TechAmerica
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On

Government 2.0: Advancing America into the 21st Century and a Digital Future

Chairman Carper, Senator McCain, distinguished members of the subcommittee, my name is Phil Bond and I am president of TechAmerica. Thank you for giving us this opportunity to testify today and to provide technology industry's perspective on *Government 2.0: Advancing America into the 21st Century and a Digital Future.*

TechAmerica is a trade association formed by the January merger of three major technology industry associations – the Information Technology Association of America (ITAA), AeA (formerly the American Electronics Association), and the Government Electronics and IT Association (GEIA). The new entity brings together over 1,500 member companies in an alliance that spans the grass-roots – with operations in nearly every U.S. state -- and the global, with relationships with over 70 national IT associations around the globe. TechAmerica is the largest advocacy organization for the U.S. technology industry, which is the driving force behind productivity growth and jobs creation in the United States and the foundation of the global innovation economy.

Today, I am here to highlight the opportunities within government to increase use of new technologies and management practices based on the concepts of collaboration, transparency, and connection.

We are now living in an age of the empowered citizen, voter, and worker. This is a global phenomenon, propelled first by the establishment of telecommunications networks and mass-market hardware, made

possible by the growth of the Internet, and now reaching critical mass with widespread adoption of peer networks and Web 2.0 technologies, and the increased use of social software and networking.[1]

As we look at data on the macro-environment, the Internet now counts almost 1 billion users. Almost one-third of the world's population will be on the Web by 2011. There will be 4 billion mobile phone subscribers worldwide by the end of this year. Users of such networks and devices want to connect with each other, to improve their work, family, and social lives, and to have a voice in governing their countries.

The technologies that facilitate such connections go by many names but are commonly categorized as "Web 2.0." Web 2.0 technologies are built into many social media, software, and networking sites and applications. Among the tools in this domain are collaborative, deliberative, and peer networks and social, messaging, and chat software. Essentially, these are tools for interacting and sharing data with other users on a network. Concepts often related to social computing include, among others, cloud computing and enterprise 2.0. These concepts are more related to delivery of fully-formed software applications and services over the Internet.

TechAmerica believes that the federal government, as well as its state and local partners, have important roles to play in spurring further innovation in, and adoption of, these technologies. The Committee should consider ways to further encourage acquisition and use of new communications tools and adoption of management practices to help governments be more responsive to citizens, employees, and other stakeholders. The Committee can also play a critical role in reducing stovepipes and barriers within the Federal government that slow down the adoption of these newer technologies.

Overseas, we are seeing examples of networked governments and agencies using social computing to create new ways of interacting with constituents and creating different ways of doing business. Some examples of novel uses of social software and related technologies are:

- Statistics Canada uses the web to conduct portions of the census and makes much of its data available for review and download. Their site has become highly interactive with featured areas for schoolchildren, environmentalists, and researchers.[2]

- Political leaders, such as U.K. Foreign Secretary David Miliband, Hungarian Prime Minister Ferenc Gyurcsany, and Australian Leader of the Opposition Malcolm Turnbull, have used blogs to build an unmediated relationship with citizens.[3]

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[1] A near-comprehensive overview of social computing technologies is available on Wikipedia.org - http://en.wikipedia.org/wiki/Social_software_(computer_software)

[2] http://www.statcan.gc.ca/start-debut-eng.html

[3] https://blogs.fco.gov.uk/roller/miliband/; http://www.kapcsolat.hu/blog/gyurcsany; http://www.malcolmturnbull.com.au/Pages/Headlines.aspx?SectionID=3

- New Zealand has launched an "e-initiatives" wiki, which replaced an older, static reporting approach to tracking progress of e-government, and provides an environment for public servants to share e-government experiences. It now covers more than 530 projects from 93 government organizations.

- The United Kingdom's Department for International Development has set up a group blog, written by frontline staff, as a way of giving citizens new insights into the work of the department.[4]

- As of April 24, more than 475,000 people are following the daily activities of the U.K. Prime Minister via Twitter.[5]

- Sweden has opened a virtual embassy on Second Life.

