



Testimony

of Morgan Reed

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before the

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Subcommittee on Oversight Hearing

on

Modernizing Information Delivery in the House

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Chairman Gingrey, Ranking Member Lofgren, and distinguished members of this Committee, I appreciate the opportunity to appear before you today to talk about technology that could increase the efficiency and effectiveness of communication within Congress.

I am the Executive Director of the Association for Competitive Technology (ACT). ACT is an advocacy and education organization for people who write software programs--referred to as application developers--and providers of information technology (IT) services. We represent over 3,000 small and mid-sized IT companies which includes a significant number of mobile app developers, and advocate for public policies that help our members leverage their intellectual assets to raise capital, create jobs, and innovate.

I am pleased to talk today about technology in the House of Representatives. This institution has undergone many changes in recent years and the decision to allow the use of iPads on the House floor and in official settings reflects the growing influence these devices have on our everyday lives. This merely scratches the surface of the range of possibilities available to House Members and their staff.

In discussing this hearing with committee staff, the question was posed whether the House could conduct official business, especially hearings, using modern technology, rather than the traditional binder, folder, or sheaf of loose-leaf pages. Could Committee Members could use an iPad, a Kindle, or other tablet device during a markup or hearing in the absence of paper? The answer is "of course".

But this isn't really the whole question. Instead the larger question to answer is: How can the House use technology to conduct official business in a way that's more efficient, informative, and transformative to the way Members of Congress do the work of representing their constituents?

"Transformative" may seem too broad a term, but we've witnessed at least two major "transformative" changes in the way the Congress works over the past twenty years - the rise of the internet and the adoption of the Blackberry. I am confident that mobile computing is a "third wave," one that will rival the congressional impact of the Blackberry and internet combined.

No Member of Congress can say that the Blackberry was simply a replacement for the telephone - it transformed the way members communicate with staff and receive information from the House. Similarly, none would claim the personal computer was just a new typewriter.

There is no doubt that mobile devices can provide improved access to information. The use of tablets like the iPad and Xoom has grown dramatically in the past two years, becoming integrated in every function of business communications. 17 Million of these devices were sold last year with nearly 70 million expected to sell in 2011¹.

Can Mobile Computing Be Transformative in Congress?

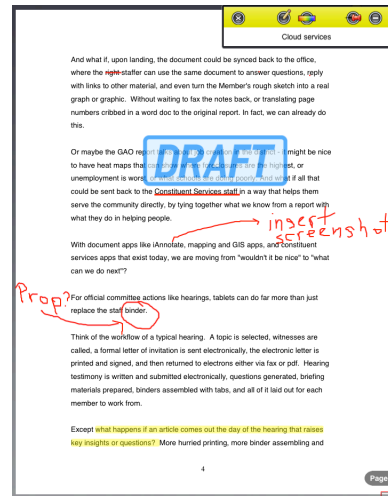
In that same way, iPad adoption on the Hill is spreading like wildfire, already transforming individual member offices. Members are using iPads, Kindles and Xooms to reduce their weekly travel burden from the heavy carry-on, to a sliver of a device.

While this reduction in carried paper is certainly nice, mobile apps, especially those tied to an enterprise infrastructure, are taking productivity and efficiency to a whole new level. Imagine a Member boards a plane with the latest GAO report containing information that needs to be analyzed and disseminated to constituents. What if the

¹ Gartner.com, Gartner Says Apple iOS to Dominate the Media Tablet Market Through 2015, <http://www.gartner.com/it/page.jsp?id=1626414> (last visited June 14, 2011)

Member could read the report, highlight sections, make notes, raise questions, or even use a fingertip to draw sketches and arrows.

And what if, upon landing, the document could be synced back to the office, where a staffer can use the same document to answer questions, reply with links to background material, and even turn the Member's rough sketch into a real graph or graphic. Without waiting to fax the notes back, or translating page numbers cribbed in a word doc to the original report. In fact, we can already do this.



iAnnotate

Or maybe the GAO report talks about job creation in the district - it might be nice to have heat maps that can show where foreclosures are the highest, or unemployment is worst, or what schools are doing poorly. And what if all that could be sent back to the Constituent Services staff, using what is gleaned from a report to help serve the community directly.

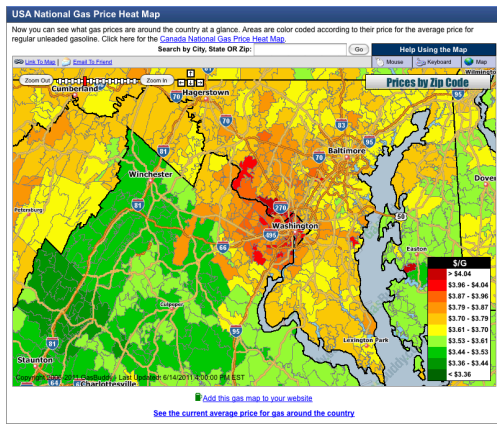
With products like iAnnotate, mapping and GIS apps, and constituent services applications that exist today, we are moving from "wouldn't it be nice" to "what can we do next"?

For official committee actions like hearings, tablets can do far more than just replace the staff binder.

Consider the workflow of a typical hearing. A topic is selected, witnesses are called, a formal letter of invitation is sent electronically, the electronic letter is printed and signed, and then returned to electrons either via fax or pdf. Hearing testimony is

written and submitted electronically, questions generated, briefing materials prepared, binders assembled with tabs, and all of it laid out for each member to work from.

Except what happens if an article comes out the day of the hearing that raises key insights or questions? More hurried printing, more binder assembling and question re-



Gas Prices Heat Map

printing. We all know that mobile computing can help reduce time and waste in this example, but it's not yet transformative.

