

January 31, 2017



ENGR110/210

Perspectives in Assistive Technology



David L. Jaffe, MS
Instructor



Questions?



Attendance Sheet, Evaluation Form, and Meet with Dave Signup



For all students:

- Attendance Sheet
- Meet with Dave signup – Teams or individual students

For everyone:

- Class Session Evaluation Form



ENGR110210 Enrolled Student Attendance List
January 10, 2017

Enroll Number	Name of Enrolled Student	Enroll Number	Name of Enrolled Student
10001	Adams, John Alexander	10002	Adams, John Alexander
10003	Adams, John Alexander	10004	Adams, John Alexander
10005	Adams, John Alexander	10006	Adams, John Alexander
10007	Adams, John Alexander	10008	Adams, John Alexander
10009	Adams, John Alexander	10010	Adams, John Alexander
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10097	Adams, John Alexander	10098	Adams, John Alexander
10099	Adams, John Alexander	10000	Adams, John Alexander

Sign Up to Meet with Dave

Before class outside Thornton 110
After class in Thornton 110
Other times in Peterson Building, Room 113

Date & Time	Enter Team Name & Specify 15 minute time block
Wednesday - January 18 th Morning - 8:30am - 11:30am	
Afternoon - 1:00pm - 4:30pm	
Thursday - January 19 th Morning - 8:30am - 11:30am	
Afternoon - 1pm - 3:30pm	
Before class - 5:45pm - outside classroom	
After class - 8pm	
Friday - January 20 th Morning - 8:30am - 11:30am	

Perspectives in Assistive Technology - 2017
Class Session Evaluation Form

Lecture 01a: Course Overview & Introduction to Assistive Technology - David L. Jaffe, MS

Are you an enrolled student? - Yes - No

The purpose of the questionnaire is to help the teaching team assess today's class session. Please rate the following issues:

Speaker's overall presentation: speaking volume, understandability, ease of following concepts and arguments, clarity of explanations, quality of PowerPoint slides, use of supporting media (videos) and presentation aids (blackboard/whiteboard), stage presence, knowledge of topic, preparedness, presentation structure, organization, pace and management of allotted time, opportunity for questioning and class engagement, provided good examples, concepts, and demonstrations
 Presentation content: topic relevant, relevance to the broad scope of assistive technology, presentation of new information, appropriate level of detail and technical content, overall value of presented material

Submit your comments, questions, and suggestions, especially if you found portions of the lecture to be particularly good or bad. Supply your name if you want a response and use the back of this form if you need more room.

What one item did you hear, see, or learn that was new, surprising, interesting, or provided a new perspective?

How much did you learn from today's lecture? - A great deal - a bit - a moderate amount - a little - nothing

What is your stress level today? - low - medium - high

How is your stress level trending? - downward - steady - upward

First Field Trip – Thursday, Feb 9th



- ▶ VA Palo Alto Health Care System
 - ▶ Spinal Cord and Brain Injury Services
 - ▶ Assistive Technology Center



- ▶ Due to space limitations, it is only open to enrolled students and community carpool drivers.



- ▶ Who has to leave early?



Driver's Signup Sheet



Car Pool Drivers' Signup Sheet - 2017

Field trips: Thursday, February 9th - VA Medical Center - Palo Alto
Tuesday, February 21st - Motion & Gait Analysis Lab - Menlo Park
Tuesday, February 28th - Magical Bridge Playground - Palo Alto

Students and community members: Please indicate your availability to drive students to these field trips. Unless otherwise arranged, the departure point from Stanford is the Thornton Center

Driver's name:	Dave Jaffe
Cell phone:	650/892-4464
Tours available:	<input checked="" type="checkbox"/> - VA <input checked="" type="checkbox"/> - Gait Lab <input checked="" type="checkbox"/> - Playground
Car model & color & number of passengers:	Black Acura Integra - 2

Driver's name:	_____
Cell phone:	_____
Tours available:	<input type="checkbox"/> - VA <input type="checkbox"/> - Gait Lab <input type="checkbox"/> - Playground
Car model & color & number of passengers:	_____
Available for early return @ 5:40:	<input type="checkbox"/> - VA <input type="checkbox"/> - Gait Lab <input type="checkbox"/> - Playground

- ▶ Field trips:
 - ▶ Thursday, February 9th - VA Medical Center - Palo Alto
 - ▶ Tuesday, February 21st - Motion & Gait Analysis Lab - Menlo Park
 - ▶ Tuesday, February 28th - Magical Bridge Playground - Palo Alto
- ▶ Students and community members: Please indicate your availability to drive students to these field trips. Unless otherwise arranged, the departure point from Stanford is the Thornton Center.

