CHI 2003 Highlights

- General Observations
- Opening and Closing Speakers
- Tutorials
- Panels, Papers, Posters
- NSU Participation
- Conference Proceedings
General Observations

- High emphasis on usability; some emphasis on psychology and emotion; technical track more device-oriented.
- Handheld devices are more prevalent and are expected to make educational technologies more accessible to all students.
- E-Learning is gaining interest
General Observations

- 1600 participants
- 600 newcomers
- 470 paper submissions
- 30% international (non-US)
- 5000 SIGCHI members
Special Events
Special Area Sessions

- Three sessions related to theme of communicating via interactive digital media.
  - Mass communication and interaction: CHI and the fate of AOL Time Warner
  - E-Learning comes of age: developing rich and vibrant learner experiences
  - Emotion and the design of new technology
E-Learning Comes of Age

- Panel: Lisa Neal, Steve Draper, John Thomas, Jenny Preece, Michael Schrage
- Disappointments: failed promises in a technological revolution
- Changing direction: what are our learning objectives?
- Successes: e-learning as rich and vibrant learning experiences
Doctoral Consortium

- Opportunity for a group of invited doctoral students to explore their research interests in an interdisciplinary workshop with other students and a group of experienced researchers.
Opening and Closing Speakers
Racing with the wind: Publishers learn to navigate in a multimedia world


- Research is needed to study how people interact with online media (e.g., users tuning out to ads that are the same size)
Emotion & Design

- Don Norman, Northwestern University & Nielsen Norman Group
- Moving beyond HCI into design, Norman outlined his theory of emotional design with which design should address three levels of emotion – visceral, behavioral, and reflective
Tutorials

Pre-Conference Activities
Tutorials

- Human-Computer Interaction: Introduction and Overview
- Something Old, Something New: Designing for the Aging Population
- Subjective Approaches to Design for Everyday Life
- Styling the New Web: Web Usability with Style Sheets
- Web Sites that Work: Designing with Your Eyes Open
- Cognitive Factors in Design: Basic Human Memory and Problem Solving
Tutorials

- Understanding Work in Context: Practical Observation Skills
- Discovering User Needs: Field Techniques You Can Use
- Information Visualization: Principles, Promise, and Pragmatics
- Collaboration Technology in Teams, Organizations, and Communities
- Handheld Usability: Design, Prototyping, & Usability for Mobile Devices
- Wireless Service Usability & Design
Tutorial: How to Motivate and Persuade Users

- B.J. Fogg, Stanford University
- Persuasive technology influencing users in everyday HCI.
- Computing products can change what people think and do.
Tutorial: Designing Flexible, Accessible Interfaces That Are More Usable by Everyone

- Gregg C. Vanderheiden, University of Wisconsin-Madison and Shawn Lawton Henry, UI Access
- Provided basic understanding of the major problems faced by people with different disabilities in using technology.
Tutorial: Designing Flexible, Accessible Interfaces That Are More Usable by Everyone

- Basis for the approach: We are disabled when we cannot adapt to the world as it is currently designed.

- People experience disabilities:
  - Not just because of their abilities or functional limitations but rather as a result of the intersection of a person’s abilities AND the requirements of their environment
Tutorial: Designing Flexible, Accessible Interfaces That Are More Usable by Everyone

- Interesting reminder to us all: “If everyone else (outside this room) had wings....we (in this room) would suddenly ‘be disabled’”

- “…Not because we can’t fly...but because they would design the world differently…”
Tutorial: Designing Flexible, Accessible Interfaces That Are More Usable by Everyone

- All part of a continuum:
- No clear line between disability and “able bodied”
- Person may have trouble with one product (be “unable”), yet be a power user on another product or design.
- Many people have no “disability,” but have trouble using products.
Different reasons for usability problems:

- Erica wears a hearing aid and has a great deal of difficulty using a cell phone effectively.
- Chuck often has trouble using his phone in noisy environments.
- Bobby has an ear infection and is having difficulty hearing in the classroom.
Tutorial: Designing Flexible, Accessible Interfaces That Are More Usable by Everyone

- Traditional human factors work tries to maximize the number of people who have little or no trouble using a product.
- In fact, it’s all part of a continuum and the lines (on the curve) tend to move together with better (or worse) design.
Tutorial: Designing Flexible, Accessible Interfaces That Are More Usable by Everyone

- Universal Design (TRACE Definition):
- The process of designing products so that they are as usable to people with the widest range of abilities and constraints as is commercially practical and profitable.
Tutorial: Designing Flexible, Accessible Interfaces That Are More Usable by Everyone

