented pace and scale.

³ For example, the network can give different priorities to different kinds of traffic (data versus voice versus data), different applications, or, indeed, particular kinds of messages within applications. Or it can shape interactions on the network by giving varying capabilities to different users depending on events, actions, or profiles.

As Weinberger suggests, the result has the effect of shifting the locus of authority, power, and control away from institutions and hierarchies and toward individuals and communities. The capacity to influence, criticize, and advocate is now more easily within the grasp of citizens and consumers who can quickly band together to make their voices heard. *Time* magazine highlighted this phenomenon in December 2006 when it announced its Person of the Year. Instead of selecting an individual whose profile and substantial achievements reflected the assumption that history and destiny are shaped by the few, the famous, and the powerful, the magazine chose “You.”

Announcing its provocative selection, the magazine explained that “the new Web is a very different thing. It’s a tool for bringing together the small contributions of millions of people and making them matter. Silicon Valley consultants call it Web 2.0, as if it were a new version of some old software. But it’s really a revolution...this is an opportunity to build a new kind of international understanding, not politician to politician, great man to great man, but citizen to citizen, person to person.”⁴

One aspect of this revolution is the user’s demand for a more active role. This is most obvious in the new attitudes of those who have grown up with the Web. A recent Australian newspaper article⁵ analyzed the media habits of Generation Y (those born between 1980 and 1994) and highlighted the new values of this group. Discussing the new social networking sites such as MySpace and YouTube, the article points out that these sites “are created by them and are for them, not aimed at them...they are entertaining, give users a strong sense of community and give people a strong sense of control.” Rather than being slaves to TV, radio, or newspapers, members of Generation Y are slaves to devices that allow them to choose the media content they receive. “They are very skeptical about ‘talk at’ media like TV, newspapers, and outdoor ads...they do not want to be passive consumers.” Mobility is one of the main characteristics of this generation. They lead lives that flow from activity to activity but want to stay connected all the time, informed and entertained via their mobile phones and other portable devices. Increasingly, these consumers are interested in media products “in which they can get involved.” Authenticity is a function of engagement, not just consumption. Give them an opportunity to have a say and they will respond. They want brands to stop talking at them and start engaging them in more personal, interactive ways.

Changes in the attitudes of young people provide a hint about the direction in which the world is heading, but we believe the process is only beginning. As more and more people and things are connected, traditional location- and organization-constrained ways of getting things done will give way to new models that place more power in the hands of the end user. The most innovative organizations in the public and private sectors have recognized this trend for some time, but over the next 10 years it is going to be the key issue for every organization—no matter how traditional their operations are today.

⁴ <http://www.time.com/time/magazine/article/0,9171,1569514,00.html>

⁵ “A Lost Audience: The Mass Market,” *Australian Financial Review*, September 30-October 1, 2006

The Connected Republic

Two years ago, the Cisco Internet Business Solutions Group (IBSG) set out its vision of the potential of e-government in a book called *The Connected Republic: Changing the Way We Govern*. We chose this title in tribute to the city-state democracies of ancient Greece and to highlight the possibility that now exists of creating an environment where citizens reconnect with each other, with their elected leaders, and with their public institutions. We wanted to emphasize the potential of technology not just to improve public service delivery, but to change the very business of governing.

We suggested that the e-government project would fulfill its potential to the extent that it became:

- Central to the work and purpose of the public sector and the public policy process
- Pervasive and invisible as it impacts the larger concerns of public sector reform, democratic renewal, and the changing role of government in the knowledge economy
- Synonymous with what government is about—orchestrating and sometimes leading the creation of public value by putting people and communities at the center of responsive networks of knowledge, service, trust, and accountability

Updating our vision, we remain committed to a belief in the transformation of the public sector based on citizen empowerment. In our view, the evolution of new communication and collaboration tools, enabled and accelerated by the network, provides a unique opportunity to empower citizens and to bring them together in new ways. The technology combines with (and, to a large extent, drives) a way of thinking about how individuals engage with companies and governments that is not only going to produce better, more responsive commercial and public services, but also stronger communities.

