Emerging Techniques of Respondent Engagement: Leveraging Game & Social Mechanics for Mobile Application Research

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New Frontier - Mobile Application Research

- **Emerging Method of CASI**
  - Application research on smartphones, tablets and Web
  - In-the-moment collection method (repeated measures, trigger surveys)
  - Passive collection of rich paradata

- **Emerging Techniques for Respondent Engagement**
  - Game/social mechanics
  - Location Based Services
  - Reminder tools (e.g., push notification, text messages, custom alerts, etc.)

- **Wide Open Areas of Research**
  - App usability/user experience design
  - Long term compliance
  - Data quality
  - Measurement error
The Rise of Apps Culture

• U.S. adults have cell phones with apps (either pre-loaded or downloaded apps)
  – 35% in 2010
  – 50% in 2011

• U.S. adults reported using apps at least once a week
  – 51% use a handful of apps
  – 31% use 6 or more apps (“power users”)

• App users are younger, more educated and more affluent than other cell phone users

Source: Pew Research Center’s Internet & American Life Project, 2011 Tracking Survey
Most Popular Types of Apps Used

- Games: 60%
- News/Weather: 52%
- Maps/Navigation: 51%
- Social Networking: 47%
- Music: 43%
- Entertainment/Food: 34%
- Sports: 28%
- Productivity: 27%
- Shopping/Retail: 26%
- Video/Movies: 24%
- Communication: 22%
- Travel/Lifestyle: 21%
- Others: 18%

Source: The Nielsen App Playbook 2010
Growing Importance of User Engagement

Respondents are more tech savvy and have higher expectations with cross-platform technologies!
Research Objectives

– Seek alternative method for collecting television media usage through mobile application
– Evaluate effectiveness of game & social mechanics to engage respondents for longitudinal repeated measures

Methods

– Pre-pilot (11/14/11 – 1/16/12): Gather user feedback on key app features
– Pilot (1/17/12 – 2/27/12): Study viability of using apps for data collection and the effect of engagement techniques
  • Sample: 250 Nielsen employees nationwide
  • Instrument: iPhone application
  • Field Period: 6 weeks
– Follow-up Study (3/5/12-3/9/12): Debrief with participants on user experience
Effect of Game & Social Mechanics

Respondent Engagement Techniques

<table>
<thead>
<tr>
<th>Conditions</th>
<th>Sample Size</th>
<th>Game Mechanics</th>
<th>Social Mechanics</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>Week 1-6</td>
<td>90/100</td>
<td>Enabled</td>
</tr>
<tr>
<td>Week 1-2</td>
<td></td>
<td>Disabled</td>
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</tr>
<tr>
<td>B</td>
<td>Week 3-4</td>
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<tr>
<td>Week 5-6</td>
<td></td>
<td>Enabled</td>
<td>Enabled</td>
</tr>
</tbody>
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Data Capturing: TV Media Usage

Collect television media usage through iPhone application

- What TV program are you watching?
- Where are you watching TV?
- How are you watching TV? (TV, computer, phone, tablet?)
- What station are you watching?
- Who else is watching with you?
Respondent Engagement: Game Mechanics

Badges
- 1st live viewing
- 1st retro viewing
- 1st DVR/VCR viewing
- Consistent app usage

Points / Levels
- Earning badges
- Completing trigger surveys
- Advance levels
- Respond to notification
Game Mechanic: Badges

High Value Activity

Badge Reward

Achievement
Game Mechanic: Points & Levels

High Value Activity

Points Reward

Achievement
Respondent Engagement: Social Mechanics

- App Activities
- App/Fb Community
- TV Viewing
- Badge Reward
- Level Advancement
- "Likes" / Comments
Social Mechanic: Sharing & Connection

App Activity → Sharing Updates → Likes/Comments
Results: Reaction for earning badges

Q: What did you think about earning badges in the app? Loved it, Liked it, Neither liked nor disliked, Disliked it, or Hated it (n=121)
Results: Reaction for earning points & levels

Q: What did you think about earning points/levels in the app? Loved it, Liked it, Neither liked nor disliked, Disliked it, or Hated it (n=127)
Results: Badge effect on participation

Q: To what extent did the badges encourage your participation in the app? Very encouraging, Somewhat encouraging, Neither encouraging nor discouraging, Somewhat discouraging or Very discouraging (n=121)

- Very/Somewhat Encouraging
- Neither/Somewhat/Very Discouraging

- Total: 59% Encouraging, 41% Discouraging
- Male: 51% Encouraging, 49% Discouraging
- Female: 68% Encouraging, 32% Discouraging
- Age 18-29: 48% Encouraging, 52% Discouraging
- Age 30-39: 43% Encouraging, 57% Discouraging
- Age 40+: 28% Encouraging, 72% Discouraging
- White: 63% Encouraging, 37% Discouraging
- Black: 50% Encouraging, 50% Discouraging
- Asian Hispanic: 40% Encouraging, 60% Discouraging
- 31% Encouraging, 69% Discouraging
Results: Points/level effect on participation

Q: To what extent did the points/levels encourage your participation in the app? Very encouraging, Somewhat encouraging, Neither encouraging nor discouraging, Somewhat discouraging or Very discouraging (n=121)
Results: Effectiveness of Social Mechanics

Did rspn use social features?

- Female used it every time and more often than male
  - Male: 16.1% | Female 30.8%

- Younger cohorts used it more frequently than older cohort
  - Age 18-29: 26% | 30-29: 30%
  - Age 40+: 7%

- Asian, Black and Hispanic more likely than Whites to use social feed
  - Asian: 50% | Black 50% | Hisp: 43% (White: 17%)

Q: Did you use the Social Feed feature in the app? Every time I used the app, often, rarely or never (n=127)

What features did they use?

- Push comments to Fb: 6%
- Comment internal app postings: 11%
- "Like" internal app postings: 19%
- Read social feed postings: 86%

Q: What features of the Social Feed did you use? Check all that apply. (n=127)
Summary of Game & Social Mechanics

Qualitative Insights

- Game mechanics should drive competition!
  - Badges should be meaningful to the RESPONDENTS
  - Badges should be distributed throughout the data collection period
  - Respondents want to understand how to earn points and advance levels
  - Respondent expectation of different experience for achievement

- Demonstrate achievement through social mechanics
  - Share their achievement through leaderboard for public viewing
  - Desire to engage with their personal network within the app

- Game & social mechanics most engaging for young adults & ethnic minorities
  - Adults age 18-29, Asians, Blacks & Hispanics
    - Most engaged with badges and somewhat engaged with points & levels compared to respective cohorts
Recommendations & Next Steps

• Recommendations from Pilot Learning
  – Consider for longer term panel
  – Evaluate cost-benefit in using game/social mechanics & tailor features for targeted cohorts
    • Cost of app development
    • Extended timeline
    • Complexity of game logic

• Next Steps
  – Comparison of viewing collected on paper TV diary, electronic meter and smartphone app
  – Enhancement of game and social mechanics
  – Launch of cross-platform application research on Android, iOS & Web
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