

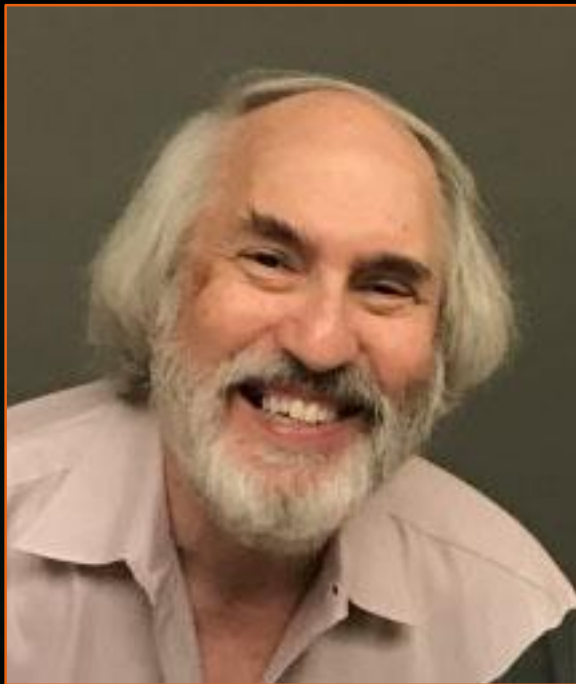
January 21, 2021

Bridging the Gap between Consumers and Products in Rehabilitation Medicine



ENGR110/210

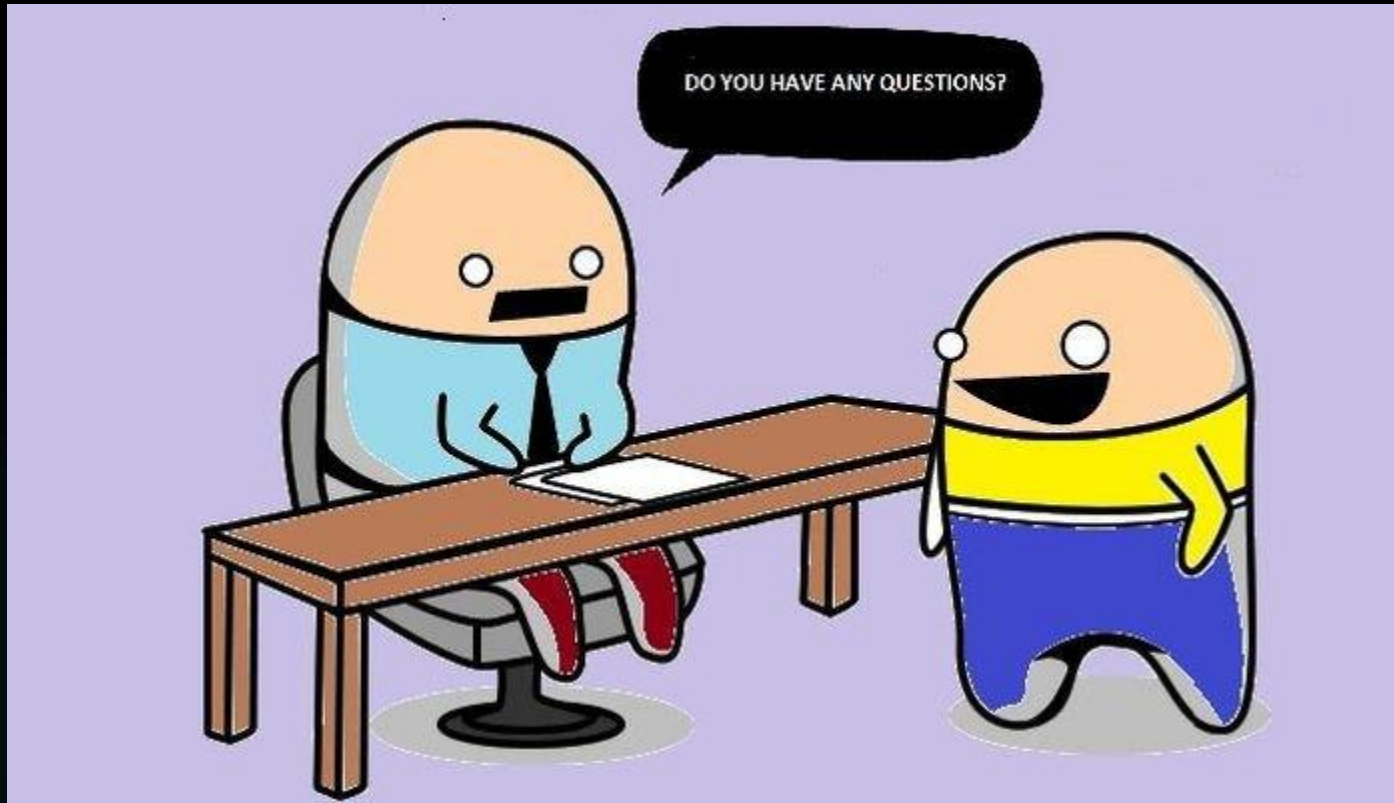
Perspectives in Assistive Technology



David L. Jaffe, MS
Instructor

15
Years

Do You Have Any Questions?



Apologies



- ▶ Messed up urls for meeting with students on Wednesday
- ▶ Did not include Danny & Stanford's project in Project Preferences Form - fixed
- ▶ Some confusion with Project Preference Form
- ▶ Evaluation Form was not anonymous - fixed
- ▶ Enlarge slides during class



Positives



- ▶ Getting more proficient with details of course organization
- ▶ Great to meet students



Attendance Sheet, Evaluation Form, and Meet with Dave Signup



For all students:

- Sign Attendance Sheet - important to verify your attendance (looking at another option)
- Sign up to meet with Dave for lecture makeup and Individual Project discussion

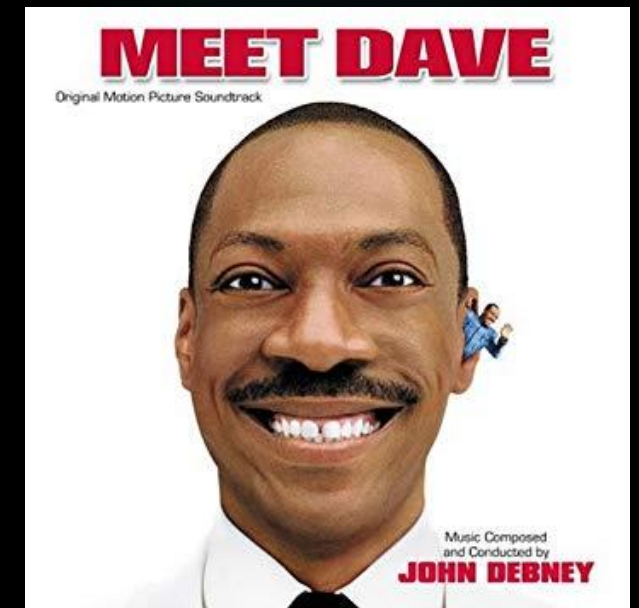
For everyone:

- 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



Pre-lecture Discussion Topics



I will publish the results

Pre-lecture Discussion Topics

Select all topics of interest

Hand in this form

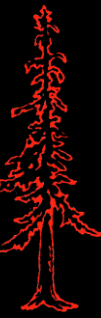
- Overview of Accessibility - How this design feature relates to products, with many examples
- Ethical / Moral Dilemmas Related to Disability
- Assistive Robotics - Robotic technology benefitting people with disabilities and older adults
- In the News - New Assistive Technology products and research
- 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 _____

Mid-quarter Feedback Session Availability



Not enough students were interested or available for this event

Deliverables



- ▶ Weekly meetings with Kat and project progress reports (alternate weeks)
- ▶ Mid-term presentation – informal, not graded
- ▶ Mid-term report – formal, graded
- ▶ End-of-term presentation and report – formal and graded

Project Policies



- ▶ **Optional** for multiple students who selected the same project to coordinate efforts to meet with their Project Suggestors and share these tasks:
 - ▶ “Understanding the problem” and “brainstorming”
 - ▶ Mid-term presentations
 - ▶ Mid-term report
- ▶ But each student must pursue a **different** solution, **present** their end-of-term efforts individually, and **submit** end-of-term reports individually.
- ▶ I’ll email students’ project preferences

Work with Diligence

- ▶ Time is your team's most precious resource
- ▶ 7 weeks of class left to work on your projects
- ▶ Mid-term presentations in 4 weeks!



