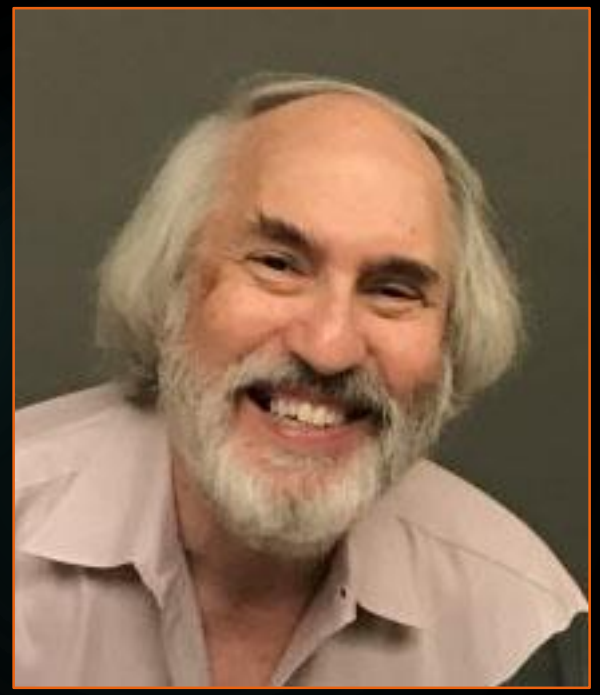
February 7, 2023

Issues of Human Interface Design

ENGR110/210
Perspectives in Assistive Technology



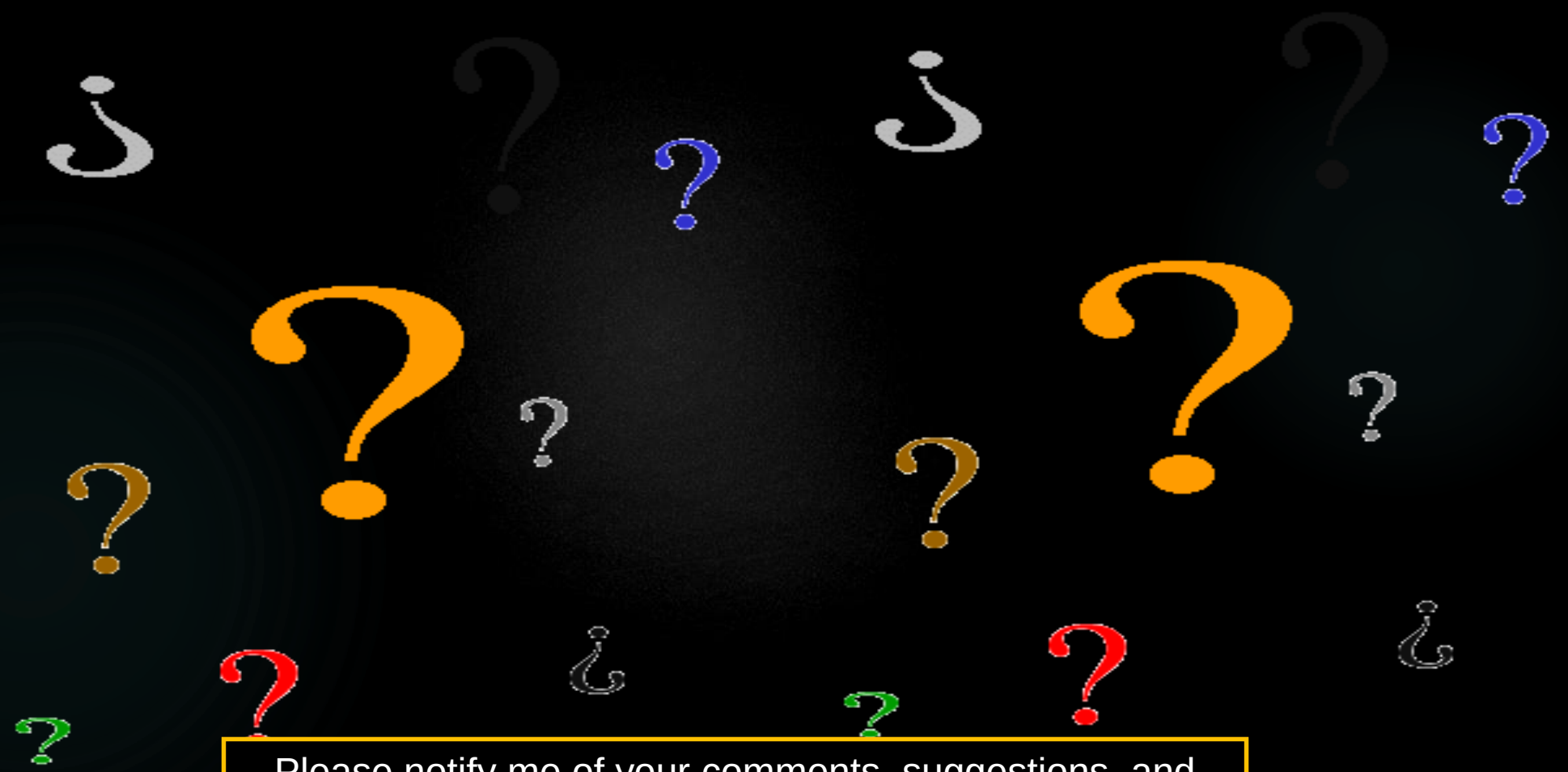
David L. Jaffe, MS

Instructor

17

Years

Questions?



Please notify me of your comments, suggestions, and concerns so I can explain / address / correct them.

Miscellaneous Stuff

- Service animals are Assistive Technology
- Josh advocated for more people with disabilities to become engineers / designers
- People with disabilities and older adults can participate in the design process without a background in design / engineering
- How many users does an AT company have to interview to ensure that their products benefit their targeted consumers?
- Yahoo Accessibility vendor at Assistive Technology Faire

Many thanks!

Students working on projects:

- Meeting with me
- Providing progress updates

Community members:

- Project partners
- Attending class sessions

Guest lecturers:

- Presenting interesting topics

Upcoming Events

- RESNA Student Design Challenge - unknown due date
- Conference in New Orleans in July

Upcoming class sessions

- Assistive Robotics - Thu, Feb 9th
  Monroe Kennedy III, PhD

- Mid-term Student Project Presentations – Tue, Feb 14th
  9 Teams

- Field Trip to the Magical Bridge Playground - Thu, Feb 16th
  Olenka Villarreal

- VA Palo Alto Health Care System - Tue, Feb 21st
  B. Jenny Kiratli, PhD & Jeffrey P. Jaramillo, DPT

Students working on Team Projects