We believe these trends are particularly relevant given the nature of the problems confronting the public sector. Increasingly, these issues are not susceptible to simple solutions delivered by a single agency. Rather, skill and expertise need to be drawn from a range of organizations and people who might nominally occupy a place in the private, public, or nonprofit sector, but whose real value is measured by their contribution to a complex value chain. We are shifting from a public sector of large, monolithic institutions to a world of consumers, businesses, citizens, and governments working together in new and surprising ways.

What is striking is that the ability to connect and collaborate is not just an enabler of this new world—it actually defines that world and its potential. If we take MySpace, YouTube, blogs,⁶ wikis,⁷ and the whole paraphernalia of social networking as a reasonable proxy for this new, connected world, what are its defining characteristics?

⁶A blog is a user-generated Website where entries are made in a journal format and displayed in reverse chronological order. Blogs often provide commentary or news on a particular subject, such as food, politics, or local news; some function as personal online diaries. A typical blog combines text, images, and links to other blogs, Web pages, and other media related to its topic. The ability for readers to leave comments in an interactive format is an important part of most early blogs. (Source: <http://en.wikipedia.org/wiki/Blog>)

⁷A wiki is a Website that allows visitors to add, remove, and otherwise edit and change content, typically without the need for registration. It also allows for linking among any number of pages. This ease of interaction and operation makes a wiki an effective tool for mass, collaborative authoring. (Source: <http://en.wikipedia.org/wiki/Wiki>). Perhaps the best-known example is Wikipedia itself—an encyclopedia collectively produced by volunteer Web users who supplement and edit each other's content.

These ventures highlight the instinct for connection and the idea of community. The network becomes much more than just a way to transport packets of data, sound, or images; it is the platform that makes it easier for people and ideas to come together. The point is not to make the video or write the blog. The point is to share it with someone and get a response. The value of the network—which connects you to that video, blog, government service, discussion group, or school Website—is the community it enables.

Sometimes the connections are not between people but between things—physical assets that become nodes on the network capable of sharing information with each other. So now buildings can generate data about energy consumption and water use, and share that information over the network with other databases or with people who make key environmental and safety decisions. Farmers can remotely monitor irrigation systems to check the flow of water or gather alerts when things have gone wrong and need to be fixed.

The possibilities are endless, but there are risks. Protecting people's privacy, fashioning robust schemes of identity management, securing the torrents of data moving across the network, and protecting the freedom of people to make choices for themselves and their families are all issues that must ride high on the policy agenda. So, too, is the concern about closing gaps in education, resources, and skills that, left unattended, will result in disconnected communities and a loss of social cohesion. But the underlying shift is undeniable and full of promise. The network has moved to the center as connectedness becomes the platform for productivity, social inclusion, and community.

Three Principles for a Connected World

So what does all this mean in practice? How should the public sector respond to a world where everyone is connected? In our view, there are three imperatives for success in a connected world:

1. Use the network as a platform for collaboration and creativity
2. Make the best use of all available expertise and experience by “empowering the edge”
3. Harness the “Power of Us” to create knowledge, solve problems, and deliver better services

Use the Network as a Platform

Connectedness is central to this new world. The key to creating value is to provide a platform that makes it easier to connect people, places, and knowledge. A classic example of this approach is eBay, which is successful because it provides a space that makes it easy not just for anyone to become a buyer or seller, but for people to become trusted buyers and sellers at a distance and without face-to-face interaction. Another is Google Maps, now being employed by various people and communities to create new, customized knowledge using Google's tools, data, and platform.

The same approach is evident in other Web 2.0 successes such as YouTube, MySpace, and Flickr, which created spaces in which people can connect, communicate, and create. The principle of maximizing network resources to contribute directly to value creation, however, has a much wider application. Take the case of a U.S. hospital that faced difficulties in dealing with the wide range of languages spoken by people seeking care. Rather than paying for an expensive professional translation service in a small number of languages, the hospital gave video communication tools to the many staff members who speak several languages and then made this internal network of ad-hoc translators available to medical staff. In this case, the network connects people and skills in new patterns to create a capability that did not exist before and, as a result, creates real value—better, more responsive services for patients who cannot speak English.

