

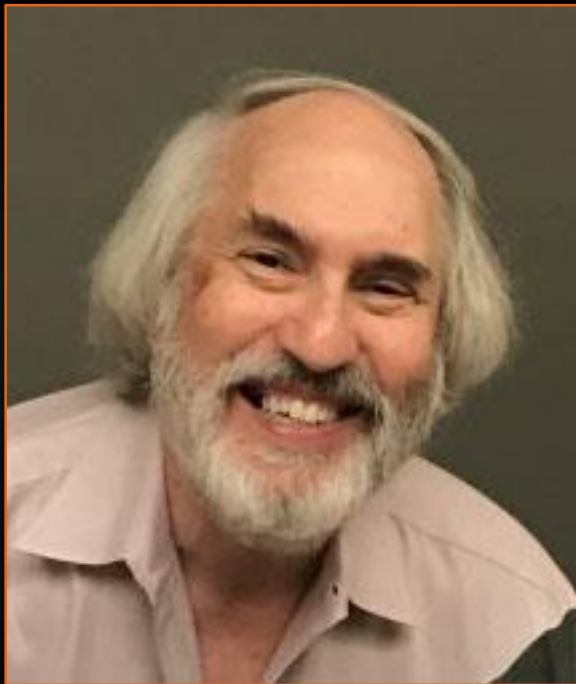
January 19, 2023

Bridging the Gap between Consumers and Products in Rehabilitation Medicine



ENGR110/210

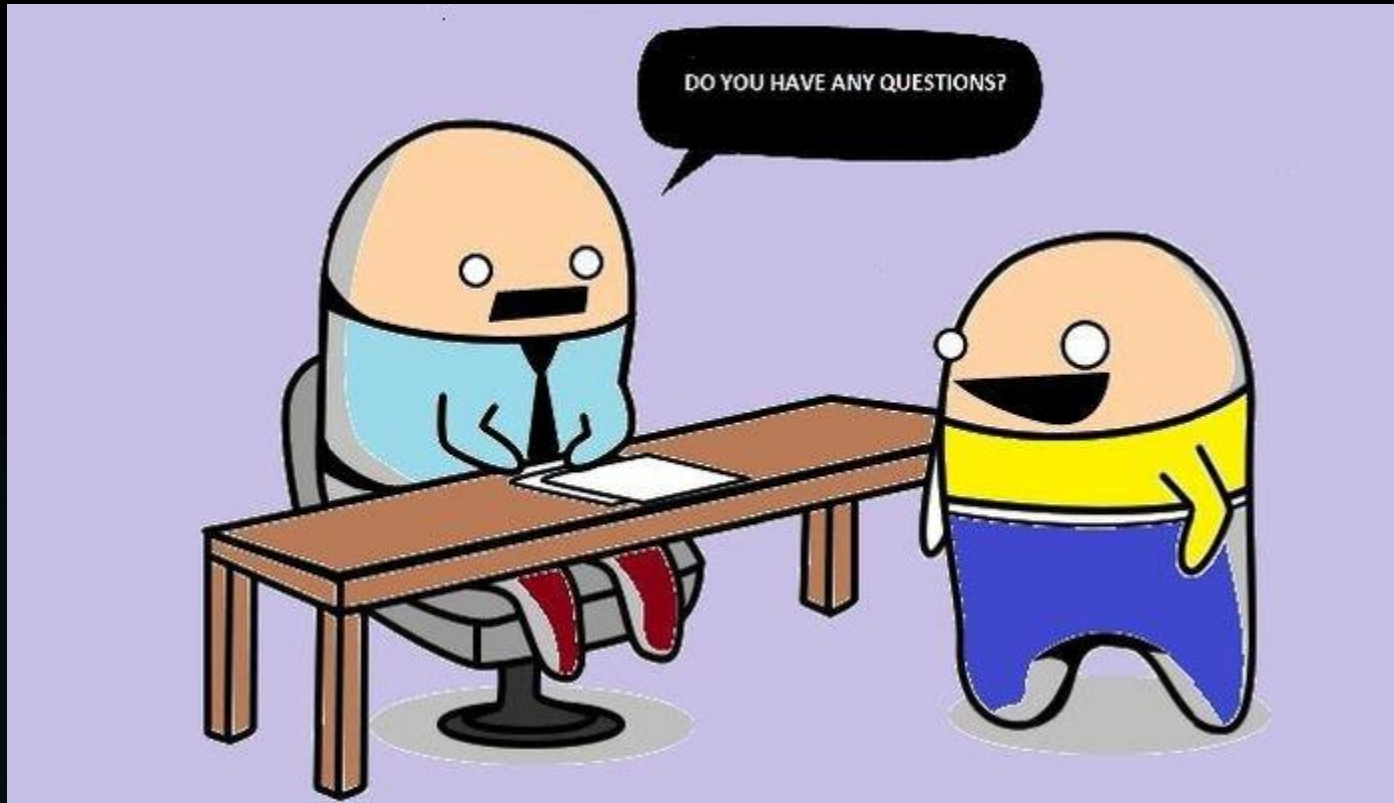
Perspectives in Assistive Technology



David L. Jaffe, MS
Instructor

17
Years

Do You Have Any Questions?



Miscellaneous



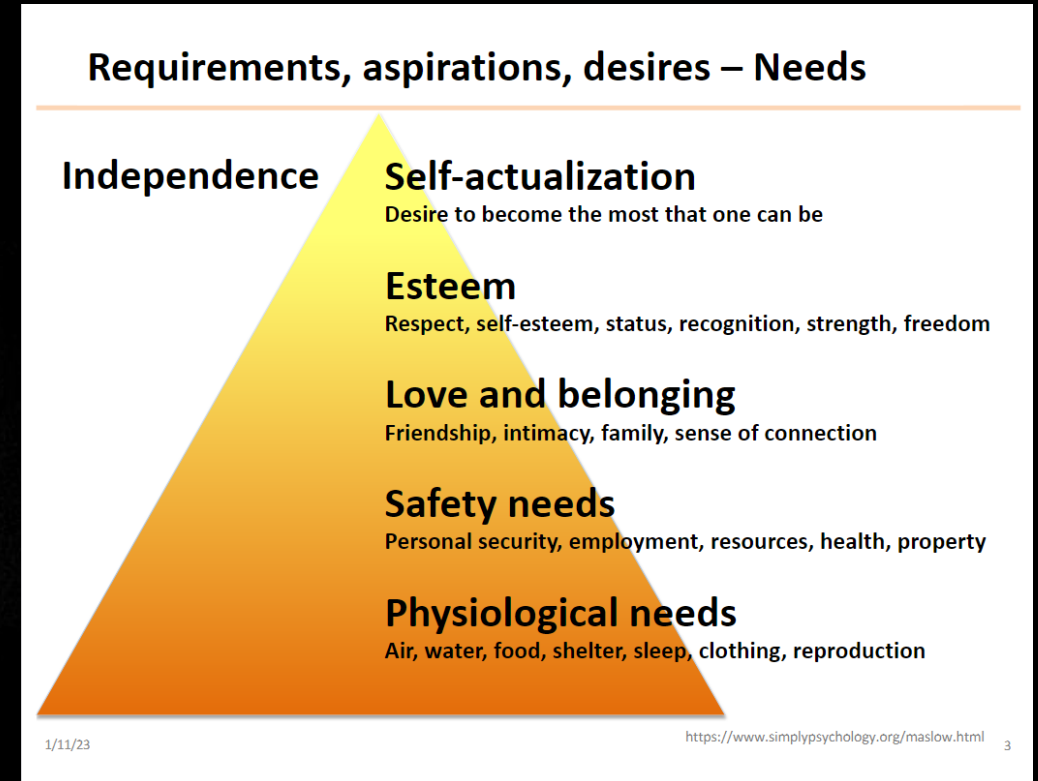
- ▶ Busy time dealing with newly enrolled and dropped students and team formation / project selection
- ▶ Great to meet students to offer advice on their projects
- ▶ Please make up missed lecture sessions
- ▶ Client vs User vs PwD vs Project Suggestor
- ▶ Yes, The Beatles are a Classic Rock Band



Need - Two Perspectives



- ▶ Gayle - Human needs
- ▶ Dave - What information and understanding is required to determine what is needed to address a problem / challenge



Attendance Sheet, Evaluation Form, and Meet with Dave or Ayano Signup



For all students:

- Sign Attendance Sheet - important to verify your attendance
- Sign up to meet with Dave for lecture makeup and Individual or Team Project discussion



For everyone:

