Using Analytics In the Development Lifecycle to Increase Success and Accelerate Launch Of Call Center Speech Applications

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The Hidden Cost of Technology Failure in the Contact Centre

- Between 25% and 33% of technology projects – such as new IVR or CTI systems – get delayed.
- Top causes: stakeholder issues, poor planning, lack of senior management focus, lack of resources and supplier issues.
- Well over half said that technology projects often (48%), nearly always (6%) or always (3%) go wrong.
- Delays add an average of 7 months of time and an extra 90% to the original cost budget.
Nearly one-third of companies cited **service failure rates of over 50 per cent** as a result of project delays.

Percent of customers negatively affected by project delays

100 companies
Sept 2009
“Opening The Kimono” – Why Speech Fails

“…multiple stakeholder groups who could propose changes at will… the resulting user experiences had become so convoluted they were unusable…”

“…not measuring outcomes at all, having metrics but not analyzing (them), or not identifying appropriate actionable outcomes…”

“…usability testing wasn’t done, or it wasn’t done well, which made production usage a giant (and unwelcome) surprise…”

“…changes were proposed for unverified problems, introducing more serious usability problems than what originally existed…”

Melanie Polkosky, Ph.D., is a social cognitive psychologist and speech language pathologist who has researched and designed user experiences for more than 12 years.
"Opening The Kimono" – Why Speech Fails

1. Decentralized control of the IVR
2. Lack of knowledge diversity
3. Limited outcome metrics
4. Lack of trust
5. Lack of predeployment usability testing
6. Spaghetti-like business logic
7. Lack of change management
8. Ripple-effect refusal

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Jan 2010
Where Analytics Adds Value

Requirements 

Design 

Development 

Testing 

Deployment 

Production 

Tuning
Early in the lifecycle, analytics can be used to define requirements anchored by real user behavior.

Analytics provides an authentic understanding of the ultimate users of the speech application by profiling how they currently interact with agents and existing IVR applications.
Using Analytics To Define Requirements

Reasons For Call

- Educate - Forms: 10%
- Educate - Online: 8%
- Educate - Policies & Procedures: 7%
- Follow-up: 6%
- Status Update: 6%
- Misc. Reasons: 11%
- Transaction: 8%
- Transaction (Not Online): 17%
- Correction: 8%
- (New) Service: 6%
## Using Analytics To Define Requirements

### Self-Service Potential

<table>
<thead>
<tr>
<th>Reason for Call</th>
<th>Total</th>
<th>Self-served*</th>
<th>Missed SS</th>
<th>Potential SS</th>
<th>Need Agent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Appointments</td>
<td>3%</td>
<td>2%</td>
<td>2%</td>
<td>2.5%</td>
<td>1%</td>
</tr>
<tr>
<td>Billing</td>
<td>44%</td>
<td>2%</td>
<td>7.5%</td>
<td>2.5%</td>
<td>33%</td>
</tr>
<tr>
<td>Cancel</td>
<td>3%</td>
<td></td>
<td></td>
<td></td>
<td>3%</td>
</tr>
<tr>
<td>Change</td>
<td>19%</td>
<td>0.1%</td>
<td>2.5%</td>
<td>17%</td>
<td></td>
</tr>
<tr>
<td>Feature/Product</td>
<td>7%</td>
<td></td>
<td>7%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sales</td>
<td>2%</td>
<td></td>
<td>0.5%</td>
<td></td>
<td>2%</td>
</tr>
<tr>
<td>Tech</td>
<td>18%</td>
<td>0.4%</td>
<td></td>
<td>18%</td>
<td></td>
</tr>
<tr>
<td>Other</td>
<td>6%</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>100%</td>
<td><strong>2%</strong></td>
<td><strong>9.5%</strong></td>
<td><strong>5.5%</strong></td>
<td><strong>83%</strong></td>
</tr>
</tbody>
</table>

