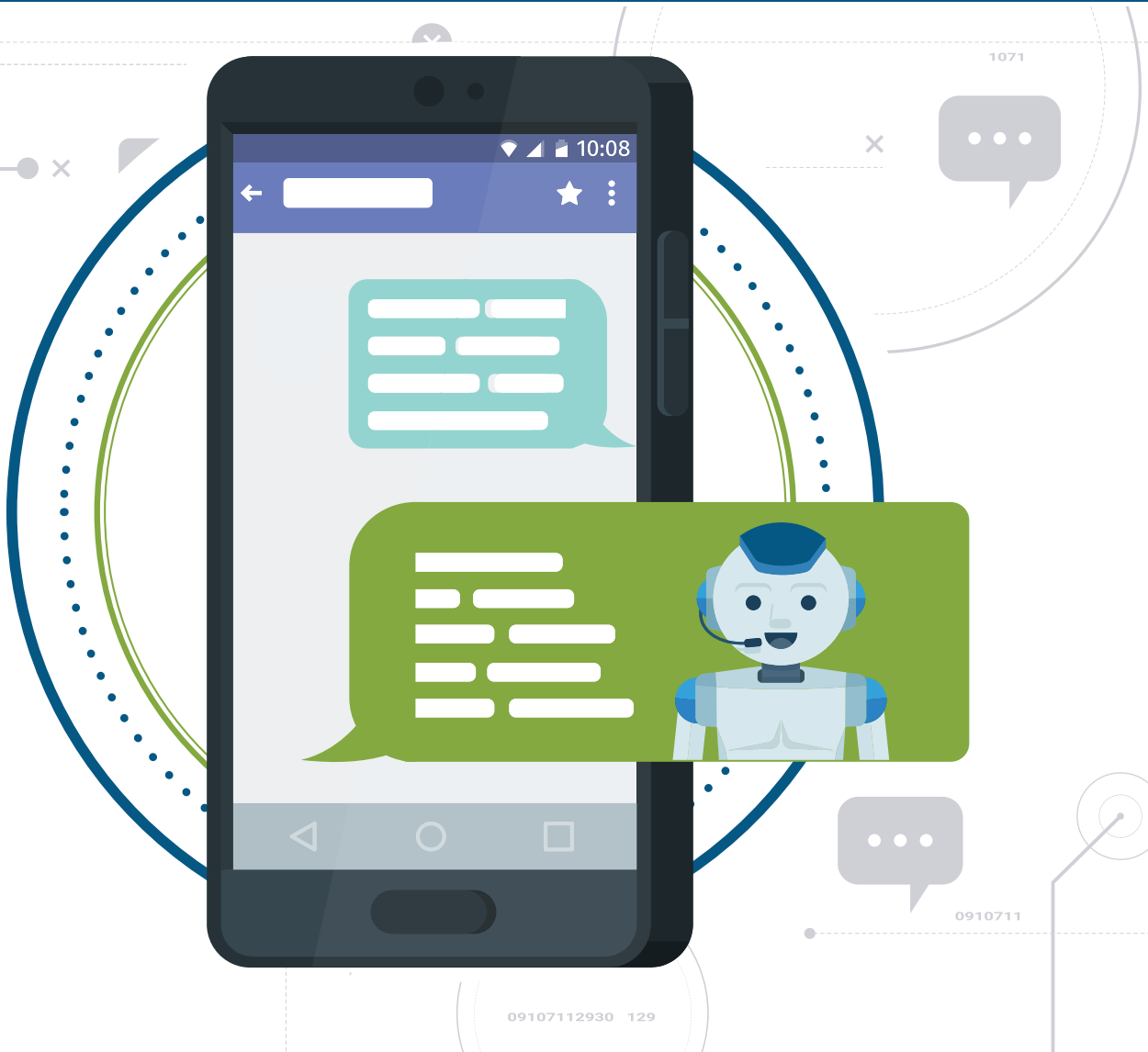


# CHAT WITH US: HOW STATES ARE USING CHATBOTS TO RESPOND TO THE DEMANDS OF COVID-19

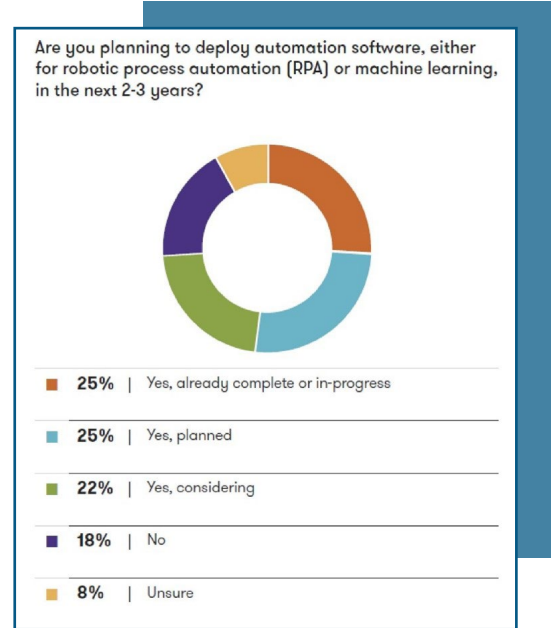


The use of virtual agents or “chatbots” as a supplement to online customer service in the marketplace certainly is not new. But for state governments, until very recently, they were not widespread. A chatbot is a software application used to conduct an online chat conversation via text or voice. Some chatbots use features of artificial intelligence (AI) to enhance the user experience. Chatbots are useful for supplementing the physical workforce to answer questions, make it easier for website users to find answers to commonly searched terms, are efficient and are available 24/7 unlike humans.

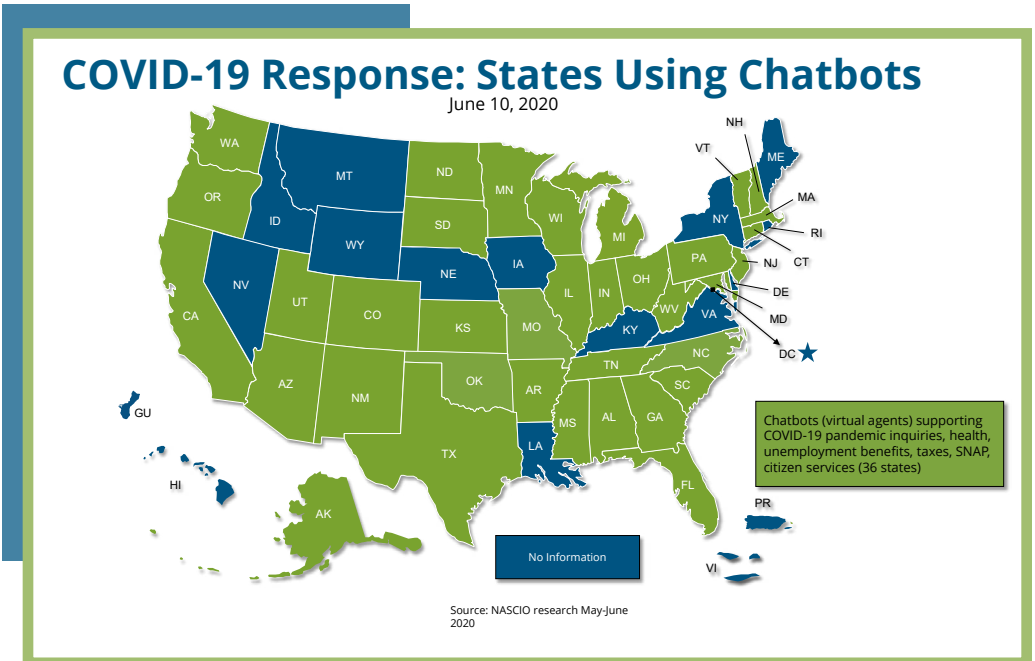
In NASCIO’s 2019 State CIO Survey, when we asked what the “top of mind” considerations are for deploying automation such as robotic process automation (RPA), machine learning or chatbots, the number one answer was “Identifying the ‘right’ business case for automation.”<sup>1</sup>

The “right” business case seems to have emerged with the arrival of the COVID-19 pandemic in early 2020. States experienced unprecedented surges in online inquiries and transactions. Many digital services and call centers supporting government services were overwhelmed. Citizens were frustrated and the states needed to respond quickly with new approaches. Some state agencies needed to pivot and determine how to respond in a 24x7 environment. Automation, in the form of chatbots, was quickly developed and deployed to supplement existing human resources.

