Profit from usage data analytics:
Recent trends in gathering and analyzing IVR usage data

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Agenda

• What is Usage Data
• Profiting from Usage Analytics
• Usage Intelligence Enhanced Systems
• Data Collection, Conversion and Delivery
• Concluding Remarks
What is Usage Data?

• Traditional IVR analysis included:
  – Analysis of audio files
    • Caller responses for various prompts
  – Analysis of data from recognition logs
    • Inputs, outputs, timing, call flows, etc.

• IVR usage analytics includes analysis of IVR usage data, along with
  – Call center data
  – Caller profiles
  – Transaction data
  – Other backend data
Usage Data Analytics

• Automating customer interactions can increase operational efficiency, but
  – In a rush to offer automated services, companies missed out on valuable intelligence about customer preferences, needs and choices
  – Most IVRs today are static and inflexible and cannot adapt their behavior
• There was a need, to have visibility into the “black box”
  – To understand what customers need
  – To understand where they are spending time
• Visibility into IVR activity provides valuable intelligence that can be used to improve customer satisfaction
Usage Data Analytics

• Similar to click-stream analysis in e-commerce
  – Discover user preferences and usage patterns
  – Root cause analysis for unexpected spikes in errors

• Newer generation IVR systems are able to handle increasingly complex tasks
  – Business Intelligence from usage data is more important than in the past

• Companies look to make every customer interaction count
  – Including those that occur within the IVR channel
Profiting from Usage Analytics

• The goal of business is to lower overall cost of operations, without lowering customer satisfaction
  – The goal is undermined when IVRs are left as “black boxes” without visibility to understand why customers are calling
• Millions of dollars are spent to improve IVR systems in an attempt to “fix” the problem using newer technologies
  – Technologies fall short of their potential without the knowledge of actual users’ behavior
• Usage data based intelligence allows cross-selling and up-selling within each contact channel
Usage Intelligence Enhanced Systems

• Usage data intelligence enhanced systems offer
  – Enhanced personalization
  – Improved customer loyalty
  – Fine tuned IVR systems
  – Shifting analysis roles from IT to business side
Enhanced Personalization

• Dynamically adjust IVR interaction reflecting a holistic view of the customer
  – Need to integrate self-service data with assisted-service data for effective personalization

• Must have sufficient customer data to efficiently customize the experience

• Provide information they need, without having to ask for it
  – Minimize interactions and error rates with proactive alerts
Improving Customer Loyalty

- Improve overall customer experience across contact channels
  - Pass along IVR activity to call center, reducing call duration and improving the experience
- IVR analytics can become customer analytics
  - When we combine customer profile information with IVR data
- Customer analytics lead to improved customer loyalty
  - Understand why they called in order to provide what they need
Fine Tuned IVR Systems

• Today most IVRs are modified on gut feelings, subjective guess, or anecdotal, random information about what customers may want
  – Not based on hard data about user’s behavior and desires.
• Designers indicate they need usage data
  – For effective design eliminating opinion-based design
  – To eliminate costly re-design, resulting from incorrect call flows
• Menu usage studies can be used to optimize application structure
  – Identify dominant paths in the IVR and re-organize call flows for optimal caller experience
  – Reduce call durations and improve overall cost savings by reducing telecom costs
Shifting Analysis Roles

• Business and marketing managers are limited in their analysis
  – Answering simple questions can be difficult
    • What do our customers want to accomplish?
• Gathering usage data shifts analysis from traditional IVR analysts to business managers
  – Users from across the organization can perform their own analysis
    • Simple questions can be answered by anyone
• With an information democracy, IT and Speech Scientists can focus on their roles more effectively
Data Collection

• Traditional approach – Recognition Logs
  – Information about backend transactions not present
  – Tricky to parse, limited analysis by speech scientists

• Active logging by the application
  – Complete information, both user and backend information

• Complete logging by application and agents
  – Provides a holistic view of user actions in both self service and assisted service channels
Data Conversion and Integration

• Convert usage data into knowledge sources
  – Checkpoints, term-points and transaction information
• Organize users’ navigational data into hierarchical levels
  – Application Level
    • ANI, DNIS, date & time, result of call (abandoned, handled, transferred), etc.
  – Transaction Level
    • Transaction name, success or failure at transaction level
  – Dialog Level
    • Menu selections, operator requests, success or failure
• Integrate data with other sources to extract business intelligence
  – Caller profiles, call center data, transaction data
  – Discover “pain points” in the IVR, preferences, usage patterns, reasons for calls, intelligence for cross-selling and up-selling, etc.
Data Delivery & Access

• Data delivery is seen as an issue for hosted speech applications
  – End users from companies need access to their data for analysis

• Business intelligence tools allow online analysis
  – This delivery model makes data access a non-issue for hosted speech applications

• In-house or hosted analysis
  – Data/Log files can be uploaded for analysis and accessed from a hosted service
Concluding Remarks

• Usage data is critical for optimization of IVR systems and can be a corporate asset; yet in most cases it’s either
  – Not collected at all
  – Or, one of the most unused resources of significant value

• Business intelligence can and should be extracted from all contact channels
  – Contact center, web site, emails, and IVRs

• Data gathering is the first significant step in developing usable recommendations
  – Incorporate data gathering into your system design

• IVR Analytics is a tool for continuous improvement.
  – Profit from it by making IVR usage data part of your business intelligence
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Thank You