Student Project Preferences



Selected Projects:

- ▶ Austin: Cutting Knife
- ▶ Abby: Improved Pooper Scooper
- ▶ Abby: Cutting Vegetables for Cooks with One Arm
- ▶ Abby: Camping Cot Project
- ▶ Olenka Magical Bridge Playground Project
- ▶ Tilly: Cell Phone Holder for Wheelchair
- ▶ Report: Disability in Sports
- ▶ Report: Autism & PACE Center
- ▶ Report: Prosthetics and Orthotics in Sports
- ▶ Project: Musical Instrument for a Person with a Disability

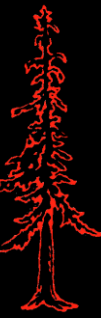
Student Project Preferences



Recently selected Projects:

- ▶ Abby: Alert Project
- ▶ Abby: Camping Cot Project
- ▶ Danny & Stanford: Wearable Storage
- ▶ Children's National Hospital: Identifying Emotional State 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

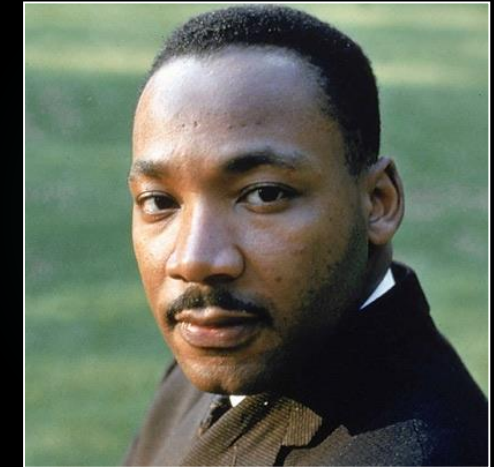
The course instructor judges your project effort including presentations and reports

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.**”



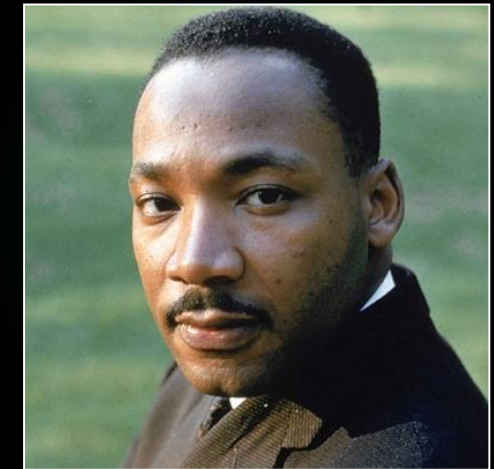
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Disability and advanced age do not represent weaknesses of character.



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 26th



Stanford Students with a Disability (and Abby)



Sylvia Colt-Lacayo

Gene Sung-Ho Kim

Tilly Kennedy Griffiths

Austin Gregory Brotman

Abby Tamara

Today



Bridging the Gap between Consumers
and Products in Rehabilitation Medicine

Deborah E. Kenney, MS, OTR/L

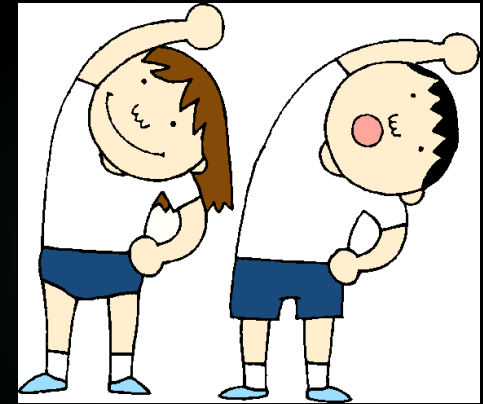
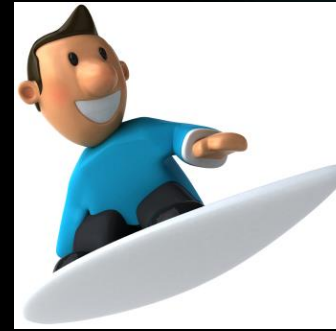
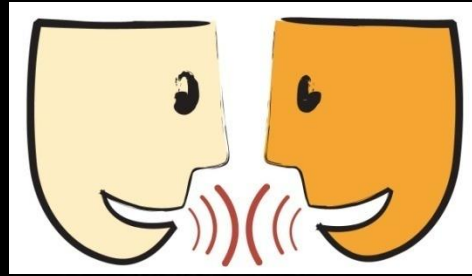
Stanford University

VA Palo Alto Health Care System

Foothill College

Break Activities

- ▶ 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