Today around three-quarters of states are deploying chatbots to assist with questions on unemployment insurance, general COVID-19 questions or for other state agencies that may be receiving unusually high traffic due to the pandemic. These chatbots have responded to millions of citizen questions and continue to learn and build on the existing knowledge base.



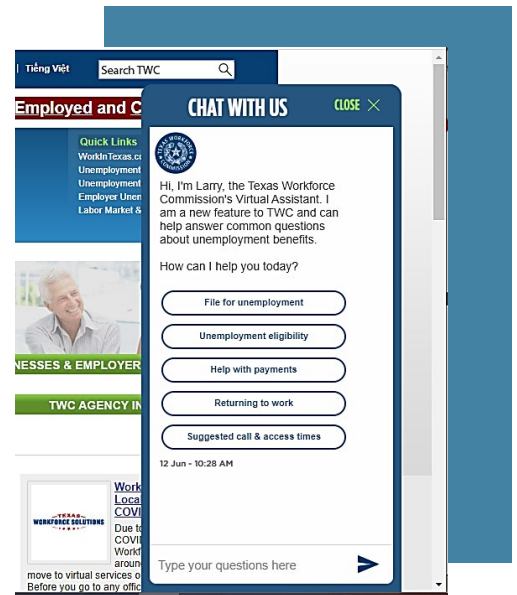
2019 NASCIO State CIO Survey



## Chatbots Assisting with Unemployment Insurance

When the COVID-19 pandemic hit the United States in March 2020, closing restaurants, retail stores and other non-essential businesses, it also put a staggering percentage of the population out of work overnight. Over 45 million Americans at the time of this publication have filed for unemployment in just a couple of months. Not only were Americans not prepared for such massive job losses, state unemployment insurance agencies were not prepared either. And how could they be? The staff and resources needed during a pandemic like this are exponentially more than what is needed during regular times. Exacerbating this problem is the fact that many states are working with legacy systems that could not keep up with the crush.

Staff at state unemployment offices found themselves spending much of their day answering questions instead of processing or adjudicating claims. Scaling up staff at call centers was necessary, and then many turned to chatbots to answer frequently asked questions. By NASCIO's count about half of the states are now using a chatbot on their unemployment insurance website.



*Like all states, this was the case in Texas. When the Texas Workforce Commission (TWC) was getting hit with unprecedented levels of unemployment insurance applications they had to scale up their staff, volunteers, and phone lines. On April 2<sup>nd</sup> they received 98,000 claims online in one day. They calculated that they had received three and a half years of claims in just 56 days. In addition to scaling up the call center employees and hours, they added "Larry the Chatbot" to the TWC website to assist with some of the online traffic. From conception to deployment "Larry" was up and running in four days with help from their private sector partners AWS and Accenture and has answered 4.8 million questions for 1.2 million people.<sup>2</sup>*



*Missouri was one of the first states to implement a chatbot to assist with COVID-19-related call center queues in mid-March. Even though they were one of the first states, they were able to deploy the chatbot in a week, spending another week and a half to train it. Now they can technically set up a chatbot in 24 hours and have set up several in other areas of government in just a few months.<sup>4</sup>*

## Chatbots for COVID-19 Questions

When a once-in-100-year pandemic hits, naturally citizens are going to have questions. With information and misinformation spreading on social media, changing science and guidelines, and general anxiety, having a central place to go for accurate information is critical. In early March states quickly set up central COVID-19 websites with information on prevention, testing, case numbers, resources and now reopening guidelines. About 20% of the states have a chatbot supporting general COVID-19 questions for constituents.



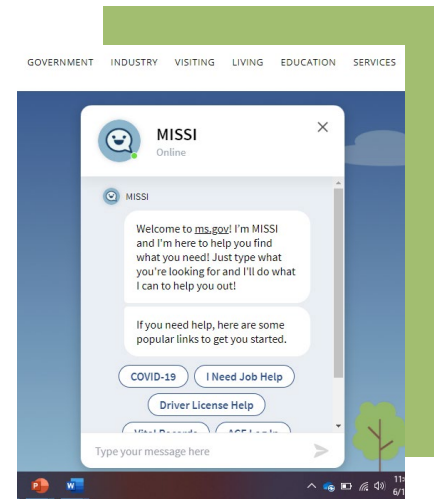
*The rapidly changing information and misinformation was the impetus for the Michigan Department of Health and Human Services to launch their own IBM chatbot named "Robin." Robin's purpose was to answer some easier questions and provide relief to the COVID-19 hotline, which had answered 26,000 calls by the time the chatbot was online. The hope was that it would free up some phone lines so that citizens with more complicated questions would be able to get through to a person more quickly.*



