

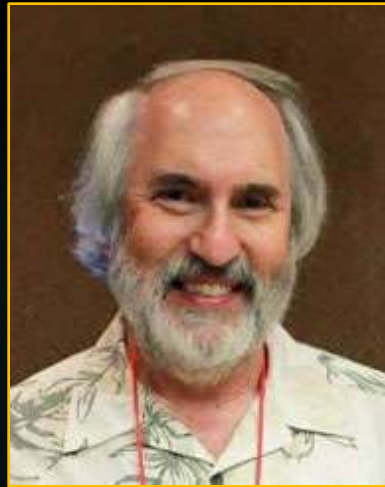
January 17, 2019

Bridging the Gap between Consumers and Products in Rehabilitation
Medicine - Deborah E. Kenney, MS, OTR/L



ENGR110/210

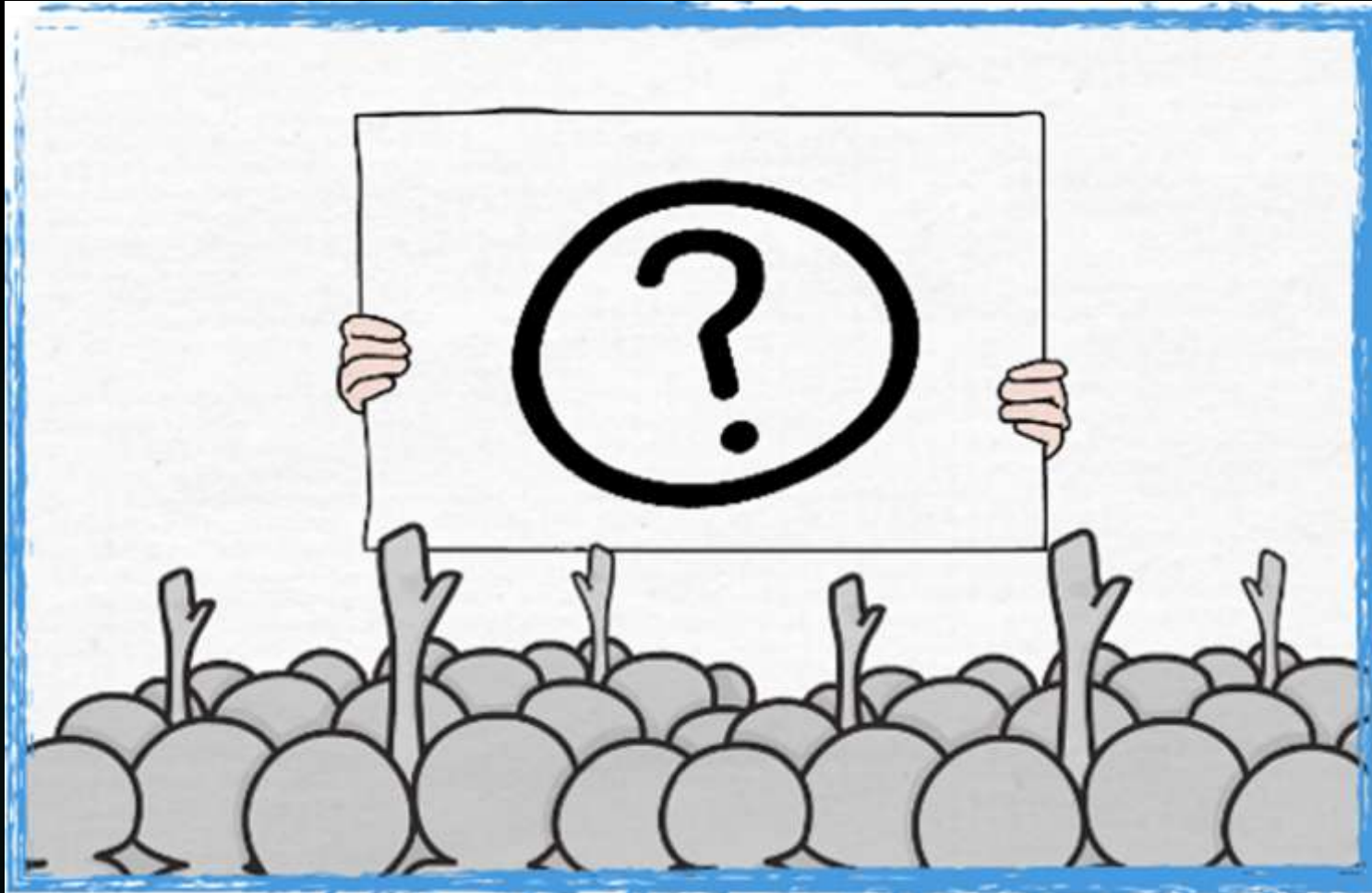
Perspectives in Assistive Technology



David L. Jaffe, MS
Instructor

13
Years

Questions?