For public sector organizations, taking a platform approach means maximizing the resources connected to the network, virtualizing those resources so that they are available at any point on the network, and continually making it easier for those connected by the network to interact with each other. Much of the e-government project's focus is on improving processes using the new tools of connectivity. What governments need to do now is make it easier for resources and expertise, wherever they are located, to combine and collaborate. The question is no longer “how can my organization solve this problem?” but rather “which resources can we harness to increase the public value we are seeking to create?”

For example, the financial sector has developed ways of interacting with customers that are typically far more sophisticated and customer-friendly than those of most tax departments. How could the public sector tap into that capacity and use it to deliver better service to customers? Or, take a different example. Often, welfare departments are keenest to serve the people who are hardest to reach. In a connected world, there are many new ways to reach out to them; perhaps the different skills and contacts of voluntary and community groups can become a virtual part of the welfare department's service delivery platform, or maybe the community itself can be brought together and empowered to help itself. Increasingly, governments create value for citizens by orchestrating the expertise and resources of lots of different players from whose interactions flow the knowledge, service, trust, and accountability that citizens want.

Empower the Edge

The second key principle is to “empower the edge” by increasing the scope for end users and local units to shape the outcomes that are being produced. This approach maximizes the ability of everyone to contribute, while ensuring the outcome is tuned to the real rather than assumed preferences of those involved. For example, the United Kingdom has experimented with direct payments to people eligible for certain social services such as daycare, personal care, and respite care. Under this system, disabled people choose a provider and the appropriate mix of services themselves.

Empowerment is also about making better use of the insights, expertise, and experience dispersed across the community to accelerate the process of finding solutions or creating new opportunities. For example, a couple of years ago the U.K. Parliament undertook an inquiry into domestic violence. The final recommendations were shaped by the insights of domestic violence “survivors” whose input was enabled by new online consultation processes. For many of the women who contributed, it was the first time they had made a submission to a parliamentary inquiry and, given the difficult nature of the issues involved, the online opportunity provided a sense of privacy and security. The quality of the legislation that resulted was significantly improved because those women at the edge of the debate found a way to speak and be heard.

An approach based on user empowerment can also be crucial to delivering coordination in a crisis. Consider the RISEPAK Web portal, which was established after the 2005 Pakistan earthquake. The portal provided pre-earthquake information on population, housing, electricity, and water in each of the 4,000 villages affected by the earthquake and sought from the relief community and individuals information about damage, access, and relief. Information was solicited using standardized submission forms and could be sent using an online form or by text message, fax, or phone. The RISEPAK promise was that every member of the relief community—large or small, public or private—would be treated equally and that all information would be publicly available within 12 hours of submission. The portal secured the most comprehensive, up-to-date information by enabling everyone to contribute, and in this way ensured that the efforts of dozens of organizations had the maximum impact.

As this example illustrates, the network accelerates information flows to allow either the spontaneous self-coordination of users or real-time coordination within the context of a shared platform. This dramatic change creates all sorts of new possibilities. In the world of distributed networking, the edge can be as powerful and as influential as the center; indeed, the whole concept of “edge” and “center” becomes ambiguous. In this new world, there are huge opportunities to empower people and communities whose size or distance from what was once defined as the center (the company’s headquarters, the capital city, Town Hall) used to hinder their ability to influence what happened to them or their community.

For the public sector, empowerment involves putting tools and resources at the disposal of users and creating spaces and opportunities for communities to form and solve their own problems. Rather than simply trying to improve service delivery, the public sector needs to explore ways of expanding choice and involving citizens in the co-creation of services. One example of this is the Earth 911 initiative⁸ in the United States. A range of nonprofit, government, and commercial organizations came together to create a platform from which people can pull information and resources to support local environmental projects. Under the banner of “Make Every Day Earth Day,” Earth 911 is a public purpose organization that confronts a key policy challenge—sustainability and a cleaner environment—without using a traditional public sector

⁸ www.earth911.org

delivery model. Through Earth 911, all Americans are empowered with accurate, local information and are invited to play an active part in efforts to protect their community's environment.