- Connect with project partner
- "Understand the Problem"
- Brainstorming
- Select Design Concept(s)
- Sketches, low resolution prototypes
- Prepare for Mid-Term Presentation and Report
- Contact me if you have questions about your project direction
- Weekly - Meet with me or Ayano to discuss project progress, submit reports to both Ayano and me
- **Mid-Term Reports due Mon, Feb 20th**

Students working on Team Projects
Mid-term Presentations in 7 days!

- Mid-term presentations will be 7 minutes
- Project title, background, problem, aim, design criteria, "understanding the problem" & brainstorming activities, and selected solution, with **low resolution prototype**
- Send Google Docs url to me, **to be run from my laptop**
- Strive to be professional
- Include feeling & emotion
- Presentation tips on course website
- **Signup Sheet for presentation order**

Students working on Team Projects
Mid-term Report

- Mid-term report - 10 to 15 pages of narrative - text and images
- Include sketches and photos
- Goal: short, concise, well-written, and highly readable report with few grammatical and spelling errors.
- Report Writing Tips documents **suggested** report features

Students working on Individual Projects

- **Meet with me to approve your project, get information**
- Submit project name
- Contact me if you have questions about your project direction
- Weekly - Meet with me or Ayano to discuss project progress
- Submit progress reports to both Ayano & me

