

## Government Voice Assistants - Is Anybody Listening?



Category: Emerging and Innovative Technologies

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Project Initiation and Completion Dates:

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## Executive Summary

Google Home, Amazon Alexa and other voice-activated digital assistants have enabled entirely new ways to access government services. The Amazon Echo and Google Home device consists of a speaker and a microphone. The devices respond to voice commands and are capable of voice interaction, music playback, making to-do lists, setting alarms, streaming podcasts, playing audiobooks, and providing weather, traffic, and other services.

Voice Assistant technology is in its infancy.

In a tradition of embracing new technology, Utah is exploring new possibilities with voice assistants. Over the last two years, Utah has created multiple voice assistant projects to help us understand the potential and capability of these services. The growing possibilities are endless when the skills of a digital assistant and voice interaction are employed, we just need to push ourselves to explore.

Voice assistant concepts created by Utah:

- Amazon Alexa Skill to learn about general information with in Utah
- Amazon Alexa Skill to quiz potential drivers on Utah driving laws
- Google Home Assistant to quiz potential drivers on Utah driving laws
- Amazon Alexa Skill to find out about upcoming Public Meetings in a city or Zipcode
- Amazon Alexa Skill to hear the current fishing report on 140+ different lakes and rivers in Utah
- Google Home Assistant to quiz potential Notaries about Utah Notary laws.



Each project has helped our team learn about the great benefits, the current limitations as well as the skill sets that need to be developed to take advantage of this new territory of technology. We have learned how different this technology is including voice design, human verbal interactions, new testing methodologies, along with opportunities to develop monitoring and taking care of long term support. <https://www.utah.gov/digital/assistants-voice.html>

# Project Narrative

Utah's innovation team recognized early on that voice assistants could radically change how citizens interact with government services. The voice based technology enables another avenue to participate with and receive government services even for individuals with a variety of disabilities such as vision or muscular.

Voice Assistants provide a natural way to communicate information for a broad range of the population and it lowers the technical barrier.

Each new project proved different concepts which caused Utah's innovation team to explore deeper into the technology and do more. This team was tasked with creating services that are omni channel, providing the same information in multiple formats including desktops, mobile devices and standalone voice assistant devices.

Digital assistants are able to remind citizens of government deadlines and will soon be able to complete the transactions with government agencies at the point of reminder in response to real-time notifications.

The following voice assistant services created by Utah are described below with their unique significance and impact in the order they were created:

## May 23, 2016, Utah launched the first State Government Amazon Alexa Skill



Utah's first Amazon Echo skill was a practice exam for the driver's license. The skill added the convenience of a voice activated practice exam, allowing new drivers to review the rules of the road in the comfort of their homes through Amazon's voice controlled speaker and digital assistant, Alexa.

*"We're excited to provide new drivers with added functionality and convenience through Amazon Echo,"* said Marissa Villaseñor, Director of Public Relations, Utah Department of Public Safety. *"The Echo is an amazing new tool, and we are looking forward to expanding the services we integrate with Echo."*

The skill helps new drivers study for the driver exam by reviewing practice questions. For example, Alexa might ask, *"When approached by an emergency vehicle, the driver must immediately..."* and the correct response would be, *"Pull to the right and stop."* Test takers respond by voice directly to Alexa. Scores are not saved or recorded for practice tests.

*“Digital assistants present an incredible opportunity for simplifying business with state government,”* said Mike Hussey, Utah State Chief Information Officer. *“We are always looking for new ways to integrate innovative digital solutions and move beyond how we currently help Utahns interact with government.”*

## Utah State Facts - Also Launched May 23, 2016

In addition to the driver test, the Utah.Gov skill included an option to learn about Utah State Facts. Combining these two different functions in a single skill taught the how verbal skills become increasingly complicated to use when there are multiple functions bundled together.

Amazon's Alexa knows a lot about Utah — just ask her: May 2017

<http://archive.sltrib.com/article.php?id=5493559&itype=CMSID#gallery-carousel-446996>

Two more Amazon Alexa skills were introduced in May 2017 and highlighted in the Salt Lake Tribune newspaper. The two skills are Utah Fishing Reports and Utah Public Meetings

## Utah Fishing Reports - Alexa

Nothing beats good advice when you're looking for a great day of fishing. Now, Utahns can simply ask a personal digital assistant for some of the best advice from the state's best experts. The Alexa skill gives full fishing reports for fishing spots across the state of Utah.

*“It's incredibly fun to play with,”* said David Fletcher, Utah Chief Technology Officer. *“But then it becomes clear that it is a great tool to learn about some of Utah's best fishing holes.”*

Utah Fishing helps anglers find the best fishing spots across the state. The Alexa skill tells fisherman the status at the Utah fishing spots, the conditions, bait that has been working, and what species are biting. The reports are updated regularly by local experts who have the best information.

