Transforming the Customer Conversation with Natural Language Technology

• With the launch of the iPhone 4S, it’s becoming evident that natural speech interactions are becoming mainstream for consumers. Using the phone, the line between speech recognition on a device, in the cloud, or in an IVR has blurred for consumers. Seeing the trend, US Airways recently launched a voice self-service system with the friendliest and most intelligent customer service experience in their industry. The airline chose to deliver via Nuance Communications’ cloud based service, which combines Natural Language Understanding technology with mobile speech capabilities. The system delivered results just weeks after being deployed, including an increase in customer satisfaction and improved self-service rates.

• This presentation will demonstrate how recent advancements in speech recognition technology are transforming the contact center and customer experience.
Transforming the customer experience with natural language understanding.
customer care is going mobile.
customer satisfaction.
differentiation.
cost savings.
Consumers love their apps

84%
Of consumers prefer to use an app for routine customer service today

79%
Feel the company is innovative following a good app experience
Consumers Expect a Conversational Experience

77% would like or would prefer to interact with an app via natural language.

Among consumers who have used Siri, that number jumps to 91%.
enterprises see an opportunity to improve their service
why are consumers in love with mobile speech assistants?
my words.
I speak ‘em,
she listens.
she’s friendly.
she knows *where* I am!

*Where's the nearest post office?*
she knows who I am!

“I’m craving Italian.”

OK John, I found several Italian restaurants in your area.
she understands and answers my questions.
US Airways brings these same ingredients to the phone
US Airways’ Wally extends these same principles to the phone
“In a few words, please tell me what you’re calling about.”

Uh, my friend is uh.. flying in from Boston and I was wondering what time his flight arrives.

“OK, first tell me either the flight number or just the departure airport.”
Wally knows who I am

“Hi, Mary.... ”
Wally knows ‘where’ I am

US Airways uses your trip lifecycle to share relevant information
Wally has a smooth & natural sound

music creates richness
audio earcon
smooth sound of dynamic information
text-to-speech (TTS)

US Airways flight 602, Phoenix to Las Vegas
is scheduled to depart on time
at 7:40 AM from gate A-18.

(13 seconds)

traditional dynamic audio

Flight [6] [4] [7] is on time and scheduled to depart
[JFK International Airport] <at> [6] [55] [PM] and
arrive at [San Francisco International Airport] <at> [10] [47] [PM]
(18.2 seconds)

network TTS and Voice Fonts from Nuance

US Airways [Flight 602,] [Phoenix,] <to> [Las Vegas,]
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<at> [7:40 AM,] <from> [Gate A-18.]
(9.3 seconds)
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Network Text-to-Speech with voice fonts

Nuance Vocalizer 5

Vocalizer blends expressive audio recordings and dynamic text-to-speech

- supports 40+ languages
- interface: via MRCP v1 + v2, SAPI 5, and Native C API

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Final speech output
deliver the same killer experience for phone & mobile app

natural ‘understanding’

personalization principles

natural sounding audio
Nuance onDemand
One Experience. One Voice. One platform.

Shared across IVR and mobile
- natural language, grammars, transcription, tagging
- network text-to-speech
- authentication/biometrics
- data & personalization
- analytics
- continuous improvement