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

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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
  o Audio
  o Text, graphics, or video on devices that support it
  o 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 network-based voice search
- Differing nature of calls
  - ROI $\rightarrow$ Customer satisfaction $\rightarrow$ 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 touch-tone menu limitations or by previous automation

• Focus on caller objectives and processes
Natural-language call steering

• “Natural-language”
  o “Just say what you want, for example, …”
    ▪ Barge-in to interrupt
  o Includes a statistical semantic model as well as a statistical language model
  o Natural language can include defined grammars
    ▪ Lists as “words” (AIRPORT_NAME)
  o 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
  o 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
  o Forward or backward
  o 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
  o Theme parks
  o Web console allows changing show schedules, etc., in minutes
  o 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
  o 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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