*“If you've ever had a friend that kept you up-to-date on fishing hotspots, that's what it's like,”* said Mike Fowlks, Division of Wildlife Resources' Interim Director. *“Except you have all the expertise of the DWR.”*

To use the Alexa skill users simply:

- Tell Alexa to enable Utah Fishing
- Ask, "Alexa, open Utah Fishing."
- Then say, "Alexa, what's the fishing report for Strawberry Reservoir?"

Or any of the 148 fishing spots catalogued in the Alexa skill.

This skill uses information that has been published for years on the state's website and is updated weekly during and turned it into something interesting and useful on a voice assistant. For an interactive fishing reports map visit: <https://wildlife.utah.gov/hotspots/>

## Utah Public Meeting Notices on Alexa: April 2017

The Utah Public Notice Website Experience (PNW) is an innovative web-based application that fully integrates state and local government mandated notifications. Over 5000 state and local government employees in Utah use this tool to post all of their public meetings on the state site.

The Utah Public Notice Website is intended to bringing greater transparency to public notices and public meetings and increased citizen participation. It is a central source for all public notice information statewide, provided in a standardized format for publishing and simplifying administration. It allows the public to subscribe by email to an agency to receive its notices and updates. It is also a definitive source for the state Auditor to verify that all state entities are complying with the public notice laws.

Meetings posted at PNW are also sent via API's to facebook, twitter and now Alexa.

In April 2017, Utah launched a Public Meeting Notice Amazon Echo Alexa skill to find details for public meetings. Alexa gives details for public meetings including location, time, date, and topics.

The website provides simple "open APIs" that local governments, other entities, and even citizens can pull or push data for use on their public websites. There are 207,486 annual notifications sent from the system at an average of 17,290 users per month. The Public Meeting Notice API allows all meetings to be pulled into government websites. This api made it possible for the Amazon Alexa to provide times and locations of public meetings across the state.. <https://www.utah.gov/pmn>

# January 8, 2018 New Google Assistant - Driver Practice Exam:



Utah released a new practice driver's license exam app January 8, 2018 for Google's hands-free voice assistant, Google Home.

*"This even further expands the ways Utahns can access Utah driver license services," said Chris Caras, Driver License Division director for the Department of Public Safety (DPS). "DPS is always looking for innovative ways to help educate drivers and keep the public safe."*

The Utah Practice Driver License test is consistently provided in many forms, such as on Amazon Alexa, iOS and Android mobile applications, an online website and now it is on the Google Home Assistant.

This tool expands the ways Utahns can access Utah driver license services. The added convenience of the voice activated practice exam allows new drivers to review the rules of the road in the comfort of their homes. For example, the device might ask, "When approached by an emergency vehicle, the driver must immediately..." and the correct response would be, "Pull to the right and stop." Test takers respond by voice directly to the device.

The Utah.Gov Driver License Practice Exams were created to provide Utah drivers the very best information and technology available to help them prepare for a Utah driver's license.

## **Better Driver Education Correlates with Better Drivers**

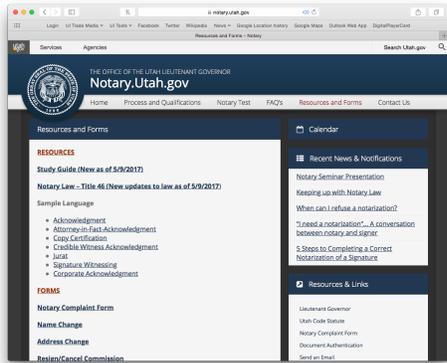
Each year 37,000 new Utah drivers are eligible to begin driving Utah's roads. And until recently these drivers learned the rules of the road primarily from printed materials and one-on-one experience.

According to the Safe Roads Alliance:

- Nationwide, 43 percent of first-year drivers are involved in car crashes.
- 33% of deaths among 13 to 19-year-olds in 2010 occurred in motor vehicle crashes.
- 16-year-olds have higher crash rates than drivers of any other age.
- 56% of teenagers rely on their parents to learn how to drive.

# Utah Notary Google Home Quiz: Launched April 2018

The Office of the Utah Lieutenant Governor recently launched the Utah notary practice exam on Google Home. The convenient, voice-activated practice exam helps new notaries review test questions for the Utah Notary Test with Google’s popular voice-controlled speaker and digital assistant, Google Home.



Notary Publics play an important role helping commerce in any state, acting as an impartial witness by performing official fraud-deterrent acts related to the signing of important documents. A notary public is educated in and follows a strict processes to validate official government issued identification. This process is authorized by state statute to serve the public and act as a fraud-deterrent.

There are 22,000 active notaries in Utah and the

notary.utah.gov site averages 83 visitors per day.

The Google Home digital assistant helps new notaries study for the exam by reviewing questions needed to pass the official notary exam. Notaries are asked several questions by the Google assistant.

For example, Google Home might ask, “A valid government-issued ID card must include a photograph, signature, and...?” Respondents would answer, “a physical description.”

Access the app from [Google Home](#) by asking, “Talk to Utah Notary Practice Quiz.”

<https://assistant.google.com/services/a/uid/0000006fa535988f?hl=en>

Since launching the service, 702 visitors have used the voice-activated practice test.

