



Assistive Technology: When East Meets West

Chulalongkorn University
Bangkok, Thailand

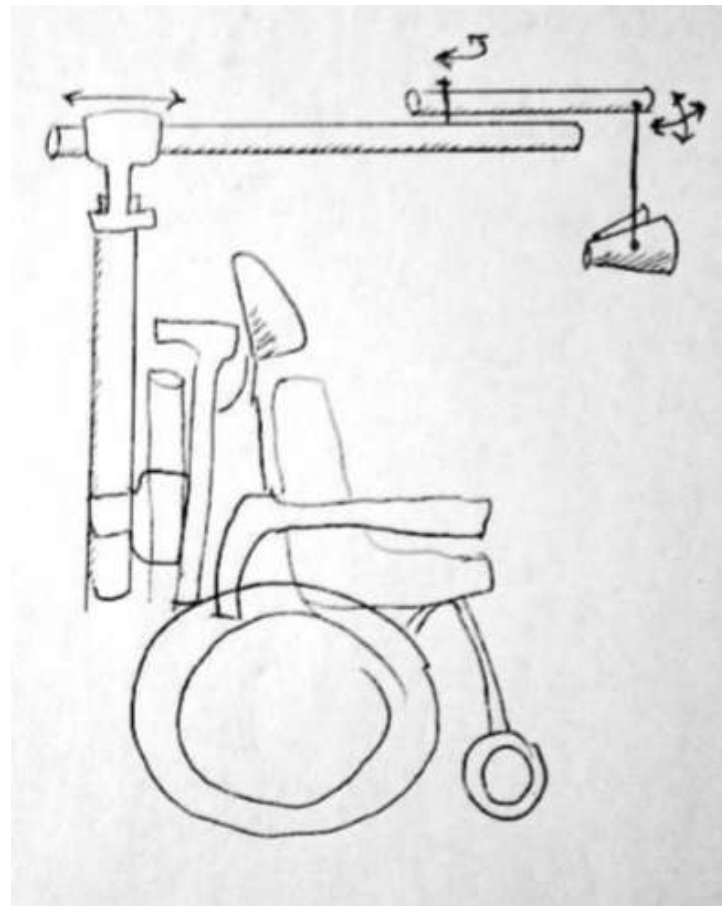


**Massachusetts
Institute of
Technology**

6.811: Principles and Practice of Assistive Technology



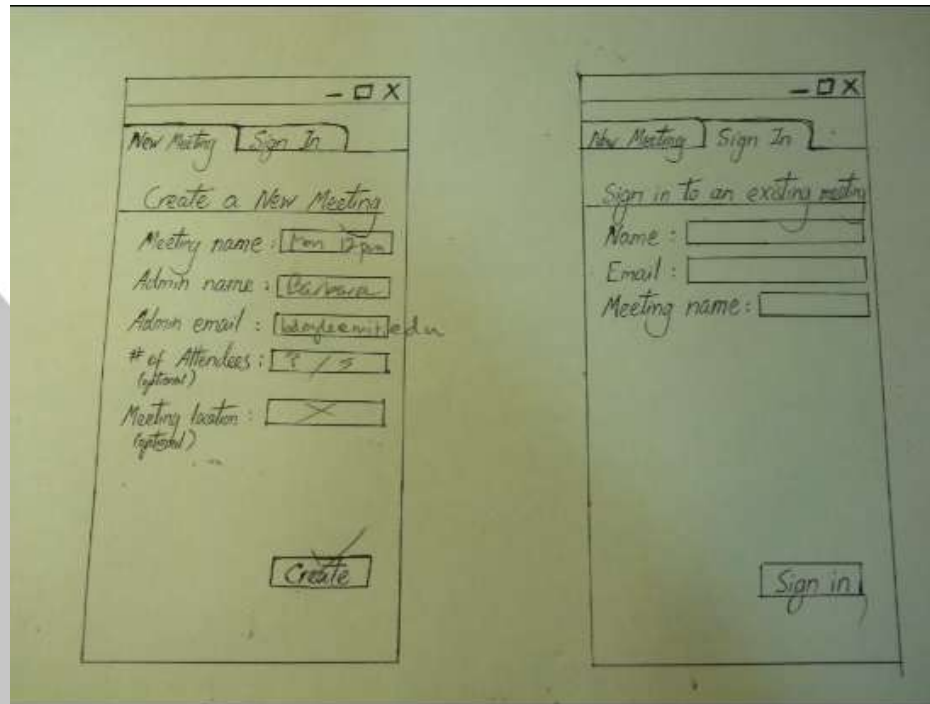
- 2011
- 25 students
- Project-based
- 3-student teams
- Work with communities





Motor Impairment

- Bird watching!





Hearing Loss

- Task: Better communication in meetings
- Weekly staff meetings and other project meetings, between 4 and 15 people.
- Gain more understanding from each meeting, with greater convenience





Early onset Alzheimer's

- Executive Functioning
- Spatial Recognition

International Perspectives





2006

- First AT tool

2007

- Assistive Technology Research Group

2007

- AT class as special topic

2008

- AT as elective



Selected projects

- Lip Reading devices
- FM
- Thai / English Text to Braille
- MathFlash in Thai
- Computer games for individuals who are blind
- iSonar: Obstacle Sensing for People with Visual Disabilities
- Integrated Flash Drive
- Alert Sensor Preventing Pressure Ulcers
- Etc





Selected Senior Projects / Theses

Voice Enabling Smart Home

Web page content and structure analysis for a screen reader

Computer-Assisted Speech Training (CAST)

Screen Reader with Thai Language Speech Synthesizer

RFID for Blind Shoppers

Wikipedia for People who are Visually Impaired

Edutainment for People who are Visually Impaired

Non-Visual Interface for Standard Chartered Bank

Mobile Book Reading System for People who are Visually Impaired (BrightSight)

NVDA Enhancement

Automatic speech recognition for Thai data-entry tasks

Brain Computer Interface (BCI) for alternative communication

AAC

Automatic Content Segmentation for Audio Book Narration

Unified digital audio book creation platform

Ear Replacement Technology for a person with a hearing disability

Scan and Read (WhaleRead)



Products

- Chula DAISY
- CU Speaking Keyboards
- AAC
- Hummigator



Social Activities

- WCAG
- DAISY Audio Books
- Java Programming Class
- ...



Issues

- Language
- Culture
- Laws, Rules, Regulations
- Acceptance
- Resource
- Support



Thank you!

