Next Generation Automotive User Interface

Connecting Your World
As the car becomes increasingly connected, we’re rethinking how we interact with our cars. Dials and knobs and buttons are too complicated and distracting when you need your car to read back and compose text messages; search for, buy and download songs; or tell someone in another car how to navigate to your location, with directions as specific as what side of the street you’re on. Next Generation Automotive User Interface is an experiment at rethinking how we interact with our cars via voice and touchscreen control.

How did the idea hatch?
As researchers work to bring touchscreen displays and voice control into the car, it’s important to start thinking about the safest and most efficient ways to present those interfaces to drivers and passengers. In this project, the AT&T Foundry® is exploring a prototype interface built on the speech APIs for the AT&T Watson™ speech technology developed at AT&T Labs. Touch controls are also available.

The Future (art of the possible)
With Next Generation Automotive User Interface, we’re imagining your car as an extension of your life. Some eventual possible use cases include the following – and please keep in mind that in each case, customer data would be shared only with appropriate notice and consent:

- I am picking up someone with whom I have a pre-existing relationship, and who has chosen to share his location with me. I state “I need to pick up Mitchell” and the concierge service replies with Mitchell’s location. I then state “tell Mitchell to meet me by the fountain at University and 21st street” and the system sends a voice message to Mitchell. Because the system knows where I am, it knows on which side of the street to tell Mitchell to wait.
- I have a relationship with someone (e.g., spouse, significant other) who has chosen to let me send them location-based messages. I create a geo-fence around someplace significant to both of us and link a song or message to that location. When they enter the geo fence of that location, they receive a prompt from me asking if they want to play the message or song from me.
- I am a road warrior. I have a client coming into town. I need to find a restaurant and activity for the purpose of wining and dining, but I really don’t know that much about them. I ask my concierge to find some options. The concierge uses Full Contact’s APIs to take the information I have about my client and looks for relevant, publicly available social networking information. Using that information, it parses a list of likes and dislikes and makes recommendations on that basis.

About the Researcher
Joseph May – As an Innovation Coach at the AT&T Foundry®, Joseph leads brainstorming initiatives with innovators. Half designer and half developer, he blends a hybrid skillset to rapidly prototype ideas from concept to commercialization. He takes rudimentary concepts and visualizes their functionality using the latest technology in multimedia, 3D animation, and video. Before coming to AT&T, Joseph worked in the field of geographic information systems, film production, and interactive. He has degrees from Texas A&M University and the University of Texas. In his spare time, Joseph enjoys painting, photography, rock climbing, and tinkering with motorcycles.