February 5, 2019
Bionic Ears: Cochlear Implants and the Future of Assistive Technology
Questions?
Attendance Sheet, Evaluation Form, and Meet with Dave Signup

For all students:
- Attendance Sheet
- Meet with Dave signup

For everyone:
- Class Session Evaluation Form
Yahoo is now part of ‘Oath’, a digital and mobile media company with more than 50 brands globally (including Yahoo, HuffPost, Engadget, TechCrunch, Moviefone, and Makers), and a member of the Verizon family of companies working to shape the future of media. Oath strives to create a passionate and engaged community of users by building content and products that inspire and entertain the world.
Top Employment Choices

7 – Google
5 – Apple
2 – Other
1 – Facebook

Write-ins:
IDEO
No idea
Own company / startup
Medtronic
Intuitive Surgical
Ottobock
Dyson
KBR Wyle
Stryker / Medtronic / Abbott
Upcoming class sessions

- **Field trip to VA** this Thu, Feb 7th
  - Carpool passengers signup
  - Lists, directions, and maps
- **Mid-term Project Presentations** - Thu Feb 14th
- **Assistive Technology Faire** - Thu, Feb 28th
Field Trip

- Thursday, February 7th - VA Palo Alto Health Care System
  - Students and community member car pool drivers only
Thursday, February 7th

VA Palo Alto Health Care System
- VA and VAPA
- Spinal Cord and Brain Injury Services
- Recreational Therapy Service
- Hear from a veteran
- Try out some equipment

Plan to arrive at 4:45pm
Car Pool Instructions to VA

- **Passengers**: Please signup with a car pool driver. On the day of the field trip, please arrive promptly at the departure point: in front of the Littlefield Center at 4:30pm.

- **Drivers**: Please park along Lasuen St in front of the Littlefield Center and depart promptly at 4:30pm. Carpool list, maps, and directions will be provided.

- Let me know if you are a solo driver or bicyclist so I can send you a map.
Pickup at Littlefield Center
VA Palo Alto

3801 Miranda Ave.
Spinal Cord Injury Service
Building 7 - Room E111

Google Map
Directions to VA

- From Littlefield, take Palm Dr toward El Camino Real
- Turn right on El Camino Real (going south)
- Turn right onto Page Mill Road
- Turn left onto Foothill Expressway
- Turn left at light on Hillview
- Make an immediate right onto Miranda Ave.
- Road curves to the left and parallels Foothill Expressway
- Turn left into VA grounds at the American flag
- Park in the large lot on the right
- Enter north entrance of Building 7
- Make your way to Room E-111 - the first room on the right after entering the building
- Lost or late? - call Dave at 650/892-4464
Flying in?

Helicopter landing pad

Destination - Building 7

Park in this lot

Main entrance
Enter here & proceed to Room E111
Work with Diligence

- Time is your team’s most precious resource
- 4.5 weeks of class left to work on your projects
- Mid-term team presentations in 1.5 weeks
- Outline and practice presentation

Mid-term presentations - Thursday, February 14th
22 - Ethical / Moral Dilemmas Related to Disability
22 - In the News - New Assistive Technology products and research
20 - Assistive Robotics - Robotic technology benefitting people with disabilities and older adults
15 - Overview of Accessibility - How this design feature relates to products, with many examples
15 - Ten Commandments of Making - Adam Savage’s Maker Faire video
15 - Video Theatre - Watch and discuss videos of new products and prototypes
12 - Vintage Assistive Technology - Products and devices from the past
12 - The Upside of Failure - Learning from prototypes that didn't work
12 - Who is Disabled? - Making a determination with limited information
12 - Innovative Marketing Metrics - How we use words to measure and advertise
9 - Famous people with disabilities - Focus on TV characters
In the News

Inclusive keyboard for low-vision and blind users

**Gestype** is an inclusive keyboard app, which allows anyone to type on smart phones, regardless of their visual ability.

Website:
http://www.gestype.com

Video:
Gestype: Inclusive keyboard app for low-vision and blind users (3:12)
https://youtu.be/LW-auK5HA8g?t=42
Custom Canine Wheelchair

"A friend needed a wheelchair for their French Bulldog at short notice. They were unable to afford the costly commercial wheelchairs available online. I rose to the occasion to design something for an adorable dog, and the results were fantastic. Murray loved her chair!"

"I’ve since built two other chairs for dogs, and I’ve worked on iterating on what I call the "FiGO" design and documentation to encourage dog owners to tackle this project for their pet in need."

This device uses parametrically designed 3D printed joint pieces that fit into acrylic or aluminum tubing. The tubing can be easily customized to the dog for both fit and style, and the 3D printed pieces can also be personalized via the Customizer application on Thingiverse.

Article
George Mason Students Have New Dining Option: Food Delivered by Robots

George Mason University students will soon have a fleet of 25 autonomous wheeled robots delivering meals to them across campus. The robots, known as SnackBots, can each carry up to 20 pounds and travel four miles an hour, for an average delivery time of 15 minutes or less; an app from the robots' creator, Estonia-based Starship Technology lets students order food from local chains like Starbucks, in addition to a grocery store. Once an order is placed, users "drop a pin" on the location where they want their order to be delivered, and they can follow the SnackBot's progress via an interactive map. The robots navigate using artificial intelligence, ultrasonic sensors, and multiple cameras; customers are alerted upon arrival, and they can use the Starship app to unlock the robot and collect their purchases. A two-way audio connection allows customers to engage with human tele-operators who can take control of the robot when necessary.

Article
Stanford Center on Longevity Announces 2018-2019 Longevity Design Challenge Finalists

The Stanford Center on Longevity today announced 8 Finalist teams for its 2018-19 Design Challenge "Contributing at Every Age: Designing for Intergenerational Impact." Now in its sixth year, the Challenge's primary goal is to encourage a new generation of designers to become engaged in finding creative solutions that support well-being across the life span. The Challenge is open to student submissions from any accredited university worldwide. This year’s competition attracted 97 submissions from teams representing 24 countries across the globe.

This year’s competition included a new rule: students were required to include members from multiple generations, making the challenge itself an intergenerational activity.

Article  Video (2:22)
Toyota Wants to Put a Robot Friend in Every Home

Toyota envisions robots becoming commonplace in homes as companions to senior citizens, as part of its new artificial intelligence (AI) research center headed by renowned inventor Gill Pratt. Toyota believes the pressing need for elder care will make household robots more attractive, and its Human Support Robot (HSR) could be one of the first products to gain mainstream acceptance. The HSR is essentially a retractable arm on wheels, with a video screen on top and camera eyes to give it the semblance of a face. Among its demonstrated capabilities is learning where books and other items should go on a shelf, and cleaning untidy rooms using sensor-eyes and a pincer. Toyota's Masanori Sugiyama said the HSR could be ready for deployment in hospitals and rest homes to perform simple tasks within three years.
Thursday, February 7th

Field Trip to VA Palo Alto Health Care System

Graham H. Creasey, MD, FRCSEd
Spinal Cord Injury Service
Today

*Bionic Ears: Cochlear Implants and the Future of Assistive Technology*

Lindsey Dolch Felt, PhD

Stanford University, Program in Writing and Rhetoric
Short Break

Back in a minute

SOCIAL MEDIA BREAK
Break Activities

- Sign attendance sheet
- Grab a cookie
- Stand up and stretch
- Take a bio-break
- Text message, web-surf, email
- Talk with classmates
- Reflect on what was presented in class
Questions?
Adjourn
Laptops Galore
Time for Questions?
End the class