SIGCHI

ADVANCE PROGRAM

CHI 2003

NEW HORIZONS

5-10 April
Ft. Lauderdale
Florida, USA

www.chi2003.org

Sponsored by ACM's
Special Interest Group
on Computer-Human
Interaction (ACM SIGCHI)

N E W   H O R I Z O N S

Welcome to the CHI 2003 Advance Program, highlighting all of the excitement of the world's premier conference on Human-Computer Interaction (HCI). This program presents all technical submissions and sessions accepted up to the time of this printing. An extensive Tutorials program lets world class instructors update your HCI skills in new and existing areas. The Workshop program invites you to work closely with colleagues from around the world on the frontiers of HCI knowledge. Panels feature international HCI experts debating burning issues in HCI research and practice. Papers and Demonstrations bring to light the leading edge of HCI design, technologies and practice. Design and Usability sessions explore issues in a format devised for practitioners by practitioners.

Special Focus on Mass Communication and Interaction, e-learning, and Emotion

Naturally, CHI 2003 continues the tradition of showcasing the best of HCI, but it also takes us toward new horizons. Remember when computers just processed data and HCI just supported users in their work tasks? Now desktop office machines are outnumbered by broadband servers and mobile devices. With them comes joy, persuasion, outrage, delight, faith, campaigns, satire, fun, learning, identity, communities and passion. Now, increasingly, we interact to be, not just to do. Interaction no longer just changes things, it changes people. CHI 2003 will address all forms of interactive digital communication, with a focus on three special areas: mass communication and interaction, e-learning, and emotion. Two world leaders will address special areas in the plenary sessions and additional sessions are planned, specifically focusing on these topics.

Keep Checking the Web Site for Updates

Inside you'll find a great program already in place, but even more will be added right before CHI 2003 to ensure that our participants remain on HCI's leading edge. Information about the Development Consortium and the Interactionary competition will be soon be available on the conference web site (**www.chi2003.org**). Program details for Short Talks, Interactive Posters, Special Interest Groups, Student Posters and the Doctoral Consortium will follow in February 2003.

You Can Begin Participating Now

Within this Advance Program you will also see many social opportunities to network and advance your career. There are New Horizons for everyone in Fort Lauderdale. However, you don't need to wait until April 5 to get involved. You can join current discussions and begin networking right now at **www.chiplace.org**. CHI 2003 is already well underway!

Don't miss the boat! Come to CHI 2003 to learn, to debate, to share and most of all to meet. Complete the registration form, book your housing, and arrange your transport soon. Registration and housing information can be accessed on-line now at www.chi2003.org. Read on, arrange your schedule and join us for a great conference in Ft. Lauderdale!!

Gilbert Cockton and Panu Korhonen
CHI 2003 General Conference Co-Chairs
chi2003-chairs@acm.org

PROGRAM HIGHLIGHTS

6 days of exciting presentations including:

35 Tutorials

- Solid training in current practice for newcomers
- The most up-to date knowledge of the field for advanced participants
- 25 full-day and 10 half-day tutorials
- Timely new tutorials as well as courses back by popular demand

Special Focus Areas

Three special areas explore the conference theme of communicating via interactive digital media:

- mass communication and interaction
- emotion
- e-learning

As interactive media are increasingly used to communicate, teach and entertain (not just to "do work"), emerging trends in these special areas are generating significant interest for the HCI community.

Looking to the Future

- HCI Visionary, Don Norman, opens the conference with his presentation on *Emotion & Design*.
- Leader, Neil F. Budde, shares his *Wall Street Journal* experience, building the largest paid-subscription news site on the Web in the closing presentation, *Racing with the Wind: Publishers Learn to Navigate in a Multimedia World*.

Networking and Collaboration

- Workshops and Special Interest Groups offer unique opportunities.
- Receptions and convenient gathering places support the exchange of ideas.

More to Come

Late-breaking areas are being added as they are reviewed. Keep checking in at www.chi2003.org for the most current program information!

Official Conference Site
www.chi2003.org

Interactive Online Forum
www.chiplace.org

SERVICES	TECHNICAL	ONGOING & INFORMAL EVENTS	SPECIAL EVENTS
saturday			5 april
Registration 15:00 – 19:00	Tutorials 18:00 – 21:30	The Commons 15:00 – 19:00	
sunday			6 april
Registration 08:00 – 17:30 Child Care 08:30 – 18:00	Tutorials 09:00 – 17:30 Workshops 09:00 – 17:30 Consortia 09:00 – 17:30	The Commons 08:00 – 18:30	
monday			7 april
Registration 08:00 – 21:30 Child Care 08:30 – 18:00	Tutorials 09:00 – 17:30 Tutorials 18:00 – 21:30 Workshops 09:00 – 17:30 Consortia 09:00 – 17:30	The Commons & Recruiting Boards 08:00 – 18:30	Networking Reception 21:00 – 23:00 Local SIGs Workshop 09:00 – 17:30
tuesday			8 april
Registration 08:00 – 17:30 Child Care CHIkids 08:30 – 18:30	Opening Plenary 09:00 – 10:30 Technical Sessions 11:30 – 18:00 Posters 10:30 – 18:00	The Commons 10:30 – 19:00 Exhibits & Recruiting Boards 10:30 – 18:00	Newcomers Orientation 10:30 – 11:30 Conference Reception/ Beach Party 19:30 – 22:30
wednesday			9 april
Registration 08:00 – 17:30 Child Care CHIkids 08:30 – 18:30	Technical Sessions 09:00 – 18:00 Posters 09:00 – 18:00	The Commons 08:00 – 19:00 Exhibits & Recruiting Boards 09:00 – 18:00	Hospitality Suites ACM SIGCHI Business Meeting 18:30 – 19:30 Volunteer Reception 19:45 – 21:00
thursday			10 april
Registration 08:00 – 14:00 Child Care CHIkids 08:30 – 18:30	Technical Sessions 09:00 – 16:00 Posters 09:00 – 16:30 Closing Plenary 16:30 – 18:00	The Commons 08:00 – 16:30 Exhibits & Recruiting Boards 09:00 – 16:30	

New for CHI 2003: Design & Usability Track
Special Areas: Mass Communication and Interaction, Emotion, and e-learning

CONTENTS

TUTORIALS

Tutorials are courses that offer extended interactions with expert instructors. The courses available at CHI 2003 represent the leading edge of current practice and research in Human-Computer Interaction. The tutorial program has been designed to appeal to researchers, practitioners, new-comers and regulars.

Tutorials provide diversity and depth through a wide range of topics that expands from theory to practice and from emerging technologies and markets to tech-niques for design, usability, and promoting HCI in organizations. The CHI 2003 Tutorial Program includes several non-traditional HCI tutorials for participants interested in experimenting with provoc-ative methods and ideas, in trying to do innovation, and in expanding their knowledge and skills in HCI-complemen-tary areas.

SIGCHI offers Continuing Education Units (CEUs). Each CEU requires the successful completion of 10 hours of instruction. You can accumulate up to 1.8 CEU units at CHI 2003. An administrative charge must be paid with registration. See **www.chi2003.org** for details.

Visit CHIplace (**www.chiplace.org**) to participate in the selection of a **"People's Choice"** tutorial for Monday.

TUTORIAL SCHEDULE

Full-Day	09:00 – 17:30
Half-Day, Morning	09:00 – 12:30
Half-Day, Afternoon	14:00 – 17:30
Evening	18:00 – 21:30

EVENING TUTORIALS

Saturday

1 Human-Computer Interaction: Introduction and Overview

2 Something Old, Something New: Designing for the Aging Population

3 Attentional and Nonattentional Processes in Vision: Implications for Display Design

Monday

33 Web-Site Usability: The Big Picture 2003

34 Avoiding "We can't change that!": Software Architecture & Usability

35 How To Motivate & Persuade Users: Influence in Everyday HCI

RECOMMENDED TUTORIAL GROUPINGS

Introductory Tutorial
1   Human-Computer Interaction: Introduction and Overview *(Saturday Evening)*

Gathering/Using Field Research Data
4   Subjective Approaches to Design for Everyday Life *(Sunday)*
9   Understanding Work in Context: Practical Observation Skills *(Sunday)*
11 Discovering User Needs: Field Techniques You Can Use *(Sunday)*
24 Driving Invention from Field Data *(Monday)*

Usability Techniques
14 Setting Usability Performance Requirements *(Sunday)*
25 Promoting, Establishing, and Institutionalizing Usability Engineering *(Monday)*
30 Usability and Beyond! Understanding Usefulness, Usability & Use *(Monday)*
33 Web-Site Usability: The Big Picture 2003 *(Monday Evening)*
34 Avoiding "We can't change that!": Software Architecture & Usability *(Monday Evening)*

