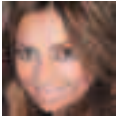


Putting some LIFE into TTS



When it comes to computer-generated speech, those toneless, disembodied voices would be amusing if they weren't so infuriating. Volker Jantzen explains to Telematics Update's **Precksha Saksena** how SVOX infuses a bit of personality into your spoken sat nav directions.

PS: Has TTS become more mainstream?

Volker Jantzen: In the last twelve months we have seen voice- and TTS-enabled voice interfaces and voice guidance becoming more mainstream.

One of the key applications is much more specific voice guidance, i.e. announcing street names in the US, or highway exit names in Europe. This has really become mainstream in the sense that this feature is already integrated in many personal navigation devices, and I think all new in-dash navigation systems have it as well.

The technology has been around for longer, but integration cycles are lengthy in automotive navigation systems, although they are much shorter now with personal navigation.

I think there are two factors why I can say it's becoming mainstream now: one is that the two-year development cycles in automotive have now been concluded, and there are more and more systems on the market; and personal navigation devices have much shorter time-to-market, so within three to six months of being designed you can find them in the shop. And more and more of them feature TTS-supported voice guidance.

PS: What is SVOX SpeechCreate

VJ: SpeechCreate is a virtual recording studio – a recording studio without a speaker. It's designed via a text-to-speech engine in a PC. We have lots of switches and levers to fine-tune the output and design the voice announcements exactly the way you want them to be. We offer it to both the personal navigation device makers and the car

makers for the design of the voice prompts.

PS: Why was SVOX SpeechCreate developed?

VJ: It was developed in response to demand both from the car makers and their suppliers. During a project, you typically have updates, additional voice prompts, sometimes a director doesn't



Volker Jantzen

like a particular announcement and the prompt has to be changed.

If a person makes the recordings, each change means you have to call the speaker back into the studio to re-record, which costs time and money.

PS: What are some of the distinguishing features of SVOX SpeechCreate?

VJ: SpeechCreate enables announce-

ments to be designed in a very natural fashion, and even to add different expressions and emotions to the voice prompts.

We have already worked on a number of projects, and are deploying voice guidance and voice interfaces with SpeechCreate.

I think almost 100,000 prompts have been created with this tool, so it really has been well received and well used in the market.

A significant number of systems are already equipped with TTS features, and now the car makers want to differentiate.

One particular branding company does sound branding for premium car makers, and voice branding is one important aspect of this – i.e. matching the voice to the car maker's corporate identity.

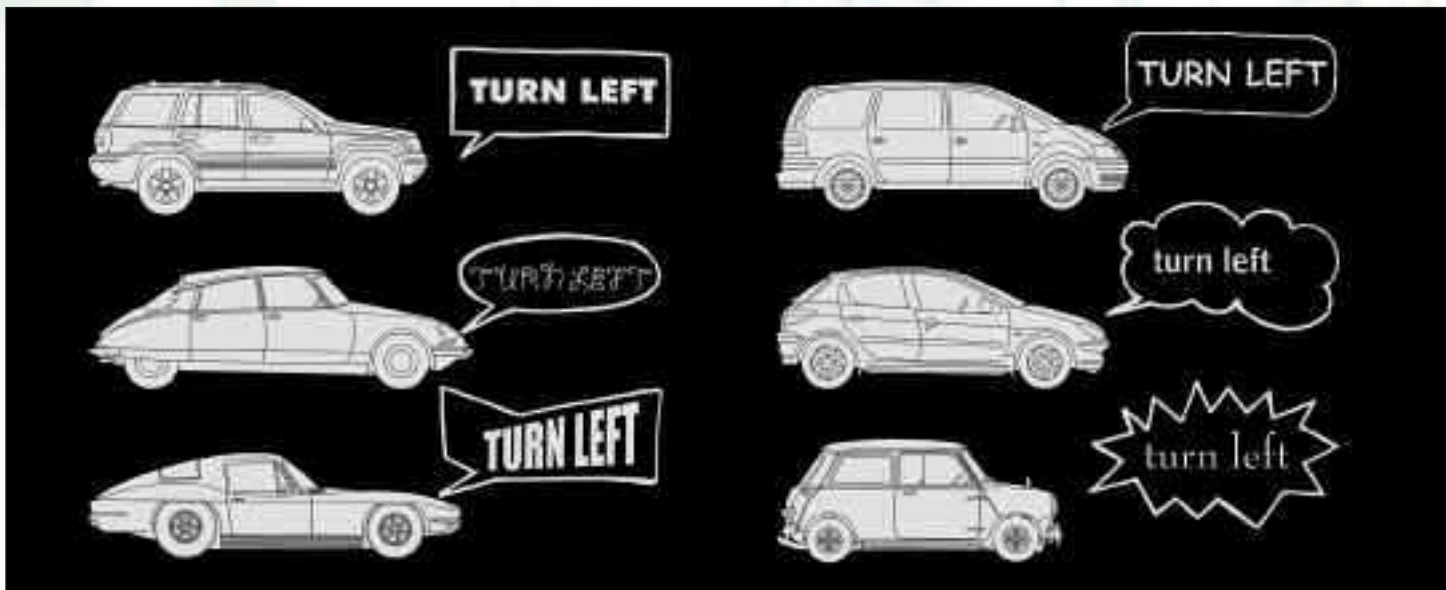
PS: How do car makers use voice to match their corporate identity?