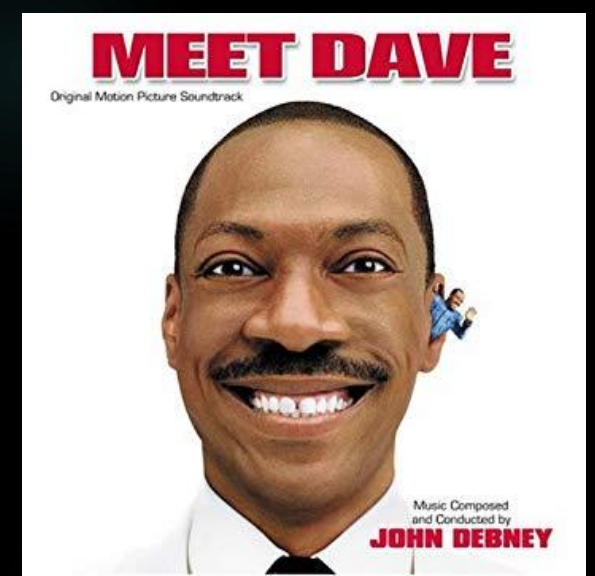
- Fill out Class Session Evaluation Form - this provides feedback to guest lecturer



Benefits of meeting with Dave

- ▶ Make up missed lectures
- ▶ Gain valuable perspectives on your project
- ▶ Optimize your course and project experience

- ▶ My fortune cookie today reads:
“Many seek you out for insightful advice”



Pre-lecture Discussion Topics



I will publish the results once I get responses from the Form to be sent out in **Week 2 in Review**

Pre-lecture Discussion Topics

Select all topics of interest

Hand in this form

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

Deliverables



- ▶ For students working on Individual Projects
 - ▶ No mid-term presentations or reports
 - ▶ Select a project **now**, start working on it **now**
- ▶ For students working on either Individual or Team Projects
 - ▶ Weekly meetings with Ayano or Dave / email updates project progress reports (alternate weeks)
 - ▶ End-of-term presentations
 - ▶ End-of-term reports
 - ▶ Individual Reflection

Work with Diligence

- ▶ Time is your team's most precious resource
- ▶ 6.5 weeks of class left to work on your projects
- ▶ Mid-term presentations in 3.5 weeks!



Formed Student Team Projects



Formed Teams / Chosen Projects:

- ▶ Accessible and Inclusive Playground Attractions (2 teams)
- ▶ Aesthetic Prosthetic Leg Project
- ▶ iPhone Project with Danny
- ▶ Water Bowl for Danny's Service Dog Korey
- ▶ Communication Aid for Nathan
- ▶ Leash Project for Danny and Korey
- ▶ Mobile Laptop and iPad Computer Support for Abby
- ▶ Bass Reduction Project

How we judge others



- ▶ race
- ▶ religion
- ▶ gender
- ▶ gender identity
- ▶ skin color
- ▶ appearance – glasses, hair style
- ▶ clothing & shoes
- ▶ anatomy - height, weight, nose, eye color
- ▶ university attended
- ▶ year in school
- ▶ major
- ▶ political affiliation
- ▶ sport team fan
- ▶ disability
- ▶ age
- ▶ speech / accent
- ▶ medical status
- ▶ immigration status
- ▶ employment status
- ▶ fame / notoriety
- ▶ criminal record
- ▶ driving record
- ▶ place of residence
- ▶ athleticism
- ▶ record of achievement, intelligence
- ▶ material possessions - car, house, phone
- ▶ vaccination status

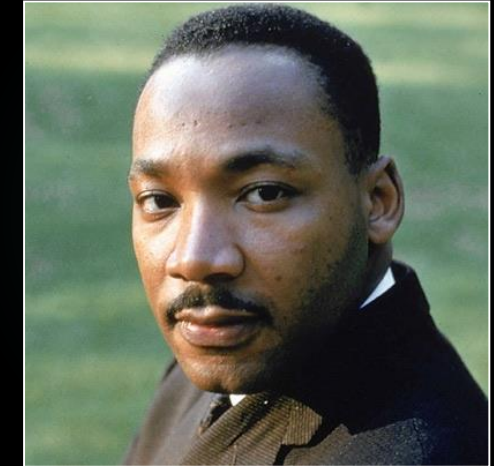
The course instructor judges your project effort including presentations and reports

Dr Martin Luther King Jr.



How might the teachings of Dr Martin Luther King Jr. relate to people with disabilities and older adults and Assistive Technology?

