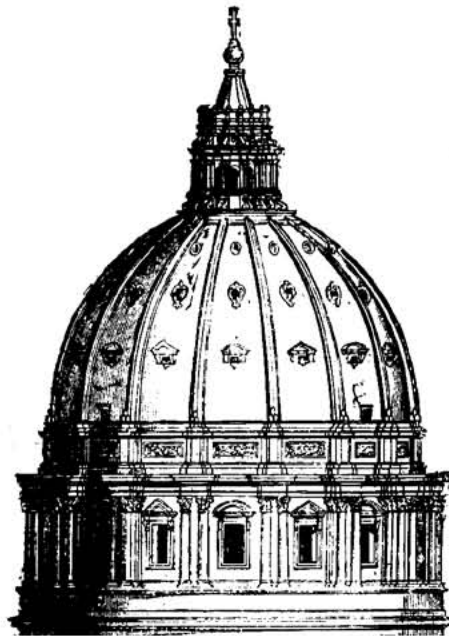


ISSUE BRIEF #4/2012



Government Mobile Apps Proliferate

BY DEBORAH COLLIER & AARON SWENSON
Citizens Against Government Waste



1301 Pennsylvania Avenue, N.W.
Suite 1075
Washington, D.C. 20004

1-800-BE-ANGRY

www.cagw.org

CITIZENS AGAINST GOVERNMENT WASTE

Citizens Against Government Waste (CAGW) is a private, nonprofit, nonpartisan organization dedicated to educating the American public about waste, mismanagement, and inefficiency in the federal government.

CAGW was founded in 1984 by J. Peter Grace and nationally-syndicated columnist Jack Anderson to build support for implementation of the Grace Commission recommendations and other waste-cutting proposals. Since its inception, CAGW has been at the forefront of the fight for efficiency, economy, and accountability in government.

CAGW has more than one million members and supporters nationwide. Since 1986, CAGW and its members have helped save taxpayers more than \$1 trillion.

CAGW publishes a newsletter, Government Waste Watch, and produces special reports, and monographs examining government waste and what citizens can do to stop it.

CAGW is classified as a Section 501(c)(3) organization under the Internal Revenue Code of 1954 and is recognized as a publicly-supported organization described in Section 509(a)(1) and 170(b)(A)(vi) of the code. Individuals, corporations, companies, associations, and foundations are eligible to support the work of CAGW through tax-deductible gifts.

1301 Pennsylvania Avenue, NW
Suite 1075
Washington, DC 20004
1-800-BE-ANGRY
www.cagw.org

Government Mobile Apps Proliferate

INTRODUCTION

The government mobile app world started simply enough in 2009 with the creation of *AIDS.gov*. The site was intended to assist individuals in accessing a broad array of information about HIV, including policies, programs and other resources. In March 2010, the federal government deployed *USA.gov's* mobile website, a one-stop shop for information about the federal government. This rather modest attempt to relay information to the public via websites accessible on mobile devices has proliferated into more than 120 applications that address everything from basic medical information to tours of museums to games to use as learning tools.

Even as the number of mobile apps has grown, since June 2011 the federal government has reduced the number of duplicative federal websites as part of the Obama administration's Campaign to Cut Waste.¹ A White House blog post on June 13, 2011, noted that many federal websites are duplicative or obsolete, and the number of *.gov* sites should be pared down.² A July 12, 2012, Congressional Research Service memo indicated that this effort has reduced the number of government-owned websites by 300.³

On May 23, 2012, the Obama administration announced its 21st Century Digital Government initiative, which encourages federal agencies to deploy at least two "key government services" onto mobile devices within the next 12 months.⁴ This issue brief explores the current proliferation of mobile apps in government including, where available, the cost to develop these apps and the appropriateness of continued mobile app development based on the potential benefit each app provides to taxpayers.

