Transforming Digital Government Experiences with Commercial Technology

Introduction

With citizens becoming more digital and mobile-centric, expectations are much higher for the government to adapt, provide better online services, and engage more with the people it supports. In the past, government agencies typically relied on in-house, home-grown systems to do business, which didn’t always cover all the needs of their users and still often required people to conduct transactions in-person when online methods were preferred. Many of these solutions are now outdated and simply cannot keep up with the expanding digital needs of the population.

Given all this, government agencies are looking more and more to the commercial world for solutions to help them better connect with their citizens. And for good reasons:

1. **Citizens overwhelmingly prefer to conduct government transactions online.**
   It’s pretty simple. Online transactions save time not only for the person conducting the transaction, but also for the agency.

2. **The cost of a digital transaction is cheaper.**
   Online transactions cost roughly 50 times less than those conducted in-person.

3. **Budgets are on the decline.**
   Agencies are reporting that they have fewer funds to provide the same level of in-person services.

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**Why Digital Transformation?**

- Citizens prefer it
- Costs are lower
- Budgets are shrinking
These conditions provide the perfect opportunity to move more in-person transactions to commercially available, mature digital solutions which will enable government agencies to better assist their citizens.

In this paper, we’ll look at some examples of solutions already in use within agencies, technology that exists today that can be adopted for current needs, and finally, some forward-looking examples of what’s to come.

**What’s Out There Now**

To find inspiration, it can be helpful to look at other government organizations and their previous successes with implementing commercial solutions.

**No change. For the better.**

It can be frustrating pulling up to a parking meter and realizing you don’t have correct change. Some parking kiosks can help, but they’re still less than ideal. You have to go over to the kiosk, pay with your credit card or money, get a ticket, and walk it back to your car. And if you lose track of time, you run the risk of staying too long and possibly getting a ticket. Parking apps alleviate all of these problems by allowing you to pay directly on your phone. You also get notifications when your time is about to run out, helping to avoid a citation.

Local governments are embracing commercial apps to provide their citizens with better choices for paying at parking meters. Apps like Parkmobile and Pango offer drivers a much easier way to pay for their parking while also making parking enforcement officer’s jobs more streamlined. Additionally, this technology has dramatically increased parking meter compliance for municipalities. In the City of Santa Cruz, Parkmobile was implemented and the city has experienced a 70% compliance increase since it was first introduced four years ago. There has also been a reduction in parking citations as compliance is now much easier for the customers. Additionally, the labor needs have been reduced due to the elimination of 30,000 lbs. of coins typically collected at meters.

**Making taxes less taxing**

Aware of the grief that comes with filling out tax forms and seeing the need to reduce operating costs and paper usage, the IRS started electronic filing in 1986. Since then, additional features, such as electronic direct deposit, and support for authorized e-file providers have been added. Since being introduced, the IRS has seen a steady growth of people filing taxes online, with the latest numbers showing that 91% of those filing taxes did so digitally through e-file.

E-file and its support of authorized commercial software providers makes taxes much more accurate and much faster to get a return. On average, it’s more accurate than manually filling out the forms. It’s been reported that returns filled out electronically contain less than 1% of
errors compared with the standard rate of 20% in paper forms. Online tax software can easily point out errors along the way guiding the user to help make filing taxes simpler, and eliminate the need for people to know the tax codes inside and out. It also reduces input errors by automatically pulling W-2 info from payroll processors such as ADP and can potentially boost refunds by uncovering opportunities for more tax breaks and savings. Even though the software provides detailed guidance, sometimes it still helps to connect to a human, which is why these apps provide additional ways to digitally connect with tax experts through secure online chat and secure email.

**Come together, right now**
Governments going digital is now a global phenomenon. The Hawaii state government is going paperless by adopting digital signatures with commercially available software to make them more efficient. In the UK, government digital services are moving to a single entry point at gov.UK using commercially available tools and services. In Australia, they’ve created the Digital Transformation Office to help drive their government’s digital transformation efforts. In Singapore, their Smart Nation Program is looking to use analytics to become the smartest nation by infusing insightful digital solutions. Their goal is that with pervasive connectivity, along with infrastructure and common technical architecture, they will allow citizens, businesses and government agencies to leverage technology and help improve lives.

In Canada, their government is undergoing a web renewal and moving all digital touch points and services to a single, mobile friendly platform to better serve all Canadians. It’s the largest government re-platforming going on in the world right now, with 91 agencies, 1,500+ websites, 2,000+ web applications and 11 million webpages merging onto Canada.ca, all built on a commercially available platform. All proof that change is definitely afoot for government transformation and that commercial technology is more readily playing a key part.