“I have a dream that **my four little children** will one day live in a nation where they will **not be judged by the color of their skin** but by the **content of their character.**”



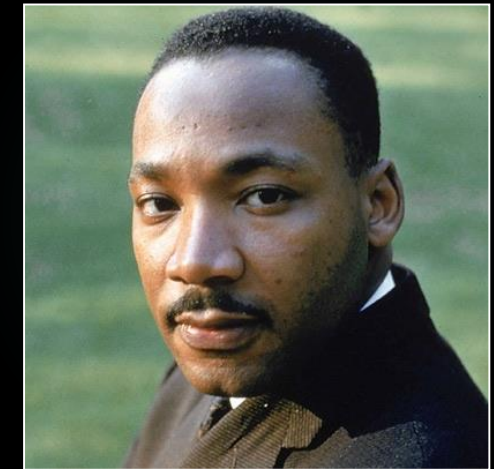
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Disability and advanced age do not represent weaknesses of character.

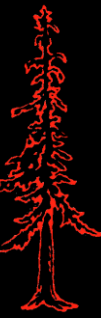


Product Pricing



Product pricing includes much more than cost of materials

Product Pricing



- ▶ **One Time Costs** - Manufacturing equipment and equipment leases, furniture, fixtures, computers, phones, etc
- ▶ **Recurring Costs** - Property and office rent, salaries (labor) / wages / commissions, utilities (electricity, internet, water, garbage, etc)
- ▶ **Product-related Costs** - Product research, prototyping, testing, accounting, shipping, **parts**, profit, advertising (printing), packaging, vehicles
- ▶ **Business-related Costs** - Loan repayments, inventory, financing costs, damaged merchandise, operating and legal expenses, overhead, theft, insurance, membership dues, market research, advertising and promotion, office supplies and equipment, travel, recruiting
- ▶ **Production-related Costs** - Economies of scale, automation, mass production techniques
- ▶ **Scale-related Costs** - Retail price falls with number of units manufactured & sold

Questions?



Tuesday, January 24th



Stanford Students and Faculty with a Disability



Ari Gabriel

Jeff Butler

Allegra Hosford Scheirer

Mary Cooper

Bhavya Shah

Today



Bridging the Gap between Consumers and Products in Rehabilitation Medicine

Deborah E. Kenney, MS, OTR/L

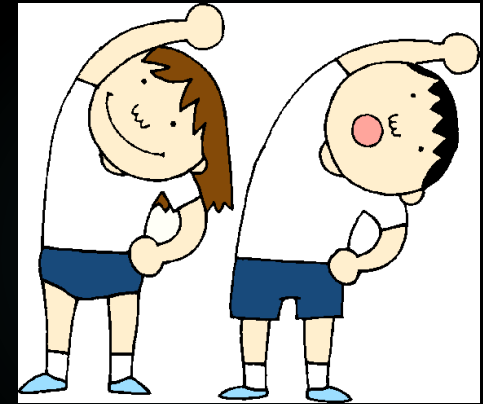
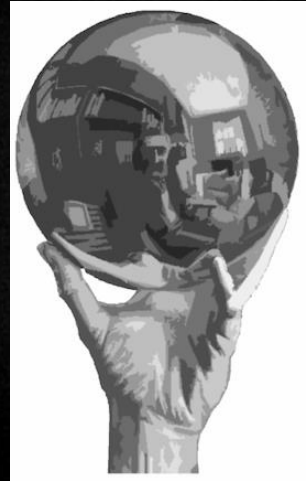
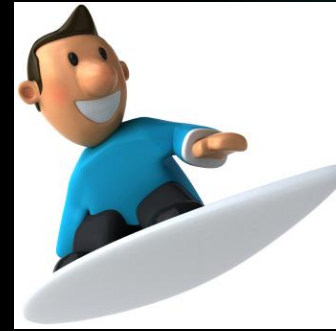
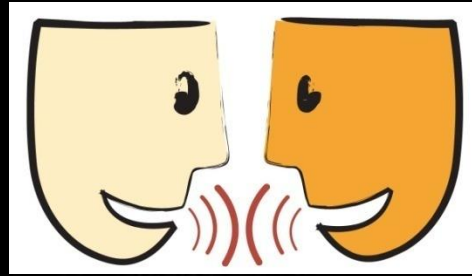
Stanford University

VA Palo Alto Health Care System

Foothill College

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



Short Break