Design Techniques
4   Subjective Approaches to Design for Everyday Life *(Sunday)*
6   Web Sites That Work: Designing with Your Eyes Open *(Sunday)*
15 Enhanced E-Learning Through Learner-Centric Design *(Sunday)*
16 Handheld Usability: Design, Prototyping, & Usability for Mobile Devices *(Sunday)*
22 Card-Based User and Task Modeling in Agile Usage-Centered Design *(Monday)*

Cognitive, Perceptual Perspective
3   Attentional and Nonattentional Processes in Vision *(Saturday Evening)*
8   Cognitive Factors in Design: Basic Human Memory and Problem Solving *(Sunday)*
17 User Bias and Judgment: The Subjective Side of Decision-Making *(Sunday)*
26 A Cognitive Approach to Interactive System Design *(Monday)*
28 Multimedia Design for the Web *(Monday)*

Accessibility
2   Something Old, Something New: Designing for the Aging Population *(Saturday Evening)*
10 Designing Flexible, Accessible Interfaces That Are More Usable by Everyone *(Sunday)*
29 Designing for Users with Special Needs *(Monday)*

Handheld, Mobile, Pervasive Computing
16 Handheld Usability: Design, Prototyping, & Usability for Mobile Devices *(Sunday)*
18 An Introduction to Augmented Reality Research *(Monday Morning)*
19 Wireless Service Usability & Design *(Monday Morning)*
21 Vision-based User Interfaces for Pervasive Computing *(Monday Afternoon)*

Information Visualization & Retrieval
12 Information Visualization: Principles, Promise and Pragmatics *(Sunday)*
20 Web Search Engines: Algorithms and User Interfaces *(Monday Afternoon)*
23 Information Foraging *(Monday)*

Social Systems
13 Collaboration Technology in Teams, Organizations, and Communities *(Sunday)*
18 An Introduction to Augmented Reality Research *(Monday Morning)*
31 Recommender Systems: Interfaces and Technology *(Monday)*

Web
5   Styling the New Web: Web Usability with Style Sheets *(Sunday)*
6   Web Sites That Work: Designing with Your Eyes Open *(Sunday)*
20 Web Search Engines: Algorithms and User Interfaces *(Monday Afternoon)*
28 Multimedia Design for the Web *(Monday)*
33 Web-Site Usability: The Big Picture 2003 *(Monday Evening)*

CHI 2003 Special Areas
15 Enhanced E-Learning Through Learner-Centric Design *(Sunday)*
35 How To Motivate & Persuade Users: Influence in Everyday HCI *(Monday Evening)*

Something Different, Something Provocative
4   Subjective Approaches to Design for Everyday Life *(Sunday)*
7   Drawing on the Right Side of the Brain *(Sunday)*
27 High-Technology Innovation and Entrepreneurship: Principles and Pitfalls *(Monday)*
32 Extreme Programming, A Simulation *(Monday)*

1

Human-Computer Interaction: Introduction and Overview

Saturday, Evening 5 April

Keith A. Butler, *Boeing, USA*
Robert J.K. Jacob, *Tufts University, USA*
David Kieras, *University of Michigan, USA*

Benefits
This tutorial is a tried-and-true introduction to the field of human-computer interaction (HCI). It has become a CHI conference tradition.

If you are a newcomer to the HCI field, this tutorial will give you the background you need to get the most out of the CHI conference.

Features
- What is HCI and why is it important?
- Brief history of HCI
- Introduction to building usable systems
- Introduction to the psychology of HCI
- Introduction to computer technologies for HCI
- Future directions of HCI
- Where to learn more during the conference
- Where to learn more in the published HCI literature

Audience
Mainly first-time CHI attendees, typically professionals from computing-related fields who are new to the field of human-computer interaction. No background in HCI is assumed.

Presentation
Mostly lecture style.

Origins
This tutorial has evolved, based on feedback from the attendees, as we have given it each year at CHI since CHI 92.

Instructors
Keith Butler is Technical Fellow for user-centered design at Boeing and is one of the originators of Usability Engineering.

Rob Jacob is an Associate Professor of Computer Science at Tufts University, where his research interests are user interface software and new interaction media and techniques.

David Kieras is a Professor in the Electrical Engineering and Computer Science Department at the University of Michigan, where he holds a joint appointment in Psychology.

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New for 2003!

Something Old, Something New: Designing for the Aging Population

Saturday, Evening 5 April

Krista Coleman,
Enhanced Mobility Technologies, USA
Shelly Heller,
George Washington University, USA
Laura Leventhal,
Bowling Green State University, USA

Benefits
Participants will be introduced to the inter-related nature of social, physical and psychological characteristics of aging that interact with CHI and computer use. They will learn how to extend design, implementation and evaluation skills for designing for the aging population.

Features
Attendees will
- Identify general social, physical and psychological characteristics of aging
- Understand "Designing for Diversity"
- Learn about mistakes and rectifying them
- Understand empirical testing for elderly population
- Learn who cares

Audience
Designers and implementors of tools and programs for the elderly.

Presentation
Combines lecture and hands-on experiences to provide the opportunity to practice both "being elderly" and designing for those whose framework is very different from your own.

Origins
This tutorial incorporates material from an NSF sponsored workshop held in 2001. Some materials were presented at CHI 2002.

Instructors
Krista Coleman is the founder of EMT: Enhanced Mobility Technologies and adjunct faculty at the University of Minnesota.

Shelly Heller is a professor of Electrical Engineering and Computer Science at the George Washington University.

Laura Leventhal is a professor of Computer Science at Bowling Green State University.

3

New for 2003!

Attentional and Nonattentional Processes in Vision: Implications for Display Design

Saturday, Evening 5 April

Ronald A. Rensink,
University of British Columbia, Canada

Benefits
Learn about recent breakthroughs in vision that have implications for the design of visual displays. Learn about ways in which these new discoveries can be used to better understand users and to improve interaction with displays.

Features
- Demonstrations of new visual phenomena (e.g., change blindness, mindsight)
- Demonstrate ways in which visual perception can depend on the task at hand
- Overview of recent theories about human vision (e.g., rapid pre-attentive processing, scene perception, unconscious perception)
- New possibilities for improving information pickup (e.g., attentional units), display interaction (e.g., coercive graphics), and new display designs.

Audience
This is an introductory tutorial intended for product developers, designers of interfaces (including real-time applications such as automobiles), human factors specialists, researchers interested in information display and visualization, and display designers.

Presentation
Lectures interspersed with demonstrations and discussions.

Origins
New for CHI 2003. Includes material from a presentation given at Smart Graphics 2002 and a course on interface design given at SIGGRAPH 2002.

Instructor
Ron Rensink has a joint appointment in Computer Science and Psychology where he conducts research relating to the design of "time- and safety-critical" interfaces. Ron spent six years at Cambridge Basic Research helping Nissan engineers with the design of automobile interfaces. Ron has given many workshops on visual perception, including a day-long course on interface design at SIGGRAPH 2002.

4

New for 2003!

Subjective Approaches to Design for Everyday Life

Sunday, Full-day 6 April

William Gaver, Andrew Boucher, Sarah Pennington, Brendan Walker, *Royal College of Art, UK*

Benefits

Learn techniques for conceptualizing new products and services that capture a broader range of human values including aesthetic, emotional and everyday cultural values. Empathy, ambiguity, and narrative will be explored as alternatives to more traditional approaches to interaction. Attendees will develop provocative tasks ('probes') to elicit inspirational materials, use them to develop speculative design proposals, and learn techniques for their presentation and critique.

Features

• Introduction to speculative designs that reflect the idiosyncrasies of everyday life
• Hands-on experience pursuing design-led research of situations and people, based on a review of relevant approaches
• Introduction to the use of probes to engage people in a subjective dialogue about values and hands-on experience in developing probes
• Hands-on experience with generating and presenting speculative design ideas
• Approaches to evaluating speculative designs

Audience

Individuals intrigued by and willing to experiment with provocative methods and ideas.

Presentation

Lectures, case studies, exercises and discussion.

Origins

New for CHI 2003.

Instructors

William Gaver is a Senior Research Fellow in Interaction Design. His current research concerns design-led methodologies and ludic technologies for everyday life. He has given keynote talks at HCI and Design conferences and consults at an international level. Sarah Pennington, Andy Boucher, and Brendan Walker are researchers in the Interaction Design Department with backgrounds in design research, photography, industrial design, and industrial design engineering.

5

Styling The New Web: Web Usability With Style Sheets

Sunday, Full-day 6 April

Steven Pemberton, *CWI, Amsterdam*

Benefits

This full-day tutorial shows how to use Cascading Style Sheets (CSS) to style the presentation of web pages using HTML, XHTML (the new HTML) and XML, and how this helps usability.

While primarily about CSS and not usability, there will be emphasis on structuring of documents, and why using CSS is essential for usability, including accessibility for the elderly and sight impaired, device independence, reduced download times, and increased user preferences.

