Special topics

Gamification

Accessibility in HCI
Accessibility in HCI

Accessibility = "ability to access"

“Design of products, devices, services, or environments for people who experience disabilities”

Accessibility in HCI

Accessibility = "ability to access"

Disabilities:
- Cognitive
- Visual
- Hearing
- Motor
Accessibility in HCI

Basics:

- “Alt” tags
- Settings for text size and fonts
- Settings for screens
- Transcriptions / different modalities
- Basic formats
- Keyboard access
Accessibility in HCI

Accessibility = "ability to access"

Disabilities:
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- Motor
Accessibility in HCI

MouthStick stylus
Accessibility in HCI

Accessibility = "ability to access"

Strategies:

- Automatic adaptation
- User made configuration
- Production customization
- Universal design
Supple system, K.Z. Gajos et al.
Accessibility in HCI

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Accessibility in HCI

- Duration spectrum (short-term to long-term)
- Source spectrum (inside itself to outside itself)

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### Seven Principles of Ability-Based Design

<table>
<thead>
<tr>
<th>STANCE</th>
<th>1. Ability.</th>
<th>Designers will focus on ability not <em>dis</em>-ability, striving to leverage all that users <em>can</em> do.</th>
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</thead>
<tbody>
<tr>
<td></td>
<td>2. Accountability.</td>
<td>Designers will respond to poor performance by changing systems, not users, leaving users as they are.</td>
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<tr>
<td>INTERFACE</td>
<td>3. Adaptation.</td>
<td>Interfaces may be self-adaptive or user-adaptable to provide the best possible match to users’ abilities.</td>
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<td></td>
<td>4. Transparency.</td>
<td>Interfaces may give users awareness of adaptations and the means to inspect, override, discard, revert, store, retrieve, preview, and test those adaptations.</td>
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<tr>
<td>SYSTEM</td>
<td>5. Performance.</td>
<td>Systems may regard users’ performance, and may monitor, measure, model, or predict that performance.</td>
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<td>6. Context.</td>
<td>Systems may proactively sense context and anticipate its effects on users’ abilities.</td>
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<td>7. Commodity.</td>
<td>Systems may comprise low-cost, inexpensive, readily available commodity hardware and software.</td>
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</tbody>
</table>

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  - (short-term to long-term)

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