**Commonly Available Solutions**

There are some commonly used functionalities with commercially available solutions that are prime candidates for government adoption.

**Always Practice Good Form**
Most, if not all, government sites use forms for many of their transactions. But in a lot of cases, that can involve downloading the form, printing it, signing it, rescanning and sending it back. Nowadays, it’s becoming easier to turn forms into a step-by-step process online that is more user- and mobile-friendly. Taken a step further, there is also the ability to use the camera in the mobile phone to scan the barcode on an ID (like a driver’s license) which can then auto-fill the form while also validating the person’s identity. In this way, the transaction is much quicker, smoother and more secure.

**Tag. You’re It.**
Automatic facial recognition, geo-tags, timestamps and collection of other metadata, also known as smart tagging, has become more and more prevalent in photo and video software in recent years and can be found in many software platforms (think Apple Photos, Google Photos, Facebook Photos, and several more). Leveraging these commercial smart tagging solutions can bring a wealth of time-saving features to government.

Federal and local law enforcement can utilize this capability to help identify and track criminals. For instance, they could highlight a face from a frame of video surveillance and search across their vast repository of publicly captured videos and photos from security cameras and other sources to help pinpoint who they are and where they have been. And the ability to share this capability across agencies can assist in casting a wider, yet at the same time more focused net.

**The Standard Bearer**

Based on trends in the commercial sector, several federal agencies have begun creating design patterns and user interface toolkits to build consistency within their own digital brand. Some great examples can be found at the Consumer Financial Protection Bureau (CFPB), US Patent and Trademark Office (USPTO), and Healthcare.gov.

An undertaking such as this is very time consuming and not all agencies have the resources to support it. For this very reason, 18F, an office within the Government Services Agency, has created the U.S. Web Design Standards. From 18F – “The U.S. Web Design Standards are the U.S. government’s very own set of common UI components and visual styles for websites. It’s a resource designed to make things easier for government designers and developers, while raising the bar on what the American people can expect from their digital experiences.”

18F has also made this an open source project, and companies like Adobe have adopted these templates and are contributing to this growing community for government agencies to utilize. This allows them to download, change, modify, and add their own ideas back into this project. Having these templates can help streamline design efforts for government agencies and provide them with an easier way to stand-up a site or application which can help serve their citizens’ needs without the need to start designing from scratch.

**Finding Future Opportunities**

At its yearly Adobe Summit conference, Adobe shows off some of its latest technology that’s under development in its aptly named “Sneaks’ showcase. At the 2016 Adobe Summit, there were three technologies featured that could be beneficial for future usage in the government space.

**Adaptive Store**

One technology shown was called Adaptive Store, which allows people to step in front of a kiosk and virtually try on and purchase clothing. One use for this in the government space
would be for military. Troops could use this to get virtually measured and allow them to order their uniform, saving money by ordering exactly what’s needed and minimizing overhead. Additionally, they could use it as a way to see if what they’re wearing meets standards. This could also be used for other government positions which require uniforms, such as the post office or police.

Ad Wearout
Another technology shown was something called Ad Wearout. Ad Wearout allows people who are on a mailing list a way to smartly receive the amount of messaging they wish from a brand without resorting to completely opting out. It works by analyzing a user’s behavior with the emails sent to them and adjusting how much email should be sent to them based on this behavior using the software’s algorithm. This could greatly help government agencies reach more people with not only the right messaging, but with also the right frequency and help them avoid ending up in people’s junk mail folder.

Smart Authoring
Smart Authoring is geared toward helping ease the pain of creating content for the web. While an author types, related content and images will appear that are relevant to help convey the appropriate context. These items can be added by simply dragging and dropping them in. The additional Smart Summarization feature will automatically create content for other channels and any changes made to the master content will propagate to all its variants.

This technology could easily help agencies with the creation of any manner of content, such as reports or articles. Additionally, agencies in a secure environment could leverage this in such a way so that content automatically increases or decreases in security level based on the how the content is tagged and also adjust based on additions or deletions.

Conclusion
Adopting commercial tools to enable better citizen engagement can be hugely beneficial to government agencies and citizens alike. It can save time, money and effort in a time when declining budgets demand it. When considering leveraging commercial solutions, it’s helpful to keep a few items in mind.

1. **Look to existing examples.** See what other agencies have done with commercial technologies and how they’ve implemented them into their solutions.
2. **Leverage current technology solutions.** Many commercial functionalities can be effectively adopted for specific government uses.
3. **Keep an eye on what’s happening next.** Keep abreast of technology trends by attending tech focused conferences and events, both government and commercial, and reading tech sites.
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