*In Utah, they had been considering and trying out various chatbots, voice assistants and other related technologies for a while and had even created the Utah Artificial Intelligence Center of Excellence in January of 2019. When COVID-19 hit Utah, traffic to the Utah.gov domain more than doubled, along with calls, chats and emails to customer support. Utah was able to deploy a chatbot within just three days, thanks to the chatbot testing and monitoring that had been underway for months. Using software from Chatbot.com they deployed "Porter" which receives between 100 and 1100 chats a day.<sup>4</sup>*



***By the time the pandemic hit Mississippi, chatbots weren't a new technology for the state. In 2017 they launched chatbot "MISSI" on ms.gov after hearing from website users about the need for an enhanced government experience. They even received a NASCIO State IT Recognition Award for the chatbot in 2018. With the pandemic, MISSI was updated with the latest information on coronavirus testing and guidance from state agencies. They said that being able to deliver information directly to citizens 24/7 is the greatest benefit of MISSI. During COVID-19, with agencies providing daily updates, MISSI has been able to assist users with finding the information they needed instantly.***

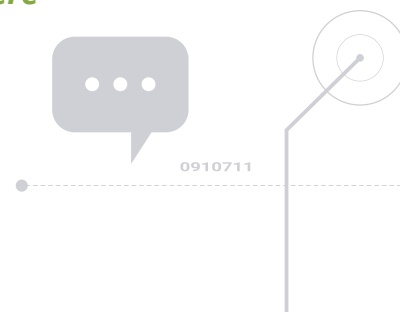


## One Chatbot Platform for Many Agencies



***Before the pandemic, Georgia's public health website would typically have around 5,000 "sessions" each day on their website. After COVID-19 started, they were getting five million sessions in a typical day in March. One Friday early in the pandemic, they decided to launch a chatbot. By Monday at noon it was live. Georgia has one chatbot using QnA by Microsoft, but it is on multiple websites (Department of Health, Department of Labor, the Governor's website and Georgia.gov) where people may go to find answers related to COVID-19.***

The important thing about having one chatbot, as opposed to different ones, is that they can ensure that the exact same answer is given to the same question across the enterprise. Because of the AI and learning component of the chatbot, slightly different answers could morph into completely different answers if they used different chatbots across agencies. There is a certain amount of personalization that can be done on the agency level, but ultimately there is one chatbot providing consistent answers to the questions that are asked on all the different websites.

