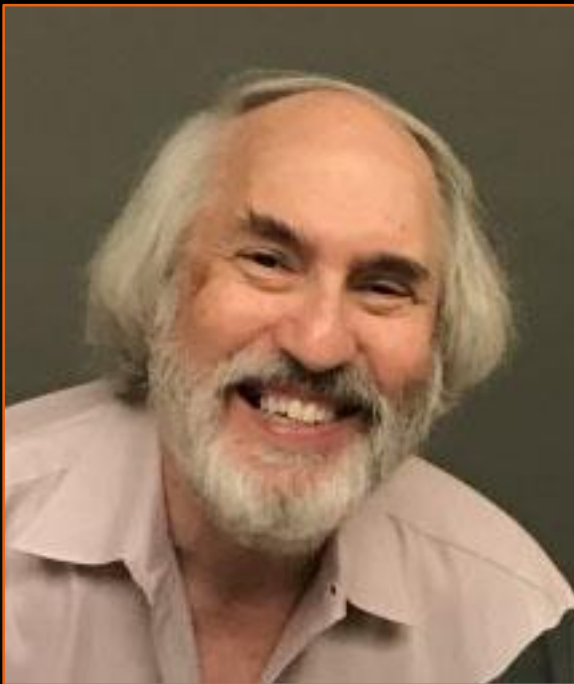


February 4, 2021  
*Issues of Human Interface Design*



# ENGR110/210

## Perspectives in Assistive Technology



David L. Jaffe, MS  
Instructor

15  
Years

# Questions?



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

# Many thanks!



Students working on projects:

- Meeting with me
- Providing updates

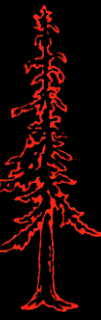
Community members:

- Co-designing projects
- Attending class sessions

Guest lecturers:

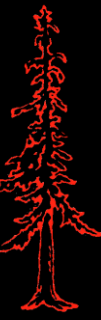
- Presenting interesting topics

# Apology



- ▶ Poor audio quality on YouTube video
- ▶ Link to the video will be posted in Week 4 Information

# Upcoming Events



- ▶ RESNA Student Design Competition
- ▶ Rehab Tech Summit
- ▶ Details to be posted in Week 4 Information

# Upcoming class sessions



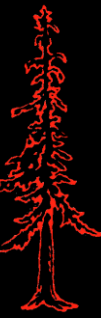
- ▶ From Idea to Market: Eatwell, Assistive Tableware for Persons with Cognitive Impairments –  
Sha Yao - Tue, Feb 9<sup>th</sup>
- ▶ The Design and Control of Exoskeletons for Rehabilitation –  
Katherine Strausser, PhD - Thu, Feb 11<sup>th</sup>
- ▶ Mid-term Student Project Presentations –  
Tue, Feb 16<sup>th</sup>





# Students working on projects

## Expected Activities for Fabrication Projects



- ▶ Connect with project partner
- ▶ “Understand the Problem”
  - ▶ Internet search
  - ▶ Existing products / devices
  - ▶ Survey technology
- ▶ Brainstorming
- ▶ Select Design Concept(s)
- ▶ Sketches, low resolution prototypes
- ▶ Preparing for Mid-Term presentation and Report



# Students working on projects

## Mid-term Presentations Update



- ▶ Mid-term presentations will be 3 minutes, no slides, no screen sharing, informal, not graded
- ▶ “Elevator Pitch”
- ▶ All students working on the same project will present together
- ▶ Async students can submit a 3 minute video
- ▶ Presentation tips on course website
- ▶ Signup Sheet will be created for presentation order



# Students working on projects

## Mid-term Report Update



- ▶ Mid-term report - 10 pages maximum - of narrative submitted collectively by all students working on the same project
- ▶ Suggested format different for fabrication vs non-fabrication projects
- ▶ Include sketches and photos
- ▶ Goal: short, concise, well-written, and highly readable report with few grammatical and spelling errors.
- ▶ Report Writing Tips document suggested report features

# Students working on projects

## Progress Report Format



- ▶ Each project is different, so there is no required or recommended format for these reports
- ▶ You decide how best to describe your past week's activities
- ▶ Report could include:
  - ▶ Text
  - ▶ Sketches, CAD drawings
  - ▶ Photos
  - ▶ Video
- ▶ No Reports for Week 6

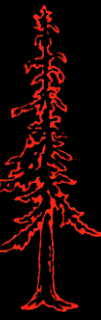
# Reminder - Work with Diligence



- ▶ Time is your most precious resource
- ▶ 12 days until Mid-term Presentations - Tue, Feb 16<sup>th</sup>
- ▶ It is not too early to outline your presentation & report



# Ethical / Moral Dilemmas Related to Disability



Formally titled  
“Fun with Ethics”



# Making Decisions



1. Everyone evaluates situations and makes decisions everyday
2. As one gets older, these decisions more frequently involve and affect others
3. Tough decisions are often made using a complex combination of upbringing, economics, religion, law, individual notion of what is right, politics, and personal experience



# Situation 1



Would it be wrong for a “normal” couple to abort a fetus diagnosed with dwarfism or Down Syndrome?

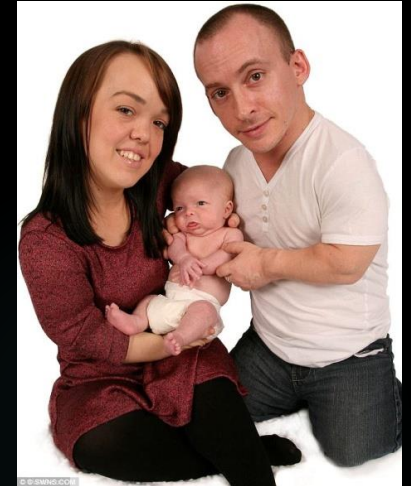




# Situation 2

If two parents with Achondroplasia - an inherited form of dwarfism - wanted a child who looked like them, would it be wrong for them to terminate a normal-sized fetus?

