Artificial Intelligence in Practice:
How Government Agencies are Improving Citizen Interactions

Government agencies are always working to communicate with citizens more effectively. For many of them, artificial intelligence (AI) will transform the way they relay information and answer pressing questions. Forward-looking agencies are already leveraging AI and robotic process automation (RPA) to free government personnel for higher-value tasks.

Read on to find out how the United Way Worldwide used a virtual assistant to provide potentially life-or-death information during Hurricane Michael, how the Department of Labor leverages a cognitive advisor to help veterans transition from military life into civilian employment, and how your agency can use intelligent automation to free call agents to handle more complex tasks and better serve citizens.

Communicating During a Crisis

During a disaster like a hurricane, access to timely and relevant information is critical for people to stay safe and get the support they need. However, when the whole community has questions, 211 call centers can quickly become overwhelmed. In large surge events, agencies need to scale significantly to support call center activities — but they may not have the personnel to do so.

That's why when Hurricane Michael struck the Florida Panhandle in October 2018, United Way Worldwide and IBM joined forces to offer CARLA, or the Cognitive Automated Response Learning Agent, to provide potentially life-or-death information to survivors. CARLA, a virtual assistant powered by AI and hosted in the IBM cloud, uses natural language processing and other AI capabilities to understand and respond to users' questions. When deployed during Hurricane Michael, the tool augmented the human

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response call center team by answering frequently asked questions — in English and Spanish — related to food, shelter, evacuation routes and other vital topics. This was critical to free up 211 agents to handle more complex and difficult situations.

"If you think about it, it's natural that immediately after a storm there is a surge of phone calls and requests for assistance," says Claude Yusti, Partner, Watson AI & Data Platform, IBM Public Sector. "However, many of those requests have common, repeatable characteristics to them and they are good candidates for the use of AI. When we studied how we could help the state of Florida with a virtual assistant, we began by looking at the 211 calls. If we could identify the intentions of those callers, we could really focus in on where AI is relevant and where a person is the right choice to answer a phone call."

To that end, Yusti points out that AI is not a replacement for a person, but a way to help people do their work more effectively.

"When a hard question comes in — if your child is sick and needs assistance, for example — we want a person answering that call," he says. "But if your questions are, 'Where are the evacuation routes? Where can I find water? Where can I buy fuel?' We are able to assist in those scenarios using AI."

Helping Veterans Transition to Civilian Life

As they leave the military, it can often be difficult for veterans to enter civilian life — particularly as they search for employment. Oftentimes, current systems do not offer personalized, relevant suggested jobs that fully utilize their skills and interests.

To address this, as part of the 2018 Department of Labor Opportunity Project, IBM developed the Watson Employment Manager, which leverages natural language processing to help veterans understand their skills and match them to jobs and apprenticeships so they can build their careers and better transition to civilian life.

"The Department of Labor was specifically trying to address how to provide meaningful, enriching employment and training for veterans as they leave the military," says Krista Kinnard, Cognitive Application Developer, IBM. "It can be quite a change — leaving the structured environment of the military [and going] to the open world. We needed something that could make finding a job easier."

To use the application, veterans first provide their military occupation code (MOC) and then upload their resume in which they describe their unique skills, experience and interests. The AI application takes that information, understands an individual's unique skills and creates a 360-degree profile that is used as a base to find an apprenticeship or a job, according to Kinnard.

The application ties into the Department of Labor's CareerOneStop Web API, which makes a live call to find available apprenticeships. It then takes the veteran's skills based on this profile and provides a match score for each of the apprenticeships.

"This allows the veteran to make a more informed decision about his or her future," says Kinnard.

More Efficiently Executing Routine Tasks

Service desks can require multiple agents to process and resolve help desk issues which can lead to poor call resolution times and customer satisfaction issues.

To help solve this issue for the Department of Veteran's Affairs, IBM worked on an application that merged robotic process automation (RPA) — which helps carry out tasks on behalf of someone who is requesting assistance — with AI.

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"The RPA in this case was taking activities that were initiated through the virtual agent — through that natural language dialogue — and assisting by carrying out a task and bringing back a result," says Yusti.

For example, if a user says he or she needs a password reset through the virtual agent, RPA can carry out that task and reset the password.

"This is a very powerful tool as you think about redesigning process workflows," says Yusti. "It's not a substitute for people, but what it does say is that some activities don't need human intervention. In those cases, RPA can assist to make them work better."

Moving Forward with AI

Yusti says there are a few important things to consider as government agencies move forward with AI.

First, remember that a virtual agent is proven technology. They are out there, and they can be applied to business problems today.

Next, when you apply a virtual agent, think about how you might redesign the work. Think about what the process would optimally look like and how AI can help you accomplish your objective.

Finally, consider how AI can bring new insights and value to the dialogue that might not be available otherwise. Think about how AI and automation can work together to better facilitate the execution of work.

This session is part of the IBM Government Cloud Virtual Summit, a free, online event featuring 20 sessions with insightful keynotes, illustrative case studies and deep dives into job-critical topics for government leaders. To view any of these sessions, visit www.govtech.com/ibmvirtualsummit