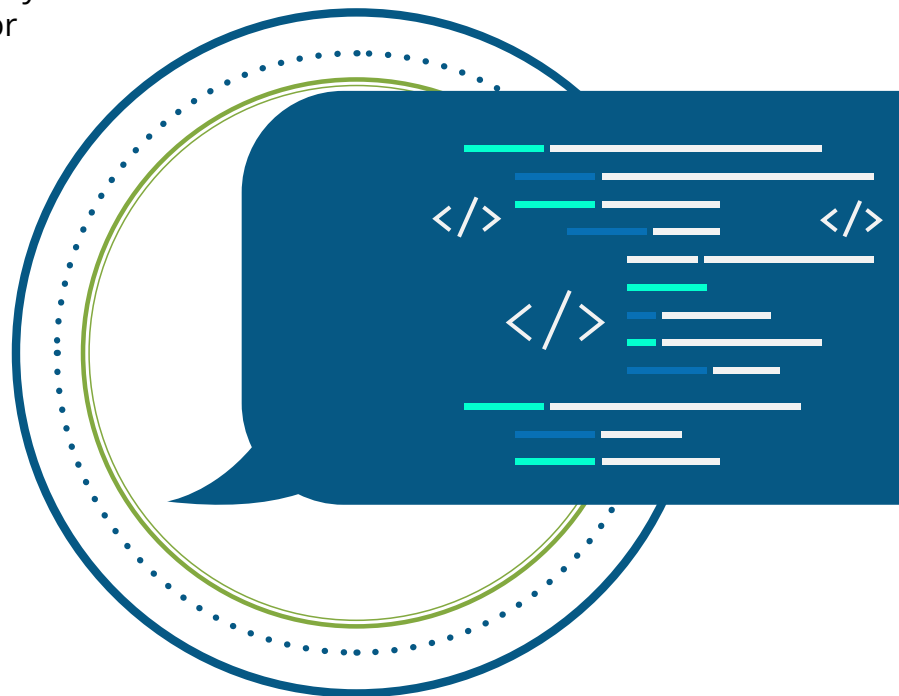


## Chatbots Here to Stay?

All of the states we talked with said they believe the use of chatbots on state government websites will continue long after the pandemic. Not only have most states tested the waters now, it seems that chatbot technology is also up to the challenge. Utah said that they had been looking at and testing chatbot technology for several years and noticed that many chatbots fell short of providing an optimal customer experience—but had seen the technology improve significantly. They said they will continue to monitor developments so that their chatbot can provide the best customer service experience possible.

Chatbot veteran state Mississippi said that anyone who is looking to build or implement a chatbot should first develop a really focused strategy around what users are looking for and what the chatbot can deliver in terms of content or functionality. They said that while MISSI is wide-ranging now, they started off with just the top ten most searched terms on the website and loaded those answers into the chatbot. After that, they said it is important to regularly look at your stats to see who's coming and what they are looking for, and refresh your most searched for terms to stay up to date and to always work toward making the chatbot better.

Even though the Georgia chatbot is new, they are currently working on a chatbot roadmap for the state and plan on offering chatbots as a service in the near future—something we may be seeing in many states if the current trend continues. During this pandemic, states (and their partners) have demonstrated that in times of crisis they can respond and deploy needed technologies in a matter of days when the same technology would have taken months to deploy in a different situation. This kind of agility and response will likely inspire the state technology workforce for years to come.





