Evolution of Digital Government

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The Evolution of Digital Government

BY MOHANA RAVINDRANATH

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DECADES AGO, the earliest digital government projects involved creating the first HTML-based websites for federal agencies so citizens could learn more about government services. Though the technology and platforms vary, modern efforts focus on thinking about citizens as customers first, and satisfying their expectations for government services. And today, more than ever before, agencies are racing to catch up to customers’ expectations from the private sector.

What is digital government? There’s no single definition. Instead, analysts point to examples of federal digital government services, such as the Internal Revenue Service’s e-filing system that lets citizens submit their tax documents online instead of manually; U.S. Citizenship and Immigration Services’ Emma chatbot that answers simple questions about the immigration process in English and Spanish; and Recreation.gov, a website that handles booking for the National Park Services’ outdoor campsites.

There’s a common theme across these projects. Some federal agencies are trying to reach citizens on the devices they already use to interact with each other and with businesses. These agencies hope citizens will share the same enthusiasm they have for the Domino Pizza mobile app—which summons dinner in a few taps—with the often bureaucratic, paper-intensive processes for government services.

Experts don’t expect this trend to go away. In coming years, they predict voice-controlled virtual assistants like Amazon’s Alexa can walk a citizen through various application processes. Online forms may
adapt to a citizen’s unique history and anticipated needs rather than searching through irrelevant information.

With its newly created White House Office of American Innovation, which canvasses powerful business executives about applying private-sector technology to government, President Donald Trump’s administration has elevated the digital government discussion to the Cabinet level. But experts say it’s still too early to tell whether that office will produce any concrete digital government directives or whether agencies will come up with new, more modern services on their own.

First, Ditch Paper

Experts point to Recreation.gov, a site that lets campers book their sites online, as an exemplar of digital government. The project is a collaboration between the National Park Service and the Agriculture Department, and transitioned the Park Service from a paper-based process in which campers were required to pick up physical passes to a fully digital one.

The U.S. Forest Service awarded Booz Allen Hamilton a 5-year contract to manage the site. Some officials from the Interior and Agriculture departments have pushed for the site to incorporate user-uploaded photos, and for the site to integrate with commercial hotel booking sites.

Still, as of last year, sharing real-time reservation information in an application programming interface has been a challenge, program manager Rick DeLappe testified during a House Oversight Committee hearing on the site last year.

“As we move forward, we look to take [sharing] to the next step, so we can provide those third parties tools that they can help their visitors find that information, without having to transfer” to a federal site, he said then.

Help Citizens Help Themselves

Across the board, agencies are looking into “self-service options, ways they can have people find things for themselves,” Mallory Barg-Bulman, vice president of...
The research and evaluation at the nonprofit Partnership for Public Service, said. They’re investing in better websites and apps.

Agencies like the Transportation Security Administration have also embraced serving citizens on social media. The agency’s @AskTSA account on Twitter answers passenger questions about what items they may travel with and responds to traveler complaints. It’s an effort to resolve issues “in real-time,” according to TSA’s solicitation searching for a social media management system. The agency also operates an Instagram account posting photos of confiscated items.

In general, social media could “improve the traveler’s experience through one-to-one conversations... to actively assist customers before, during and after their travel,” TSA told Nextgov in a 2015 statement.

Much more nascent, Barg-Bulman said, are artificially intelligent systems and virtual assistants.

The General Services Administration is investigating how useful voice-controlled systems like Amazon's Alexa might be for pulling up government services. GSA’s Emerging Citizen Technology Office recently wrapped up a pilot showing agencies how to build their own virtual assistants, including chatbots and Alexa skills. A prototype emerging from that pilot included a chatbot that can access Small Business Administration licences, IRS tax credits and Forest Service park permits.

The intent isn’t just to make government services into chatbots, Justin Herman, the head of that office, told Nextgov in March. “We’re having workshops focusing specifically on, ‘What are the business cases? What are those problems government agencies have, that aren’t being met, that just so happen that could be met through machine learning and [artificial intelligence]?’”

