

AccessComputing and Accessibility Research

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Outline

- Who am I
- Data on disabilities in IT and other fields
- Accomplishments of disabled scientists and engineers
- Accessibility Research
- AccessComputing

Richard Ladner

- Professor of Computer Science and Engineering at University of Washington
 - Trained as a mathematician
 - Now do accessibility research
 - Outreach
- Life experiences
 - Raised by deaf parents
 - Lifelong exposure to people with disabilities

Basic Data

Some Basic Data about IT

- 11% of the population in school, ages 14-21, have disabilities.
- 13% of undergraduate IT majors have disabilities.
- 5% of graduate IT majors have disabilities.
- 0.8% of IT doctorates have disabilities.
 - E.g. From 1999-2004 there were 53 in the US.

Problem Areas

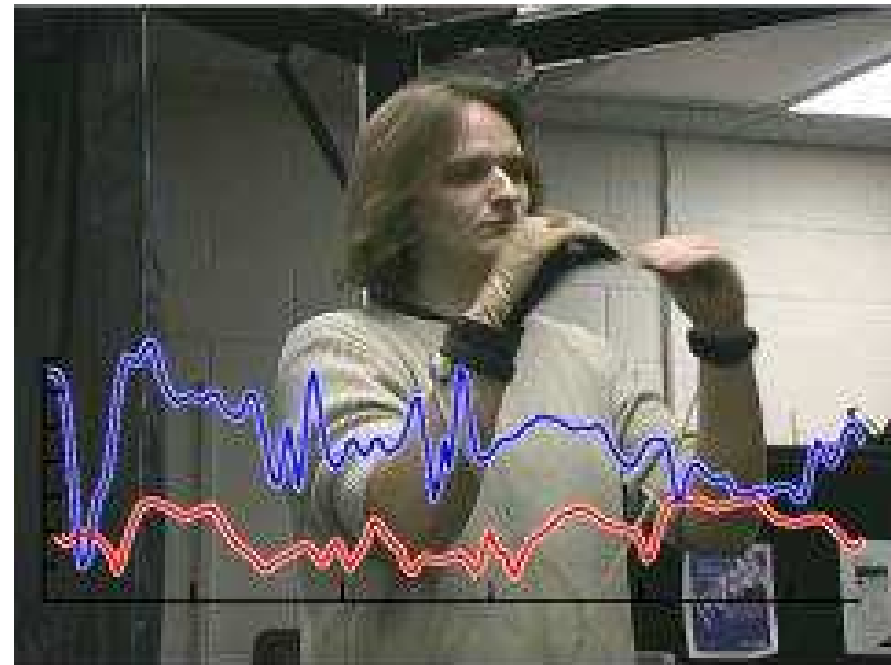
- Students with disabilities tend to drop out of computing majors more than other students.
- Very few students with disabilities go on for advanced degrees in computing.

Individuals

Computer Scientists



TV Raman



Christian Vogler

Computer Scientists



Chieko Asakawa
IBM Japan



Hideji Nagaoka
Tsukuba U. of Tech

Engineer



Iraq War Veteran
Jonathan Kuniholm

Geerat Vermeij



Geerat Vermeij, Ph.D.
Evolutionary Biologist

Steven Hawking



UW
Students



Sangyun Hahn
Ph.D. Student
CSE

Zach Lattin
Math Major

The Message

- People with disabilities can do almost anything in almost any scientific field.
- People with disabilities are often highly motivated to pursue careers in accessibility research.

Accessibility Research

CHI “Disability” Search



- Year Number
- 1982 – 85 0
- 1986 – 90 10 (4%)
- 1990 – 95 15 (5%)
- 1996 – 00 20 (6%)
- 2001 – 05 90 (23%)
- 2006 – 08 71 (17%) (3 years)

Other Conferences

- ASSETS
 - ACM
- ICCHP
 - Europe
- CSUN
 - Cal State Northridge
- ATIA
 - Industry Conference
- W4A
 - Collocated with WWW

VoiceDraw

2007-8 National Scholar Award for
Workplace Innovation & Design, 2nd place



Susumu Harada, Jeff Bilmes, James Landay

WebAnywhere

WebAnywhere Browser Frame

Replicates browser functionality and provides a screen reading interface to both web content and browser functions.