Likewise, many states and localities have begun to tap the power of social interaction via networks:

- Former Washington, DC CTO Vivek Kundra, who is now the federal CIO, made District of Columbia data sets freely available for download, so that users might develop applications to better analyze the data and share information with the public.[6]

- The Commonwealth of Virginia is using social software to connect and inform its citizens with RSS feeds. Virginia offers its citizens over 34 different kinds of feeds including feeds for local news, employment opportunities and legislative information. Many Departments of state government post videos to YouTube.[7]

- Oakland County, Michigan has set up a website that combines videos, user forums, and blogs as a way of encouraging dialogue with and between its citizens.[8]

- Fairfax County has extensive online services for constituents, including immediate posting of Council meeting proceedings to YouTube.

- The State of California Franchise Tax Board used a YouTube video to explain tax regulations.

- As the Dakotas braced for the impact of the rising Red River, citizens across North Dakota, South Dakota, Minnesota and Montana, prepared by sharing information on web and video blogs, on local news web sites, and via social networking sites.

- Los Angeles-area first responders used Twitter and Google Earth to coordinate resources to respond to seasonal wildfires last year. The LA Fire Department now uses Twitter to obtain and share actionable on-scene updates and intelligence.[9]

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[4] http://blogs.dfid.gov.uk/

[5] http://twitter.com/DowningStreet

[6] http://dcstat.octo.dc.gov/dcstat/cwp/view,a,1204,q,491676,dcstatNav,%7C30916%7C.asp

[7] http://www.virginia.gov/cmsportal3/stay_connected_4096/index.html

[8] http://www.oakgov.com/index.html

As we look forward, we must recognize that these networks and software applications are just past the point of early growth. Users of Twitter number in the range of 10 million, while Facebook enjoys an estimated base of 200 million. Comparisons with the current global bases of personal computers and cell phones, and Internet users, point to the potential for a steep growth curve for social networks and software in the near future. TechAmerica sees such networks and applications as another engine of economic growth and job creation that has made our economy and technology sector the most dynamic, innovative, and competitive in the world.

Challenges to Rapid Growth and Adoption of Social Computing
To fully realize the potential growth of connected government in the United States, impediments to both constituent and government adoption must be addressed and mitigated. Factors that will work against use of social networking and software applications by the broadest possible base of constituents and other users include:

The U.S. lead in technology innovation and technology-based transformation is slipping. While Silicon Valley and other hotbeds of technology activity continue to produce new software concepts and thriving technology firms based on those concepts, there is little doubt that the scientific and business climates in America are not as conducive as they once were to entrepreneurship in our industry.

Last year, for the first time, the U.S. Patent & Trademark Office issued more patents to foreigners than to Americans. According to Business Week magazine, the rest of the world is expected to widen its lead over the U.S. as manufacturing and research and development continue to migrate to emerging markets.[10] Other recent reports also show the U.S. losing its innovation edge. A study by the National Association of Manufacturers and Boston Consulting Group that ranks the U.S. eighth, with Singapore, South Korea, and Switzerland at the top.[11]

Countries around the globe, and trading blocs such as the European Union, are setting their sights on closing the innovation gap with the United States through technology-enabled transformation. In 2005, the European Commission announced its i2010 policy framework. The i2010 strategy promotes the positive contribution that information and communication technologies (ICT) can make to the economy, society and personal quality of life. The goals of i2010 are to create a Single European Information Space, which promotes an open and competitive internal market for information society and media services, to strengthen investment and innovation in ICT research, and to support inclusion, better public services and quality of life through the use of ICT. The plan focuses new investment in areas such as broadband, e-Government, and digital literacy. [12]

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[9] http://twittermail.com/person/LAFD;

[10] Arndt, Michael, "The U.S. is losing its lead in Patents" *Business Week*, April 22, 2009
http://www.businessweek.com/innovate/content/apr2009/id20090422_521441.htm?chan=innovation_innovation+%2B+design_top+stories

[11] Boston Consulting Group/National Association of Manufacturers Innovation Index, March 2009
http://www.bcg.com/about_bcg/media_center/press_releases.jsp?id=2877

[12] http://ec.europa.eu/information_society/eeurope/i2010/inclusion/index_en.htm

Information security concerns can be an impediment to adoption. As a result of cybersecurity and information assurance concerns, many agencies are hesitant to use social networking, file sharing, remote access, and other Web 2.0 tools. Good security practices must be built into the architecture of all agency applications and the business processes supported by those applications. A government-wide cybersecurity strategy based on a risk management approach, and an increased focus on cybersecurity research and development, will allow social computing tools to be more widely and safely deployed in the government.

Other countries are using social software and networking tools to drive innovation in government service delivery and engagement with members of the public. If our government cybersecurity strategy, or lack thereof, prevent federal, state and local governments from taking advantages of these tools, the U.S. could see erosion in its market leadership in this field.

