

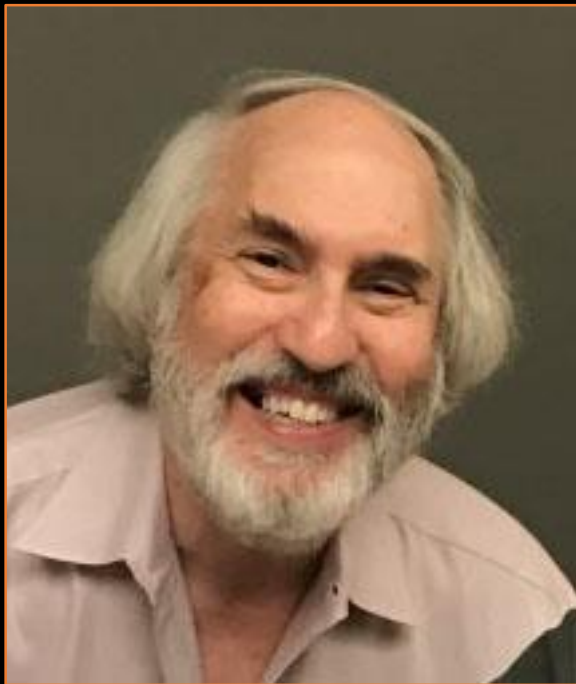
January 24, 2022

Perspectives of Stanford Students and Faculty with a Disability



ENGR110/210

Perspectives in Assistive Technology



David L. Jaffe, MS

Instructor

17

Years

Questions?



Class Length

- Class ends at 5:50pm
- Instructor & Guest Lecturers available after class
- Classroom open after class for team meetings and meetings with Instructor



Students working on a Team Project



- Meet with team members
- Decide on a cool team name
- Connect with your project suggestor
- Understand the problem with your project suggestor
- Search the web for information on the user group, disability condition, existing products / solutions
- Schedule weekly updates alternating between in-person meetings and emailed progress reports with photos
- Do not hesitate to ask questions



Students working on an Individual Project



- Decide on a topic - to be approved
 - Assume the identity of an Investigative Reporter
- Schedule weekly updates alternating between in-person meetings and emailed progress reports with photos
- Do not hesitate to ask questions



Students not working on a project

- Attend and reflect on class sessions
- Do not hesitate to ask questions



Age-related Disabilities

What you **missed** because you were “Born Too Late”

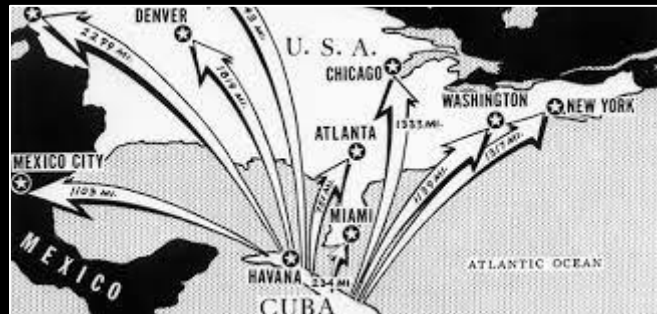
- Music: Elvis, Beatles, Rolling Stones, Motown, Classic Rock
- Media: Vinyl records, 8-Tracks, Cassettes
- People: JFK, MLK (“I have a dream”)
- Events: Woodstock, The Summer of Love, Moon Landing
- Sports: “The Catch”
- Introduction of Transistor Radios, Color TVs, TouchTone Telephones, Personal Computers



Age-related Disabilities

What you **avoided** because you were “Born Too Late”

- War in Vietnam
- The draft
- Political unrest
- Nixon
- The Cuban Missile Crisis
- Disco



Attendance Sheet, Evaluation Form, and Meet with Dave Signup



For all students:

- Sign Attendance Sheet - important to verify your attendance
- Sign up to meet with Dave (Zoom or in-person) for lecture makeup and project update discussions



For everyone:

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



Social Model - Help the Able Bodied



Imagine a town
full of physically impaired people,

[Play video](#)