NIC, a company selling technology solutions to federal agencies including record search and payment processing systems, has seen more customers how to integrate voice-activated assistants like Alexa and Google Home into their sites, Angela Fultz Nordstrom, who heads the company's federal efforts, told Nextgov.

But some cutting-edge customer service technology could be too advanced for federal agencies, McKinsey partner Tony T’Emidio told Nextgov. That includes software that matches callers with customer service agents based on their personalities.

“I don’t see agencies going to that world,” he said.

Behind the Scenes
Embracing a customer-first digital government might require some organizational restructuring and some new titles, Barg-Bulman told Nextgov.

Under Obama, Veterans Affairs appointed its first chief veterans experience officer, who reported directly to the secretary. “It made a top priority of meeting the needs
of citizens,” she said. GSA’s tech consultancy 18F has been hiring a slate of user-experience and human-centered design experts with this goal in mind, she added.

But many agencies teams are too siloed to effectively track the customer’s experience through all parts of any digital service, D’Emidio said. “One part of the organization manages the call centers, and somebody else manages the website. Each of them is trying to solve for their isolated piece of the puzzle. It’s because nobody owns the customer,” he said.

A more effective approach might be to create ad-hoc teams that oversee a particular service from beginning to end with a focus on making it “demonstrably better for the customer,” he said.

And a federal technology talent shortage could prevent agencies from fully adopting cutting-edge technology. Barg-Bulman said there are about five times more IT professionals in government over the age of 60 as there are under 30.

“You need people who are comfortable using technology, are comfortable visualizing data. We are limited by the skill set in our workforce,” she said.

Digital Government’s Future
The Trump administration keeps pushing the need to modernize government and the Office of American Innovation’s meetings with technology heads has made the conversation about digital services front and center. But White House watchers are waiting for clear action plans.

“Most of that feedback from industry has been pretty basic,” Forrester Analyst Rick Parrish said. “Will these offices actually do anything? It’s hard to say... I don’t necessarily see a substantive change.”

But Fultz Nordstrom said she’s been “pleasantly surprised” with this administration’s treatment of citizens as customers and push to adopt principles from the private sector.

“The question will become is what the mode of delivery is,” she said, whether the administration favors public-private partnerships, more traditional contracts, in-house technology teams or a combination.

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Justin Herman
Emerging Citizen Technology Lead, GSA
When NASA needed a company to handle mission critical data from Mars - it turned to Amazon Web Services. Come see what AWS can do for your agency.
White House Pushes Private-Sector Practices

BY MOHANA RAVINDRANATH

President Donald Trump established the White House Office of American Innovation to “unleash the creativity of the private sector to provide citizen services in a way that has never happened before,” Jared Kushner, leader of the office, presidential son in law and White House senior advisor, said in June.

That team, populated by Trump’s chief of staff and other tech advisors such as former Microsoft Chief Financial Officer Chris Liddell, has proffered broad objectives. One is modernizing the technology underlying the Department of Veterans Affairs. Kushner already credits his staff with advising the VA to award a sole-source contract that would make its electronic health records system compatible with the Pentagon’s, a decision the department has spent decades debating.

The office is encouraging agencies to shutter their data centers and store information in the cloud. It also worked with the House of Representatives to fine-tune the Modernizing Government Technology Act, a bill that would create working capital funds that agencies could use to upgrade their internal IT. That legislation passed unanimously in the House and is waiting for Senate action.

On a more conceptual level, the Trump administration has sought advice from the private sector about outdated government technology. During the White House’s much-publicized Tech Week, executives including Amazon’s Jeff Bezos and Apple’s Tim Cook descended on Washington. During the on-camera portion of that meeting,

How Essential Are Top-Down Directives?

Agencies might not need a slew of executive orders or legislative mandates to adapt their services, Mallory Barg-Bulman, vice president of research and evaluation at the nonprofit Partnership for Public Service, told Nextgov.