The need for increased access to broadband services. Despite continued deployment of broadband to Americans, some parts of our country have been left behind. If these citizens don't get broadband, they won't be able to take advantage of its numerous benefits, including using e-government social networking and software applications. The benefits of e-government are one of the many reasons cited for the investments in broadband our government has undertaken.

In the American Recovery and Reinvestment Act of 2009, the government outlayed $7.2 billion in money to spur broadband deployment and to encourage uptake of broadband in communities where it already exists. E-government is not just a reason for broadband deployment – it can also be a driver of broadband uptake, which will help in building out next generation networks.

It is important in looking at broadband and its benefits that we look not just at fixed broadband solutions, but also at mobile broadband. As I stated earlier in my testimony, over 4 billion people have mobile phone devices worldwide. Every day, more and more of these devices become broadband enabled. As these devices become broadband enabled, they are often serving as key communications devices and enable civilian communications with the government in times of critical need. Just looking at the work of our first responders in Los Angeles, and their use of Twitter and Google Earth, just touches on the emergency management capabilities of social networking and Web 2.0 enabled mobile devices. Getting mobile broadband to our communities is the necessary first step.

A lack of identity management policy and tools. Identity is at the heart of our current transformation into the digital age. In the private sector, we must have trust in identity for businesses and their customers to expand online consumer service offerings. Likewise, the array and utility of government services delivered digitally will be diminished without a secure electronic means of identification for use by people accessing public services. Some countries are now offering benefits cards to create a trusted identity for e-government transactions. Others are using cell phones, knowledge-based authentication techniques, and digital signatures to created trusted identities. For example, Estonia was the first country to allow online voting for their 2007 parliamentary election. Over 30,000 of their 940,000 voters used a government-issued electronic ID card to vote online. Besides Estonia, Austria, Belgium, Finland, Portugal, Sweden, France, and many other countries have established some form of e-identity to create a trusted relationship for e-government activities.

State and local government tax policy. Several state governments are seeking to levy new sales taxes on Internet advertising. Advertising revenues are the lifeblood of the vast majority of social media and networking sites. Much of the legislation is premised on re-defining the parameters for maintaining a "nexus" (or physical presence) in the state, to include media affiliates who advertise on in-state websites to drive traffic to an out-of-state retailer. Under the new laws, simply placing advertising on a web site

available in the state constitutes a physical presence. One such bill passed in the 2008 New York state legislative session, prompting over 200 advertisers to pull out of online advertising arrangements that would expose their products and services to residents of the state.[13]

Whether placing discriminatory taxes on high tech products, services, or medium; or the potential repeal of taxes that cause greater challenges for the US technology to compete, tax policy is a critical part of our industry's ability to ably compete. And yet, in these times of greater revenue demand by localities, states and the federal government changes to tax policy are being considered that while perhaps raising some revenue now would severely challenge the ability of this country to stay on leading edge of innovation, hence leading to a longer term decline in revenue. These short-sighted, short-term gains must not be allowed to take hold and rather correct tax policies must put in place, or allowed to remain in place, so that our long term ability to lead is supported.

Empowering U.S. Government Adoption and Use of Social Computing
As the Committee considers options to enable the use of more networks and the technologies that will empower government through greater openness and enhanced collaboration among agency employees, private sector partners, and constituents, we suggest that Members and staff review some of the core issues and impediments to federal government adoption of social software:

- **Low level and disjointed funding for enterprise-wide technology solutions.** The very size of the federal IT budget, the "stove-piped" nature of its programs, combined with the short-term focus of the appropriation and authorization processes, make it very hard to sustain a long-term technology acquisition strategy across the span of the government. The government's web initiatives have long been under-funded, or subject to last-minute cuts, although the federal CIO Council has done yeoman's work in pushing such projects forward.

- **Government technology acquisition practices are not suited to subscription to social networking services or software.** Many social networking sites and software vendors require account owners to agree to terms of service that federal agencies cannot agree to, including indemnity, cost of defense, applicable law, and court jurisdiction contract clauses.

- **Government acquisition practices do not allow agencies to keep up with the pace of technology innovation.** The government's inability to quickly and nimbly purchase products often leaves it with out-dated technologies. In today's environment, technology is constantly evolving; in fact, the refresh life span of many technologies is less than 18 months. A technology that is cutting edge today will almost certainly be surpassed by new innovations within a two-year period. Many government acquisition policies do not allow agencies to keep up with the rapidly changing face of technology.

