Alexa Experiment @ USC Libraries

Win Shih
Sophie Lesinska, *University of Southern Cal*
Melissa Miller, *University of Southern California*
Alexa Experiment @ USC Libraries

Win Shih, Sophie Lesinska, Melissa Miller

USC Libraries in Numbers (FY 2016-17)
- Twenty branch libraries
- Total volumes: 5,880,591
- E-books: 1,622,243
- Circulation transactions: 106,576
- Gate count: 2,935,173

USC Libraries Dean’s Challenge Grant
- Innovative and transformative ideas
- Service, collections, and outreach projects
- Interdepartmental collaboration
- Examples
  - USC Libraries Anti-racist Teaching and Learning discussions
  - Information Literacy Course Enhancement Grants

USC Libraries Alexa Project Team
- Project Leads:
  - Sophie Lesinska, Head, Doheny Memorial Library
  - Win Shih, Director, Integrated Library Systems
- Members:
  - Melissa Miller, Head, Philosophy Library
  - Royd Murakka, Programmer/Analyst
  - Adam Sexton, Doheny Library Manager
  - Marilyn Taylor, Systems Analyst II
- Student Developers:
  - Lanka Eshwar Nag
  - Divya Brindha Rajendran
  - Snehal Shirgure

USC Libraries Alexa Project Goals
- Explore possible library use cases
- Integrate with other library systems and contents
- Automate basic library operations
- Explore campus partners
  - Alexa Graduate Fellowship
  - Alexa Innovation Fellowship
- MEPC Competition
Smart Speaker Development

U.S. Adult Smart Speaker Installed Base - January 2019

Total US Adult Population
253 MILLION

38.8% One-Year Growth

Alexa Built-In Speakers

U.S. Smart Speaker Market Share by Brand
January 2018 & 2019

TOTAL ALEXA SKILLS AVAILABLE BY COUNTRY - Jan 2019
Three Alexa Skills

1. **USC Libraries FAQ**
   - Answers frequently asked questions
   - Alexa skill invocation: USC Libraries
   - Source: LibAnswers

2. **USC Libraries Search**
   - Query USC Libraries catalog by author, title, and keyword
   - Alexa skill invocation: USC Trojans
   - Source: Alma API

3. **USC Libraries Events**

USC Libraries Alexa Skills

- **USC Libraries FAQ**
- Answers frequently asked questions
- Alexa skill invocation: USC Libraries
- Source: LibAnswers

Library Catalog Search Test

<table>
<thead>
<tr>
<th>Successful Rate</th>
<th>Title</th>
<th>Author</th>
<th>Keyword</th>
<th>Rating</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total (n=16)</td>
<td>77.50%</td>
<td>58.13%</td>
<td>86.88%</td>
<td>6.69</td>
</tr>
<tr>
<td>Native Speaker (n=12)</td>
<td>76.67%</td>
<td>58.33%</td>
<td>89.17%</td>
<td>6.75</td>
</tr>
<tr>
<td>Non-Native Speaker (n=4)</td>
<td>80.00%</td>
<td>57.50%</td>
<td>80.00%</td>
<td>6.50</td>
</tr>
</tbody>
</table>
Library Catalog Search Test
• Chinese, French, German, Hebrew, Japanese, Korean, Spanish
• Author search better than Title search
• Title search and pronunciation issues

USC Libraries Alexa Skills
• USC Libraries Events
• Query USC Libraries current events and hours
• Alexa skill invocation: USC Events
• Source: Drupal API (USC Events Website) and Alma API (Library Hours)

Lessons Learned
• Alexa Voice Recognition Technology
• Available contents and Alexa skills
• Sustainability / Resources
• Strategic / symbolic value

Takeaways
• Trust
• Alexa, Understand Me!
• Opportunities

Questions?
Thank You