Let me know if you are a solo driver so I can send you a map.

A couple of take-aways



1. One concept that Peter emphasized was his need to **objectively and systematically measure** the performance of his project prototypes.
2. Another interesting item was his decision to put some of his design concepts in the **public domain** to allow others to bring them to market.

What Will Alphabet Be When It Grows Up?



From: MIT Technology Review - Nov/Dec 2015 - page 84 - 86

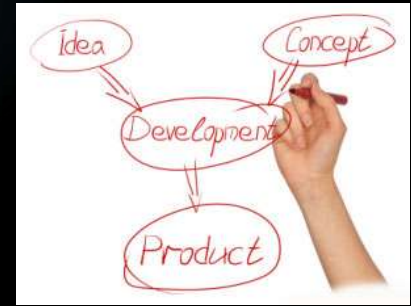
By: John Gertner

John Pierce, one of Bell Labs' research managers, once said the organization's structure reflected the fact that "**pursuing an idea takes, I presume, 14 times as much effort as having it.**" It was a keen insight born of Pierce's decades of experience. Creating a functional product from breakthrough science - the transistor, for instance - required not only extraordinary effort but also an extraordinary amount of time.

Bell Labs' biggest ideas, which at best **took decades to commercialize**, didn't ensure the company's long-term success in the competitive environment brought on by the breakup of its monopoly. That's a bitter truth about making big bets on world-changing technologies: often, **commercializing the innovative idea is far more important, and more difficult, than coming up with it in the first place.** John Pierce knew what he was talking about.

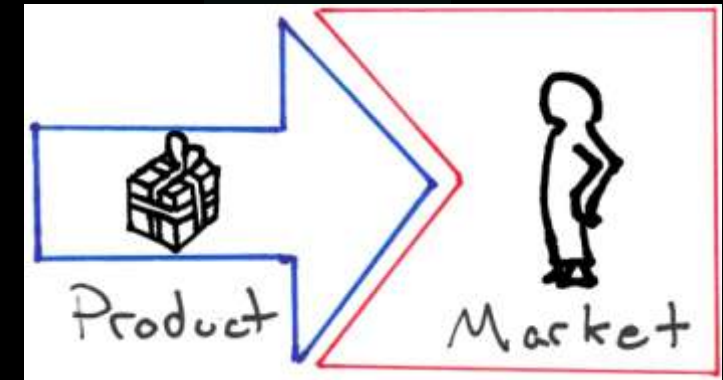
Read the entire article [here](#).

What Makes it Difficult to Commercialize a Prototype?



Short answer: It takes lots of \$, time, and commitment to get a product to market

- it doesn't happen automatically - you can't do it part time as a hobby
- you may need years and millions of \$
- you need a **BIG** market and a **BIG** demand
- you need to have insurance pay for it
- you need patent protection
- you need to start a company
- you need a space and to hire good people
- you may need FDA approval and product liability insurance
- you need to have it manufactured, advertised, marketed, distributed, sold, supported
- you need a lot of help
- you need a lot of luck (probably most important)



RESNA Student Design Competition



The **RESNA Student Design Competition** (SDC) is an annual competition that has showcased creative and innovative assistive technology designs that help people with disabilities function more independently for over 30 years. Student teams represent a wide variety of disciplines including mechanical, electrical, and biomedical engineering; computer information science; special education; architecture; physical and occupational therapy; and other fields of study.

Registration is now open for the 2017 Competition. By registering, student teams are indicating their intent to submit their final project by **Tuesday, April 11th**.

Prizes - Semi-finalist teams win a trip for two team members to the RESNA annual conference (**June 28-30 in New Orleans**) and a free membership to RESNA. One design, judged to be the most commercially viable, will receive **a cash prize and product development consultation**.

More information can be found on the [Student Design Competition website](#).