Features

All of CSS1, the level currently best implemented, is handled, as well as much of CSS2, and how to find out more. Details of what to expect in CSS3 will be given. It will be shown how to use CSS with HTML, and there will be an introduction to XHTML and XML, and how to use CSS with these.

Audience

The tutorial is for people who want to learn about new developments in Web technology, and how to apply them to increase the usability of Web sites. Attendees should have a working knowledge of how to write HTML.

Presentation

The tutorial will be given in alternating sessions of 45 minutes lecture, 45 minutes hands-on experience.

Origins

A successful tutorial that has been given twice at CHI conferences. The CHI 2003 version is updated for developing material within W3C.

Instructor

Steven Pemberton is a researcher at the CWI, Amsterdam, the Dutch national research institute for mathematics and computer science. He has been involved with the Web from the beginning, including chairing the first Style Sheets Workshop in 1995. He is chair of the HTML and Forms Working Groups, and was a long-time member of the CSS working group, and co-author of CSS1 and CSS2. He is editor-in-chief of *ACM/interactions*.

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Web Sites That Work: Designing With Your Eyes Open

Sunday, Full-day 6 April

Jared M. Spool, Christine Perfetti, *User Interface Engineering, USA*

Benefits

Learn about significant design factors that affect a user's success in interacting with Web sites. Explore existing implementations to learn about the navigation and design elements that have the biggest affect on design.

Features

• The importance of the Scent of Information and how users navigate large Web sites
• New techniques, such as interview-based tasks and digital screen capture, help you design and conduct effective usability tests
• Why your Search facility may hurt your users' chances of finding what they're looking for
• Why perceived download time is different from actual download time
• Why matching your sites' goals to your users' goals will let you market to users at their "seducible moments"
• How designers have used new interaction technologies, such as Flash and SVG, to enhance user effectiveness without frustrating the user with frivolous animation/graphics

Audience

Anyone with experience designing a Web site or creating content for one. Previous experience testing Web sites will be helpful.

Presentation

Lively lecture, small group usability testing, and numerous examples including screen shots and live demos of commercial Web sites.

Origins

Updated to reflect the latest research in measuring the usability of Web sites.

Instructors

Jared Spool is the Founding Principal of User Interface Engineering, and author of *Web Site Usability: A Designer's Guide*. He is a top-rated CHI tutorial speaker.

Christine Perfetti is an expert in the area of designing for the Scent of Information and co-author of *Making the Best with Flash*. She is one of User Interface Engineering's most requested instructors

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Drawing on the Right Side of the Brain

Sunday, Full-day 6 April

Brian Bomeisler, *Drawing on the Right Side of the Brain, Inc., USA*

Benefits
In an intensive workshop designed exclusively for individuals and corporations, participants are taught the skills necessary for realistic and expressive drawing. It is these skills that enable high-level creative thinking and problem solving. Learning to draw means learning to see things differently and learning to see in ways not used in ordinary life. Once learned, drawing can be used to record what you see either in reality or in your mind's eye, in a manner not totally unlike the way we can record our thoughts and ideas in words.

Features
• Theory; illustrated slide lecture
• Hands-on exercises
• Discussion of application of theory
• Five perceptual skills
• Lecture and demonstration
• Summary exercise
• Discussion of perceptual strategies
• Application of perceptual strategies in Computer Human Interface

Audience
This tutorial is cross-disciplinary.

Presentation
• 5-page handout
• Drawing materials
• Special instructional tools
• Slide lecture with examples of case studies
• Overhead projector use as instructional aid
• Demonstrations of drawing techniques
• Q and A group discussions

Origins
This tutorial has been presented from CHI 1997 to CHI 2001.

Instructor
Brian Bomeisler is a lead instructor for drawing workshops taught around the world. He has been a corporate consultant to Digital, Halliburton Energy Services, Novell, Polaroid Corp., and Apple.

8

Cognitive Factors in Design: Basic Human Memory and Problem Solving

Sunday, Full-day 6 April

Thomas T. Hewett, *Drexel University, USA*

Benefits
You will learn some theoretical and practical aspects of how people remember information and solve problems. You will gain insights about how to take advantage of these capabilities in designing for your most important interaction component, the mind.

Features
• Understand a variety of phenomena through both lecture and "minds-on" exposure
• Develop a basis for making educated design choices when guidelines fail
• Relate some cognitive phenomena to some aspects of human-computer interaction
• Gain some resources useful for self-directed study in cognitive psychology
• Obtain a useful set of materials for teaching and demonstration to others

Audience
Interaction designers and developers who have found users have minds of their own. Anyone involved with interactive system design who has not done course work in cognitive psychology. Not intended for the human factors specialist, the person with extensive coursework in psychology, or the person seeking a state-of-the-art literature review. The approach to the material is reflective and so not intended for the person seeking "instant" or pre-packaged solutions for the problems of this week's project.

Presentation
Interactive presentation and minds-on exercises.

Origins
This introductory level tutorial was highly rated at several earlier CHI conferences.

Instructor
Tom Hewett is Professor of Psychology and Computer Science. He teaches courses on Cognitive Psychology and on the Psychology of Human Computer Interaction. Tom has offered variants of this tutorial to hundreds of interaction designers at conferences and in-house training sessions.

9

Understanding Work in Context: Practical Observation Skills

Sunday, Full-day 6 April

Susan M. Dray, *Dray & Associates, Inc., USA*

Benefits
Good designs result from understanding the intended users. This hands-on tutorial provides designers with practical skills for planning and observing work in context using Naturalistic Observation and Contextual Inquiry.

Features
• Learn about Structured Observation techniques and how to use them
• Learn three types of techniques, including Naturalistic Observation, Contextual Inquiry and Artifact Walkthroughs
• Practice doing Naturalistic Observation and Contextual Inquiry
• Identify next steps for data analysis and design
• Learn when and how to apply these tools to customer-centered design

Audience
This introductory tutorial is intended for practitioners, developers, designers, and managers who are responsible for user experience, needs analysis or user requirements identification. This is an introductory tutorial, but it is also useful to participants with some experience observing users.

Presentation
Lecture, group discussion, and small group hands-on exercises.

Origins
An update of a highly rated tutorial from past CHI conferences, and other venues.

Instructor
Susan M. Dray, Ph.D., has worked as researcher, manager and consultant in the design of technology at Honeywell, American Express and, for the past 10 years, as President of Dray & Associates, Inc. She has conducted user research around the world, and has consulted on the design of technologies ranging from consumer products to complex corporate systems. She is well-known internationally as a speaker and author. She is a Fellow of the Human Factors and Ergonomics Society (HFES), and has been active in CHI since CHI 85. She is the co-editor of the Business column in *ACM/interactions* magazine.

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Designing Flexible, Accessible Interfaces That Are More Usable by Everyone

Sunday, Full-day 6 April

Gregg C. Vanderheiden,
University of Wisconsin-Madison, USA
Shawn Lawton Henry, *UI Access, USA*

Benefits
Hands-on experience with the usability problems that aging or disabled people have with IT products. Learn ways to address these problems that can result in commercially practical and profitable products.

Features
• Hands-on experience with accessibility issues and solutions
• Low-cost strategies for building access into standard products
• How to separate key accessibility issues from lower priority issues
• Resources available to draw on for additional information, training, or technical assistance

Audience
Product developers, human factors or usability specialists, consultants, and managers responsible for product accessibility.

Presentation
Experience sessions give hands-on experience with problems faced by people with sensory and physical disabilities. Presentations and demonstrations of techniques teach the essentials of accessible design.

Origins
A highly-rated CHI 2002 tutorial.

Instructors
Gregg Vanderheiden is Director of the Trace R&D Center, Professor of Industrial Engineering and a pioneer in the field of disability and technology for 30 years. His achievements include access features now in Windows 95-XP, Mac OS, OS/2, Linux, ATMs, kiosks, and door entry and voting systems. He was the closing plenary speaker at CHI 2001.

Shawn Henry is an independent consultant and principal in the Optavia Network. She has led user interface design efforts for numerous projects, from analysis through usability testing, and has taught many accessibility workshops.

11

Discovering User Needs: Field Techniques You Can Use

Sunday, Full-day 6 April

Kate Gomoll, *GE Medical Systems, USA*
Ellen Story,
Gomoll Research & Design, USA

Benefits
What do users really need? What drives them to your product, and what will keep them coming back? Field studies work so well that major magazines describe how companies use them to gain a competitive edge. The instructors will explain how to plan a study, what to look for, and how to analyze the data. Participants will learn how to observe users and collect key information for a design project.

The instructors share anecdotes, sample deliverables, and useful techniques. This class offers opportunities to practice techniques and share experiences.

Features
• Selecting users
• Cataloging & analyzing tasks
• Developing forms to collect data
• Observing & interviewing
• Creating profiles & personas

Audience
Designers, developers, managers, usability professionals, and technical writers.