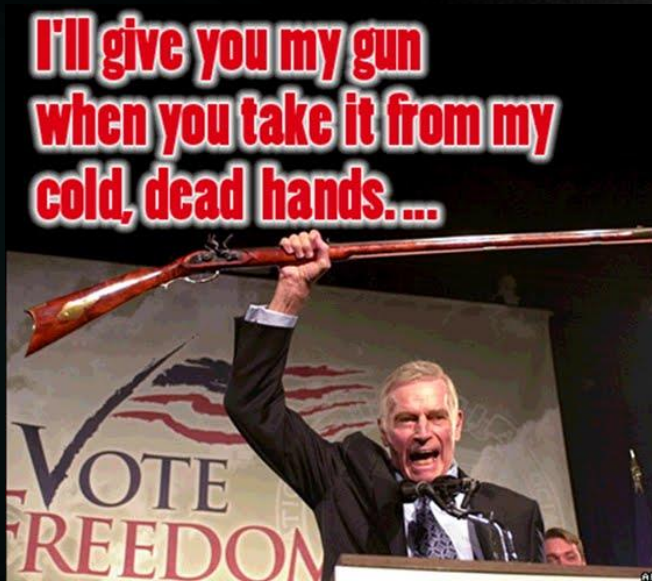
Too Much Information - MIT Technology Review -  
Jan/Feb 2014 - page 72 - [Link](#)



# Situation 3



Should everyone have a right to bear arms?

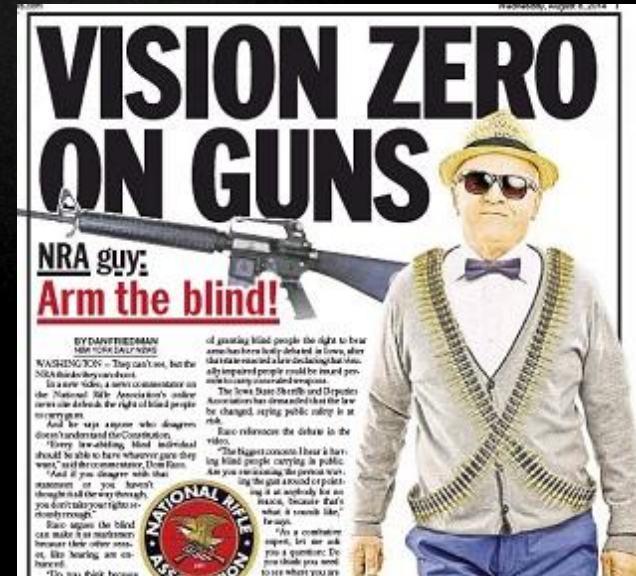




# Situation 3



Should someone **who is blind** have a right to bear arms?



# Situation 4



You are a biomedical engineer working in a spinal cord injury ward. An occupational therapist approaches you with a patient's request. The patient, an individual with quadriplegia, wants a device that would enable him to independently smoke a cigarette.

What do you do?





# Situation 5



You are a sign language interpreter for a deaf woman. Her communication includes a lot of obscenities which causes you a lot of embarrassment and distress.

What do you do?



# Situation 6



As a surgeon, would you approve a heart transplant for someone with a disability?





# Situation 7



As a concerned citizen, would you condone the marriage and subsequent parenthood of a couple, one or both with developmental disabilities?



# Tuesday, February 9th



*From Idea to Market: Eatwell, Assistive Tableware for Persons with Cognitive Impairments*

Sha Yao

Sha Design

# Today



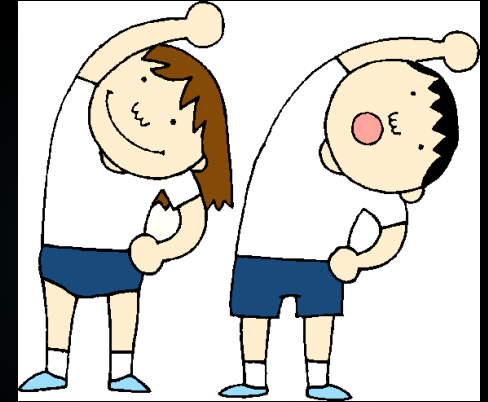
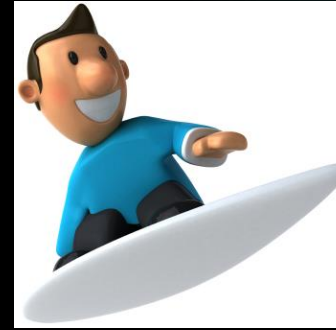
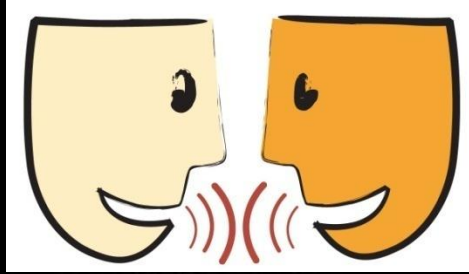
## *Issues of Human Interface Design*

Gary M. Berke, MS, CP, FAAOP

Stanford Medical Center

# Break Activities

- ▶ Breakout rooms
- ▶ 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





# Short Break

