Panel
E-Government: Services for Everyone, Everywhere, Eventually

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Abstract

Online provision of government services has great potential for reducing costs, improving service, and increasing citizen participation in government, but it has not yet achieved this potential. A panel of E-government experts from the U.S. and U.K. will assess the status of e-government, discuss obstacles that keep it from being ubiquitous and accessible, offer solutions, and answer audience questions. Some of the panelists work in government, some work in consultancies that assist government agencies, and some are ICT public policy experts.

Keywords

Online government services, electronic government, e-government, public information technology, government websites, electronic democracy, accessibility, universal access, privacy, security

ACM Classification Keywords

J.1. Administrative Data Processing – Government; K.4.1. Public Policy Issues; K.4.2. Social Issues.

General Terms

Design, Economics, Legal Aspects, Security.

Introduction

In the USA and UK, government agencies at all levels have begun providing services via the Internet. Until recently, "online government" has been limited to provision of static reports and statistics. The trend now is to lessen or eliminate the need to visit government offices or mail in paper application forms. Increasingly, citizens can pay taxes, file complaints, renew licenses, and perform other functions online. This is often called "electronic government" (e-government).

However, there are many challenges to implementing e-government. First is the reality that not all citizens have access to the Internet or want to use it for communicating with government. Some prefer interacting in person, or dislike computers, or don't have computers or Internet access. Studies by the Pew Internet and American Life project found that Internet access in homes in the U.S. is *far* from universal [1, 2].

A second challenge for e-government is concern about security and privacy. Every month, stories appear in the media about how supposedly-secure sites were hacked and data records were compromised. Crooks also send people "phishing" e-mails that mimic valid government e-mails, to gather private user data.

A third challenge is universal usability. By law in the U.S. (Section 508) and U.K. (Disability Discrimination Act), all national online government services must be accessible by people with disabilities. Many U.S. states have similar laws. Nonetheless, many government Web sites are not fully accessible [3]. Furthermore, U.S. law on accessibility for private Web sites is unclear, causing confusion about legal requirements [4].

A fourth challenge for e-government is whether outsourcing of services is possible or prudent. Some government agencies are embracing "cloud computing" [5], but there are security concerns about doing so.

Purpose of Panel

The proposed panel is an effort by the SIGCHI U.S. Public Policy Committee to educate the CHI community about the state of e-government in the U.S. and U.K.: best practices, lessons learned, and opportunities for HCI experts to contribute expertise to policymaking.

Panel Discussion Topic

The panelists will discuss the following question, which has two sub-questions:

Main Question: *What obstacles hinder e-government services from becoming as ubiquitous as, say, mobile phone usage?*

Sub-question 1: *Why aren't more government Web sites accessible, since they are required by law to be?*

Sub-question 2: *Why do high-profile breaches of private information occur, eroding public trust? What can be done to prevent it?*

Panelist Statements

Prof. Jonathan Lazar, Comp. & IS Dept., Towson U.

Reasons why government services online continue to disappoint users include the following:

1. Public policy on usability, expressed in laws like Section 508 and its equivalent at state and local levels, is limited. Where laws exist, they are often

ignored by Web developers, and processes to increase compliance are limited.

2. Some federal agencies provide excellent e-govt services, but many services people need and would use on a regular basis (such as paying water bills or checking permit status) are based at the city and state levels, where user-centered design is rarer.

3. Usability and user-centered design (UCD) are often overlooked in e-govt because Web developers and project managers were not taught about it. HCI and usability are ignored in national curriculum models for CS, IS, public policy, and political science.

Catherine Jamal, M.S., Emergency Web Team, Office of Public Health Preparedness & Response, Centers for Disease Control and Prevention (CDC)

CDC uses websites and Web 2.0 products to give people access to credible and science-based health information. During the recent H1N1 outbreak, CDC's website received record-breaking traffic and surveys showed a high level of user satisfaction. Customer surveys show that CDC.gov visitors who use our Web 2.0 products are more satisfied than those who don't.

In creating online services, CDC follows a user-centered design process that incorporates research findings, usability testing, and iterative design.