Presentation
Workshop with supporting lecture.

Origins
Taught at CHI 2002, UIE 98, 99, 00 & 01, UPA 96, 98, 99 & 02, and Studio 2001.

Instructors
Kate Gomoll is a UI Architect at GE Medical Systems. She is nationally recognized in the field of UI design and usability. She is the founder of Gomoll Research & Design, a firm specializing in user experience design.

Ellen Story has been a software designer since 1985. She is experienced in conducting research with users at work and at home. She has helped many clients with research, UI design, prototyping, and usability testing.

12

New for 2003!

Information Visualization: Principles, Promise, and Pragmatics

Sunday, Full-day 6 April

Marti Hearst, *UC Berkeley, USA*

Benefits
Information visualization is an exciting topic, and the last decade has witnessed the development of many interesting ideas about how to visualize abstract information. However, to date, its use in everyday products and applications has not yet lived up to its promise. Tutorial participants will learn about the factors that lead to successful design of user interfaces that include information visualization.

Features
• A critical stance towards the field of information visualization, rather than a survey of existing approaches.
• Summary of results of usability studies on information visualization designs.
• An active design exercise.

Audience
Designers interested in the use of information visualization as part of effective user interfaces; also, researchers interested in understanding the strategies behind successful use of information visualization.

Presentation
Lecture and hands-on exercises.

Origins
A version of this tutorial was given at SIGIR 2000. It is largely based on a course on information visualization taught by the instructor at UC Berkeley, most recently in Spring 2002.

Instructor
Marti Hearst is an associate professor at the School of Information Management and Systems at UC Berkeley, and formerly a member of the research staff at Xerox PARC. She has developed a number of visualizations and user interfaces for search, and has taught a course on information visualization for five years. She has won two student-initiated awards for excellence in teaching.

13

Collaboration Technology in Teams, Organizations, and Communities

Sunday, Full-day 6 April

Steven Poltrock,
The Boeing Company, USA
Jonathan Grudin, *Microsoft Research, USA*

Benefits
Learn about technologies being used to support groups, organizations, and online interaction. Hear about successes and problems that are encountered. See how different disciplines contribute to collaborative systems and how these technologies affect individuals, groups, organizations and society. The tutorial addresses support for small groups, for organizations, and emerging support for communities.

Features
- Discover the multi-disciplinary nature of computer supported cooperative work
- Discuss experiences with technologies that support collaboration
- Understand behavioral and social challenges to developing and using these technologies
- Learn successful development and usage approaches
- Anticipate future trends in technology use and global social impacts

Audience
This introductory overview tutorial is for actual and potential users, developers, researchers, marketers, or managers of systems designed to support groups and organizations. Broad experience with collaborative technologies is not expected.

Presentation
Lecture, video, and group exercises

Origins
This is a revised version of a tutorial presented at many CHI and CSCW conferences.

Instructors
Steven Poltrock introduces, evaluates, and deploys collaborative technologies to support teamwork, knowledge management, and workflow management.

Jonathan Grudin, Editor in Chief of *ACM Transactions on CHI*, has worked as developer and researcher in this area.

14

Setting Usability Performance Requirements

Sunday, Full-day 6 April

Nigel Bevan, *Serco Usability Services, UK*

Benefits
Participants will learn how business risk can be reduced by setting usability performance requirements.

Features
Learn simple techniques that can be used to specify usability requirements:
- Identify the range of contexts in which the product or system will be used
- Estimate task times for important scenarios of use
- Set accuracy and completion criteria for important tasks
- Establish satisfaction requirements
- Use the Common Industry Format to document usability requirements
- Identify the key design issues that will impact usability

Audience
Anyone wishing to gain practical experience in specifying usability requirements. Some previous usability experience is desirable, but not essential, as the approach taken will be business-oriented.

Presentation
The tutorial will include class and group exercises to apply the methods.

Origins
The tutorial incorporates materials from previous tutorials given at international conferences and materials from a case study of training at a large organization to implement these methods.

Instructor
Dr. Nigel Bevan is Research Manager at Serco Usability Services. Nigel coordinated European-funded projects that developed and trialed the methods, and he has subsequently applied them commercially. Nigel is active in several international standards groups, and contributed to development of the Common Industry Format.

15

New for 2003!

Enhanced E-learning Through Learner-centric Design

Sunday, Full-day 6 April

Scott Dynes, *Metacourse, Inc., USA*
Carolyn Gale, *Stanford University, USA*

Benefits
Take a look at e-learning from a learner-centric viewpoint: what capabilities and activities are needed to support effective learning; and what makes for effective e-learning interfaces. Learn about effective e-learning course designs and delivery modes. See examples of current interfaces. Engage in group activities and face the challenges of e-learning course and environment designers.

Features
Become familiar with the e-learning user experience
- Learn the theory behind an effective e-learning methodology
- See examples of activities that support effective e-learning
- Learn to critically evaluate e-learning platform designs
- Conceptualize learner-centric UI/UE designs that support e-learning activities

Audience
This tutorial is for designers with a passing familiarity of e-learning interested in designing e-learning human-computer interfaces.

Presentation
The presentation will be a mix of lectures, demonstrations, small group design activities and discussions.

Origins
New for CHI 2003.

Instructors
Both Carolyn Gale and Scott Dynes have been involved in research and development of online educational environments for several years, both within academia and in the corporate sector.

16

Handheld Usability: Design, Prototyping, & Usability for Mobile Devices

Sunday, Full-day 6 April

Scott Weiss, Richard Martin,
Usable Products Company, USA

Benefits
Learn how to design applications for all major handheld hardware platforms and operating environments, and learn how to create paper prototypes of handheld applications and operate those prototypes during usability tests.

Features
• Brief history of handheld devices
• Full description of Bluetooth and Wi-Fi and how they work together
• Tour of phone, PDA, and pager hardware and operating environments
• Application of traditional user-centered design methods to handheld device applications
• Differences and similarities between Palm OS, Pocket PC, WAP, i-Mode, RIM OS, and Wisdom OS
• Hands-on exercises to design, prototype, and test usability of designs for handheld devices

Presentation
Lectures and participatory, hands-on exercises to reinforce learning.

Audience
This tutorial is for novices in the area of handheld product design. It applies user-centered design principles to mobile technology.

Origins
An updated version of a tutorial that has been previously presented at HFES 2002, UPA 2001 & 2002, BayCHI, and DIS 2002. Based on Weiss' book *Handheld Usability*.

Instructors
Scott Weiss, Principal of Usable Products Company, is an Information Architect and author of *Handheld Usability* (John Wiley & Sons, 2002, www.handheldusability.info).

Richard Martin is an Analyst with Usable Products, and author of *Wireless Lexicon*, a dictionary of terms for mobile technology.

17

User Bias and Judgment: The Subjective Side of Decision-making

Sunday, Full-day 6 April

Paul Whitmore, *E*Trade Financial, USA*

Benefits
Learn about the factors that influence people's choices and subjective judgments. Glean tips on how to help people deal with choice overload, cognitive illusions, and other paradoxes. Learn how research on judgment and decision-making can be applied to interaction design. The classic heuristics and biases research was recognized by the 2002 Nobel prize in economics.

Features
Review findings relevant to interaction design and learn how to apply them.
• Studies on how people make judgments and decisions
• Research on what people find intrinsically motivating
• Paradoxes about how people assess their relative well being
• How slight changes in wording can lead to large changes in user responses
• How to design Web interactivity to affect people's purchasing
• Using environmental cues to maintain user's interest in visiting a Web site
• Choosing wording that will improve subjective ratings (and recollections) of an interaction

Audience
Designers, information architects, developers, usability professionals who want to learn more about the cognitive dimensions underlying user behavior and its application to interaction design. No prior knowledge is assumed.

Presentation
Lectures, case studies, discussion, and hands-on exercises.

Origins
New for CHI 2003.

Instructor
Paul Whitmore directs User Research at E*Trade, where he works with designers, data-miners, and marketing professionals. He has taught related courses at Stanford. This tutorial combines his doctoral research with industry experience.

18

An Introduction to Augmented Reality Research

Monday, Morning 7 April

Mark Billinghurst,
University of Canterbury, New Zealand

Benefits
Augmented Reality (AR) interfaces overlay virtual imagery onto the real world. The instructor will present detailed information on how to construct AR interfaces for a variety of application areas, show live demonstrations of the technology, and explore fruitful directions for future AR research.

Features
The following topics with be covered:
• Introduction to Augmented Reality
• AR Tracking
• AR Interaction Techniques
• Collaborative AR
• Heterogeneous AR interfaces
• Mobile AR
• Developing AR applications with ARToolKit
• Demonstrations of AR applications
• Directions for future research

Audience
Individuals interested in gaining a background in Augmented Reality and in understanding the current state-of-the-art of research in the field.

