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THE VOICE SEARCH PARADIGM IN CALL CENTERS: JUST SAY IT!

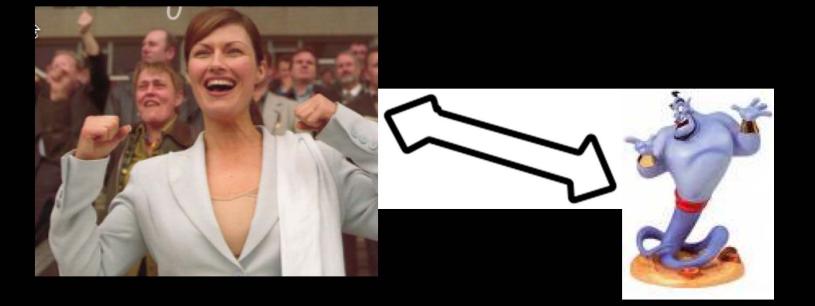
Voice Search paradigm

- Ask for what you want and get it
 - Flexible wording of response
 - Reduced navigation
 - Relevant and focused result
- Clarify with dialog
 - When request is ambiguous
 - When response would be too voluminous for channel

Not just voice

- Results in the most appropriate format
 Audio
 - Text, graphics, or video on devices that support it
 - Multi-channel fulfillment

Changing the caller's mind set



- Easy and convenient—Like Web search
- Avoiding the "I want an agent" reflex

Impact of voice search applications on contact centers

- Increased volume of calls driven by networkbased voice search
- Differing nature of calls
 o ROI → Customer satisfaction → Proactive marketing
- New insights
 - Audio search of recorded calls
 - Uncover business intelligence, needed enhancements, usability issues

The main-menu trap

- Review any segmentation driven by touchtone menu limitations or by previous automation
- Focus on caller objectives and processes

Natural-language call steering

- "Natural-language"
 - "Just say what you want, for example, ..."
 - Barge-in to interrupt
 - Includes a statistical semantic model as well as a statistical language model
 - Natural language can include defined grammars
 - Lists as "words" (AIRPORT_NAME)
 - Disambiguate with dialog
 - "Washington Dulles or Washington National?"

Flexible defined grammars

- Not all applications require the statistical language models used in "natural language" call steering
- "Robust parsing"
 - Identifying information-bearing portions of a word string amid filler words that are relatively insignificant
 - "I want to fly to Chicago Midway Airport"
- Include all the variations by design
 Usually requires usage-based tuning

Personalization

- Use caller ID or account number to shorten interaction by using info about caller
- Don't offer options not relevant to caller
- State frequently used choices first when options are offered
- Volunteer information
 - American Airlines
 - Flight status of reserved flight

Barge-in and shortcuts

- Allowing interruption of prompts eases the tradeoff between the inexperienced and experienced user
- Short-cuts are quick navigation
 - Forward or backward
 - How does caller know they are available?
 - American Airlines example
 - Just say anytime: "AAdvantage," "flight information," "reservations," "upgrades," "mileage balance," "mileage credit," "travel tips"

Updates

- Easy addition of new offers and up-to-date data
- Busch Entertainment--An example
 - Theme parks
 - Web console allows changing show schedules, etc., in minutes
 - Integrated with call steering

Other navigation reducing approaches

- One-step correction
 - "Did you say Austin?"
 - "No, Boston."

Audio Search as a design tool

• Mining recorded calls for business and effectiveness insights

• Content of audio, not just metadata

• E.g., review calls where callers ask for "main menu," "agent," or "real person"

Voice search is a...

- Voice User Interface design philosophy
- Collection of technical approaches
- Reflection of advances in speech recognition technology
- New user interface and analysis options that have passed the "tipping point"

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