

Testimony for the Vermont House Committee on Energy and Technology

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Chair Briglin, Ranking Member Scheuermann and the members of the committee, good afternoon and thank you for having me today. I'm Amy Glasscock, the senior policy analyst for the National Association of State Chief Information Officers, or NASCIO. Founded in 1969, NASCIO represents state chief information officers and information technology executives and managers from the states, territories and the District of Columbia.

NASCIO does not take positions on specific state legislation, but today I'm happy to provide the committee with some background on the use of artificial intelligence in state government.

NASCIO really started asking our members about how they view AI in the last three to four years. Each year NASCIO surveys our CIO members to gain insight on their top initiatives, views, and challenges on a range of topics. Starting in 2017 we asked state CIOs what they thought would be the most impactful emerging IT area in the next 3-5 years. In 2017 only 29% chose AI. By 2020 that percentage jumped to 61%.

In our first publication on the topic in 2018, we acknowledged that AI was relatively new for state governments, but that it held much potential. Just a couple of states were using chatbots or digital assistants. There were a few examples of states using AI for traffic management and a hand full of other small cases. We laid out definitions of AI, how AI could be used to relieve, split-up, augment or replace the work that humans do, shared some ideas for best practices and put forth what some of the implications and challenges would be for state CIOs.

In 2019, NASCIO partnered with strategic partners IBM and the Center for Digital Government to conduct a survey of state CIOs on their usage of AI. At that point only 14% of states reported that they were currently using artificial intelligence, with an additional 19% piloting projects. Most were either testing it out in proofs of concept and demonstrations or still evaluating and gathering requirements. A majority of state CIOs in 2019 reported that they were still looking for the right business case for AI. Keep in mind this was less than two years ago.

Then 2020 arrived, as did the COVID-19 pandemic in our states and communities. And suddenly, CIOs had found the right business case for AI. With unemployment offices slammed with calls, and citizens looking for information on COVID-19 restrictions or testing, state governments started rolling out chatbots for the first time. NASCIO published

a report on this in the summer of 2020, which I have included in my materials today. By June of 2020 three-quarters of states were using a chatbot on a state website. Most of those were either for unemployment insurance inquiries or general COVID-19 questions. Most of them were the first chatbot the state had ever used, and most of them were rolled out in a matter of days. This was a perfect storm of the chatbot technology advancing to a level where states felt comfortable using them, along with a strong business case and need for the technology.

NASCIO partnered on two more publications that were published that fall. One was a follow up with IBM and the Center for Digital Government, interviewing CIOs about how the pandemic had changed their views on AI after deploying chatbots. The other was in partnership with EY, studying the governance of emerging technologies. I have also shared these with the committee.

As you can see, we have gathered a lot of data and statistics on this topic since 2018, so I'm going to give you just a brief overview of the themes we've seen throughout these publications and our research as well as an idea of how quickly things have changed and what may be ahead for the future.

The first point I want to make, that we have heard over and over again, is that CIOs are rightfully cautious about using new AI technologies. Many times, I have heard the sentiment that you don't want to go looking for a problem because you have a fancy new technology to try out. Wait for the problem, and then look for the best tool. As one CIO said:

"Implementing technology should be about solving a business problem and meeting a need. It's very easy for us in IT to become enamored with a shiny new toy. But if it doesn't provide a better service or make somebody's life easier, it's very likely not worth doing."

There are challenges in adopting AI in state government. The top challenge according to state CIOs is legacy IT infrastructure. It's challenging to apply new AI technology to legacy infrastructure. Many state applications are run on COBOL and other decades-old computer language. It can be hard to find employees that know how to write this code AND integrate it with new technologies.

Another challenge is cultural concerns inside the organization. Employees fear that AI will eliminate their jobs or make them irrelevant. The truth is, that state governments everywhere are seeing a trend of more available jobs than job applicants. AI can be a tool to bridge this gap, rather than a threat to employees. That said, workforce resistance to change is real.

Another hurdle is the lack of necessary staff skills for AI—many states will be looking to the private sector for AI expertise if they can't recruit the skilled workforce needed on limited state budgets.

While the pandemic didn't eliminate these challenges, the surge in successful chatbot deployment did provide an opportunity for states to look at other areas of AI adoption in the near future.

NASCIO advocates for a handful of best practices for states looking to embark on greater adoption of AI.

1. Develop an AI roadmap. Putting AI into your overall technology governance plan can mean the difference between an ad-hoc approach full of unexpected problems, and a well-designed project. In our 2020 emerging technology governance survey with EY, only 21% of states reported that they have a formal governance structure for emerging technologies.
2. CIOs should be prepared to talk about disruption to the workforce, address employee fears, and use their role as change-managers to think ahead to how these technologies will alter, change, disrupt or improve the work that people do on a daily basis.
3. CIOs should be involved in the procurement process for AI technologies to ensure they fit within the roadmap and conform to security and privacy requirements necessary for safely using these tools. This also helps to streamline purchasing solutions for multiple agencies.
4. CIOs should consider running pilot projects to try out new technologies before launching them for broader uses. CIO offices may allocate a small percentage of the charge-back budget to an innovation fund for emerging technology or seek a general fund appropriation to create a grant funding model where agencies can apply for assistance to AI pilots without financial risk.

The chatbot surge of 2020 was a huge leap forward for states in how they view AI. States are now looking at other ways they may be able to leverage AI in the near future. Here are some examples from five states.

- Massachusetts is piloting a program to help citizens complete public assistance forms accurately and more quickly. Massachusetts is also looking to AI to assist with cybersecurity efforts using digital intelligence to help staff members sort through network log data to separate actual threats from false positives.
- Georgia completed a robotic process automation pilot project for agencies to streamline new employee background checks and onboarding procedures.

- The Governor of California last year ordered a request for information to investigate how machine learning might help officials better understand the spread of wildfires and assess fire risks.
- Texas IT officials plan to look at how AI and machine learning could enhance staff efficiency, optimizing costs and promoting innovation, as well as improve the citizen experience, and expedite service delivery and ensure citizens receive accurate responses to inquiries.
- Utah is looking at how AI can help the agriculture department use an AI-enabled image-recognition application to identify brands tattooed on stray livestock to return them to their owner.

In closing, I would just like to restate that unlike at the beginning of 2020, here in April of 2021 states have become very comfortable with low-hanging fruit AI technology like chatbots and digital assistants. Many are developing pilot projects to investigate other uses for AI and RPA. That said, AI in state government is still new and most states have a long way to go when it comes to the governance of AI. But while challenges remain, the business case for AI crystalized in 2020 and in turn CIOs appear more committed than ever to the technology.

Thank you and I look forward to your questions.