Presentation
Lectures, video, and live demonstrations.

Origins
A variant of this tutorial was offered at CHI 2001 and SIGGRAPH 2001. It was presented in its current form at VR 2002.

Instructor
Mark Billinghurst is a research scientist at the Human Interface Technology Laboratory (HIT Lab) at the University of Washington, Seattle, and Director of the HIT Lab (NZ) at the University of Canterbury, New Zealand. He has presented tutorials at the VRAIS 96, VRST 96, Visual 98, HUC 99, SIGGRAPH 2001, CHI 2001 and VR2002 conferences and has authored or co-authored more than 70 peer-reviewed journal and conference papers.

19 ☒ New for 2003!

Wireless Service Usability & Design

Monday, Morning 7 April

Didier Chincholle, *Ericsson, Sweden*

Benefits
Despite the popularity of mobile devices world wide, they remain problematic for designers and consumers alike. The instructor will present the fundamental principles of highly usable interfaces for wireless services. He will explain how to develop innovative next-generation communication devices and share tips and techniques for designing highly usable mobile services on restricted screen space.

Features
• Hype and reality of today's wireless services
• Coming generation networks
• Mobile users and the mobile context
• Coming generation mobile devices (evolutions and limitations)
• Killer experience: the three P's (Personalization, Positioning and Push)

Presentation
Lecture, group exercise and discussion.

Audience
Designers, wireless service developers, network operators and service providers, usability specialists, and HCI researchers who are interested in designing wireless service for small devices. The tutorial is intended for people with some experience in either interface design or usability work.

Origins
This tutorial was first given at UPA 2002 and subsequently at Mobile HCI 2002 and NordiCHI 2002. The CHI 2003 version is updated with the latest research and development of wireless services.

Instructor
Didier Chincholle is an Interaction Design Senior Specialist at Ericsson Research. He has extensive experience in designing and evaluating user interfaces, some of which have been shown at international fairs such as COMDEX, CeBIT and Communc'Asia.

20

Web Search Engines: Algorithms and User Interfaces

Monday, Afternoon 7 April

Krishna Bharat, Bay-Wei Chang, *Google, Inc., USA*

Benefits
Learn about the issues in designing interfaces for web search by understanding the technology underlying search engines. Understand the opportunities and limitations of the web as a medium for information retrieval.

Learn how to design interfaces to give users access to the capabilities of search algorithms.

Features
• Architecture, algorithms, and processes of modern search engines.
• Structure and properties of the Web. In particular, attributes that affect the performance and quality of Web search.
• Search interface design, including client-side tools.

Audience
Anyone interested in Web search technologies and interfaces.

Presentation
Lectures and demonstrations of existing interfaces.

Origins
This tutorial was first presented at CHI 2001.

Instructors
Krishna Bharat and Bay-Wei Chang are Senior Research Scientists at Google, Inc. Krishna was previously at DEC/Compaq SRC, where he worked on interfaces and algorithms for web information retrieval.

Bay-Wei was previously at Xerox PARC, where his research revolved around user interface issues in web editing, portable document readers, and hypertext annotations.

21 ☒ New for 2003!

Vision-based User Interfaces for Pervasive Computing

Monday, Afternoon 7 April

Trevor Darrell, *MIT, USA*

Benefits
Vision-based interfaces allow pervasive and ubiquitous HCI systems to respond directly to the visual image of a human user. They can provide applications with 'perceptive context', such as the presence, attention, and activity of users, as well as provide conversational cues such as face pose and expression. This course surveys the algorithms and techniques involved in vision-based perception of people, describes what performance is attainable in state-of-the art systems, and discusses the privacy, freedom and safety implications of this new technology.

Features
• Face detection and recognition
• Head pose estimation
• Eye gaze tracking
• Face expression recognition
• Hand tracking
• Gesture recognition
• Activity description and detection
• Privacy issues.

Audience
Researchers and practitioners interested in learning the state-of-the-art in computer vision as applied to human-computer interaction. No previous experience with computer vision is required. Some familiarity with digital images is presumed.

Presentation
The presentation will consist of PowerPoint slides, digital video, interactive demonstration, and discussion / brainstorming sessions.

Origins
This is a short version of a highly rated MIT graduate EECS seminar.

Instructor
Prof. Trevor Darrell leads the Vision Interface group at the MIT Artificial Intelligence Laboratory and has developed award-winning interactive vision-based interfaces. He formerly was a research staff member at Interval Research Corp.

22

Card-based User and Task Modeling in Agile Usage-centered Design

Monday, Full-day 7 April

Larry L. Constantine, Lucy A. D. Lockwood, *Constantine & Lockwood, Ltd., USA*

Benefits
Participants learn various techniques using ordinary index cards and other low-tech tools for rapid modeling of users and tasks.

Features
• Fast, simplified ways to build precise, powerful models
• Hands-on application to realistic case problem
• Techniques include card storming, role and task inventories, abstract dialogs, collaborative ranking, and cooperation clustering
• Models addressed include user roles, personas, user profiles, task cases, use cases, scenarios, and user and customer stories

Audience
Practicing usability and design profession-als; some knowledge/experience in user and task analysis desirable

Presentation
Lectures, demonstrations, hands-on applica-tion, discussion and assessment.

Origins
New, advanced usage-centered design techniques built on highly rated CHI 2000 and OOPSLA 2001 & 2002 tutorials.

Instructors
Larry Constantine is a pioneering method-ologist, inventor, award-winning designer, and author with 16 books and over 150 papers published. He is Director of R&D, Constantine & Lockwood, and Professor, Information Technology, University of Tech-nology, Sydney (Australia).

Lucy Lockwood, founder and President of Constantine & Lockwood, is an internation-ally respected consultant and trainer draw-ing on 20 years experience. The author of over a dozen papers, she is co-author of the award-winning, *Software for Use* (Addison-Wesley, 1999).

23

Information Foraging

Monday, Full-day 7 April

Peter Pirolli, Stuart Card, *Palo Alto Research Center, USA*

Benefits
Learn about new techniques in information foraging analysis for characterizing human information-seeking behavior. Participants should be able, by the end of the tutorial, to perform analyses in information foraging.

Features
• Information foraging theory as a new method for analyzing information-intensive work
• Models and empirical tools for analysis of adaptation to information environments and cognitive mechanisms
• Hands-on experience with analyses
• Take-away resources that aid analysis and teaching
• Emphasis on applications to Web information visualization and knowledge crystallization

Audience
The course is aimed at research colleagues rather than practitioners (though all are welcome). No prior knowledge is required. Participants should be comfort-able with a few equations or raw, seething ACT-R code samples.

Presentation
Lecture and demonstrations interspersed with student exercises.

Origins
First presented at CHI 2002 and updated with new developments.

Instructors
Peter Pirolli is a Principal Scientist in the User Interface Research Area at PARC. He is engaged in studies of human-information interaction, information foraging theory, and the development of new user interface technologies.

Stuart Card is a Senior Research Fellow at PARC and head of the User Interface Research group. He has developed models in human-computer interaction, including GOMS and the Fitts's Law model of the mouse as well as new user interface tech-niques, such as ROOMS and focus+context information visualization methods.

24

Driving Invention From Field Data

Monday, Full-day 7 April

Karen Holtzblatt, *InContext Enterprises, Inc., USA*

Benefits
Attendees will learn how qualitative data from field research drives real innovation in product and system design, and study examples of field data and the designs prompted by that data.

Features
This tutorial covers how to use field research to create innovative designs, *not* field interviewing techniques.

Topics include:
• How a design focus limits and directs design activity
• How a different focus leads a team to consider different solutions to a design problem
• How "story thinking" drives deep understanding of the natural coherence of work practice
• How work metaphors and analogies build on your understanding of the structure of a familiar domain and give insight into an unfamiliar domain
• How existing parts, themes, and software genres are recombined to drive new design possibilities

Audience
Anyone with a role in product or systems design: researchers, ethnographers, user interface designers, usability experts, and engineers.

Presentation
Lecture, discussion, and exercises.

Origins
An updated version of the successful CHI 2002 tutorial.

Instructor
Karen Holtzblatt is the co-developer of the customer-centered process Contextual Design. She originated this approach to field data collection and pioneered its introduction into working product design and engineering teams. Karen co-authored *Contextual Design: Defining Customer-Centered Systems*. She is the President and CEO of InContext Enterprises, an industry-leading design firm.

25

Promoting, Establishing and Institutionalizing Usability Engineering

Monday, Full-day 7 April

Deborah J. Mayhew,
Deborah J. Mayhew & Associates, USA

Benefits
Learn how to be a successful Usability Champion by applying strategies to:
• Gain support to introduce usability engineering expertise into your organization
• Design a usability engineering organization tailored to your company's organizational structure and corporate culture
• Institutionalize usability engineering within your organization or any kind of software development organization

Features
Promoting Usability Engineering (UE)
• The Usability Champion as Change Agent
• Learning to speak the language of business organizations and engineers

Establishing UE
• Writing the organizational plan and identifying organizational roles and structures
• Overcoming common problems

Institutionalizing UE
• Leveraging scarce resources and getting UE integrated into the development methodology
• Focusing on a corporate-wide impact and staffing

Audience
Anyone who wants to be a Usability Champion in a software development organization.

