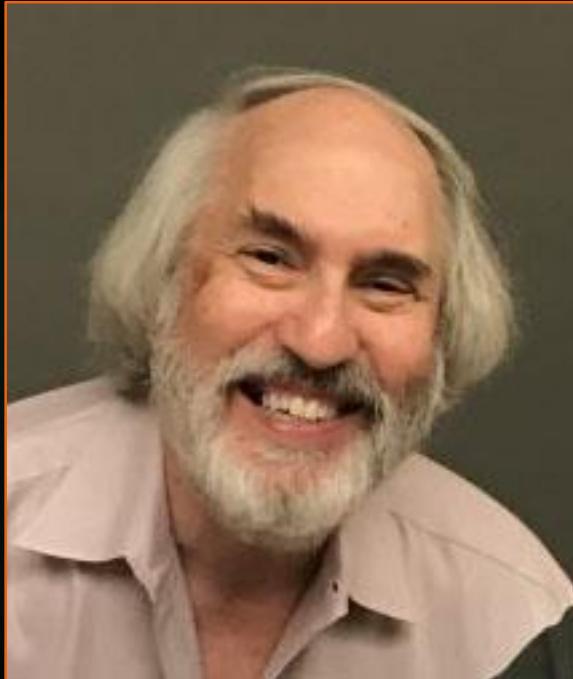


February 4, 2021
Issues of Human Interface Design



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 9th
- ▶ The Design and Control of Exoskeletons for Rehabilitation – Katherine Strausser, PhD - Thu, Feb 11th
- ▶ Mid-term Student Project Presentations – Tue, Feb 16th



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 16th
- ▶ It is not too early to outline your presentation & report



Ethical / Moral Dilemmas Related to Disability



Formerly 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

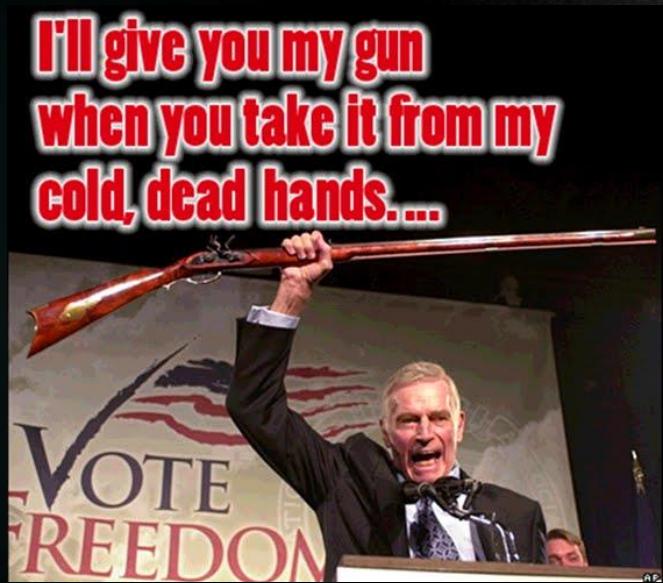
If two parents with Achondroplasia - an inherited form of dwarfism - wanted a child who looked like them, would it be wrong for them to terminate a normal-sized fetus?



Situation 3



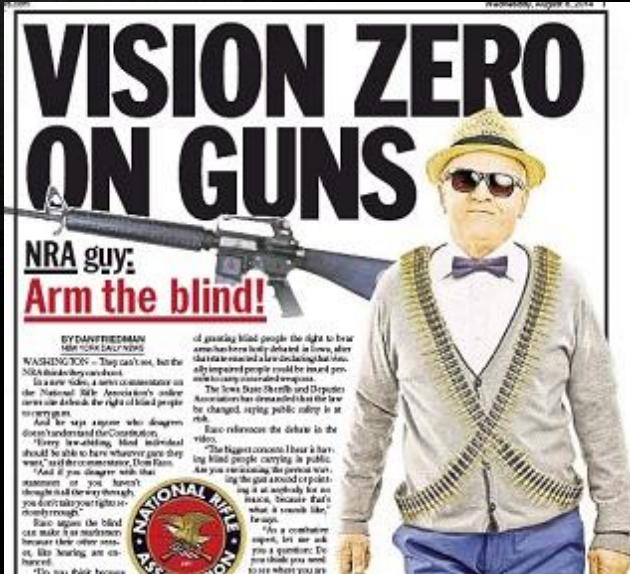
Should everyone have a right to bear arms?



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



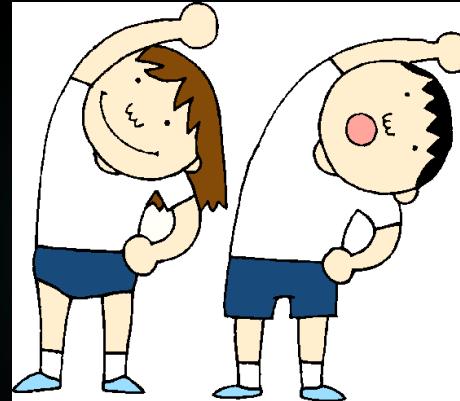
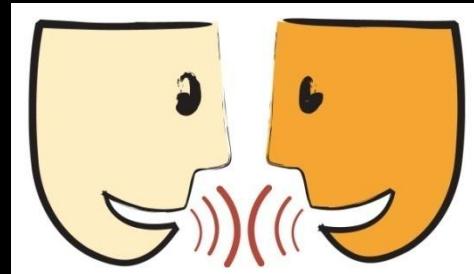
Issues of Human Interface Design

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