Of course, citizens dissatisfied with their government’s services can’t simply switch to another provider as they might with a business whose mobile application is hard to navigate. And agencies aren’t necessarily motivated by the same need to retain customers as businesses are, Brian Roach, SAP’s managing director of regulated initiatives, which includes public-sector markets, told Nextgov. SAP sells analytics services to federal agencies, including a State Department system that aims to detect passport fraud.

For many of these projects, “it’s not a profit and loss motivation, it’s an efficiency motivation,” he said.

Agencies also might independently pursue digital government projects as a way to streamline their own operations, Barg-Bulman said.
Bezos suggested the administration invest in “commercial technology wherever possible,” and to use machine learning and artificial intelligence to support services at all levels of government.

“When we look at the operational side of government, it doesn’t often grab headlines and it will unlikely be a big political football, but I think that is actually one of its greatest advantages,” Matt Lira, special assistant to the president for innovation policy and initiatives and member of the Office of American Innovation, said at a recent event hosted by Nextgov.

That could be why the Trump administration has continued many of the digital government initiatives emerging from Barack Obama’s White House. So far, senior Trump officials have expressed support for teams including 18F, the General Services Administration digital consultancy that draws recruits from commercial tech companies such as Twitter and Facebook, and the White House’s U.S. Digital Service, a tech troubleshooting team that has a similar recruitment model.

In 2012, the White House issued a broad outline directing agencies to use new technology to improve their services to citizens. Obama’s presidential memorandum announcing the plan, urged organizations to build a more modern digital government. He pointed to efforts including Data.gov, a publicly accessible repository of government information, as examples of that effort.

“For far too long, the American people have been forced to navigate a labyrinth of information across different Government programs in order to find the services they need,” that document read. “[A]t a time when Americans increasingly pay bills and buy tickets on mobile devices, Government services often are not optimized for smartphones or tablets, assuming the services are even available online.”

The steward of that plan—the then federal chief information officer, a position still left unfilled under Trump—emphasized that agencies must allow “citizens and an increasingly mobile federal workforce to securely access high-quality digital government information, data and service—‘anywhere, anytime, on any device.’”

The plan proposed milestones including creating application programming interfaces so that data could be used externally and measuring customer satisfaction with new digital services.
OLATHE, KANSAS—BASED COMPANY NIC has been working on digital government projects for decades, including helping agencies transition to desktop computers and, in what seemed like a cutting-edge solution in the 2000s, implementing Palm Pilots.

The company has worked on projects including handling the Federal Motor Carrier Safety Administration’s pre-employment screening program for commercial drivers, processing their crash and inspection histories, as well as Recreation.gov’s YourPassNow mobile system processing park entrance passes.

The business functions as a public-private partnership; NIC develops the solutions and charges federal agencies on a per-transaction basis, instead of for the cost of the product, Fultz Nordstrom explained. That model allows NIC to experiment with cutting-edge technology without asking agencies to pay upfront.

As its customers start asking about more advanced technology like voice-integrated assistants, the component that “becomes critically important is you can’t forget to continue to provide the services and solutions for those who aren’t going to use Alexa,” perhaps older citizens who prefer to use paper-based methods, Fultz Nordstrom said.

Rick Parrish, a Forrester analyst specializing in customer experience, warned against the “shiny object” fallacy, in which agencies chase the newest technologies without thinking about whether they’re really helping the customer.

Some agencies are “approaching technology in kind of naive ways,” he said, and some federal chatbots and virtual assistants aren’t “really being built from a customer-centric way” because they’re too eager to pilot buzzy technology.

Broadly, these services are “really, really limited. They can answer a few questions just fine when you have a chatbot that can do a few things OK, but fails at other stuff, it can just be more frustrating for customers,” he said.
About the Author

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Mohana Ravindranath covers civilian agency technology and IT policy for Nextgov. She previously covered IT for The Washington Post, and her work has also appeared in Business Insider and The Philadelphia Inquirer. She is a graduate of the University of Pennsylvania.