

CS449/649: Human-Computer Interaction

Winter 2018

Lecture XX

Anastasia Kuzminykh

Special topics



Gamification



Accessibility in HCI



Accessibility in HCI

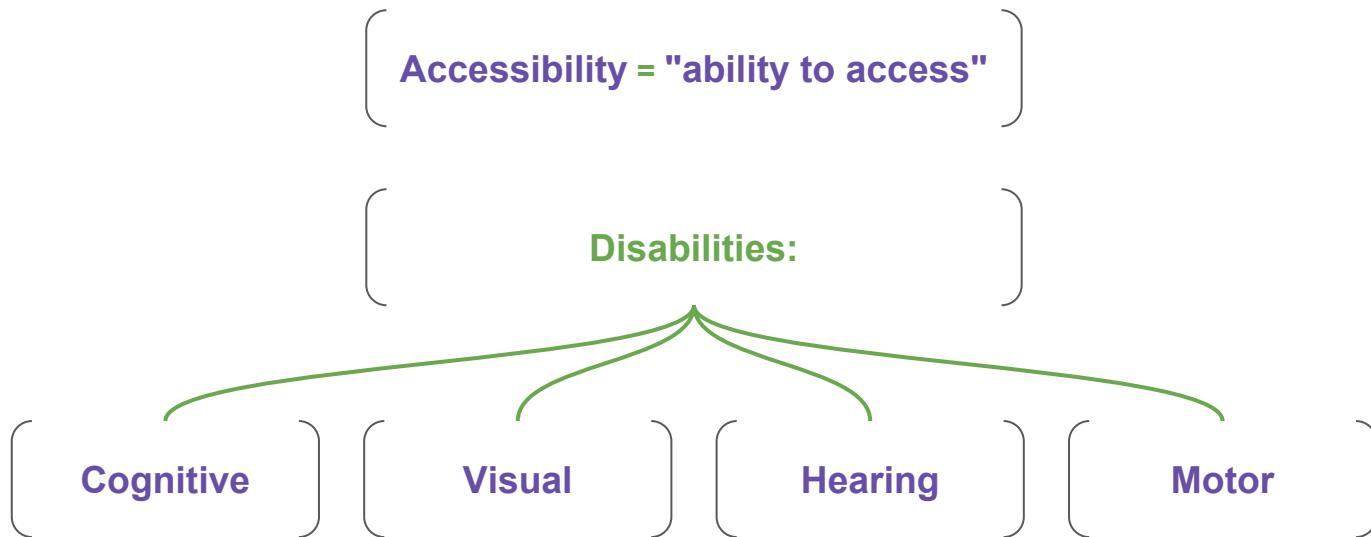
Accessibility = "ability to access"

**"Design of products, devices,
services, or environments for
people who experience disabilities"**

Henry, S. L., Abou-Zahra, S., Brewer, J. (2014).
"The Role of Accessibility in a Universal Web"



Accessibility in HCI





Accessibility in HCI

Basics:



“Alt” tags

Settings for text size and fonts

Settings for screens

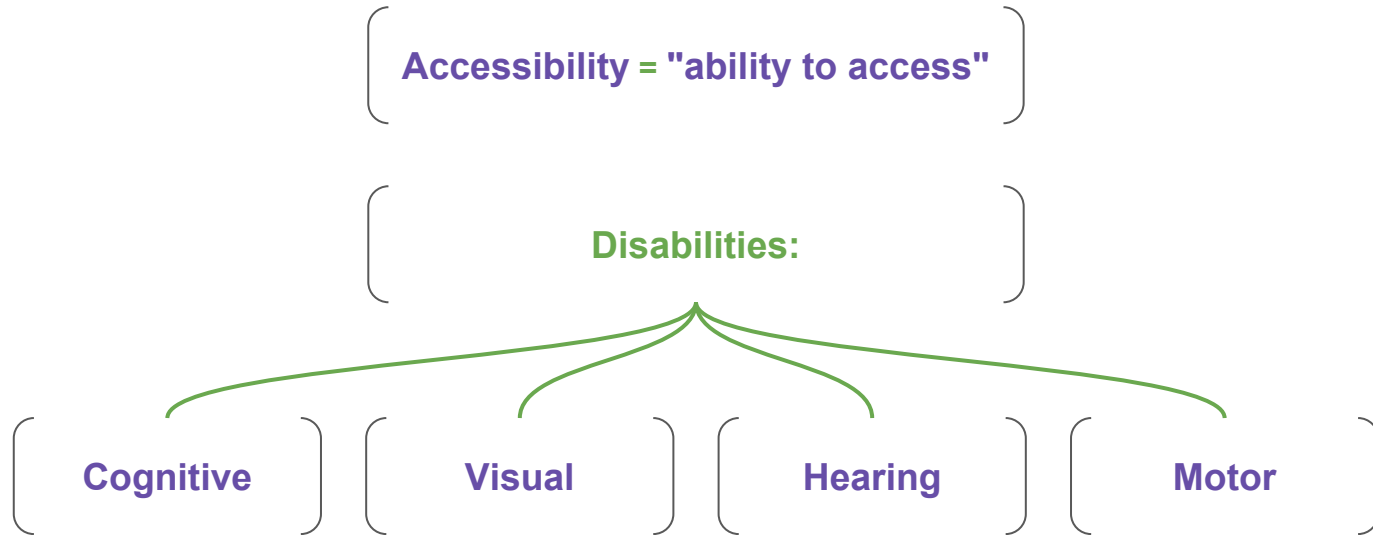
Transcriptions / different modalities

Basic formats

Keyboard access



Accessibility in HCI





Accessibility 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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Strategies:

Automatic
adaptation

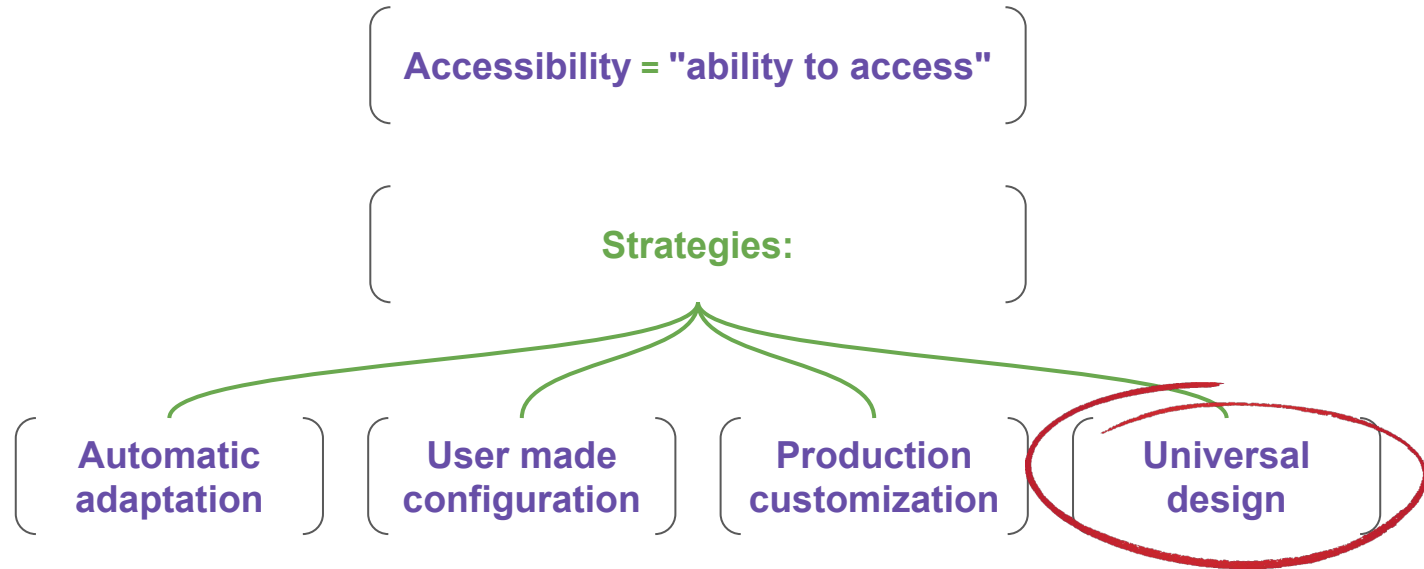
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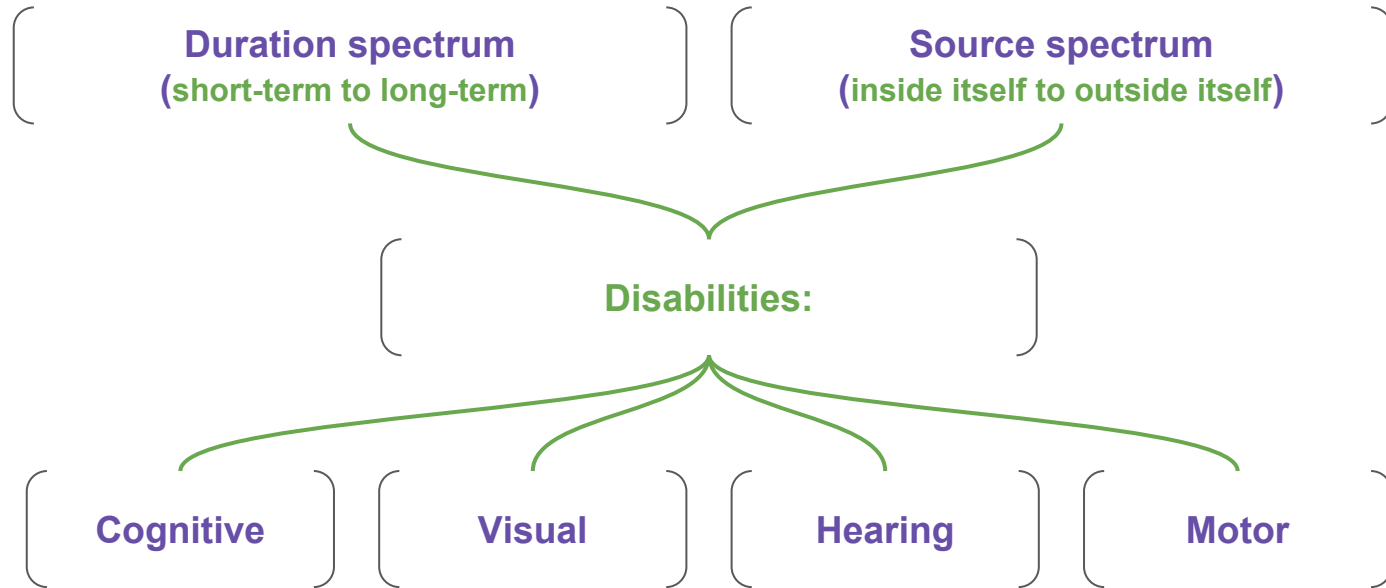


Accessibility in HCI





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Accessibility in HCI

Seven Principles of Ability-Based Design

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



Accessibility in HCI