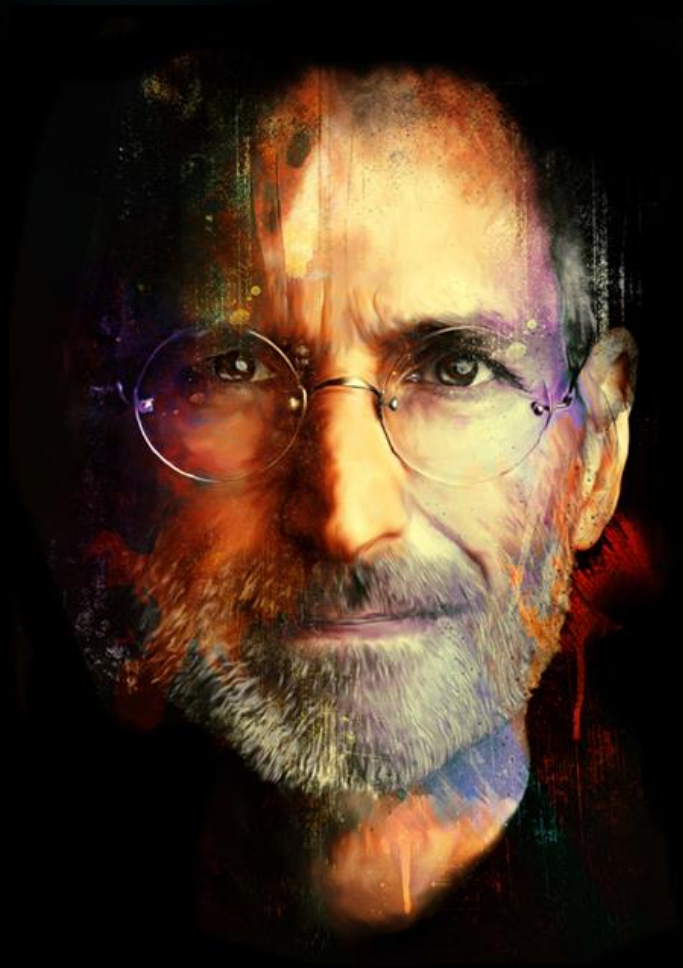
Reminder - Work with Diligence

- Time is your most precious resource
- 7 days until Mid-term Presentations - Tue, Feb 14th
- Outline your presentation & report

Steve Job's Quotes

- "You can't just ask customers what they want and then try to give that to them. By the time you get it built, they'll want something new."

- "Most people don't even know what they want until they see it. So sometimes you must give people what they need, not what they're asking for."



ABLEISM

Ableism - What is Ableism?

- Ableism is a form of discrimination that asserts or suggests that able-bodied people are superior to those with disabilities. [Ageism - older adults]

- Ableism is a system that places value on people's bodies and minds based on artificially constructed ideas of normalcy, intelligence, excellence, and productivity.

Ableism - Ramifications

- An ableist society treats able-bodied people as the standard for 'normal' living. This promotes unfair treatment towards people with disabilities (and older adults).

- This form of thinking leads to people and society determining who is valuable and worthy based on a person's appearance and/or their ability to satisfactorily [re]produce, excel and "behave", rather than the quality of their character. [MLK]

- One does not have to be disabled to experience ableism.

Ableism - Solutions

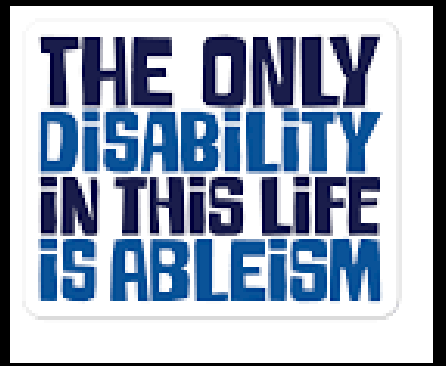
- Education is one keyway to bust myths and prejudices about the people with disabilities and older adults.
- Language and vocabulary changes are also needed to include everyone in the advancement of the technological world in a genuine, respectful, and humane way.
- Positive examples

Ableism - Language

- Disability vs Ability
- “Disability” perceived as a negative term / condition
- Disability = no ability = not worthy

Ableism - Future

- Although society and the digital world are becoming more accepting of diversity, discrimination still exists, especially for people with disabilities (and older adults).
- A positive virtual future is set to become progressively more inclusive of people of all levels of ability.
- Reducing ableism is essential in improving the accessibility, benefit, and impact of life-changing assistive technologies.



Thursday, February 9th

Assistive Robotics

Monroe Kennedy III, PhD

Assistant Professor of Mechanical Engineering

and, by courtesy, of Computer Science

Stanford University

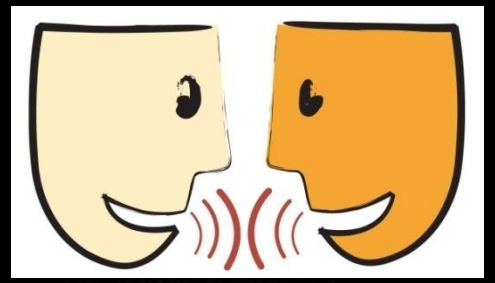
Today

Issues of Human Interface Design

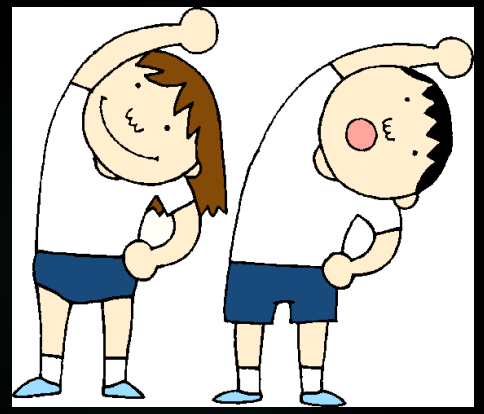
Gary M. Berke, MS, CP, FAAOP

Stanford University School of Medicine

Break Activities



- Attendance sheet
- **Presentation Order**
- Stand up and stretch
- Take a bio-break
- Text message
- Web-surf
- Respond to email
- Talk with classmates
- Reflect on what was presented in class



Short Break