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E-government 2.0

Despite spending enormous amounts on Web-based initiatives, government agencies often fail to meet users' needs online. By employing new governance models, investing in Web capabilities, and embracing user participation, agencies can raise the effectiveness of their online presence.

**Jason Baumgarten
and Michael Chui**

Early breakthroughs in e-government—the use of information and communications technologies to provide and improve public-sector services, transactions, and interactions—have enabled government organizations to deliver better service and improve effectiveness and efficiency. In many countries, more than 70 percent of taxpayers now file taxes electronically, for example, and many other transactions—ranging from renewing drivers' licenses and paying parking tickets to managing government benefits—can be conducted online. Employees within government agencies also use the Internet routinely to manage internal processes, such as human resources and travel.

However, despite the continued allocation of enormous resources, progress on the e-government

front appears to have plateaued over the past few years. Many new e-government initiatives have neither generated the anticipated interest among users nor enabled clear gains in operational efficiency. In the face of unprecedented fiscal constraints, as well as users' heightened expectations based on the integration of the Internet into their daily life and work, it is imperative that the public sector refine its approach to e-government to ensure that these initiatives achieve maximum impact.

In our experience, three obstacles have, however, limited the impact of e-government efforts: ineffective governance, lack of Web-related capabilities, and reluctance to allow user participation in the creation of applications and content.



Ineffective, complex governance processes present a fundamental obstacle to success. Accountability for Web-based activities (the focus of this article, since such activities have the broadest applicability and the greatest potential) too often resides deep within IT or communications departments. And because the Web is typically not viewed as a core business channel, Web-related efforts are often fragmented across an agency. One US agency found that it had more than 100 internal Web sites alongside dozens of external sites, as well as multiple tools and platforms to maintain them. In addition to increased costs and inefficiency, this complexity impedes adoption, as, for example, users must endure multiple sign-ons within and across sites.

Most government agencies also lack the necessary capabilities to develop and improve Web services. Whereas best-practice private-sector companies employ specialized talent to adapt and optimize their Web sites, governments rarely prioritize Web capabilities and have few experts in Web design or analytics.

Even those agencies that have begun to overcome the challenges relating to governance and capabilities have yet to join their private-sector counterparts in embracing Web 2.0 technologies—such as blogs, wikis, and mashups—that allow users to participate in discussions, develop applications, and combine data from multiple sources. This stems from a mind-set that favors maintaining control over the use of data, and from valid (though manageable) concerns about security. But as users become more accustomed to online participatory experiences, governments' failure to embrace Web 2.0 threatens to reinforce the public's perception that government Web sites offer a vastly diminished experience.

To reach the next level in e-government services, organizations must overcome each of these obstacles. First, they must move to a governance model in which e-government initiatives are owned by "line of business" executives and supported by a dedicated, cross-functional team. Second, they must develop capabilities in critical areas such as marketing, usability, Web analytics, and customer insights. Finally, government agencies must shift mind-sets to proactively get citizens, businesses, and other agencies involved in contributing or creating applications and content.

Implementing these changes will enable public-sector organizations to provide Web services that are used by more people with greater ease, reduce the costs of developing and maintaining the services over time, and offer more functionality and content, thereby providing a higher return on public money spent. Although focused on initiatives in the United States, the recommendations in this article are broadly applicable, as government agencies around the world continue to recognize opportunities to improve their interactions with citizens, businesses, other institutions, and their own employees through online services.

The plateau

During the Internet boom of the late 1990s, government entities raced to develop Web sites, and high levels of e-government spending became the norm. Spending on e-government-related initiatives has continued to grow—indeed, in 2009, the US government is expected to spend more than \$71 billion on IT, of which an estimated 10 percent will be related to e-government.¹

While the total price tag for e-government services has risen dramatically, these outlays have not yet delivered on the promise of e-government. Public

¹Source: 2009 Federal IT Budget; Federal Enterprise Architecture taxonomy for 2008 budget; McKinsey estimates.



enthusiasm for government Web sites has waned. Americans' satisfaction with e-government, which rose steadily early in the decade, has started to decline.² In 2004, *Time* featured three federal government sites in its list of the "50 coolest Web sites," while more recent lists contain at most one mention.