Presentation
Case studies, war stories, lecture and discussion.

Origins
A successful tutorial that was first presented at CHI 2002.

Instructor
Deborah J. Mayhew has over 25 years experience in software development organizations; 18 of them as a Usability Engineering consultant. She has authored two books and co-edited one book on usability and usability engineering. Dr. Mayhew has been teaching CHI tutorials since 1986.

26

A Cognitive Approach to Interactive System Design

Monday, Full-day 7 April

Michael E. Atwood, Thomas T. Hewett,
Drexel University, USA

Benefits
Learn how to successfully design and improve useful and useable interactive systems and answer the following questions:
• What is cognitive task analysis? Why do I want it and how can I do it?
• How do the users of the system think about their tasks and work they do?
• How can I tell how useful and useable a system is now or how useful it can be?
• How do I get started in designing a cognitively useful and useable system?
• How can I determine what parts of a system should be changed and how to change them?
• How can I communicate well with others on my design and development team?

Features
Designing useful and useable systems involves three iterative phases: (1) deciding what to do, (2) doing it, and (3) evaluating what was done. Participants will learn techniques for each phase and an appreciation of the science and art involved.

Audience
This tutorial is intended for anyone who is or who will be part of a team that designs and develops interactive systems to support complex human work or problem solving.

Presentation
Lecture, discussion, and group exercises.

Origins
An improved version of a successful CHI 2002 tutorial.

Instructors
Mike Atwood is Professor of Information Science and Technology at Drexel. Previously, he worked in industry (NYNEX, Bell Atlantic) as a manager of research and development groups.

Tom Hewett is Professor of Psychology and Computer Science at Drexel. He teaches courses on Cognitive Psychology, and the Psychology of Human Computer Interaction.

27

⬢ **New for 2003!**

High-technology Innovation and Entrepreneurship: Principles and Pitfalls

Monday, Full-day 7 April

Ron Baecker,
University of Toronto, Canada

Benefits
You will learn basic principles of high-technology innovation, entrepreneurship, and intrapreneurship, better understand the problems and pitfalls, gain practice thinking about strategic issues, and hear first-hand from 3 HCI entrepreneurs about their experiences.

Features
• Techniques for systematic innovation and entrepreneurship
• Choosing an appropriate focus; defining realistic objectives
• Recognizing and characterizing opportunity; getting timing right
• Developing proprietary technology; turning it into products
• Formalizing strategy as a business plan
• Finishing the plan: marketing, sales, finance, management, leadership, partnership issues
• Putting it all together: an HCI entrepreneur panel (Aaron Marcus, *Aaron Marcus and Associates*; James Landay, *NetRaker*; Dave Martin, *SMART Technologies, Inc.*) discuss and interpret their experiences.

Audience
HCI entrepreneurs and managers of start-up or high-growth technology companies; individuals planning intrapreneurial ventures.

Presentation
Lecture, discussion, case studies of real firms, exercises, interactions with guest entrepreneurs.

Origins
Versions have been taught since 1985 at the University of Toronto, and as a short course in Canada, USA, Argentina, and Chile.

Instructor
Ron Baecker is Bell University Laboratories Chair in HCI, Prof. of Computer Science and Management, and founder and Chief Scientist of the Knowledge Media Design Institute at University of Toronto. He was also a founder and CEO of two firms - HCR Corp. (a successful UNIX contract R&D firm) and Expresto Software Corp. (a multimedia software products firm).

28

Multimedia Design for the Web

Monday, Full-day 7 April

Alistair Sutcliffe, Leon Watts, *UMIST, UK*

Benefits
Learn design principals and guidelines for multimedia user interface design with the cognitive psychology that motivates users. Apply soundly based design methods that address user requirements and learn about mapping media to information content and integrating multimedia for effective understanding, dialogue design and scripting.

Features
- Learn basic psychology required to understand web based multimedia interaction and design of motivating user interfaces.
- Understand how to make design decisions based on psychological models
- Learn a design method covering user requirements and information architecture, media selection and integration, together with guidelines for attractive and motivating Web sites, navigation control & interaction design.
- Gain knowledge of ISO 14915 standard and multimedia design practice

Audience
Designers of multimedia Web sites, also relevant to CDROM authors, visual UI designers, HCI researchers and educators. It is more suitable for beginners and presents a research-based approach to understanding multimedia interaction as well as practical design.

Presentation
Lectures, group storyboarding exercise, group discussion.

Origins
Previously presented at CHI 2000, CHI 2002, INTERACT and HCI International.

Instructors
Alistair Sutcliffe is Professor of Systems Engineering in the Department of Computation, UMIST. He has over 15 years research experience in HCI, and has authored over 150 publications including five books.

Leon Watts is a lecturer who researches in CSCW and multimodal communication.

29

Designing for Users with Special Needs

Monday, Full-day 7 April

Alan Edwards, *Consultant, USA*
Alistair Edwards, *University of York, UK*
Elizabeth Mynatt,
Georgia Institute of Technology, USA

Benefits
Instructors will present how the fields of HCI and assistive technology can work together to design technology to enable all users.

Features
- Discuss how we are all disabled and how interfaces should be designed for all users
- Survey five major types of impairments (mobility, vision, speech, hearing, and cognitive) and technology that addresses these impairments
- Review US and European legislation
- Discuss technology and review design guidelines for elderly individuals
- Participate in a group design problem

Audience
UI designers, developers, managers, and researchers. No specific background is needed.

Presentation
Lecture, videos, live demonstrations, and group design exercises.

Origins
Previously presented at INTERCHI '93, CHI 94, CHI 95, CHI 2000 and CHI 2001.

Instructors
Alan Edwards is an HCI consultant and adjunct professor at Drexel University. Previously, he provided technology accommodation within Unisys.

Alistair Edwards is a senior lecturer at the University of York, England. He researches the use of multiple modalities of interaction for people with disabilities. He is the author of *Speech Synthesis: Technology for Disabled People* and editor of E*xtra-Ordinary Human-Computer Interaction*.

Elizabeth Mynatt is an Associate Professor at the Georgia Institute of Technology. She has developed GUIs for people who are blind and recently started the "Aging in Place" project.

30

New for 2003!

Usability and Beyond! Understanding Usefulness, Usability & Use

Monday, Full-day 7 April

Diane J. Schiano, *Stanford University, USA*
Bonnie A. Nardi, *Agilent Labs, USA*

Benefits
Gain understanding of user research design principles and learn a toolkit of practical and effective methods useful throughout product design and deployment, even with limited resources.

Features
Obtain a practical understanding of principles and procedures used to assess product usefulness, usability and use. Issues covered:
- Does your product do anything anyone would want to do? Identify users and contexts of use.
- If people want to do something with the product, can they? How easily?
- Do patterns of everyday use suggest anything to inform iterative design?
- How can we best study user experience, given time and resource constraints?

Audience
All those desiring to better understand usefulness, usability and use of HCI products: designers, developers, usability professionals, researchers, marketers, managers, students, educators.

Presentation
Lecture, exercises, discussions & User Research Design Clinic.

Origins
Derived from a highly rated Stanford course and a CSCW 2002 tutorial.

Instructors
Diane J. Schiano is a research psychologist currently at Stanford. Bonnie A. Nardi is an anthropologist at Agilent Labs. Both have studied HCI product usefulness, usability and use in a wide variety of domains, have published extensively, and are experienced in teaching.

31

New for 2003!

Recommender Systems: Interfaces and Technology

Monday, Full-day 7 April

Joseph A. Konstan, John Riedl,
University of Minnesota, USA

Benefits
Recommender systems help users find the information, products, and other people they most want to find. This tutorial provides participants with a hands-on learning experience about using recommender system technologies. After completing this tutorial, participants will understand the variety of recommender applications and their interfaces.

Features
• Survey of major commercial and non-commercial recommender system tools available to system designers.
• Review more than twenty deployed recommender system applications, to understand both the technology and the interface design.
• Learn eight principles of recommender application design, illustrated by examples of good and bad application designs.
• Work in small groups to design a recommender interface, with direct feedback from the instructors.

Audience
This tutorial is for practitioners and researchers who design commerce, content, and community systems that could benefit from personalization. No specific recommender system experience is needed. Participants with some knowledge of recommender system will find the tutorial valuable for the breadth and depth of coverage.

Origins
This is an updated version of a tutorial that has been given at CSCW 1996, 2000 and 2002, ACM E-Commerce 2000, and AAAI-2002. It has been newly edited to focus on interface issues of interest to the CHI community.