Miscellaneous

- ▶ Use a pen to fill out evaluation forms
- ▶ Weblinks and photos linked from lecture webpages
- ▶ Meet with Dave Signup Sheet
 - ▶ Individual project approval
 - ▶ Project updates
- ▶ Microphone used with camcorder



Engineering Design Process



- ▶ Understand the problem
 - ▶ Interview the user / project suggestor
 - ▶ Realize that the user / suggestor may not have all the answers
 - ▶ Research what has already been done: articles, research, and products
 - ▶ Consult with experts
 - ▶ Determine why current devices haven't adequately solved the problem
 - ▶ Survey technology
- ▶ Determine the need (a judgment)
- ▶ Brainstorm many possible design concepts
- ▶ Select top concepts
- ▶ Fabricate, test, analyze, redesign, **quickly** repeat
- ▶ Work closely with user / suggestor in testing phase
- ▶ Report and demonstrate your results
- ▶ Reflect on your project experience

Work with Diligence

- ▶ Time is your team's most precious resource
- ▶ 7 weeks of class left to work on your projects
- ▶ Mid-term team presentations in 4 weeks
- ▶ Get your PRL Safety Training & Shop Pass



Discussion Topic Preferences Results



- 22 - Ethical / Moral Dilemmas Related to Disability
- 22 - In the News - New Assistive Technology products and research
- 20 - Assistive Robotics - Robotic technology benefitting people with disabilities and older adults
- 15 - Overview of Accessibility - How this design feature relates to products, with many examples
- 15 - Ten Commandments of Making - Adam Savage's Maker Faire video
- 15 - Video Theatre - Watch and discuss videos of new products and prototypes
- 12 - Vintage Assistive Technology - Products and devices from the past
- 12 - The Upside of Failure - Learning from prototypes that didn't work
- 12 - Who is Disabled? - Making a determination with limited information
- 12 - Innovative Marketing Metrics - How we use words to measure and advertise
- 9 - Famous people with disabilities - Focus on TV characters

Discussion Topic Preferences Results



Student Suggestions:

- Disabilities in sports
- What kind of jobs / companies are out there for assistive tech engineers and the education level needed
- Connecting with companies that do great work in the space of assistive design or notable company profiles

Formed Project Team

- ▶ **The Hide-Away Lap Tray**
- ▶ **The First Team with No Name**
 - ▶ Tita Kanjanapas
 - ▶ Ashley Lau
 - ▶ Lynee Turek-Hankins



Formed Project Team

- ▶ Elevator Button Pusher
- ▶ Elevator Pitch
 - ▶ Lindsie Jeffries
 - ▶ Jessica Hsueh
 - ▶ Jenny Park



Formed Project Team

- ▶ **Lap Extender**
- ▶ **The PRL Tray-Iblazers**
 - ▶ Andrea Banuet
 - ▶ Marissa Luna
 - ▶ Annie Sinclair



Formed Project Team

- ▶ Lap Tray for Danny
- ▶ **Travola**
 - ▶ Arkira Chantaratananond
 - ▶ Tony Hua
 - ▶ Jenny Kim



Formed Project Team

- ▶ **WHILL Recharging**
- ▶ **Mean Machine**
 - ▶ Jack Barber
 - ▶ Ryan Dudzinski
 - ▶ Cameron Scarlett



Formed Project Team

- ▶ **Harness for Nathan**
- ▶ **The Sixth Team with No Name**
 - ▶ Chloe Evans
 - ▶ Winston Liao
 - ▶ Axelle Talma



Formed Project Team

- ▶ **Wheelchair Storage & Backpack Projects for Abby**
- ▶ **The Seventh Team with No Name**
 - ▶ Ariana Ortigas
 - ▶ Amanda Spyropoulos
 - ▶ Anna Usadi



Formed Project Team

- ▶ **Magical Bridge Playground Along the Fence Project**
- ▶ **The Eighth Team with No Name**
 - ▶ Vanessa Ibarra
 - ▶ Sheetal Ramsurrun
 - ▶ Jessica Rivera



Formed Project Team

- ▶ Pickup Project with Danny
- ▶ **The Big Three**
 - ▶ Brian Chaffin
 - ▶ Jack Dreyer
 - ▶ Austin Maihen



Social Model Animation



[Play
video](#)

Tuesday, January 22nd



Perspectives of Stanford Students with a Disability



David Stentiford, Trisha Kulkarni, Zina Jawadi,
Rachael Wallach, and Evan Feinberg,

Today



Bridging the Gap between Consumers and Products in Rehabilitation Medicine

Deborah E. Kenney, MS, OTR/L

Stanford University

VA Palo Alto Health Care System

Foothill College

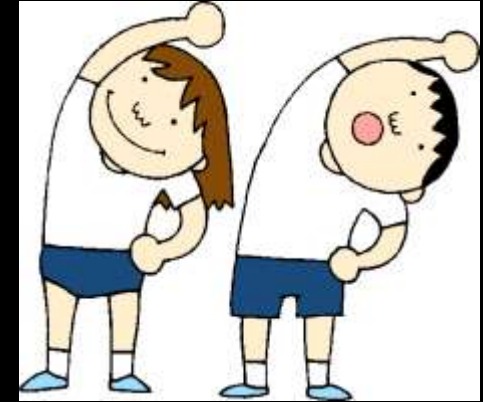
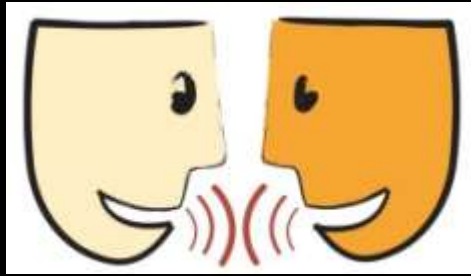


Short Break



Break Activities

- ▶ Attendance sheet
- ▶ 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



THANK YOU FOR



YOUR ATTENTION.