Citizens Against Government Waste (CAGW) began reporting on these apps in July 2011, when CAGW's Technology Policy Director Deborah Collier wrote:

While the USA.gov website claims that these applications are currently free of charge, don't be fooled. your taxpayer dollars have paid for a federal employee to create these apps, and your taxpayer dollars are underwriting the website that hosts them.

¹ Molly Bernhart Walker, "White House launches Campaign to Cut Waste," *FierceGovernment*, June 13, 2011, <http://www.fierceregovernment.com/story/white-house-launches-campaign-cut-waste/2011-06-13>.

² Macon Phillips, "TooManyWebsites.gov," The White House Blog, June 13, 2011, <http://www.whitehouse.gov/blog/2011/06/13/toomanywebsitesgov>.

³ "Information Relating to the Implementation of Executive Order 13576, 'Delivering an Efficient, Effective, and Accountable Government'," Congressional Research Service Memo to Senator Tom Coburn, June 12, 2012, http://www.coburn.senate.gov/public/index.cfm?a=Files.Serve&File_id=83c583b7-8c33-4f23-a1b5-275bb1cb2446.

⁴ "Presidential Memorandum: Building a 21st Century Digital Government," May 23, 2012, <http://www.whitehouse.gov/the-press-office/2012/05/23/presidential-memorandum-building-21st-century-digital-government>.

Government Mobile Apps Proliferate

TRANSPARENCY IN COST

Although it is easy to find available apps through the *USA.gov* website, it is much more difficult to discern the expenditure to develop each app. Searches on sites such as Federal Business Opportunities (*fedbizops*), the Federal Register and *USAspending.gov* have revealed scant cost information.

Some information is available regarding mobile apps developed by individual agencies. For example, the Department of Energy's "apps for energy" competition calls on applicants to design mobile apps that provide the best use of the agency's Green Button data to help consumers reduce energy costs. The top award of \$30,000 was won by Leaffully, which designed an app to allow customers to visualize energy use in terms of trees and share their energy usage with their friends on Facebook. The second place award of \$15,000 went to Melon Power for its app to help building managers with their energy usage, and third place was awarded to Zerofootprint's app for utility bill visualization.⁵

In April 2012, the Department of Commerce announced an app development contest, which awarded a total of \$10,000 in prizes for ideas that will help businesses grow and create jobs.⁶ On July 20, 2012, the Department announced the winning submissions. SizeUp won \$5,000 for first place for a business intelligence tool that uses both public and private data from hundreds of sources to provide small and medium sized businesses an overview of the competitive marketplace and information on available resources. ZoomProspector.com won \$3,000 for second place; the website helps new and expanding businesses compare and analyze communities and available properties nationwide. MyBusiness Toolbox took the \$2,000 award for third place for its mobile app developed for iPhones and iPads that provide small business owners with information related to either growing or starting their businesses.⁷

To better quantify the potential costs for mobile app development, a February 24, 2011 [article](#) in *Mashable.com* cites Aaron Maxwell, founder of mobile web design agency Mobile Web Up. He estimated that in order to design, implement and deploy a brand-quality iPhone app, a company can expect to spend at least \$30,000.⁸ It is likely that similar costs would be paid to develop apps for other mobile platforms, such as Android and Windows. In the article, Maxwell discussed the marketing capabilities of such mobile apps, but maintained that it is more important to decide first whether an

⁵ Jordan Hall, "U.S. Department of Energy Runs Apps for Energy Contest," *Energy Advantage*, June 1, 2012, <http://www.energyadvantage.com/blog/2012/06/u-s-department-of-energy-runs-apps-for-energy-contest/>.

⁶ Commerce Business Apps Challenge, U.S. Department of Commerce, <http://docbusinessapps.challenge.gov/updates>.

⁷ "Commerce Department Declares Winners in the Commerce Business Apps Challenge," U.S. Department of Commerce, July 20, 2012, <http://www.commerce.gov/blog/2012/07/20/commerce-department-declares-winners-commerce-business-apps-challenge>.