Instructors
Joseph A. Konstan and John Riedl are associate professors at the University of Minnesota. They are co-founders of Net Perceptions, a leading vendor of recommender systems. They recently co-authored the book *Word of Mouse: The Marketing Power of Collaborative Filtering,* about applications of recommender systems.

32

New for 2003!

Extreme Programming, a Simulation

Monday, Full-day 7 April

Joshua Kerievsky, Rob Mee,
Industrial Logic, USA

Benefits
Extreme Programming (XP) is an iterative, customer-focused, test-driven software process that is influencing how software is created. It includes a continuous and staged negotiation between developers and customers where customers get to see early, continuous results. Attendees will experience a simulation of XP in which screen-play writing is used in place of programming as both have a similar structure with many well-defined content and formatting rules. For example, planning in both activities require negotiating scope to produce something for implementation in a given period of time.

Features
• Learn the XP Values and Practices and how they relate
• Experience a simulation of XP, learn how it maps to XP practices, and discover how CHI and XP relate
• Learn from XP practitioners and question them on their XP experiences
• Discuss how XP can be integrated into HCI practice, what kind of software is created, and whether it helps create usable software

Audience
Individuals involved in XP projects or software development, or interested in the software XP helps to create. No knowledge of XP required. Able to use Microsoft Word and Excel.

Presentation
A hands-on tutorial with lecture and discussion.

Origins
Previously presented at OOPSLA 2002.

Instructors
Joshua Kerievsky is the founder of a company that specializes in Extreme Programming (XP). He has been an active XP programmer and coach since 1999 and is also an author of XP articles, games, simulations, and a forthcoming book, *Refactoring to Patterns*.

Rob Nee has been coaching projects and lecturing on XP at corporations, workshops and venture capital firms since 1998. His projects are often cited by gurus such as Kent Beck and Alistair Cockburn as examples of real XP in action.

33

Web-site Usability: The Big Picture 2003

Monday, Evening 7 April

Jared M. Spool, Christine Perfetti,
User Interface Engineering, USA

Benefits
We will discuss the big issues that go into making a usable Web site. Every year, the researchers at User Interface Engineering conduct ground-breaking research that changes the world of Web design. In this session, we'll delve deeply into the latest research and findings.

Features
At press time, the research results are still being compiled, so we don't know exactly what we'll be reporting for latest findings. However, here's what we talked about at CHI 2002. You can bet this year will be even more fascinating:

• New methods for tying the design of a Web site to the business results generated
• How explicitly-biased test methods can highlight significant problems on the sites
• New instruments for measuring how design affects brand engagement
• A framework for designers to evaluate the appropriateness of using rich media tools, such as Macromedia
• Flash (with lots of examples of Flash used to enhance experiences)
• The latest research in site navigation, including analyses of on-site search engines and successful link navigation

Audience
Anyone who is interested in the latest thinking in how to make Web sites more usable.

Presentation
Lecture and live examples. (The speakers are very funny and entertaining.)

Origins
A completely updated version of the popular CHI 2002 tutorial.

Instructors
Jared Spool is the Founding Principal of User Interface Engineering, and author of *Web Site Usability: A Designer's Guide.* He is a top-rated CHI tutorial speaker.

Christine Perfetti is an expert in the area of designing for the Scent of Information and co-author of *Making the Best with Flash.*

34

Avoiding "We can't change that!": Software Architecture & Usability

Monday, Evening 7 April

Bonnie E. John, Len Bass,
Carnegie Mellon University, USA

Benefits
Learn how early software architecture design decisions facilitate or preclude the achievement of usability goals in a software system. Use tools that explicitly link software mechanisms to usability benefits so that usability concerns can be considered on an equal footing with attributes like performance, availability, and modifiability.

Features
• 26 commonly occurring usability scenarios and their implications for software architecture design
• Patterns of software architecture that facilitate usability & standard mechanisms that comprise these patterns
• A matrix explicitly linking software mechanisms to usability benefits.

Audience
Everyone who works in interdisciplinary teams to design and develop software systems. No knowledge of software architecture will be assumed.

Presentation
Lecture presenting new material; group activities applying this material to specific design problems.

Origins
A popular tutorial first given at CHI 2002.

Instructors
Bonnie John is an engineer and psychologist researching usability evaluation methods, and Director of Carnegie Mellon University's Masters Program in HCI. She consults for many industrial and government organizations.

Len Bass is an expert in software architecture and architecture design methods. Author of two textbooks on software architecture and UI development, Len consults on large-scale software projects in his role as Senior MTS on the Architecture Trade-off Analysis Initiative at the Software Engineering Institute.

35

New for 2003!

How To Motivate & Persuade Users: Influence In Everyday HCI

Monday, Evening 7 April

B.J. Fogg, *Stanford University, USA*

Benefits
This tutorial takes you beyond usability into a new frontier: persuasive technology. It examines how computing products (from Web sites to mobile applications) can be designed to change what people think and do. You will learn how to improve products in your care by gracefully including elements of influence. Guided design sessions will teach techniques you can use in your everyday HCI work.

Features
• See how persuasion is relevant to Web sites, desktop software, & mobile platforms
• Understand how influence is used in Amazon, eBay, Quicken, & nytimes.com
• Understand how designing for persuasion can make products better
• See the 17 ways computers persuade
• Learn techniques for designing persuasive interactions
• See how persuasion plays a key role in e-learning
• Get insight into the ethics of persuading via computers

Audience
People interested in motivating and persuading users.

Presentation
Explanations, examples, heuristics, small-group exercises, & case studies.

Origins
New for CHI 2003.

Instructor
B.J. is on the consulting faculty in Stanford's Department of Computer Science and School of Education. An experimental psychologist with industry HCI experience, B.J. directs the Stanford Persuasive Technology Lab. Since 1993 he has investigated how computers can persuade people. Recently Morgan Kaufmann published his book *Persuasive Technology: Using Computers To Change What People Think and Do.*

WORKSHOPS

Workshops provide an extended forum for small groups (15-20) people to exchange ideas on a specific topic of common interest. Workshops will be held on Sunday and Monday, 6 April and 7 April 2003. For complete descriptions and additional information about CHI 2003 workshops, see www.chi2003.org.

Workshop Schedule
Full-Day: 09:00 – 17:30

Workshop Participation
Workshop participants are selected on the basis of position papers submitted directly to a workshop's organizer. A position paper is generally 2-4 pages long and outlines the submitter's views on the workshop theme and the reasons for the submitter's interest in the topic. Check each workshop's details for specific submission information at **www.chi2003.org**.

Position Paper Deadline
Position papers must be received by **17 January 2003**. Submitters will be notified of selection by 7 February 2003. Accepted workshop participants will be charged a registration fee of US $150 for a one-day workshop and US $300 for a two-day workshop.

Workshop Registration
To take advantage of reduced conference fees, register for the conference by the early deadline 20 February 2003 even if you have not yet received notification of workshop acceptance. If you receive notification after registering for the conference, please send workshop payment to the Registration Office along with a note including the name of your workshop and your name and email. If you receive notification of workshop acceptance before registering for the conference, you may register for the workshop on the conference registration form (also available online). Just complete the designated workshop section and include your workshop payment along with your conference payment.

Please note that to attend a workshop, you must be accepted by the workshop organizers by submitting a position paper. If you are interested in participating in a workshop, please contact the organiser to get details on how to submit. You must then register for the workshop.

sunday + monday

6+7 APRIL
Please note these are two-day workshops.