Thursday, February 2nd



Collaboration: From User-based Design to Co-design

June M. Fisher, MD



Today



Humanistic Intelligence and HARCAD for Assistive Technologies

Steve Mann, PhD
University of Toronto

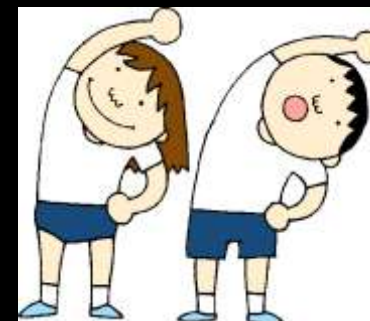
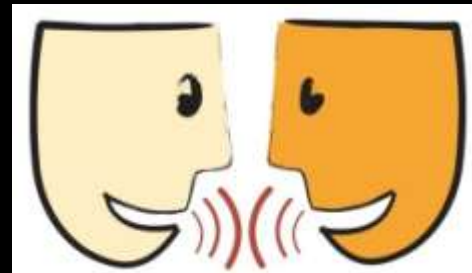
Short Break



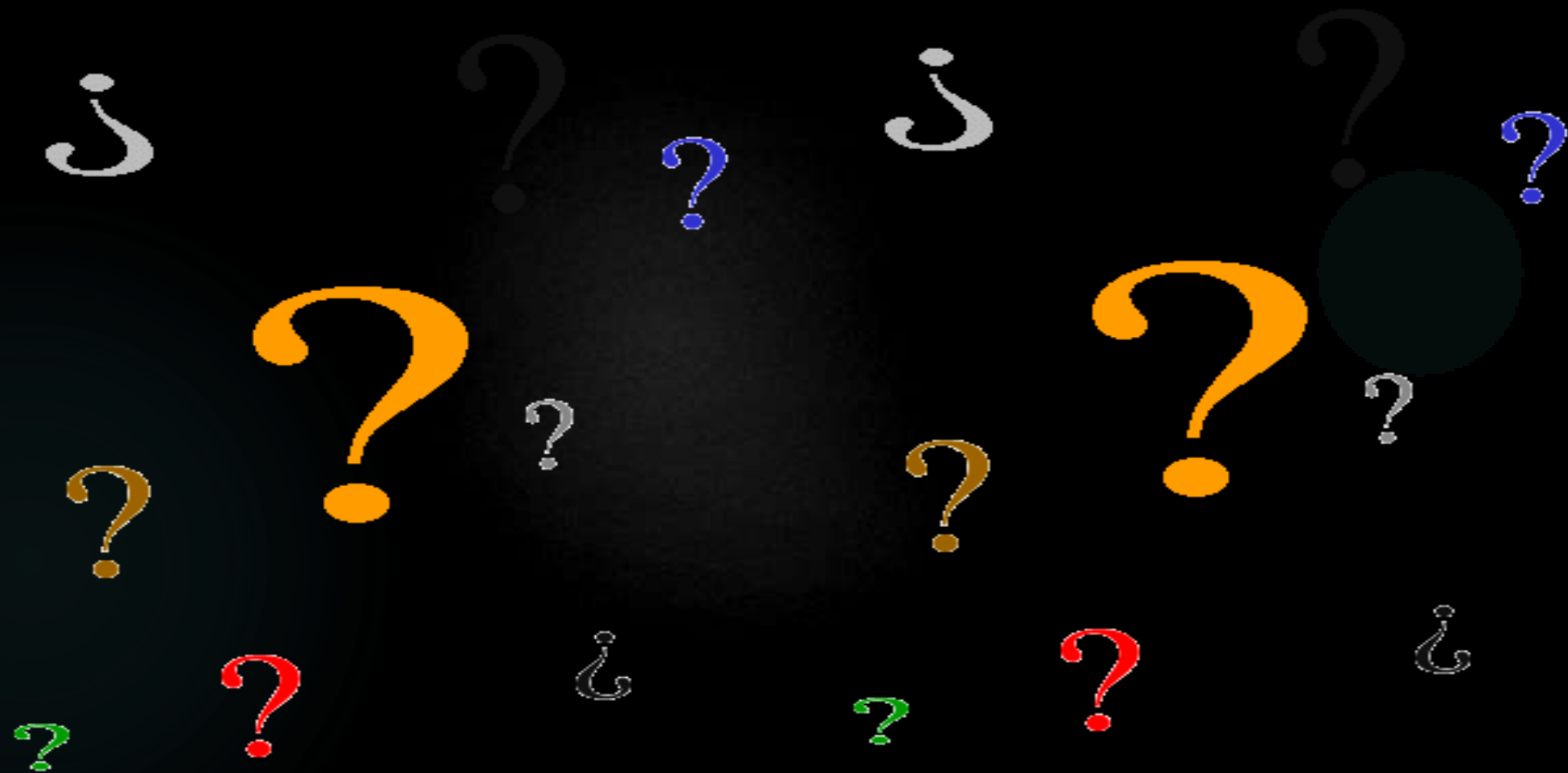
Break Activities



- ▶ 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



class dismissed



Laptops Galore

