

San Francisco Chronicle

Soon that cell will be all ears Voice-recognition technology will cut out the wait time

Ryan Kim, Chronicle Staff Writer

Monday, April 24, 2006

Two weeks ago, Janna Van Hoven tried to download "The Golden Girls" theme song as a ring tone for her new cell phone.

After an hour of fiddling with her phone, she gave up, unsure if the ring tone was even available. She wanted it as a reminder of her college days, when she sat around with her friend watching the television show.

"I wanted that ring tone so it would play when my friend called me. But I had to go through different menus and search through all the songs and sometimes it was hard to find the search option," said Van Hoven, 26, of San Francisco. "It was just a pain."

Van Hoven's frustration is a growing reality for cell phone users and a vexing problem for cell phone carriers. While carriers and their content partners are offering a bounty of media and information on their phone, the devices themselves haven't done a good job so far of actually finding and accessing all the offerings.



But that's about to change. A handful of companies is creating solutions that allow users to find what they're looking for by utilizing an already familiar cell phone behavior: speaking into the phone.

Companies are creating voice recognition applications that allow users to say a search term into the phone and be rewarded in seconds with results.

Instead of tapping their way through an endless maze of menus, a user might say "Eminem" and be rewarded with the right ring tone. Or they might say, "Giants" and get a live baseball score.

Although the advanced voice-search technology is slowly working its way onto the carriers' phones, analysts said it's only a matter of time before they all employ some form of it.

"In my opinion, the right way to do it is through voice recognition," said analyst Roger Entner with Ovum. "If you do it right, you find what you want very quickly in a way that is natural to people. Just talk to the damn thing."

The advances mean voice-search services can offer results in a couple of seconds with more than 90 percent accuracy. It saves people the time of scrolling through screen after screen of results.

For many carriers, this technological advance could unlock revenue that is currently bottled up by the byzantine search format of cell phones. Many carriers, for example, hold hundreds of games, ring tones and wallpapers, but each 2-inch screen can only display about 10 entries.

It can be an exercise in frustration looking for a specific title or artist. Finding sports scores or weather information can also be a chore.



A study by ChangingWorlds, an Irish provider of artificial intelligence products, and Mobile Metrix, a Swedish research firm, found last year that almost two-thirds of mobile content was more than 12 clicks away.

Using the voice to search for information is not new.

Many phone users are familiar with voice-dialing options like the automated customer service operators that many airlines and other companies employ. But recently, voice-recognition companies have made strides in expanding the available search terms, speeding up the process and adding intuitive and predictive functions that allow computer servers to better understand what consumers are asking for.

Combined with more advanced phones and networks, the voice search services are finally coming to life.

Menlo Park's Promptu, one of the major players in the emerging market, is developing software that will rest on a carrier's server and allow users to go directly to their desired content.

Just hold down a button, say, "Green Day," and within three seconds a menu appears offering all the relevant ring tones the phone has. One click, and the phone displays what Green Day wallpapers are available. And if there were a Green Day video game, that would also be one click away.

"You're able to cut through the content in new ways to see what you're looking for," said Brady Bruce, senior vice president at Promptu. "This frees people and liberates people to find out what's on their phone."

Users will also be able to search by category for, say, popular hip-hop songs. Or they'll be able to search for "weather" and the service would serve up a local weather forecast.



Many of the companies like Promptu, San Diego's V-Enable and VoiceBox Technologies of Bellevue, Wash., are working to make the services widely available later this year or by early next year.

Promptu, for example, is in trials with carriers, who are still evaluating the technology.

Craig Hagopian, president of V-Enable, said about 75 percent of current phones already have the technology to run voice searches. When they become available, the services will probably be offered free by the carriers.

That's because the speech-recognition searches could mean big revenue for carriers and content providers. Typically, operators don't derive much money yet from nonvoice data, about \$10 or less per user a month, compared with \$50 a month for average voice service.

But as the margins get squeezed on voice minutes, things like ring tones and games are viewed as a promising way to drive up profits.

But studies have shown that a carrier might lose 10 to 30 percent of its customers each time a user is forced to click to another screen. In many cases, a carrier might derive most of its ring-tone revenue based on the listings on its first few screens.

Carriers like Verizon and Cingular are looking at the technology as a way of unlocking revenue.

Sam Hall, Cingular's vice president of mobile browser services, said the company is examining the technology, which he imagines working in tandem with a traditional keypad. He said it would be one way to simplify the discovery process for users, an imperative for cell phone carriers.



"Everyone now knows phones can do more than just talk," Hall said. "Now the onus is on us to put great experience before them. We're not done yet, and we have a lot to learn, but we're on the right path."

Many companies are working to expand the reach of the voice search to include not only content on the phone but also local information. VoiceSignal is developing ways for people to look up the nearest Starbucks by saying, "Search Starbucks near me," allowing the phone to find the nearest cafe based on the location of their GPS-enabled phone.

VoiceSignal is also working to apply the same voice-recognition technology for text messaging. It recently announced a service that allows people to slowly dictate a message without the constant tapping required for a text message.

Although any type of voice-recognition program requires some learning, many companies are confident people will be able to pick up the habit quickly.

"There is some segment of the population that may be uncomfortable with talking to machines, but the majority of the population has been trained by Hollywood as to how you talk to machines," said Mike Kennewick, chief executive of VoiceBox Technologies. " 'Star Trek' taught us that."

Hagopian of V-Enable said it's ironic that while phones have moved beyond voice, they're returning to voice to tap its larger potential.

"It's like we've come full circle from where we started," he said. "Voice isn't just for speaking. It's now an interface, and it's driving commands."