To improve our e-government services, we look forward to updates in cookie and OMB restrictions, increased funding for planning and development, and a faster approval process for the adoption of new technologies.

Prof. Paul T. Jaeger, CIPEG Director, U. of Maryland

The effectiveness of e-government depends largely on the extent to which the it is user-centered. E-government does not effectively serve users if they cannot find what they need due to poor functionality, usability, accessibility, literacy, trust, and organization, etc. User-centered design and evaluation are therefore key factors in the development and management of e-government. However, e-government is often considered a cost-saving means, undermining the incentive to meet user needs. A key example is the poor compliance with Section 508, seen by government Web developers as costly and time-consuming rather than as a way to better serve users.

To increase usage of e-government while achieving savings, governments must determine what citizens want, meet those requirements, and update this understanding periodically. This requires a cultural shift from a focus on efficiency to a focus on user needs.

Caroline Jarrett, Forms Expert, Effortmark Ltd (UK)

E-government does not exist in a vacuum, separately from government in general. Citizens must comply with their obligations whether on- or offline. Governments in developed countries are encouraging citizens to interact with them electronically to save costs.

But how successful are the interactions? In a recent study for a UK government agency, I found across a range of information-seeking tasks that 67% of participants succeeded, but 20% got a partially correct answer or gave up. This corroborated a 2008 study in UK local government, where 21% of Web visitors failed to find what they sought [6]. These failed visits

represent extra cost, as these citizens must then try another channel. UK government has started to monitor and track these costs [7].

A more worrying finding was the 13% of attempts that resulted in wrong answers. Such citizens would *not* try to contact the agency another way; they would act inappropriately based on faulty information.

E-government interaction alone is not a success measure; we need to focus on the quality of interactions, and on what happens if interactions are partially or wholly unsuccessful.

Sharon Laskowski, Usability Group Manager, NIST

The US government buys large amounts of software, creates websites and applications to support its missions, and mandates information technology standards, e.g., for voting systems and healthcare. Easy access to government information by citizens and government workers, as long as it preserves privacy and security, is a critical part of this. Just as more businesses are relying on e-commerce, the Federal government is turning to e-government.

The Internet is seen by many as an efficient way to provide information and services and, hence, to improve and lower the cost of government operations. However, there is a difference between e-government and e-commerce. If a user cannot navigate a particular commercial site, another site offering similar services is likely available. This is not the case with government. Security and privacy policies add additional user interface complexity.

There are major usability issues for "every-citizen" interfaces, especially for an aging population and those with disabilities. By developing standards and usability test methodologies for public systems, government can lead in developing and applying best practices to improve the user experience.

References

[1] Horrigan, J. (2009). Home Broadband Adoption 2009. Web: http://www.pewinternet.org/Reports/2009/10-Home-Broadband-Adoption-2009.aspx

[2] Rainie, L. (2003). The Ever-Shifting Internet Population: A new look at Internet access and the digital divide. Web: http://www.pewinternet.org/Reports/2003/The-EverShifting-Internet-Population-A-new-look-at-Internet-access-and-the-digital-divide/01-Summary-of-Findings.aspx

[3] Jaeger, P. (2006). Assessing section 508 compliance on federal e-government web sites: a multi-method, user-centered evaluation of accessibility for persons with disabilities. *Government Information Quarterly*, 23, 169-190.

[4] Lazar, J., Dudley-Sponaugle, A., and Greenidge, K. (2004). Improving Web Accessibility: A Study of Webmaster Perceptions. *Computers and Human Behavior*, 20(2), 269-288.

[5] Claburn, T. (2009). Government Embraces Cloud Computing. *InformationWeek*, September 15, 2009. Web: http://www.informationweek.com/news/government/cloudsaas/showArticle.jhtml?articleID=220000493

[6] Socitm (2008) Building Usage of council websites – Issue 7. A Socitm Insight publication.

[7] National Indicators for Local Authorities and Local Authority Partnerships: Handbook of Definitions (Source CLG: Feb 2008).