VJ: When we do branded voices, we organise a workshop where we bring marketing people, product managers and technology people to the table, and ask: "What's the message that the car maker wants to put across?"

For instance, if it's a sports car, you'd probably want a younger, very energetic voice; while for a premium car you'd typically have a middle-aged voiced, a rather neutral style, one that somehow sounds experienced.

Based on this, we, or the sound branding agency, cast speakers that match this profile.

But you'd be surprised at some of the other aspects of sound branding. For instance, Audi looks very carefully at what the click of a button sounds like.



You might argue that all buttons sound the same, but to Audi, everything has a different sound, like closing a door, engaging a different gear, etc.

PS: How healthy is this market?

VJ: The outlook is very good actually, thanks to mobile navigation. And it's a very interesting market without any commercial hindrances, and demand is quite high.

In a few years, the majority of phones – even cheap mainstream phones – will come with GPS and even navigation.

And there the challenge is a technical one, because you have less memory, less processing power on a cheap mainstream phone compared with today's smartphones.

The challenge is to come up with TTS solutions that sound very good, but use less memory and processing power than they do today.

PS: Do you think SVOX is technologically superior to its competitors in terms of TTS?

VJ: We have a very strong focus on automotive and mobile navigation. We don't use TTS as a commodity component, but we develop and offer solutions that solve the problems of the navigation makers. And I think this is also the reason why almost all premium car

makers have decided to use our TTS solutions.

Our goal is to come up with a very good solution, typically customised for in-car systems, with the best possible sound and the best possible usage of resources. But at the same time, we offer tools to do this customisation extremely efficiently. We provide a nice sounding solution and you can have it quickly.

What makes us different is that we look at the voice output from the user perspective. TTS technology should enable systems to have additional features but still have the same naturalness as a human recording – ideally, the user shouldn't be able to tell the difference.

PS: What are SVOX's future plans?

VJ: We're now in discussions with mobile phone makers regarding GPS-enabled mainstream phones – that will carry navigation in the future – to offer voice guidance and voice interfaces for phones. This will increase the user base for navigation, and I think the end result will be that everybody will have at least one device carrying some sort of navigation software, just as today everybody has at least one device that can play MP3s or take digital photos, and typically more than one.

PS: Could SVOX comment on the signifi-

cance of Telematics Update's Navigation Europe 2006 and their thought on Navigation Europe 2007?

VJ: It really was a great event. Not to be flattering here, but it was very well attended – I remember that the room wasn't big enough so you had to bring some video conferencing to the second overflow section.

For me, personally, I think it was excellent to be able to network with people from both the automotive and the mobile industries.

I'm looking forward to Navigation Europe 2007, where we'll be discussing new trends, including voice branding, and some interesting aspects – both commercial and technical – of mobile phone-based navigation. ■

Volker Jantzen, chief executive officer of SVOX, is an expert in the field of speech interfaces. His research at the Swiss Federal Institute of Technology in Zurich comprised text-to-speech, speech recognition and computer linguistics, a field he had pursued while working at IBM. Jantzen's keen eye for market potential and his ongoing fascination with languages and speech processing led him to found SVOX in April 2000. The Swiss specialist for embedded speech output solutions soon achieved an outstanding reputation for its profound understanding of consumer needs in respect of HMI.