Harness the “Power of Us”

It is not just a matter of empowerment, however. The fundamental feature of this new world is that it brings people together in new ways; the public sector needs to work out how it can exploit the possibilities this creates. What communities can it bring together to create public value, and how can it ensure those communities flourish? One success has been the United Kingdom's “rightsnet” platform.⁹ This was created by the London Advice Services Alliance, which saw the potential of bringing together the many organizations and individuals offering advice to U.K. residents about their welfare rights. The advisers who use the platform get news on benefits changes, training courses, and job opportunities, but they can also share resources, raise issues, and start discussions with other users of the platform. As a group, they have a strong common purpose, and although they belong to a wide range of organizations, there are benefits for each member in being part of the community.

A different example is [Curriki.org](http://www.curriki.org),¹⁰ whose ambition is “to improve education around the world by empowering teachers, students, and parents with user-created, open source curricula.” Curriki, a play on the words “curriculum” and “wiki,” is a nonprofit organization that is building a Web-based Open Source Curriculum, providing universal access to free curricula and instructional materials for grades K-12. Initially the project is focusing on developing an online repository in the areas of mathematics, science, technology, reading and language arts, and foreign languages. The initiative is all about creating a community of educators, parents, and students and is powered by a belief that “technology can play a crucial role in breaking down the barriers of the Education Divide—the division of inequality that prevents children worldwide from access to quality education.”

The communities that create new public value may bring together a wide range of individuals or a specific group of public servants. In the United States, for example, the Office of the Director of National Intelligence has sought to overcome past failures to pull together separate pieces of information by creating three nonpublic, internal wikis where intelligence officers can directly share information and insights. As Deputy Assistant Director Richard Russell explains, Intellipedia was created so “analysts in different agencies that work [on] X or Y can go in and see what other people are doing on subject X or Y and actually add in their two cents worth ... or documents that they have.”¹¹

⁹ <http://www.rightsnet.org.uk/>

¹⁰ <http://www.curriki.org/xwiki/bin/view/Main/>

¹¹ <http://www.nationaldefensemagazine.org/issues/2006/November/SecurityBeat.htm#Wik>. Gartner's e-government blog notes a number of other examples of public sector agencies using wikis and similar tools. The U.S. Environmental Protection Agency is using a wiki to coordinate its content development project, while Alaska's Department of Social Assistance has used wikis for more than a year to support collaboration and share best practices among local councils. Both the U.S. Patent and Trademark Office and its U.K. counterpart are considering a wiki approach to the patent-approval process.

Changing the Way We Govern

Adopting the principles we have outlined will change the way the public sector operates. It can also help transform the relationship between citizens and the state, breaking down the gulf that often exists between citizens and public institutions, and between citizens and their representatives. Facing a range of complex, interrelated problems, governments need to move away from the rigid silos of the past and develop policy processes and operational structures that are much more flexible and dynamic. This will happen only if there is a shift from top-down, centralized control to collaboration and empowerment. It also involves a much greater focus on the role of public sector organizations as orchestrators.

In most areas, delivering real public value will involve adopting methods that change the distribution of power, control, and authority between consumers and businesses, and between government and citizens. These methods rely on, and feed, an ethic of high trust and openness. They assume that knowledge, experience, expertise, and insight are dispersed throughout communities and at all levels of formal and informal power. From this perspective, one of the central tasks of governing—over and above the enduring obligations of law and regulation, taxation and redistribution, and security—is to find ways to connect that dispersed knowledge and wisdom to a practical form on which to base policies, programs, and initiatives.

Doing this will involve adopting a new approach. In *Connected Republic*, public sector organizations will engage in an intense and sustained “search and sense” function, inviting citizens to play a much more active role in the configuration of services and in the shape of public policy agendas. This new pattern of interaction will draw on, and accelerate, a major cultural shift to introduce new skills and attitudes in public life.