⁸ Aaron Maxwell, "Is Developing a Mobile App Worth the Cost?" *Mashable.com*, February 24, 2011, <http://mashable.com/2011/02/24/mobile-app-dev-cost/>.

Government Mobile Apps Proliferate

application is better suited for development as a mobile website that can be viewed by multiple types of Smartphones, or as an app that is only available on a specific mobile platform such as Android or iOS.

Additionally, an October 13, 2010, [blog post](#) on ScreamingToaster's software tutorial website *Developer Life* estimated that developing apps for each individual Smartphone platform ranges in price from \$10,000 to \$200,000, depending on the app's complexity and the number of modules created for the app. According to the article, the development of what the author refers to as "mobile web views," also known as mobile web apps, on average cost between \$1,000 and \$5,000 but, because they are typically simplified versions of standard websites, they may not perform as well as the existing web sites.⁹

With 120 working apps on the *USA.gov* website as of September 6, 2012, a "back-of-the-envelope" estimate on what the federal government spent on developing these mobile apps would be more than \$3.6 million at an average cost of \$30,000. However, without transparency in development and deployment of mobile apps, this figure will remain an estimate.

DUPLICATION OF PURPOSE AND MULTI-PLATFORM DEVELOPMENT

Reviewing the currently available apps on the *USA.gov* website provokes even more frustration with the development process. There appears to be little coordination when developing new apps, which has created duplicative offerings. For example, there are currently four apps designed to evaluate air quality, four apps for finding government jobs, three apps devoted to providing dietary and nutritional guidelines, two apps to assist individuals with stress, two apps devoted to helping individuals with smoking cessation, and two apps that track heat indices and recommend appropriate actions to avoid heat exhaustion. The Smithsonian Institution, the second largest promulgator of mobile apps, has 14 apps devoted to its various museums and exhibits.

Another disturbing trend in the development of government mobile apps is that many have been designed for a specific platform. More than 40 apps are exclusively available for the iPhone or iPad, whereas five mobile apps are accessible only on Android devices. Forty-four apps are available on the mobile web, which provides access to the application from any mobile device. If the government is going to create an app, it would certainly make sense to ensure that all apps that can be accessed on any mobile device.

⁹ Nazmul Idris, "How much should Android, Blackberry, iPhone App Development Cost? – Whitepaper," *Developer Life*, ScreamingToaster, October 13, 2010, <http://developerlife.com/theblog?p=1510>.

Government Mobile Apps Proliferate

In addition, creators of mobile apps should consider whether it would be better to spend their time and resources on developing what is known as a “mobile touch website,” which is a website designed to be used by Smartphones and tablets. A February 2, 2010, article in *ReadWriteWeb* described how this technology integrates across platforms rather than being tied to one specific operating system.¹⁰

One of the mobile apps examined by CAGW, the Social Security Administration’s (SSA) “Baby Name Playroom” app,¹¹ has now been removed from the *USA.gov* website. The “Baby Name Playroom” app not only provided a game application for individuals to select a baby name based on trends found by the SSA, but also provided links to various information about programs within SSA. The SSA no longer supports the app, but instead has re-developed the entire SSA website for use on mobile browsers, making information about SSA programs easier to find on all mobile devices. Another example is the Department of Education’s deployment of its mobile government app, *StudentAid.gov* on June 24, 2012. This mobile website can be accessed from any mobile browser regardless of the platform.

NON-ESSENTIAL AND DUPLICATIVE APPS

Some of the apps that have been developed by the federal government are not sensible. The Office of the Undersecretary of Defense developed a game app to teach contracting officers how to do their jobs under the guise of being secret agents working to buy supplies for their fellow spies.¹² It is unclear whether this app is for entertainment or training purposes. Either way, taxpayers should be concerned.

