Analytics for Operational Business Intelligence

Voice Search 2008
C205 Speech Analytics for Business Intelligence

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BBN Technologies
Business Intelligence In The Contact Center

**Strategic**
- Can we give the company insights into changing customer needs?
- Can we provide insights to guide the products and services our company offers?
- Typically historical / batch reporting

**Operational**
- Can we give the customer a better contact experience?
- Can we satisfy the customer’s contact need more efficiently?
- Can we increase sales conversion rates?
- Real-time process visibility
What Will Really Make A Difference?

✓ Reduce Call Volume
✓ Reduce Cost Per Call
✓ Increase Satisfaction
✓ Increase Sales
✓ Increase First Call Resolution
✓ Increase Self-Service

? Policy/Process Changes
? New IVR/CTI Applications
? More Training
? New Agent Desktop
? Workforce Management
? Quality Monitoring
? Performance Management
Can we...

» Eliminate The Caller’s Need To Contact Us?

» Satisfy The Need In Another Channel?

» Take Less Time From The Caller’s Day?

» Improve The Caller’s Satisfaction With The Call?

» Anticipate Additional Caller Needs?
**Caller Intelligence Puts the **Caller** First**

<table>
<thead>
<tr>
<th>Existing Call Center Reports</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Organized by internal structure</strong></td>
</tr>
</tbody>
</table>

For Each Group of Agents
- Call volume
- Queue & handle time
- Transfer rate
- CRM reports
- Agent quality scores

IVR Team
- IVR containment
- IVR availability

Speech Team
- Recognition rates

IT Group
- CTI availability
- Desktop availability

Telecom Team
- Trunk status

- Why do callers contact us? What is the volume for each reason?
- Can we reduce call volume?
- What is the dialing to hang-up caller experience? ...including all in-house & outsourced resources?
- What is the experience for our most valuable callers & call types?
- Where are the inefficiencies that drive excess cost per call?
- Where are the dis-satisfiers and pain points that drive down satisfaction scores?
Fragmented Data In Most Centers

- Existing data is required to manage each resource
- But can’t be effectively aggregated to:
  - Manage end-to-end customer experience
  - Identify cost-saving process improvements

Limited visibility across sites & providers
Two ways to reduce call volume
  » Proactively address caller’s need
  » Reduce unserved & unresolved calls

One way to measurably improve satisfaction
  » Find systemic dis-satisfiers in the entire experience

Any time savings anywhere in the call = cost savings
Success patterns show how to increase sales
Caller Experience Analytics

End-to-End Recordings

Network Recording | Event Detection | Speech Reco | Analytic Models | MultiDim DB | Web Application

Manager’s Dashboard

Internet

Analyst’s Workbench

Data Center

BBN TECHNOLOGIES

AVOKE

a history of innovation
a future of more
Monitor Real-Time Caller Experience Metrics

- Why are people calling?
- How are we serving them?
- Where are agents and callers spending their time?
- How are self-serve applications working?

- Metrics can be monitored over time to find changes.
- They can also be combined.

*Are important call types being handled better or quicker?*
Drill Down To Gain Understanding

- **Start with Dashboard chart showing change in caller behavior or handling.**
  
  *Driven by regular monitoring or specific studies*

- **Refine Analysis view to isolate change.**
  
  *Interactive exploration with point & click charting and filtering*
  
  *Filter properties are derived from detected call events, recognized words, and topics*

- **Examine specific calls to learn root cause.**
  
  *Listen to cradle-to-grave audio*
  
  *View event sequence and full text*
  
  *Annotate calls with observations*
  
  *Send call URL to share findings*

- **Quantify impact.**
  
  *Measure frequency & effect on call time*
  
  *Create charts to illustrate findings*
Build Improvement Roadmaps

- Identify where callers (and agents) waste time.
  
  IVR inefficiencies, misrouting, unnecessary interactions, ...

- Identify the root causes of wasted time.
  
  Poor IVR design, business rules, communication skills, ...

- Develop specific remedies.
  
  From technology to training

- Quantify expected time savings.
  
  Measure actual time wasted
  
  Project realistic impact of remedies

- Prioritize initiatives.

![Cumulative Agent Time Savings](chart)

<table>
<thead>
<tr>
<th>Category</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>CTI</td>
<td>6.1%</td>
</tr>
<tr>
<td>IVR</td>
<td>9.6%</td>
</tr>
<tr>
<td>Agent Processes</td>
<td>13.3%</td>
</tr>
<tr>
<td>Communications</td>
<td>14.6%</td>
</tr>
<tr>
<td>Natural Language</td>
<td>20.2%</td>
</tr>
</tbody>
</table>
# Example IVR Improvement Initiative

<table>
<thead>
<tr>
<th>#</th>
<th>Description</th>
<th>Projected Savings Potential</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Increase robustness of yes/no</td>
<td>0.8%</td>
</tr>
<tr>
<td>2</td>
<td>Improve reservations module</td>
<td>2.5%</td>
</tr>
<tr>
<td>3</td>
<td>Reduce &quot;deadends&quot; by 50%</td>
<td>0.5%</td>
</tr>
<tr>
<td>4</td>
<td>Reduce misroutes by 50% using ...</td>
<td>0.4%</td>
</tr>
<tr>
<td>5</td>
<td>Reduce abandons with agents due to volume or accent by 50%</td>
<td>0.9%</td>
</tr>
<tr>
<td>6</td>
<td>Add 4 specific new self-service applications</td>
<td>2.9%</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th></th>
<th>Projected Savings Potential</th>
</tr>
</thead>
<tbody>
<tr>
<td>% Agent Time</td>
<td>8.0%</td>
</tr>
<tr>
<td>% Caller Time</td>
<td>9.2%</td>
</tr>
</tbody>
</table>
AVOKE Caller Experience Analytics

Breakthrough Caller Experience Analytics

- The Only True End-to-End Solution
  From dialing to termination
- Multiple Techniques To Extract Understanding
  Prompt and speech recognition, telephony data, and human annotation
- Real-Time Data-Driven Insights
  With drill-down to listen for root cause
- Zero Integration
  No on-site hardware or software

To Manage & Optimize Contact Processes

- Improve Operational Visibility
- Reduce Agent Time by 10-20+% 
- Boost First Call Resolution
- Eliminate Customer Dis-Satisfiers