Illustrating this trend, one US government agency site was recognized as an innovator in online information and transactions and became a model for other agencies to follow, as it enjoyed user adoption rates that justified its e-government expenditures. However, more recent initiatives have failed to catch on with users, who regard the Web site as having become harder to use and new services as too confusing and complex. Nor is this phenomenon confined to the United States. One government agency invested millions developing a service that enabled citizens to manage their accounts with the government online, only to achieve a disappointing adoption rate of less than 5 percent.

What's more, data suggest that investments have not yielded major improvements in the operational efficiency of government. A random sample of six US government agencies suggests that administrative costs have increased by 7 to 12 percent per year over the past decade. Nor has public perception of government efficiency improved. According to the Pew Research Center, the percentage of US citizens who agree that "When something is run by the government, it is usually inefficient and wasteful" has increased in recent years, from 53 percent in 2002 to 62 percent in 2007.³

Creating new governance models

Getting to the next level of e-government requires agencies to regard Web development as an integral part of the services they provide to constituents—on par with initiatives such

as call centers or field offices—or, in the case of internal efforts, as important as an all-hands meeting. Web projects should be maintained as a consolidated portfolio with a centralized view of costs and benefits. Clear end-to-end ownership of the online experience must be established and reinforced, with accountability for user adoption rates and costs. Specific business goals—more accurate processing, for example, or enhanced Web self-service to reduce incoming phone calls—should be agreed upon at the outset of initiatives so that the objectives can drive the approach to design and implementation.

Line-of-business leaders should be responsible and accountable for driving Web initiatives, but to support them agencies should establish a dedicated product-management team—consisting of designers, information architects, developers, and editors—responsible for not only the initial development process but also ongoing improvements to usability and functionality. To keep up with real-time feedback, this team must have access to funding that can be adjusted on a monthly rather than annual or multiyear basis. The team should also be expected and empowered to make quick decisions, and rewarded for adopting a test-and-learn mentality so that it can feel free to shut down pilots or programs that are not meeting expectations.

The management of e-government efforts must also become much more data-driven. Assumptions should be challenged rigorously, and data from small, low-investment experiments used to guide decisions. Best-practice online businesses continually conduct experiments to improve the user experience. Google has stated that at any given time it simultaneously runs 50 to 200 experiments on its Web sites.⁴ Online government initiatives should adopt a similar orientation to determine, for example, what services are most

²"ACSI E-government satisfaction index," ForeSee Results, March 18, 2008.

³*Trends in Political Values and Core Attitudes: 1987–2007*, Pew Research Center, 2007.

⁴See Ben Gomes, "Search experiments, large and small," Official Google Blog, posted August 26, 2008, at <http://googleblog.blogspot.com/2008/08/search-experiments-large-and-small.html>.

in demand and how to make those services easiest to access.

Finally, governments must follow a structured approach to evaluating security issues. Organizations must balance the trade-offs between the benefits of implementing security decisions and the costs of restrictions, including financial impact and effects on usability, convenience, and adoption. When one agency realized that its Web team, IT team, and security team each had a different understanding of legal and security requirements, it clarified the requirements and assigned specific responsibilities. The security team was given full responsibility for assessing security, while the Web team was made responsible for understanding how security requirements would affect usability and deciding on the features in which to invest and launch.

Investing in Web capabilities

Effective Web management does not require a large team but should consist of a core group that is well versed in user-centric business requirements, fact-based decision making, usability and navigation, marketing, information architecture, and agile Web development. Initial hiring should focus on building a small interdisciplinary team of highly skilled Web specialists with a variety of complementary backgrounds.