In the excitement of developing and deploying mobile apps, federal agencies seem to have lost sight of their overall mission to avoid wasting the taxpayers’ money. The Department of Health and Human Services, through its various research institutions such as the National Institutes of Health, National Cancer Institute and National Institute of Drug Abuse, as well as the Centers for Disease Control has 23 mobile apps. These include two separate apps designed to help individuals quit smoking as well as apps that check percentages of body fat and provide nutritional guidelines and other health information. The Smithsonian’s 14 separate mobile apps vary in scope from highlighting museums and exhibits to morphing an individual’s photograph into what they might look like as a Neanderthal. Various organizations within the Department of Defense have developed seven mobile apps, and the Environmental Protection Agency has deployed five mobile apps, including a mobile agency website

¹⁰ Richard MacManus, “Mobile App or Browser Based Site? Report says The Browser Will Win on Mobile,” *ReadWriteWeb*, February 2, 2010, http://www.readwriteweb.com/archives/mobile_app_or_browser-based_site.php.

¹¹ Alice Lipowicz, “What to name baby? SSA has a new Mobile App for That,” *Federal Computer Week*, June 20, 2011, <http://fcw.com/articles/2011/06/20/what-to-name-baby-ssa-mobile-app.aspx>.

¹² “Charge!” Office of the Undersecretary of Defense for Personnel and Readiness (OUSD P&R), December 14, 2011, <http://apps.usa.gov/charge.shtml>.

Government Mobile Apps Proliferate

and four individual apps to monitor heat indexes, indoor air quality, real-time air quality information, and waste management.

More apps are coming down the pike. The Air Force has issued a Request for Proposal (RFP) for an app to provide a quick reference guide to Vandenberg Air Force Base, and the National Cancer Institute has issued an RFP for a Smartphone application to provide sun protection advice to reduce the risk of skin cancer. Other competitions for new app development range from motor coach safety to mobile medical applications, hospital discharge follow-ups, health surveillance by medical personnel, and resource applications for the homeless.

The number of private sector mobile apps grows each day, as developers address consumer demand. In fact, many of the apps being created by the federal government have their counterparts in the private sector. For example, My-Food-a-Pedia,¹³ a mobile website app developed by the Department of Agriculture, serves the same function as the Food Plan function of Fitbit,¹⁴ one of several mobile apps available for mobile nutrition guidance. Both apps help users make healthy food choices. In addition, Fitbit adds in some of the qualities of the National Institutes of Health's BMI Calculator¹⁵ by allowing users to customize their profiles not just to calculate not just their body mass index, but also to provide information on water consumption and calories burned during activities.

PRIVACY CONCERNS FOR MOBILE APPS

Whether consumers are downloading government or non-government apps, they should be aware of the type of information gathered and maintained by the developers that may have long-term privacy ramifications. A July 5, 2012, article posted on *Science Daily* highlights data "scraping,"¹⁶ a practice by some app developers to imbed into a mobile app a program sub-routine with the ability to copy to the provider's servers information from a mobile device, such as the phone's identity, location, and sometimes even the user's contact list. Concerns about the privacy implications of data scraping have reached the White House, which on February 23, 2012 announced that it was developing a Consumer Online Privacy Bill of Rights.¹⁷ Although the initial proposal did not include explicit provisions about

¹³ "My-Food-a-Pedia," U.S. Department of Agriculture, June 22, 2012, <http://apps.usa.gov/myfood-a-pedia.shtml>.

¹⁴ "Every Day Review - Fitbit Activity and Calorie Tracker: Track Your Calories and Stay Fit with Your Smartphone," *iPhone, iPad & Android Apps Magazine*, Issue 20, p. 63, May 2012, www.knowyourapps.com.

¹⁵ "BMI Calculator," National Institutes of Health, April 4, 2010, <http://apps.usa.gov/bmi-app.shtml>.

