GoBraille: Enhancing Independence and Safety for Blind and Deaf-Blind Public Transit Riders
Shiri Azenkot, Sanjana Prasain, and Emily Fortuna
Computer Science & Engineering, DUB Group, University of Washington

Challenges in Public Transit Use

- Finding the bus stop
- Boarding the right bus
- Disembarking at the right time
- Missing a stop
- Communicating with the driver
- Trusting the driver and other people
- Limited access to information in Braille

Key user values: independence and safety

GoBraille: A System to Address the Challenges

Braille Notetaker

Smartphone

HTTP Request

HTTP Response

Services and API's

- Brooklyn Ave NE and NE 42nd St
- 4200 Brooklyn Ave
- 72 Downtown: 3m (2m delay)
  - Stop does not have a shelter
  - Stop has a bench
  - Stop is NE from the intersection

Evaluating GoBraille

User studies with 10 blind people

<table>
<thead>
<tr>
<th>Strongly Disagree</th>
<th>Neutral</th>
<th>Strongly Agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>The system would provide me with useful information</td>
<td></td>
<td></td>
</tr>
<tr>
<td>I'd prefer to ask the bus driver or other people for information rather than use the system</td>
<td></td>
<td></td>
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<tr>
<td>I feel that the system would enable me to use public transit more independently</td>
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<td></td>
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<tr>
<td>I prefer to have this information in speech on a mobile phone than to have it in Braille</td>
<td></td>
<td></td>
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<tr>
<td>The system was difficult to use</td>
<td></td>
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</tbody>
</table>

Co-design with a deaf-blind person
1. Short output messages
2. Short input messages
3. Be concise and provide training

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