While partnering with external vendors is an option, especially for capabilities that are commodities and that benefit from scale (for example, Web hosting), in-house skills are required to oversee development and design and to manage vendors effectively. We have found that agencies often lack the internal expertise required to appropriately select and work with these partners.

Indeed, a review of US federal government contract records reveals that in 2008 five of the leading Web analytics firms were hired only six times,⁵

the five largest digital marketing firms were hired five times, and the five largest Web design firms were not hired at all.⁶

Capabilities that enable an agency to discern users' needs and preferences are also critical. Product-management teams must be able to incorporate findings from focus groups, surveys, usability tests, pilot programs, and real-time online experiments. One agency did not evaluate customer needs until after it launched a Web service. It found that very few citizens were willing to endure the authentication hurdles to access the service and its non-intuitive user interface. Usability testing and use-case analysis, which should have been done well before the launch, indicated that it would be more effective and less expensive to offer only a few simple transactions online.

Such capabilities will enable agencies to identify, design, and implement solutions that overcome potential obstacles to user adoption. For example, Austria, which has one of the most popular e-government offerings, uses a standard "citizen card" approach to identity management, thereby simplifying the log-on process. Existing identity cards, such as bank cards, are certified for use with a digital signature to access all e-government services, eliminating the need for separate paper registration to access each service.

Building internal product-management and technical capabilities also enables agencies to better select and manage external partners. Many government procurement and tendering processes are isolated from business or functional experts. It is crucial that subject-matter experts—not just purchasing experts—be responsible for helping select and negotiate with external partners, to ensure that outsourcing efforts cover the right capabilities on appropriate terms. We helped one

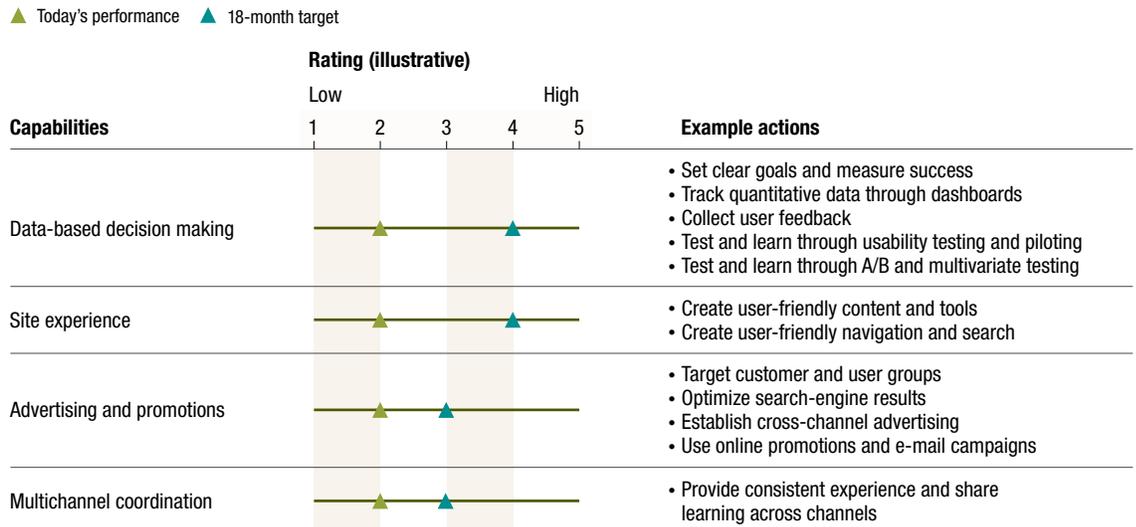
⁵Federal Procurement Data System.

⁶Leading analytics firms were based on rankings in TopSEO. Leading digital-marketing and design firms were based on revenue as reported in Hoover's and AdAge.

Exhibit

Capability target setting

A scorecard can help agencies rate their Web capabilities and identify areas for investment.



agency identify a 65 percent reduction in Web-portal operating costs by involving its subject-matter experts in determining the scope of an outsourcing effort, the savings from which will be used to fund future initiatives or reduce operating budgets.