- This includes:
- Accommodating the widest range of abilities as is practical
- Being directly usable when practical
- Being usable via assistive technologies when direct use is not practical
Finally, “There are no universal designs. There are always people who cannot use some or all of the product. Therefore, Universal Design must be approached as a process, not an outcome."
Tutorial: Designing Flexible, Accessible Interfaces That Are More Usable by Everyone

- Trace Center – University of Wisconsin-Madison: http://trace.wisc.edu
- UI Access – resource on universal interface design: http://uiaccess.com/
Panels, Papers, Posters
Sample Session Topics

- Extending users’ control over technology
- Interaction techniques for handheld devices
- Accessibility interfaces
- Post-cognitivist HCI: second-wave theories
- Trust, security & safety
- Sharable displays
- New techniques for presenting instructions and transcripts
- Input interaction

- Politics and usability: test your skills against the experts
- Emotion
- Privacy and trust
- Physical-virtual world interaction
- Usability of large scale public systems
- Peripheral and ambient displays
- Fitt’s law and text input
- Research-based web guidelines: do they make better websites?
The “Magic Number 5:” Is It Enough for Web Testing?

- Heated Discussion by Panelists: Jared Spool, Rolf Molich, Carol Barnum, Dennis
- Usability can be tested with 3 to 4 users
- Iterative development and testing with 5-6 users
- Finding all problems requires over 100 users
The “Magic Number 5:” Is It Enough for Web Testing?

- **Wrong question**
  - How many users?
  - When testing a bridge, if a test car falls into the water, do we need to drive 8 more cars over it to know there is a problem?

- **Better questions**
  - How do we plan user testing?
  - Are we testing users?
  - Are we testing procedures?
  - Data analysis?
The “Magic Number 5:” Is It Enough for Web Testing?

- Qualitative Testing
  - Observation, discussion, discovery, learning

- Quantitative Testing
  - Statistically sound, validation, confirmation, overall measure of usability

- Facilitator effect – inconsistent results among repeated tests
E-Learning Posters

- Interaction patterns with a classroom feedback system: making time for feedback
- Combining handhelds with a whole-class display to support the learning of scientific control
- VirtualCase: a tool for online collaborative learning
- Supporting engagement in asynchronous education
- Designing an integrated review sheet for an electronic textbook
- Kana no senshi (Kana warrior): a new interface for learning Japanese characters
SIGs

- Meeting the Challenge of Measuring ROI for User Centered Development
- Making Customer-Centered Design Work in the Real World of Organizations
- Challenges in Teaching User Interface Design for Telephone and Cell Phones
- Toward a Unified Universal Remote Console Standard
- Current Issues in Assessing and Improving Information Usability
- eLearning
- Design of Usable Multi-Platform Interactive Systems
- New Tips and Tricks for a Better Usability Test
New Books

- **Designing Pleasurable Products** by Patrick Jordan
- **Designing Emotions** by Desmer
- **Emotional Design** by Don Norman
- **The Design of Sites: Patterns, Principles, and Processes for Crafting a Customer-Centered Web Experience**
  - contains hundreds of links to information primarily in HCI.
NSU Participation

- Drs. Laurie Dringus, Maxine Cohen, and Richard Manning
- Heidi Kramer, Wim Kerkhofs, Elly Cramer, Karen Pate, Michele Forman, Susan Smith, Karl Reimers, Jason Lively, and David Shrader
- Thanks to all the participants that sent in comments for inclusion in this presentation.
Special Thanks

- A BIG ‘Thanks’ to David Shrader, our Teaching Assistant, for preparing most of these slides!!!
Student Reactions

- “The conference made me realize the importance of educating system developers in the area of HCI.”

- “It was an invaluable learning experience and the conference peaked my interest so much that I am now contemplating doing my dissertation in this field.”

- “I traveled from Texas to Florida to attend the conference. I loved it.”
Student Reactions

- “I thought the current research in the CHI field was outstanding.”
- “I was happy to see CHI had a good balance of real-world business issues within HCI.”
- “I learned that CHI is studied throughout the world.”
Conference Proceedings

- CHI 2003, New Horizons, Conference Proceedings
- Editors: Belloti, V., Erikson, T., Cockton, G., & Korhonen, P.
- Human Factors in Computing Systems, Sponsored by ACM’s special Interest Group in Computer-Human Interaction (ACM SIGCHI)
- Members: ACM Order Department
- Non-members: Pearson Education
- NSU Students: ACM Digital Library