



Speech recognition tech cuts paperwork for police

By Stephanie Kanowitz

Dec 12, 2019

A police officer in San Bernardino, Calif., credits his ability to intervene in a crime in progress to technology that allowed him to dictate his notes, rather than type them. Had he been looking at the screen of his in-vehicle computer, he would have missed the event, the officer's boss said.

Instead, the officer noticed the incident while he was catching up on reports from his shift by speaking details into a handheld PowerMic from Nuance Communications' Dragon Law Enforcement solution. It uses speech recognition and connects directly to the department's computer-aided dispatch (CAD) and records management systems (RMS), enabling officers to fill out reports faster and giving them more time to keep an eye on the community.

“We wanted to give them a tool that would prevent them from having to sit in the station for three hours, four hours, after work on overtime, or sit in their car typing with their head down,” said San Bernardino Police Department Capt. Paul Williams.

Now, instead of spending hours typing reports from their 12-hour shifts, the city’s approximately 125 police officers and a handful of detectives plug their PowerMics into a laptop or desktop computer via a USB port and dictate their reports whenever they can.

Using the handheld device, which uses artificial intelligence to learn how a user speaks, officers can give commands such as, “Run plate” and speak the license plate number or direct the CAD, RMD or Microsoft Word to open a particular form. That form can be prepopulated with some standard information, leaving officers to dictate only certain sections.

Plus, the solution is self-learning, said Mark Geremia, vice president and general manager of Dragon Professional and Consumer at Nuance. “Every time I’m dictating, it’s understanding what I said, and then if I correct something, it actually learns that,” he said.

The result is that reports can be completed three times faster, Geremia said. The average person types 40 to 60 words per minute, but Williams found that in the past month, his department averaged 115 words per minute dictating.

Each officer has their own PowerMic that learns the user's manner of speaking and verbal idiosyncrasies. It follows users from computer to computer, as they log in to the system. All users have to do is push to talk. The device also has buttons that allow users to create macros that initiate commands such as opening a particular form or window.

“If you need to do 10 clicks to get to a window or an application to do something, you can just say, ‘Look up license plates,’ the software will do those clicks for you and open the application or create a form,” Geremia said.

Additionally, users can customize the solution with their own vocabulary, such as adding the city’s street names.

San Bernardino implemented the solution in June. Before that, the process was largely manual. Officers either typed up reports themselves or sent a recording of their dictation to the department’s stenographer to type. But that could take a day or two, Williams said.

Now, the reports are ready immediately, and officers can correct any errors on the spot. What’s more, he said, the reports are far more complete.

“When the reports come through, there used to be the old joke that the report could be six words long ... but now we’re getting reports that are very in-depth and descriptive,” Williams said. “These reports may not be used for six months, two years, three years in a court of law, and it allows the officer to recollect the scene when they go to testify. It can also prevent a trial by being so concise that the lawyers decide it’s not worth it to go to trial.”

Nuance is working on a device that can do dual voice recording, which would be helpful for interviews, Geremia said.

“They didn’t become an officer to write reports. They wanted to go in and save people and be part of the community,” Geremia said of police officers. “What ends up happening, now that you’re talking, you’re creating better-quality reports because you’re telling a story into the system, which is what matters.”

About the Author

Stephanie Kanowitz is a freelance writer based in northern Virginia.

As appeared on GCN.com