Agencies can identify the gaps in their capabilities and set targets by developing a scorecard that lists categories of capabilities and actions relating to each, as shown in the exhibit. For each action listed, the agency should specify detailed criteria for staff members to use as a basis for rating their current performance and setting improvement targets.

Adopting “open innovation” and user participation

Strengthening governance and capabilities will not only improve existing content and services but also help lay the foundation for pursuing Web 2.0 technologies. A shift from a “publishing” to a “sharing” mind-set—one that embraces user participation—must happen within government agencies.⁷

Some agencies across the globe are leading the way. One high-profile example in the United States is the District of Columbia’s “Apps for Democracy,” a contest to encourage developers to create applications that would give residents access to data such as crime reports and pothole repair schedules. Forty-seven applications were created in 30 days. Hiring contract developers would have cost approximately \$2.6 million, whereas the cost of running the contest was a mere \$50,000. The US government has also shown a willingness to accept outside innovation. For example, it adopted software code developed by a nonprofit organization for USAspending.gov, a database of government grants and contracts. The government had initially estimated that it would cost \$10 million to create the database and \$2 million a year to maintain it, but it adopted the code developed by OMB Watch to run FedSpending.org, which had been funded through a \$334,272 grant.⁸

Elsewhere in the world, a European health authority has developed, with our support, an information architecture that allows health care providers to

⁷See Michael Chui, Andy Miller, and Roger P. Roberts, “Six ways to make Web 2.0 work,” *mckinseyquarterly.com*, February 2009.

⁸The grant was provided by the Sunlight Foundation over a three-year period; roughly \$200,000 from the grant was used to pay for the initial launch of the Web site.

access aggregated data and build tailored applications to improve clinical care. In another example, the South Korean government’s “ePeople” site invites civil petitions online (for example, policy suggestions or corruption complaints), moderates online discussion of submitted petitions, and reports back on its decisions.

Moreover, governments can use Web 2.0 technologies to break down barriers between and within organizations. For example, the US intelligence community has created Intellipedia to share information among previously unconnected organizations, while the US Food and Drug Administration employed Web 2.0 tools to better engage and capture the knowledge of its internal experts.

How can the shift in mind-sets be achieved to enable Web 2.0 initiatives such as these across more government agencies? Agency leaders, both line-of-business and IT, must embrace third-party innovation and participation. They must communicate the benefits of these efforts, encourage risk taking, and enhance the capabilities of their staff to implement these initiatives—for example, by ensuring that they have both the “soft” skills to manage informal networks of partners and the “hard” skills to connect government data with external systems.

To reinforce these mind-set shifts, agencies must reward externally sourced innovation as much as they reward producing applications and content internally, the way P&G has done. A well-known advocate of open innovation—that is, sourcing innovative ideas from outside an organization—P&G CEO A. G. Lafley set the tone from the top when he

publicly announced the goal to have 50 percent of P&G’s innovations come from outside the company.⁹

From a technology standpoint, achieving the benefits of open innovation and participation requires IT security systems and policies to ensure that public systems are appropriately protected. Many of these systems and policies have already been developed and are being used in the private sector to balance the estimated return on investment with the probability-adjusted risk of loss (tangible and intangible) from a security risk.



To embark on the journey to the next level of e-government, public-sector organizations should begin by estimating the cost and time required to achieve their agreed-upon business goals, taking into account realistic user adoption rates, usage, and impact on other channels (for example, reduction in paper-based forms). Agencies should then ensure that their governance models emphasize line-of-business accountability and develop a plan to address capability gaps, particularly in areas such as Web analytics and usability. Based on a comparison with successful innovators in the public and private sectors, they should also assess their technological and organizational readiness to open data and systems to outside developers and to use participatory Web 2.0 tools. By taking these steps, agencies will begin charting their path to the next horizons of e-government. ○

⁹In fact, because solutions outside the organization often move more quickly from concept to market, reward systems that consider speed of development could favor innovations from the outside.