- **The broad base of legacy systems and disparate IT infrastructure make information sharing difficult.** There remains a wide and complex array of technology infrastructure, even within a single agency and its regional offices. While social networking and web sites are easily accessible to most end-users via a web browser, more complex applications such as collaboration software, video editing, and virtual worlds require late-model hardware and software.

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[13] Netchoice coalition - http://blog.netchoice.org/2009/04/the-minnesota-affiliate-nexus-tax-or-how-to-kill-online-advertising-in-one-easy-step.html

- **Inconsistent social software availability and access policy across federal agencies.** Without uniform policies allowing for employee access to various social media sites and networks, any concerted effort to encourage federal agencies to engage in more use of social computing tools will begin with one hand tied.

- **Restrictions on public access to data.** Significant portions of more than 1,000 U.S. government agency websites still cannot be searched despite laws – including the E-Government Act of 2002 and the Federal Funding Accountability and Transparency Act of 2006 – mandating transparency through the use of "Sitemaps."

Research released recently by the National Defense University points to the scale of the federal bureaucracy, government employee demographics, and information assurance and security concerns as additional impediments.[14]

Recommendations

We will reserve our recommendations to those areas under the Committee's purview; touching on factors that, if properly addressed by Congress and the Administration, would spur federal government adoption of the communications tools discussed in this testimony and promote the wise use of such tools:

1. We second the guidance of the Federal Web Managers Council, who in December, 2008, called for the Administration to "communicate a government-wide strategy for using social media tools to create a more effective and transparent government." We agree that the Administration's Chief Technology Officer (CTO), working in conjunction with OMB and the CIO, should require each agency to develop a social software/networking communications strategy that describes how it will use the agency website and selected social software tools to support its mission, reach new audiences, and engage the public.[15]

2. OPM should update federal guidance on the use of social networks and software for government employees and contractors, as well as use by tele-workers. We believe that such tools, which would include messaging and collaboration software, virtual reality applications, and web video, will be an arrow in the policy quiver for driving increased adoption of tele-work practices within federal agencies.

3. Federal agencies exploring the deployment of social computing tools might take a page from NASA, EPA, and other leading-edge users by committing senior executive-level support for use of such tools and developing a governance process to institutionalize the use of the tools. Informal committees or user groups can be used to assure that agency resources are being well-used.

4. Explore share-in-savings procurement approaches that enable agencies to keep savings for innovative service delivery approaches. Allow a percentage of savings to go into a shared

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[14] "Social Software and National Security: An Initial Net Assessment," by Mark Drapeau and Linton Wells II, with the Center for Technology and National Security Policy, National Defense University

[15] Recommendations of the Federal Web Managers Council, "Social Media and the Federal Government: Perceived and Real Barriers and Potential Solutions," December 23, 2008
http://www.usa.gov/webcontent/documents/SocialMediaFed%20Govt_BarriersPotentialSolutions.pdf

services pool for enterprise-wide contracting and deployment of enterprise-wide technologies used for information sharing.

5. We concur again with the Federal Web Managers Council in urging the Administration to establish "a single terms of service that covers all social media sites, which excludes the federal government from the provisions in contracts to which federal agencies cannot subscribe." Congress and the Administration should encourage more programs like GSA's recently-announced contract with Facebook, which addresses the legal challenges inherent in government use of social media sites and software.[16]

The changes driven by social computing will have a profound impact on the way people live and work – the way we share experiences and communicate with the people; the way we preserve memories and materials; the way we learn; and how we interact with our communities and our governments.

The United States, led by the federal government, should continue to push the envelope in areas of computer science where we hold market leadership. Driving continued innovation is an important priority for TechAmerica and our members. When I reached out to several of our members for assistance with gathering case studies, I received very prompt and informative responses and I'd like to specifically thank Cisco, Gemalto, Google, IBM, and SAP for their input.

I wish to commend the Committee for its efforts to review the policies of the U.S. Government as they relate to Web 2.0 and offer our services to Members and staff as a resource on the issues.

Thank you for the opportunity to share my perspective on these issues with you this morning. I'd be happy to respond to any questions you may have on these topics.

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[16] Beizer, Doug, "GSA signs agreement with Facebook" April 10, 2009
http://www.fcw.com/Articles/2009/04/10/Web-Facebook-GSA.aspx