The challenge is to imagine a business model of governing that is driven by the instincts and processes of what one recent study described as a world “wide open.”¹² The success of ventures like Linux, Wikipedia, and YouTube tells us something about what makes this business model actually work. They are “volunteer-powered, Internet-enabled, and geographically dispersed.” They embody “a new way of creating knowledge that combines an open and democratic ethos with an extraordinary ability to produce work of high quality and on a huge scale.”

The emerging model (in both the public and private sectors) is more organic and evolutionary than the traditional approach. It is less fixated on what the center thinks and more interested in finding, connecting, and then supporting those with the knowledge and experience necessary to effect change. In this model, information is widely shared because that’s how it becomes powerful. It turns out that open, collaborative systems, using the network, are much more efficient because it is a quicker way to learn and to respond to changing circumstances.¹³

¹² “Wide Open: Open Source Methods and their Future Potential,” Geoff Mulgan, Tom Steinberg, and Omar Salem, Demos UK, 2005

¹³ Network-Centric Thinking: The Internet’s Challenge to Ego-Centric Institutions,” Jed Miller and Rob Stuart, <http://journal.planetwork.net/article.php?lab=miller0704>

A New Operating Model for the Public Sector

Within this broader change in the nature of government, we believe more and more organizations will adopt an operating model that Cisco describes as the Networked Virtual Organization (NVO). With this approach, organizations stop trying to do everything for themselves and, instead, pull in the most appropriate resources, regardless of where they are located or whether they would traditionally be seen as being in the public sector, private sector, or voluntary/community sector. Combining pervasive, networked technologies and deep business process reform, the aim is to create organizations whose value—in terms of their ability to impact large, ambitious, and shared outcomes—is much more than the sum of their parts.

As public agencies become more discerning about the functions that are core to their real mission, they will increasingly rely on shared service models that can support their particular purpose while, at the same time, delivering significant productivity improvements across the public sector. Governments will have to draw on the ability to share and, therefore, to standardize many of the back-end systems on which individual agencies rely to be effective.

The need to avoid waste and inefficiencies in functions like HR, finance, technology, procurement, and some aspects of customer service (identity management, privacy, payments, and so forth) is only likely to grow, encouraging the development of government-wide architectures that treat government as if it were a single enterprise. Service-oriented architectures will be the norm, enabled by central, common standards and a commitment to core information and data standards. It will be crucial, however, to ensure that this activity does not lead to new, disconnected, and monolithic shared service silos. As one commentator put it recently, the challenge is to avoid building “grand new data processing cathedrals” and, instead, develop “a more flexible bazaar of loosely coupled services.”¹⁴

Governments are also likely to use public-private partnerships and a combination of outsourcing, insourcing, and offshoring to orchestrate a richer mix of organizational units that, independent and distinct, combine their resources and skills to serve common customer- or citizen-focused outcomes. They should also look to empower intermediary organizations in the public, private, or voluntary community sector whose capabilities, values, and skills are often much better suited to the specific needs of a service or activity than any single organization could provide.

Adopting this new NVO model will involve a much greater range of organizations in the delivery of public services and the creation of public value. The boundaries between the different sectors will be much less clear-cut than in the past, and individual public sector bodies may well be smaller as they move from traditional delivery roles to a greater emphasis on orchestrating and empowering. Rather than a vertically organized public sector mass-producing service for passive recipients, we are likely to move to a more flexible and dynamic “plug-and-play” approach where a host of resources are pulled together in different ways to meet the changing outcomes citizens want.

¹² “Government Cathedrals, Government Bazaars,” Owen Barder, *Public Finance* magazine, August 2006

All of this will have a major impact on what it is like to work in the public sector. There will be a gradual evolution of new forms of coordination and control. Governments will place a premium on the skills of orchestration and facilitation, and on the ability to recognize the credibility and authority of sources of policy insight and advice outside the public sector. It will also involve developing new accountability methods that can match the radically dispersed and collaborative nature of public purpose work. Governments will need to make their own workplaces flatter, more connected, and less hierarchical—more in tune with the values and behavior of the talented people who need to be attracted to the public sector.