So let's take that next step: what if a witness is presenting key data that is nationally important, but also should be viewed broken down by each Committee Member's district?

The Member's device can show them that

breakdown in real time and even in comparison based on how the Member likes to view the information – whether by pie chart, graph or spreadsheet.

Perhaps there is a markup occurring in another committee, so some Members leave to vote, while the others continue to question the witnesses. A tablet could provide a live video feed of the hearing or provide live written transcription of the questions asked, and the answers given, so as Members shuttle between hearings, they can keep up with the proceedings and are prepared to ask a vital follow-up instead of a question that has already been asked.

And what about a witness who says something not quite right? Instead of the Member wasting the short allotment of time looking for the right tab in a binder, or waiting for staff to track down information, what if the answer was no more than a swipe or click away. Better still, what if the staff could instantaneously highlight and link to the

countering point, without the hurried scramble and note passing we have today. Just think of the thumbs we would save by the reduction in Blackberry speed typing!

These are just a few of the ways technology can transform a hearing from an exercise in "if only I'd been able to ask" to one where members have the tools to dig deeper, faster, and more accurately than they could have ever hoped to do in the paper world.

Given all of the different options before us, the question is not *can* we do it, but *how* we do it.

How do we do it?

In order to successfully introduce new technology, we must balance what innovation can provide with the needs of the individual members. To achieve this "equity," the House should take a page from the consumer-facing side of the world where the term "privacy by design" has entered the lexicon. For the House, "equity by design" needs to be part of the development process in creating any Congressional app.

Long before a single line of code is written, the development team needs to look at how an app follows three key criteria:

Neutrality

Interoperability

Retention

Neutrality

As wonderful as mobile computing can be, developers for official apps must never lose sight of the fact that the House requires enterprise grade infrastructure. An app that

subverts the process and creates a new data silo will add a host of new problems. Instead apps must facilitate workflow – both in an application or an office — within the infrastructure needed to maintain the integrity and security of the House. However, maintaining this back-end compatibility should not rely on mandated formats, but rather on a goals-based approach to neutrality. So long as the mobile app passes data in a manner that is supported by the larger House infrastructure, the internal mechanisms of the app should not be mandated.

The history of tech mandates is filled with cautionary tales, from the Department of Defense’s mandated use of Ada programming language to legacy mainframe systems that must be maintained, not because they are better, but because the work of transitioning requires employees who have long ago retired!

Interoperability

To make the transition to electronic documents we have to make sure that people can still use paper. This sounds counter-intuitive, but we must ensure that no disadvantage is conferred upon those who choose to continue using traditional resources. Information exchange should be neutral. Every Member should be able to get the same content from customary sources that others can obtain electronically. Users of traditional media must also have access to information at the same time as their tablet-using counterparts.

The purpose of the dual track is to encourage adoption of new technology without forcing it. Consider how the PC was introduced to most congressional offices. Prior to 1996, Member’s offices were a hodgepodge of computer systems, many still relying on dumb-terminal systems long past the time when personal computers had entered the professional workplace.

In 1996, each office was given a PC loaded with Windows 95. But only one. And soon enough, everyone in the office migrated to the desk that had the computer, looking over the shoulder of the person who got to work with pictures, who could perform important tasks, and could access an extraordinary amount of information on the internet. Impressed by the leaps in productivity, offices soon got desktop computers for everyone.

There is no doubt that as more Members see how their colleagues are benefiting from the ease of use, convenience, and enhanced productivity from new technologies, that they will want to “get one of those.”

On the public side of equity, it will be critical that documents created for the public are available in paper form at the same time (or nearly) as the electronic versions. By moving to on demand printing systems, or by printing only three copies instead of 500, we can maintain equity based on demand, rather than what tradition dictates. The reality is this is already happening, committees already print fewer final copies of documents for the record, and, while I don't have the numbers, I would assume fewer copies of the Federal Register are printed each day.

Retention

One of the great benefits of paper is that, outside of fire, it is not particularly transitory. The permanence of paper is one of its greatest features. In the physical written form we have texts that have endured millennia, providing a record of civilizations past.

These archival needs underscore why it is important to keep data in a portable and enduring format unrestricted to a particular technology. If the sudden rise of tablets and smartphones has taught us anything about technology, it is that transformative changes come fast.

For this reason, the House should adopt data-centric solutions rather than platform-centric ones. In the end, mobile computing is just a vehicle for data entry and retrieval. The degree to which that remains separate from storage and analysis is the measure by which that information remains useful to those using other information models, both now and with future technologies.

Conclusion

I have devoted much of my testimony to addressing the possibility of conducting paperless hearings and related workflow issues. Yet mobile computing offers many more opportunities to simplify and improve the productivity of Congressional offices.

A simple app on a mobile device can provide schedule notifications, locate a Member during an emergency, or provide live vote tallies. One could be written to aggregate legislative information from Thomas, the Library of Congress, CBO, and Member's staff that a Representative could consult before voting or attending a markup.

If our experience with the iPad is any guide, Members of Congress will not wait for an officially sanctioned solution that provides the resources they are looking for, especially when the public sphere provides far more useful options than are available within the institution. As Congress has a particular interest in maintaining the security and integrity of its communications infrastructure, it is our hope that the House vigorously pursues the development of mobile applications services.

The transformative opportunities that mobile computing promises for good governance are myriad, from constituency communication, to information management and presentation to real time analysis of arguments and facts. It is important to remember, however, that governance is the dog and mobile computing is the tail. Rather than a

jumble of information silos that create inequity and confusion, it is important to maintain an enterprise grade system that meets the needs of all Members.