User Centered Design Process
May 1 - June 14

History of user centered design in HCI
June 19, June 21

Academic HCI
June 26, June 28

Special topics in HCI
July 5, July 10

Course Review
July 12, July 17

Presentation 2
July 19

Last class
July 24
Special topics

Accessibility in HCI

Gamification
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
Slip-On Typing/Keyboard Aid

Adapted keyboard

BIGTrack
Slide to unlock: Making touch-screen devices accessible to all
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)

Disabilities:
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# Accessibility in HCI

## Seven Principles of Ability-Based Design

<table>
<thead>
<tr>
<th>Prerequisite</th>
<th>Description</th>
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<tr>
<td>1. Ability.</td>
<td>Designers will focus on ability not dis-ability, striving to leverage all that users can do.</td>
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<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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<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>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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<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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Jacob O. Wobbrock SIGCHI Social Impact Award 2017