A Changed Relationship with Citizens

As well as delivering more flexible and efficient organizations, this new approach will change the relationship between citizens and the state. Today's citizens want fully digital services that deliver service 24 hours a day, seven days a week. They want the different channels through which they can access services to provide a consistent, mutually supportive experience; and rather than receiving a mass of separate services, they expect integrated and personalized services that reflect the contours of their lives.

It is not, however, just a matter of providing citizens with convenient, seamless, and personalized ways of interacting with government. Citizens need to be given a much greater role in shaping public services. "Black box" government, where dedicated civil servants try to work out which services will suit people best, needs to give way to transparent government where citizens themselves can see and intervene in debates about how services can be made more citizen-centric. Governments are rightly looking to build services around citizen needs, but true citizen-centricity involves enabling citizens themselves to drive change.

As part of its transformational government strategy, the United Kingdom has sought to do this by creating the new role of group customer director (older people and farmers being the first two groups targeted). This is a significant move, but the real test will be the extent to which the targeted groups are themselves directly and transparently involved in the process of driving change. The new group directors will sponsor research into the needs of their group and lead service design. They should also seek to involve the community itself by, for example, blogging the progress of their work or putting discussions and research onto the Web so that interested citizens from the targeted group (and outside it) can enrich the debate with their comments and insights.

In our view, demands for recognition and engagement are likely to increase only as people experience more responsive forms of interaction in other aspects of their lives. Public sector leaders will, therefore, need to find new ways for citizens to influence public programs and services. Part of the answer will involve being more open to feedback from service users in a process of engagement that goes well beyond traditional notions of consultation and customer satisfaction.

Beyond that, the challenge is to introduce opportunities for citizens to pull the resources and information they need to make decisions that affect them directly. The shift to a self-service culture, at its best and in the right context, makes a huge contribution to reframing the citizen-government relationship. This capacity for people to use the Web to connect “small pieces” into larger narratives that they drive and own is both powerful and appealing. Gradually the technologies of connection and collaboration are fashioning a virtual “civic commons,”¹⁵ a digital version of the spaces traditionally set aside for citizens to initiate and sustain their own democratic conversations.

At a deeper level, the test for governments will be to construct productive relationships with citizens, making sure that the way the rules—and the possibilities for action—are negotiated reflect more democratic instincts. This will, in turn, change citizen expectations at those “moments of truth” when they come into contact with traditional public sector services and processes. People are starting to get used to the idea that in some circumstances, they can set the agenda or at least have a significant influence over its content and priorities. If that is true, those same people are unlikely to be impressed by traditional “consultation” processes that tend to invite comments and contributions only after someone else has decided set the agenda.

There are plenty of unknowns as governments and citizens work to give some of these instincts for engagement and involvement appropriate form. In some measure, these demands call for new patterns of authority and control, which governments find difficult especially to the extent they don’t always appear to be matched by consequent shifts in accountability. Politicians and senior government executives feel less able to plan and manage (and therefore control) in this environment, an unsettling sensation if you are trying to manage difficult and complex policy processes. A process of adjustment and accommodation will gradually remake our expectations of how governments work and how citizens engage.

Taking e-Government to the Next Level

For the past 10 years, governments around the world have invested in major programs of technology-enabled change in the public sector under the label “e-government.” Similarly, there has been much effort invested in creating an underlying policy framework to support these changes. Much of that continuing work, however, is neither visible nor accessible to many ordinary citizens. The new possibilities we are describing build on this work and assume it will yield its intended benefits.