¹⁶ University Saarland, "Privacy issues: Data abuse on certain mobile apps uncovered," *ScienceDaily*, July 5, 2012, <http://www.sciencedaily.com/releases/2012/07/120705133714.htm>.

¹⁷ "Consumer Data Privacy in a Networked World: A Framework for Protecting Privacy and Promoting Innovation in the Global Digital Economy," The White House, February 23, 2012, <http://www.whitehouse.gov/sites/default/files/privacy-final.pdf>.

Government Mobile Apps Proliferate

protecting data contained on mobile devices, *CNet* reported on June 15, 2012, that the administration planned to include mobile app privacy for consumers as part of the discussions on the Consumer Online Privacy Bill of Rights proposal.¹⁸ The article further noted that the National Telecommunications Information Administration was concerned that policies and practices surrounding the disclosure of consumer information have not kept pace with the rapid development of applications.

The public sector continues to face challenges in making certain security and privacy are included in the development of mobile apps, particularly those that store information about an individual's personal health. A June 6, 2012, article in *Fierce Government* noted that doctors at the Department of Veterans Affairs had created a mobile app and deployed it on iTunes without going through the department's chief information officer for approval.¹⁹ The app, "PTSD Coach," won numerous awards for helping veterans better manage their PTSD symptoms, but according to the article, did not have appropriate security features such as password protections to fully protect veterans' personal information. The article further noted that the General Services Administration is planning to implement best practices surrounding the development of government mobile apps.

In a July 9, 2012 [article](#) in *Government Computer News*, Senior Author William Jackson cautioned about downloading apps to mobile devices, suggesting that users choose only apps that meet their needs.²⁰ In particular, users should pay attention to the permissions requested by the app developer and exercise a degree of skepticism when viewing requests for overly broad permissions. Apps should only be downloaded from the regulated device marketplace. Jackson also recommended that users perform a "root"²¹ function in order to regain administrative access and control over their devices, and use mobile security products.

CONCLUSION

As government agencies move forward with mobile development, there should be more focus on transitioning to the mobile web while providing increased cost transparency. Taxpayers should not have to worry about whether their tax dollars are being wasted on mobile apps that are inefficient, duplicative, or simply frivolous.

¹⁸ Violet Blue, "First Privacy Bill of Rights Meeting: Mobile Apps Targeted," *CNet*, June 15, 2012, http://news.cnet.com/8301-13578_3-57454523-38/first-privacy-bill-of-rights-meeting-mobile-apps-targeted/.

¹⁹ Molly Bernhart Walker, "Agency App Development Could Be 'a Little Bit Painful,' Says Baker," *Fierce Government*, June 6, 2012, <http://www.fiercegovernments.com/story/agency-app-development-could-be-little-bit-painful-says-baker/2012-06-06>.

²⁰ William Jackson, "Managing Mobile Security: There is No Such Thing as a Free App," *Government Computer News*, July 9, 2012, <http://gcn.com/Articles/2012/07/16/Mobile-security-sidebar-no-app-is-free.aspx?Page=1>.

²¹ Kristen Waters, "What is Root in Computers?" *eHow tech*, September 1, 2011, http://www.ehow.com/info_12023982_root-computers.html.

Government Mobile Apps Proliferate

Far too many of the government's mobile apps are still available only on platform-specific devices, have questionable value and merit, and appear to be duplicative of apps already successfully functioning or developed by the private sector. Those that are available on multiple platforms or on the mobile web are aimed at specific groups, such as veterans, medical professionals, travelers, teachers, job seekers, or smokers and therefore have a limited audience.

These issues are especially problematic because taxpayers are footing the bill for mobile apps which they may not be able to access because the app was not developed for their specific mobile device's platform, or the app has a very limited scope of potential users. While CAGW estimates the cost of the 120 deployed mobile apps to be more than \$3.6 million, taxpayers are in the dark about the exact amount associated with the development of these mobile apps, and they deserve to know the answers.