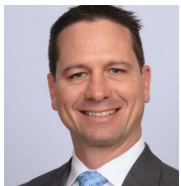


ISSUES TO WATCH

Successful use of chatbots and other AI technologies during the pandemic opened doors to wider adoption and more advanced use cases. CDG Senior Fellow **Bill Rials** provides a glimpse into immediate and near-term use cases. Rials, a former government IT executive who is now a professor and associate director of the Tulane University School of Professional Advancement IT and Cybersecurity Program, suggests how



organizations can take full advantage of AI opportunities now and in the future.

Now that organizations have gotten their feet wet with AI technologies, do you foresee deeper use of AI?

Absolutely. Even if government agencies wanted to go back to the old normal, constituents wouldn't allow it. They've gotten a taste of what government can provide and now they expect things like automated delivery and self-service.

The top AI use case in government is chatbots that interface with constituents. They range in sophistication from simple decision-tree outputs to full AI/ML-powered intelligent platforms. We're also starting to see chatbots interfacing with government workers — for example to pass on institutional knowledge and subject matter expertise to new employees and others as they do their daily work.

As chatbots become more advanced, I expect the burden of learning to shift from the user to the chatbot. The chatbot will adapt the user interface based on what a citizen or employee wants. Taking that further, when organizations onboard new systems, users won't even perceive there's a new system. Minimizing the learning curve and making the user experience more intuitive will get users up to speed faster and encourage adoption of new technologies.

Where are the best opportunities for AI right now?

We're just starting to scratch the surface of what AI can do.

SHUTTERSTOCK.COM



AI In Government Is Poised to Grow

RPA. This technology provides an immediate opportunity. Government agencies have tons of repetitive minutiae and thousands of documents to process daily. RPA offloads those tasks so workers can focus on higher-level thinking. Low-code and no-code solutions allow even non-technical users to set up rules-based processes that automate repetitive work.

Internet of Things (IoT). Historically, many organizations have approached IoT deployments as technology projects rather than business projects that use IoT to achieve business outcomes. I expect increased use of IoT sensors once organizations realize that they provide valuable data for AI to use.

Edge computing. Edge computing has quickly become the decentralized complement to the centralized implementation of AI. I also see growth of AI at the edge. AI at the edge overcomes performance issues associated with data streams traveling back to a central processing unit and enables real-time decision-making based on data from latency-sensitive, resource-intensive devices like police body cameras or traffic monitors.

Digital twins. In the future, agencies will be able to use data from medical records, licenses, location logs and other systems to create a constituent's digital twin. With a clearer picture of the constituent's experience, organizations can make better decisions. Governments could even create a digital twin for an entire jurisdiction. This single-point visualization of cloud services, IoT sensors, data sets and other resources would help organizations understand how

complex systems are connected. It could support scenario planning and modeling to help governments determine how to best use their technology.

Intelligent hubs. Many local governments have smart traffic lights and other devices distributed throughout their community — parking meters, charging stations, pollution sensors, digital signage, IoT sensors, Wi-Fi, 5G and more. There's an opportunity to create a single intelligent street pole that ties into all those data points to provide a one-stop shop. For example, when a person arrives for an appointment to get a building permit, a smart pole detects their presence and notifies the agency so the paperwork is ready when the person walks in.

What challenges will governments need to overcome to adopt AI more broadly?

The true value of AI only exists once we get past the issue of siloed, single-purpose solutions. The more data inputs that AI systems have, the more value they can provide. So siloed systems and silos of data ownership are the main limitations to expanding AI. We need to think about data governance and how we can implement AI into various systems. Once we address these issues, we can get to a central AI machine learning ecosystem that enables all kinds of situational awareness and user experiences for the greater good. And of course, all of this must be backed up by strong policies around data privacy and security and careful thinking about the trade-offs society wants to make between convenience and privacy.