Key elements of this foundational work include:

- Creating a suite of robust *enabling business processes and systems* that all agencies need and that can increasingly be provided on an enterprise, whole-of-government basis, including identity management, authentication, security, information management policies and standards, privacy, and payment and billing systems

¹⁵http://www.citizenonline.org.uk/site/media/documents/925_Realising%20Democracy%20Online.pdf

- Completing and improving *core electronic service delivery systems*, ensuring that they provide a reliable and increasingly convenient experience for citizens and service providers
- Investing in the *basic communications infrastructure*, including “real” broadband networks whose capacity and architecture can accommodate evolving services and applications
- Refining, improving, and integrating the various *service delivery platforms* on which citizens rely for quick, safe, and easy access to information and services, and for use as communication channels they can use to provide feedback to agencies.

Far from rendering these investments redundant, the Connected Republic vision assumes governments will continue their efforts to realize the benefits technology can deliver to improve basic transactions and services such as getting a business license, paying a parking fine, getting reimbursed by your health insurance fund, creating an effective electronic medical record, and giving students and teachers “anytime, anywhere” access to learning and teaching resources. Getting these essentials right is necessary to achieve basic efficiencies, but it is also a precondition for being able to think and act as an enterprise (“one government”) and for earning the trust and confidence of the public so they will participate.

As these basic systems and capabilities become an established part of the way the public sector works, expectations will rise. As citizens experience new ways to access commercial services and entertainment and enjoy new forms of communication with businesses, community organizations, and each other, they will expect to see some of these tools and practices integrated into the way they interact with the public sector. Governments will need to put resources and time into a deliberate program of innovation both at an agency level and across key whole-of-government functions.

The innovation process will connect those within and outside government who are pushing boundaries in the design and delivery of public services. It will often start from the empowered edge where there are fewer constraints that impact the pace and scope of innovation (such as the regional or district office; the small team working on a new way to improve local services for the disabled, or a not-for-profit community organization pioneering a new way to empower the people they serve). What is important is the ability to see the possibility for new thinking and to nurture it, creating space within which it can develop and grow.

As innovation takes root, we predict a number of changes:

- The role of technology will evolve from an enabler to profound change agent, transforming the structure and culture of government and often representing an integral part of the solution to the very challenges to which its pervasive influence is giving rise.

- The shape and focus of government programs and services will become steadily more influenced by the views and values of the people they serve, whose preferences will have greater influence on priority setting and program design.
- Governments will have to invest more heavily in the “sense and respond” capabilities, systematically seeking out the views, experience, and expertise of customers and service users.
- Sustained investment in innovation and systematic change programs will increase, driven by a mix of citizen demand, political expectation, and new capabilities inside government.
- Governments themselves, as large and complex enterprises, will take many of the same collaborative tools and business models they use with citizens and start applying them to the way they work internally. As a consequence, they will reap enormous benefits as public sector workplaces become agile, efficient, and, therefore, more attractive to smart, skilled, and committed employees who will be better able to share information, services, and knowledge easily, quickly, and safely.

Ultimately, governments should start to harness the capabilities of the network to achieve their central policy ambitions: economic resilience and competitive differentiation, quality education and skills for all, better health and aged care, sustainability, and social inclusion. At this point, e-government would cease to be exclusively about technology-enabled public services reform and would start to play a central role in larger conversations about national economic and social transformation.

Challenges and Obstacles

Grasping these opportunities is not going to be easy. The scale of the transformation is huge. Furthermore, what we have discussed is not just organizational change, but the development of new and different cultures. As the e-government project has illustrated, there are limitations on the speed with which major change programs within government agencies can be carried out.

There are also other barriers. Some are legislative. For example, in Germany, a plan to create a shared service facility that would accelerate the printing of tax statements by using external organizations was shelved because, by law, this task must be carried out by a tax officer who belongs to the Ministry of Finance. Other barriers are particular to the new world we are entering. New forms of regulatory control and centralized standards, including areas such as authentication, privacy, and security, must be developed to enable collaborative networks without increasing risks for citizens and governments alike. We have to find ways to make it “safe to play” in this more connected public realm, using an instinctive concern for privacy and security as a catalyst for legislative reform and improved practices across government and in society.