Thursday, January 26th



*The Design and Control of Exoskeletons for
Rehabilitation*

Katherine Strausser, PhD

Ekso Bionics - Technical Lead, Exoskeletons

Today

Perspectives of Stanford Students and Faculty with a Disability



Ari Gabriel



Jeff Butler



Allegra Hosford Scheirer



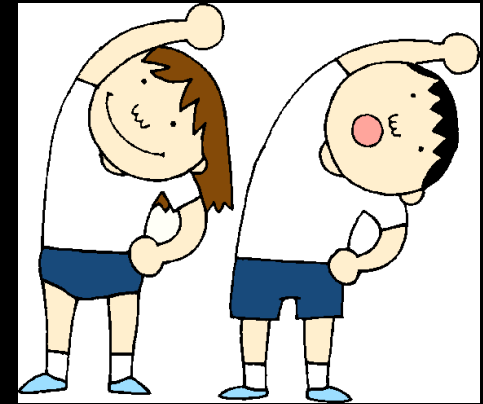
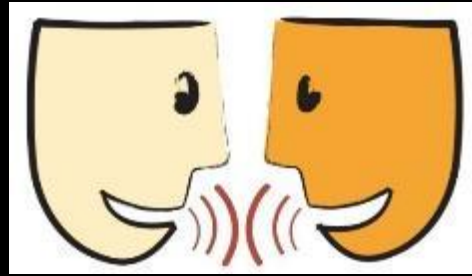
Mary Cooper



Bhavya Shah

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





SOCIAL
MEDIA
BREAK



Today

Perspectives of Stanford Students and Faculty with a Disability



Ari Gabriel



Jeff Butler



Allegra Hosford Scheirer



Mary Cooper



Bhavya Shah



Ari Gabriel

Ari Gabriel is a Senior pursuing a double major in Assistive Design Engineering and Comparative Literature. In early middle school, Ari was diagnosed with hemiplegic migraines which have progressively increased in their intensity. Additionally, in first grade, they were diagnosed with severe dyslexia which makes them unable to process 3D images. Ari is an impassioned advocate for people with disabilities and sexual violence and relationship abuse survivors. Ari is a Bridge Peer counselor and also serves in ASSU as the Director of Sexual Violence Prevention. Additionally, they are a staff writer for The Stanford Daily where they have investigated and written at length about mental health care on campus.

Sexual Violence in the Disabled Community

- One of the **highest** rates of sexual assault and is almost never spoken about
- Greater risk of assault during **all parts of the day**
- Assaults are usually **repeated** and are often by a **person they have been taught to trust** and rely upon

People with disabilities are over 2x as likely to be sexually assaulted

Table 3. Binary Logit Model of Lifetime Risk of Ever Being Forced Into Sex

Disability type	AOR (95% CI)
No disability	ref
Sensory	1.85 (1.31, 2.61)**
Physical	1.67 (1.12, 2.50)**
Cognitive	1.89 (1.44, 2.48)***
≥2	2.94 (2.25, 3.83)***

Note: Boldface indicates statistical significance (***p<0.001, **p<0.01, *p<0.05).

Models adjusted for age, education, race/ethnicity, federal poverty level, partner relationship, and sexual orientation. n=9,191, Weighted n=34,534,631.

Summary of findings of lifetime risk of sexual assault of disabled women compared to the risk of sexual assault of able bodies women.





Jeff Butler



Jeff Butler is a two-time Paralympic silver medalist and entrepreneur. In 2015, he founded his first company, VIPatient Telehealth, which focused on bridging the healthcare gap for rural and underserved communities. After breaking his neck at the age of 13, he quickly found wheelchair rugby and a renewed sense of purpose. He was fortunate to represent Team USA at the 2016 and the 2020 Tokyo Rio Paralympic Games, winning a silver medal in wheelchair rugby at both. As an MBA student at the Stanford Graduate School of Business, he is exploring the intersection of accessibility and technology.



Allegra Hosford Scheirer



Allegra Hosford Scheirer is a research scientist in the Earth and Planetary Sciences department at Stanford. She studies the interaction between rocks and fluids in the subsurface by constructing numerical models of sedimentary basins. She developed epilepsy 4 years ago as a result of a benign brain tumor.



Mary Cooper



Mary Kate Cooper is a Senior pursuing degrees in Aerospace Engineering & Computer Science. She is a member of Pi Beta Phi, an official Stanford tour guide, and a member of the Division 1 reigning Lightweight National Champion Rowing team. As a below-the-knee amputee, life has naturally pushed Mary to think outside the box. She is the proud owner of several high-performance, light-weight carbon fiber legs and believes being an amputee has given her a unique perspective and helped shape her problem-solving skills. Most recently, Mary was part of a Zero Gravity flight to research accessible space flight solutions called Mission AstroAccess. Looking forward, she would like to be a ParaAstronaut while lowering the barrier to entry for human spaceflight.



Mary Cooper





Bavya Shah

Bhavya Ashush Shah is a Junior studying Mathematical and Computational Science with interests in education, disability studies, and oral communication. He is an active member of Stanford's Debate Society and Ethics Bowl teams. Outside of academics, he enjoys watching Indian standup comedy, having meaningful conversations, and eating spicy food.



That's all Folks!