## State Chatbot Links

State	State Link	Function
AL	<a href="https://covid19.alabama.gov/">https://covid19.alabama.gov/</a>	COVID-19 Questions
AK	<a href="https://labor.alaska.gov/unemployment/">https://labor.alaska.gov/unemployment/</a>	UI
AZ	<a href="https://des.az.gov/services/employment/unemployment-individual">https://des.az.gov/services/employment/unemployment-individual</a>	UI
AR	<a href="https://portal.arkansas.gov/pages/chat-bot/">https://portal.arkansas.gov/pages/chat-bot/</a>	COVID-19 Questions
CA	<a href="https://edd.ca.gov/about_edd/coronavirus-2019.htm">https://edd.ca.gov/about_edd/coronavirus-2019.htm</a>	UI
CO	<a href="https://www.colorado.gov/pacific/cdle/unemployment">https://www.colorado.gov/pacific/cdle/unemployment</a>	UI
CT	<a href="https://portal.ct.gov/Coronavirus">https://portal.ct.gov/Coronavirus</a>	COVID-19 Questions
FL	<a href="https://floridajobs.org/Reemployment-Assistance-Service-Center/reemployment-assistance/claimants/apply-for-benefits">https://floridajobs.org/Reemployment-Assistance-Service-Center/reemployment-assistance/claimants/apply-for-benefits</a>	UI
GA	<a href="https://dol.georgia.gov/gdol-covid-19-information">https://dol.georgia.gov/gdol-covid-19-information</a>	COVID-19 Questions
IL	<a href="https://www2.illinois.gov/ides/individuals/UnemploymentInsurance/Pages/default.aspx">https://www2.illinois.gov/ides/individuals/UnemploymentInsurance/Pages/default.aspx</a>	UI
IN	<a href="https://www.coronavirus.in.gov/">https://www.coronavirus.in.gov/</a>	COVID-19 Questions
KS	<a href="http://www.dcf.ks.gov/COVID19/Pages/default.aspx">http://www.dcf.ks.gov/COVID19/Pages/default.aspx</a>	DCF
MD	<a href="https://www.dlr.state.md.us/employment/unemployment.shtml">https://www.dlr.state.md.us/employment/unemployment.shtml</a>	UI
MA	<a href="https://ui-cares-act.mass.gov/PUA/_/">https://ui-cares-act.mass.gov/PUA/_/</a>	UI
MI	<a href="https://www.michigan.gov/coronavirus">https://www.michigan.gov/coronavirus</a>	COVID-19 Questions
MN	<a href="https://mn.gov/covid19/">https://mn.gov/covid19/</a>	COVID-19 Questions
MS	<a href="https://www.ms.gov/msi/chatbot/chat">https://www.ms.gov/msi/chatbot/chat</a>	COVID-19 Questions
MO	<a href="https://info.mo.gov/labor/chatbot/">https://info.mo.gov/labor/chatbot/</a>	UI
NH	Internal for State Employees	COVID-19 Questions
NJ	<a href="https://myunemployment.nj.gov/">https://myunemployment.nj.gov/</a>	UI
NM	<a href="https://www.dws.state.nm.us/en-us/Unemployment">https://www.dws.state.nm.us/en-us/Unemployment</a>	UI
NC	<a href="https://des.nc.gov/apply-unemployment">https://des.nc.gov/apply-unemployment</a>	UI
ND	<a href="https://www.jobsnd.com/unemployment-individuals/file-claim">https://www.jobsnd.com/unemployment-individuals/file-claim</a>	UI
OH	<a href="https://unemploymenthelp.ohio.gov/">https://unemploymenthelp.ohio.gov/</a>	UI
OK	<a href="https://oesc.ok.gov/">https://oesc.ok.gov/</a>	UI
OR	<a href="https://www.oregon.gov/das/Pages/Covid-19-Chat-Bot.aspx">https://www.oregon.gov/das/Pages/Covid-19-Chat-Bot.aspx</a>	COVID-19 Questions
PA	<a href="https://www.uc.pa.gov/Chat/index.aspx">https://www.uc.pa.gov/Chat/index.aspx</a>	UI
SC	<a href="https://uitax.dew.sc.gov/Chatbot/">https://uitax.dew.sc.gov/Chatbot/</a>	UI
SD	<a href="https://dlr.sd.gov/ra/individuals/default.aspx">https://dlr.sd.gov/ra/individuals/default.aspx</a>	UI
TN	<a href="https://www.tn.gov/workforce/unemployment.html">https://www.tn.gov/workforce/unemployment.html</a>	UI
TX	<a href="https://www.twc.texas.gov/jobseekers/unemployment-benefits-services">https://www.twc.texas.gov/jobseekers/unemployment-benefits-services</a>	UI
UT	<a href="https://www.utah.gov/index.html">https://www.utah.gov/index.html</a>	COVID-19 Questions
VT	<a href="https://www.healthvermont.gov/response/coronavirus-covid-19/frequently-asked-questions">https://www.healthvermont.gov/response/coronavirus-covid-19/frequently-asked-questions</a>	COVID-19 Questions
WA	<a href="https://esd.wa.gov/unemployment">https://esd.wa.gov/unemployment</a>	UI
WI	<a href="https://dwd.wisconsin.gov/uiben/">https://dwd.wisconsin.gov/uiben/</a>	UI
WV	Internal for State Employees	COVID-19 Questions

## Resources

1. 2019 NASCIO State CIO Survey: <https://www.nascio.org/resource-center/resources/the-2019-state-cio-survey/>
2. Govtech.com "Texas Uses Chatbots to Manage Uptick in Unemployment Calls" <https://www.govtech.com/workforce/Texas-Uses-Chatbots-to-Manage-Uptick-in-Unemployment-Calls.html>
3. GCN.com "RPA takes on more services delivery." <https://gcn.com/articles/2020/06/17/rpa-growth.aspx>
4. Govtech.com "What's New in Civic Tech: Utah Launches COVID-19 Chatbot" <https://www.govtech.com/civic/Whats-New-in-Civic-Tech-Utah-Launches-COVID-19-Chatbot.html>

## Additional Reading

Deloitte: Chatbots Point of View <https://www2.deloitte.com/content/dam/Deloitte/nl/Documents/deloitte-analytics/deloitte-nl-chatbots-moving-beyond-the-hype.pdf>

Gartner: Chatbots Will Appeal to Modern Workers <https://www.gartner.com/smarterwithgartner/chatbots-will-appeal-to-modern-workers/>

Chatbots Magazine: How Chatbots are Beneficial to Government Agencies <https://chatbotsmagazine.com/how-chatbots-are-beneficial-to-government-agencies-6e21052e3ba4>

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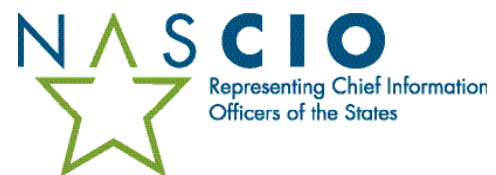
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