WebAnywhere Content Frame

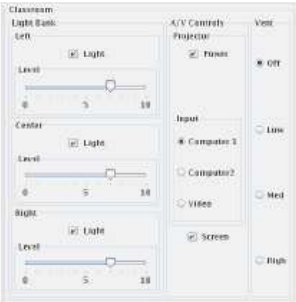

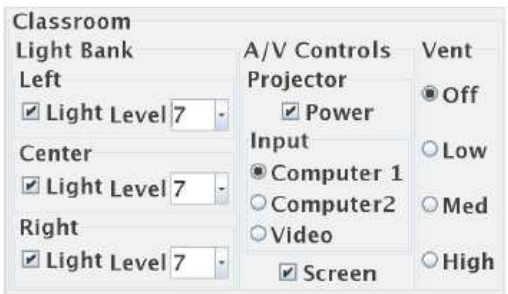
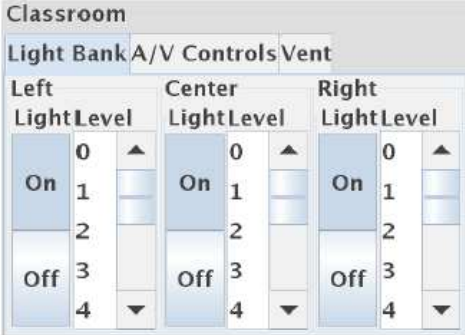
Loads web content via proxy server. Browser frame speaks the web content loaded here.



- Andrew W. Mellon Foundation Award for Technology Collaboration (2008)
- Microsoft Imagine Cup Accessible Technology Award (2008)
- W4A Accessibility Challenge Delegate's Award (2008)

Jeff Bigham

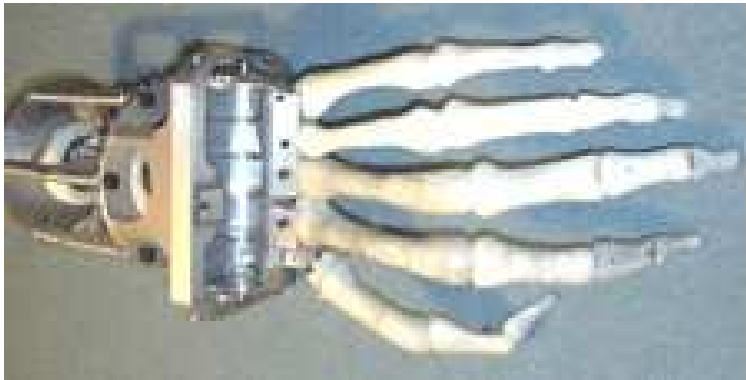
Supple

	Typical Motor Ability	Mouse User With Impaired Dexterity
Typical Vision	 <p>(a)</p>	 <p>(b)</p>
Low Vision	 <p>(c)</p>	 <p>(d)</p>

CHI 2008
Best Paper Award

Krzysztof Z Gajos, Jacob O. Wobbrock and Daniel S. Weld.

ANATOMICALLY CORRECT TESTBED ROBOTIC HAND



Yoky Matsuoka

MacArthur Foundation Award 2007



AccessComputing

Goal

- Increase the participation and success of students with disabilities in computing fields.



How to Get Involved For Students



- Become an AccessComputing Team Member
 - Internships
 - Mentoring
- Undergraduate Research
 - At any university

How to Get Involved For Faculty



- Host an research internship for a student with a disability
 - AccessComputing will pay
- Apply for a mini-grant to AccessComputing
 - Host a speaker with a disability
 - Host a workshop for students with disabilities
- Join a Community of Practice
 - CompCoP
 - BPCop

<http://www.washington.edu/accesscomputing>

Questions