Clearly, as the range and mix of resources involved in delivering services grows, the value chain becomes more complex, thus raising significant service availability assurance issues, particularly in relation to critical public services. There are also issues regarding equity. We cannot ignore the needs of a wide range of users, including older citizens, whose ability to access new, technology-enabled processes may be less certain. There are risks, too, that in the still evolving models of communication and collaboration around Web 2.0, public debate will be dominated by the relative few (well-educated, technically proficient, and well-resourced) at the expense of a genuinely more inclusive and democratic conversation.

These are all important issues and no one is suggesting that providing better technology to access information and services is by itself a solution. Rather, as societies move toward a Connected Republic model, governments will need to look carefully at three issues:

- *Capacity*: governments will need to take action to develop not just the technological tools for engagement, but also the civic capacity to use those tools.
- *Equity*: governments will need to ensure that those who are unwilling or unable to participate are not left behind or unfairly disadvantaged.
- *Accountability and responsibility*: in the complex world of small pieces, loosely joined governments will have to develop new tools to ensure there are proper systems in place to prevent responsibility from falling between the cracks.

Conclusion

We have argued that a connected world offers huge opportunities for the public sector. This new world favors a more collaborative and flexible approach to getting things done and provides a platform for empowerment, choice, and personalization. Public sector organizations can build a new kind of relationship with citizens, putting skills and resources directly at their disposal and enabling them to play a much greater role in public policy. They can also harness the “power of us” and pull people together to create public value in new ways.

Of course, the new capabilities of social networking and collaboration do not render obsolete the enduring responsibilities of good government. On the contrary, they bring those obligations into sharper focus. At its heart, government is still about creating the policy, technology, and organizational infrastructure that delivers services, trust, and accountability. The question is not whether technology replaces politicians and parliaments, but how technology can support the larger task of renovating the public realm and enabling citizens to participate in more open and meaningful debate and decision making.

This is not to suggest that the original ambitions of the e-government project should be forgotten. On the contrary, they remain as important as ever. Giving people access to a truly integrated, safe, and secure electronic medical record; simplifying interactions with different government agencies; streamlining the steps required to get basic services and decisions; dramatically remaking education systems and their ability to deliver lifelong learning; and making information not just more easily accessible, but easier to understand as well—these and many similar expectations remain to be fulfilled. The Connected Republic vision suggests that as governments contemplate the continuing political, financial, and human investment needed to drive the project forward, they also need to broaden its scope. Governments must catch the next transition—not by dumping the ambitions of the past 10 years, but by adding to them.

We believe that a connected world is a fundamentally different world whose implications we are only just beginning to understand. Globally, those who are leading public policy and national reform agendas are showing a growing interest in what these changes mean for new models of public governance, ambitious programs of national social and economic transformation, and, in many cases, the underpinnings of a robust and effective democracy. Like those leaders, we are curious about how these big changes play out as communities embrace the new dynamics of choice, empowerment, and community.

Progress will be a combination of bold vision, steady investment in new skills and capabilities, and patient, competent execution. The emergence of the connected world—a distributed network of small pieces, loosely joined—offers the possibility of transforming the public sector, changing the role of government, and enabling citizens to be more actively involved in shaping services and public sector decision making. We believe that the promise of the Connected Republic should be at the heart of every government's plans for modernization and reform.

Five Key Messages

- Pervasive connectedness has changed the world forever.
- The public sector must adapt to this new world, just as other sectors are doing.
- What has already been done in e-government has not been wasted. Governments should press on and make sure investments and reforms deliver intended results.
- The efforts of the past 10 years must be incorporated into a larger reform endeavor that recognizes the transition to the new networked models of Web 2.0.
- Profound transformation and system change is both possible and necessary. It will take time, careful investment, and sustained leadership, but it is essential if government is to maximize the public value it delivers for citizens.

More Information

The Cisco Internet Business Solutions Group (IBSG), the global strategic consulting arm of Cisco, helps Global Fortune 500 companies and public organizations transform the way they do business—first by designing innovative business processes, and then by integrating advanced technologies into visionary roadmaps that improve customer experience and revenue growth.

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