- **Current self-serve rate**: 2%
- **Callers not using existing apps**: 9.5%
- **Needs new apps**: 5.5%
- **Will never self-serve**: 83%
Using Analytics To Define Requirements

### Root Cause of Transfers

<table>
<thead>
<tr>
<th>Reason for Transfer</th>
<th>% Calls</th>
<th>Remedy</th>
</tr>
</thead>
<tbody>
<tr>
<td>IVR Misroute</td>
<td>2.5%</td>
<td>Prompt more callers for Family</td>
</tr>
<tr>
<td></td>
<td>1.5%</td>
<td>Proactively route past-due callers to the accounts receivable</td>
</tr>
<tr>
<td></td>
<td>1%</td>
<td>Disambiguate generic Main Menu responses</td>
</tr>
<tr>
<td></td>
<td>3.5%</td>
<td>Misc. Issues and Remedies</td>
</tr>
<tr>
<td>Agent Process</td>
<td>6%</td>
<td>Expected Transfer</td>
</tr>
<tr>
<td>IVR No Play</td>
<td>4%</td>
<td>Expected Transfer</td>
</tr>
<tr>
<td>IVR Reco Problems &amp; Error Outs</td>
<td>3.5%</td>
<td>Adjust Rejection Sensitivity/DTMF fallback</td>
</tr>
<tr>
<td>Loyalty Escalation</td>
<td>2%</td>
<td>Only send cancellations to loyalty</td>
</tr>
<tr>
<td>Upset Escalation</td>
<td>1.5%</td>
<td>Expected Transfer</td>
</tr>
<tr>
<td>Review w/ Bell</td>
<td>1.5%</td>
<td>TBD</td>
</tr>
<tr>
<td>Other</td>
<td>4%</td>
<td>Misc. Issues and Remedies</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>31%</strong></td>
<td></td>
</tr>
</tbody>
</table>

Reco problems & dialog design issues cause 12% of callers to be transferred unnecessarily!
During pilot and launch, analytics can provide near real-time visibility of users interacting with the new app – and the app’s response.

This greatly *accelerates debugging* and diagnosis. And it reveals specific failure modes, enabling *precisely targeted fixes.*
Real-Time Drill-Down To Caller-IVR Interactions

AVOKE Call Browser

2009-07-29 10:37 EDT
CallID: 2009-07-29-10-37-36_6174973800_20327216283012000205634@10.1.10.10

Event Details
- Start: 07:36:06
- Duration: 00:08:11
- Type: Prompt
- Name: [236-5633] Lookup accounts
- Description: Please hold while I lookup your accounts.

[Call Browser Interface with detailed event log and call flow diagram]
Where Analytics Adds Value

In production, analytics can provide key metric reporting and monitoring, caller-path analysis, and drill-down to actual caller interactions.

This data enables *precision application level tuning* – targeted specifically on the highest impact opportunities to improve performance.
Caller Path Analysis
Key Metric Reporting

IVR Diagnostics
Identify and drill into potential IVR issues.

Menu Selections
Which path callers select in the menus.

Details

Retries
% calls that encountered retry prompts

Where Calls Abandon
Percent of all calls that abandon in the IVR, by location.

Details

Where Calls Go To Agent
Percent of all calls that go to an agent from the IVR by location.

Details
Key Metric Trending

**IVR Performance Trends**
- **Caller Menu Selection**
  - Which path caller selected in IVR.
- **Full Self-Serve Trends**
  - Percentage of calls that got self-service and hung up.

**Caller Identification Trends**
- Percent of calls that are identified in the IVR.

**Time Spent in IVR**
- Average IVR Time.
Using Analytics In The Development Lifecycle

- Establish requirements anchored by real user needs and behavior – and therefore less susceptible to change during the project.
- Accelerate troubleshooting and debugging during the pilot and initial production stages.
- Better reporting in production.
- Data and insights to get more value from tuning.
AVOKE

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