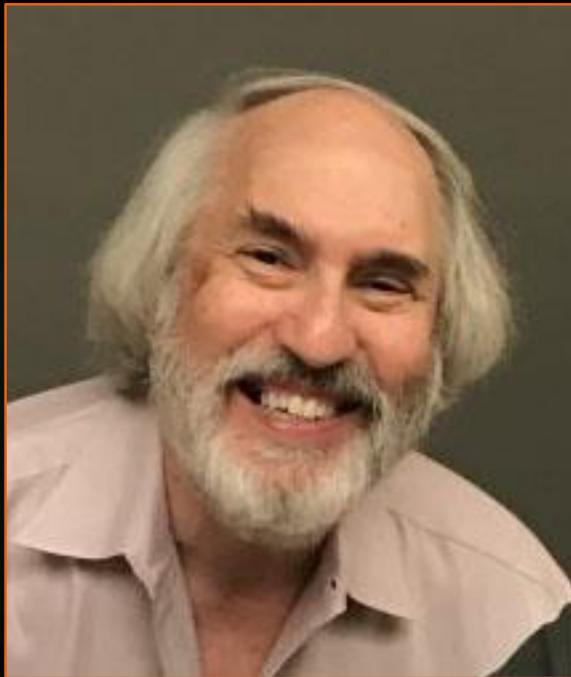


February 17, 2022
Virtual Assistive Technology Faire



ENGR110/210

Perspectives in Assistive Technology



David L. Jaffe, MS
Instructor

16
Years

Upcoming class sessions

- ▶ **The Design and Control of Exoskeletons for Rehabilitation** (by Zoom)
 - Katherine Strausser, PhD
 - Tue, Feb 22nd
- ▶ **Designing Exoskeletons and Prosthetic Limbs that Enhance Human Performance**
 - Steven H. Collins, PhD
 - Thu, Feb 24th
- ▶ **Field Trip to the Magical Bridge Playground**
 - Olenka Villarreal
 - Tue, Mar 1st



Reminder - Work with Diligence



- ▶ Time is your most precious resource
- ▶ 19 days until End-of-term Project Presentations - Tue, Mar 8th
- ▶ List remaining activities and assign responsibilities



Students working on Team Projects

Mid-term Reports

- ▶ Reports will be read, marked up, scanned, and returned to teams.
- ▶ Scoring will be Excellent, Very Good to Excellent, Very Good, Good to Very Good, and Good
- ▶ Represents 10% of your grade
- ▶ Consider mid-term deliverables as practice for end-of-term



Students working on Team Projects

Project Activities



- ▶ Continue to work with project suggestor
- ▶ Fabricate, test, analyze, redesign, refine prototypes
- ▶ Submit progress reports, schedule meetings with Bennett or me

Students working on Individual Projects

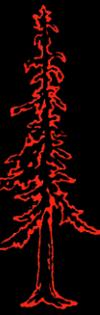


- ▶ **Continue to meet with me or Bennett to discuss project progress**
- ▶ **Send progress reports**
- ▶ Contact me if you have questions about your project direction
- ▶ Project presentations:
 - ▶ Week 9
 - ▶ Outside of class
 - ▶ By Zoom or in-person

Other Items



- ▶ RESNA Student Design Competition and Developers Forum
- ▶ Carpool drivers needed for Field Trip to Magic Bridge Playground on Tuesday, March 1st
- ▶ Zoom attendance



Welcome to the 10th Annual Assistive Technology Faire

Brought to you by

Perspectives in Assistive Technology

Vendors

One-Handed Cooking

Celebrate Wellness - A Therapy Game

Silicon Valley Independent Living Center

Natural Transitions Consulting, LLC

Rehab Robo

Dance4Healing Tele-exercise

Uplifting Wheelchair

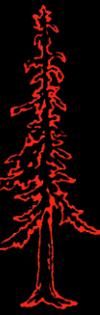
911Finder Cellular Watch



Thank you for your participation!



Abstract



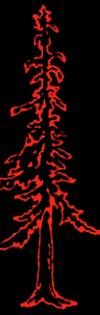
This **10th** annual event provides an opportunity for students to get an up-close look at a variety of devices and learn about available programs from product vendors and service agencies.

Activity - Introductions



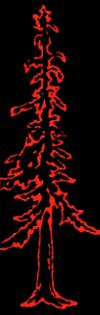
Each vendor will be allotted just **THREE MINUTES** to briefly identify themselves and to provide an overview of their organization with the goal of creating interest to visit their Zoom breakout room following all overviews. The overviews will NOT include screen sharing or PowerPoint presentations.

Activity - Breakouts



Each vendor will have their own Zoom breakout room that students will visit during the remainder of the class session. Students will be joining and leaving much like a Trade Show. During this time, vendors may interact with students through conversation, PowerPoint slides, or videos. Students will be asked to visit all breakout rooms.

Activity - Coolness



Before the end of the class session, we will all return to the Main Room. Each student will identify the coolest or most interesting item they saw or heard.

One Handed Cooking



One Handed Cooking – Heather Taber, Assistive Technology Specialist

Room 1



One handed cooking devices can benefit people with arthritis, amputation, and paralysis: stroke, traumatic brain injury, spinal cord injury, and cerebral palsy.

On Deck – Celebrate Wellness

Celebrate Wellness – A Therapy Game



Celebrate Wellness – Abigayil Tamara, MA, MSW

Room 2



Celebrate Wellness is a therapy game for inpatient psychiatric units. It is a non-threatening, humorous way to engage patients who have difficulty expressing their thoughts and feelings. Each player picks a character and plays the game as if they were that character. The leader of the game (a therapist, social worker, nurse, or counselor) tailors the interventions built into the game to meet the needs of the individual patient. The game is not a competition. The value of playing the game is derived by the therapeutic interventions in a group experience.

On Deck – Silicon Valley Independent Living Center

Silicon Valley Independent Living Center



SVILC – Joe Escalante, Assistive Technology Specialist

Room 3



Silicon Valley Independent Living Center (SVILC) is a cross-disability, intergenerational, and multicultural disability justice organization that creates fully inclusive communities that value the dignity, equality, freedom and worth of every human being. SVILC maintains a lending library of assistive technology so consumers may borrow a device free of charge and try it before buying it, use it to compare similar devices, or to use while a personal device is being repaired.

On Deck – Natural Transitions Consulting, LLC

Natural Transitions Consulting, LLC



Natural Transition Consulting – Mary L. DuCharme, OTR, ATP, BSE

Room 4



Natural Transitions Consulting, LLC provides expert training employing assistive technology techniques and teaching with purpose and passion for direct care, rehabilitation providers, durable medical equipment providers, NGO workers, and educational staff in various curricula for people with disabilities to improve their quality of life.

On Deck – Rehab Robo

Rehab Robo



Room 5

ATDev Inc.

Assistive Technology Development – Owen Kent, Todd Roberts, and Bianca Riello

"**Rehab Robo** is a custom powered orthosis intended to increase accessibility of physical therapy and exercise for people with physical disabilities. Our novel, patient-specific interface increases comfort and reduces weight while our alignment verification system enables safe use in the at home setting. Rehab Robo is intended for use with people with neuromuscular diseases, SCI's, limb difference, or any other physical impairment that leads to long periods of low or no activity. The device collects and reports patient outcomes data via a telehealth application."

On Deck – Dance for Healing

Dance4Healing Tele-exercise



Dance4Healing – Amy Li

Room 6



Dance4Healing is a tele-exercise live video platform leading telehealth into physical rehabilitation, bringing community support, exercise, and fun to home care. Inspired by founder Amy Li's stage IV cancer journey, our mission is to alleviate mental and physical pain and reduce medical costs. Rooted in neuroscience and published medical studies, our social platform connects dance teachers, clinicians, chronic patients, care-partners, elders, and healthy users. We use artificial intelligence and behavior design to provide and recommend personalized music, dance, buddies, and groups; use feedback from patient monitoring to record progress; and suggest follow-on therapies.

On Deck – UpLifting Wheelchair

UpLifting Wheelchair



UpLifting Wheelchair – Jerome Farmer

Room 7



"The **UpLifting Wheelchair** provides vertical freedom for users of manual wheelchairs. It is the world's first and only manual wheelchair that raises the seat upward. It allows users to talk at eye level with standing people and reach all objects in any standard home or office. The UpLifting Wheelchair can be propelled and maneuvered by hand at any height and users always remain in the same seated position. The wheelchair allows users to sit at any table, workspace or counter, and it allows users to cook at a stove, reach cabinets and shelves, access all parts of a refrigerator, and clean dishes at a sink. It saves users from expensive home renovations. It eases the transitions between wheelchairs, beds, and toilets. And, it reduces the strain (especially back-injury causing strain) of nurses and caregivers who have to move people in wheelchairs."

On Deck – 911 Finder Cellular Watch

911 Finder Cellular Watch



911 Tracker - Chuck Roedel

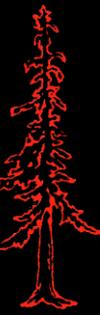
Room 8



911 Tracker - Chuck Roedel

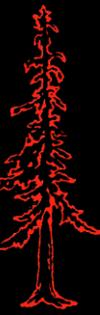
"The 911 Finder provides peace of mind for the caregiver that the wearer is safe. The wearer and caregiver can call each other with the touch of a button. The caregiver's 911 Finder App receives an alert if the wearer is outside a Safe Zone, falls, or removes the Finder. If the caregiver believes the wearer is having an emergency, they can tap the App. The App commands Finder to use our patented method to make a 3-way call between the caregiver and the 911-Operator located nearest the wearer. Finder provides real-time GPS to help First Responders get to the wearer quickly."

Sample Questions



- ▶ What problem does the device or service address?
- ▶ Who benefits from its use?
- ▶ How many potential users are there?
- ▶ How is your device or service better than others?
- ▶ What design / development process was pursued?
- ▶ How many prototypes were made before commercialization?
- ▶ How do you advertise your products or services?
- ▶ Are your products or services covered by insurance or Medicare?

Breakout



Vendors: Join your Breakout Room, describe your service or product, answer questions.

Students: Visit each vendor, make sure you have enough time to visit everyone. Don't all start at Room 1. Search for the coolest device or service you saw.

We'll meet back in the main room just before the end of class.



Have
Fun!