1 Designing Personalized User Experiences for eCommerce: Theory, Methods, and Research

Clare-Marie Karat •
IBM TJ Watson Research Center, USA
Jan Blom • *Helsinki Institute for Information Technology, Finland*
John Karat •
IBM TJ Watson Research Center, USA

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ckarat@us.ibm.com

2 Designing for Learning

Susanne Jul, Chris Quintana •
University of Michigan, USA

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learning03@umich.edu

3 Perspectives on HCI Patterns: Concepts and Tools

Sally Fincher • *University of Kent, UK*
Janet Finlay •
Leeds Metropolitan University, UK
Sharon Greene, Lauretta Jones, Paul Matchen •
IBM T.J.Watson Research Center, USA
Pedro J. Molina • *CARE Technologies, Spain*
John Thomas •
IBM T. J. Watson Research Center, USA

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slg@us.ibm.com and s.a.fincher@ukc.ac.uk

sunday   6 april

4 Scenarios in Practice

John Carroll, Mary Beth Rosson •
Virginia Tech, USA
Paul McInerney • *IBM, USA*

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paulmci@ca.ibm.com

5 Perspectives in End User Development

Fabio Paternó • *CNUCE-CNR, Italy*
Alexander Repenning •
University of Colorado, USA
Volker Wulf • *University of Siegen and Fraunhofer Institute, Germany*
Henry Lieberman • *MIT Media Lab, USA*

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fabio.paterno@cnuce.cnr.it

6 Humor Modeling in the Interface

Anton Nijholt •
University of Twente, The Netherlands
Oliviero Stock • *ITC-IRST, Italy*
Alan Dix • *Lancaster University, UK*
John Morkes • *Trilogy, USA*

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anijholt@cs.utwente.nl

7 Finding a "Value" Matrix for Pervasive Multi-modal Application Scenarios

Jennifer Lai, Noi Sukaviriya •
IBM TJ Watson Research Center, USA
Elizabeth Mynatt •
Georgia Institute of Technology, USA

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noi@us.ibm.com

8 Best Practices and Future Visions for Search User Interfaces: A Workshop

Misha W. Vaughan • *Oracle Corporation, USA*
Helmut Degen • *SiemensAG Germany*
Marc Resnick •
Florida International University, USA
Peter Gremettm • *AOL Time Warner, USA*

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mvaughan@acm.org

9 Supporting Intercultural Computer-Mediated Discourse: Methods, Models, and Architectures

Fahri Yetim •
New Jersey Institute of Technology, USA
Elaine Raybourn • *Sandia National Laboratories*

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fahri.yetim@njit.edu

10 HCI and Security Systems

Andrew Patrick • *National Research Council of Canada, Canada*
A. Chris Long •
Parallel Data Laboratory, Canada
Scott Flinn • *National Research Council of Canada, Canada*

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monday   7 april

11 Principles for Multimodal User Interface Design

Jim A. Larson • *Intel Corporation, USA*
Sharon Oviatt • *Oregon Graduate School, USA*

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jim@larson-tech.com

12 Comparative Expert Reviews

Rolf Molich • *DialogDesign, Denmark*
Robin Jeffries • *Sun Microsystems, USA*

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chi2003@molich.dk

13 Shared Virtual Worlds over the Internet: a New Frontier for E-learning?

Paolo Paolini, Nicoletta Di Blas •
Politecnico di Milano, Italy
Susan Hazan • *Israel Museum, Israel*
Lorenzo Cantoni • *USI, Switzerland*

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diblas@elet.polimi.it

14 Designing Culturally Situated Technologies for the Home

Genevieve Bell • *Intel, USA*
Mark Blythe • *York University, Canada*
Bill Gaver • *RCA, USA*
Phoebe Sengers • *Cornell University, USA*
Peter Wright • *York University, Canada*

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15 Subtle Expressivity for Characters and Robots

Noriko Suzuki • *ATR, Japan*
Christoph Bartneck • *Technical University of Eindhoven, The Netherlands*

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16 Providing Elegant Peripheral Awareness

JJ Cadiz, Mary Czerwinski •
Microsoft Research, USA
Scott McCrickard • *Virginia Tech, USA*
John Stasko •
Georgia Institute of Technology, USA

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jjcadiz@microsoft.com

17 System Administrators are Users, Too: Designing Workspaces for Managing Internet-Scale System

Rob Barrett •
IBM Almaden Research Center, USA
Yen-Yang Michael Chen •
University of California at Berkeley, USA
Paul Maglio •
IBM Almaden Research Center, USA

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DOCTORAL CONSORTIUM

Sunday and Monday, 6-7 April
Chair: Steve Draper,
University of Glasgow, UK

The CHI 2003 Doctoral Consortium provides an opportunity for doctoral students to explore their research interests in an interdisciplinary workshop, under the guidance of a panel of distinguished research faculty, with travel and other expenses provided by the conference. In the past, many consortium participants reported this as a valuable experience as part of their doctoral studies. The Consortium has the following specific objectives:

- Offer each participant fresh perspectives and comments on their work from researchers outside their own institution, both from faculty and other students.

- Provide a supportive setting for mutual feedback on participants' current research and guidance on future research directions.

- Develop a supportive community of scholars and a spirit of collaborative research.

- Contribute to the conference goals through interaction with other researchers and conference events.

The Consortium will be held on Sunday 6 and Monday 7 April 2003, in a session where about 15 students and 4 "faculty" discuss each student 's work in turn. Student participants will have their abstracts published in the *CHI 2003 Extended Abstracts*, and a poster of their work exhibited at the main conference. They will receive complimentary conference registration, and reimbursement of travel, accommodation and subsistence (i.e. food) expenses up to US $1500. Each participant in the Doctoral Consortium is expected to attend both days, including dinner on Saturday and Sunday. A report on the Doctoral Consortium will be published in the *SIGCHI Bulletin*.

DEVELOPMENT CONSORTIUM:
Mass Communication

Sunday and Monday, 6-7 April
Chair: Nico Macdonald, *Spy, UK*

Each year, the Development Consortium sets out to look at issues and directions that the HCI community and SIGCHI should develop in the coming years. This year, the Development Consortium is dedicated to one of the special areas of CHI 2003: Mass communication.

From television and radio to newspapers and magazines, from mobile phones and PDAs to books and journals – the possibilities for new forms of mass communication are growing exponentially. Yet the initial forms that these possibilities have taken have often overwhelmed or simply confused the people for whom they are intended. Often they have been largely ignored (as was the case with WAP). This is likely to be the case for many 3G-based services. We need to find ways to link together different kinds of information on different platforms. We need to find ways for people to be able to rate and validate information they receive. And we need to find new ways for people to manage information in ways that can enhance knowledge. While the possibilities have been created by information technology, their realization will be facilitated by HCI. This will demand new thinking from publishers, broadcasters and telephone companies. It will require new levels of cooperation, with a view to pioneering the development and acceptance of new interfaces, and greater consideration of standards.

CHI FRINGE AND SPECIAL AREA SESSIONS

The CHI Fringe is new for 2003. Organized by the CHIplace Co-Chairs, one or more sessions will be programmed to allow emerging and challenging topics to be presented at CHI 2003. Visit **www.chi2003.org** to track developments.

Special sessions are planned for the three special areas related to the conference theme of Communicating via Interactive Digital Media. On Wednesday 9 April, a special session will take inspiration from the usability movement in HCI to reflect on how we can attend to the needs of the learner in developments of e-learning. On Thursday 10 April, a special session on Emotion and the Design of New Technology will complement Don Norman's closing plenary. Details of other special area sessions will be added to the CHI 2003 website at **www.chi2003.org** as they are finalized.

e-Learning Comes of Age: Developing Rich and Vibrant Learner Experiences

Wednesday, 9 April - 11:30
Chair: Lisa Neal, *EDS, USA*

Advancements in technology have enhanced our potential to create and deliver e-learning, but instructional developments and research in this area have yet to effectively exploit or direct these opportunities. Emphasis has been on economy and reach over instructional effectiveness, innovation, and creativity. In this session, we take inspiration from the usability movement in HCI to reflect on how we can attend to the needs of the learner in the development of e-learning. The topics of this session are:

- Disappointments: failed promises in a technological revolution

- Changing direction: what are our learning objectives?

- Successes: e-learning as rich and vibrant learning experience

Emotion and the Design of New Technology

Thursday, 10 April - 11:30
Chair: Jodi Forlizzi, *Carnegie Mellon University HCII and School of Design, USA*

Issues of emotion, affective response, and inclusive human concerns are exceedingly important in the HCI community. As people become more sensitive to dimensions of products that go beyond traditional aspects of usability, the need to understand and create emotional and aesthetic resonance between people and technology products increases. However, we have yet to discover a shared understanding and develop a shared language for emotion within the context of designing new technology. At CHI 2003, we will address these commonalities and differences with a special session on emotion and new technology development. Our ultimate goal is to increase knowledge related to emotion as it relates to the collaborative, interdisciplinary design of future technology.

Before the session, a product assessment workshop will be held in the main public area of the CHI conference, where experts on designing emotional product interactions will assess our emotional responses to a variety of products. The findings from these activities — salient characterizations and design findings about a variety of artifacts, services, and environments — will seed a panel session to discuss emotion and the implementation of new technology products during the conference.

TECHNICAL PROGRAM

As ever, the CHI 2003 technical program showcases presentations of outstanding Human-Computer Interaction (HCI) research, demonstrations of new and innovative technology, discussions of timely and controversial issues, and presentations of the latest developments in HCI design and practice. CHI 2003 also offers a special track for usability and design practitioners and sessions for CHI 2003's special areas of mass communication and interaction, emotion and e-learning. The opening and closing plenaries address the first two of these themes, with presentations from Neil Budde formerly of the *Wall Street Journal Online* and Don Norman, who has worked at the cutting edge of HCI for the last two decades.

PRE-CONFERENCE EVENTS

Development Consortium
The Development Consortium explores issues and directions that the HCI community and SIGCHI should develop in the coming years. This year, it will focus on mass communication, inviting participation from significant thinkers and doers in the worlds of publishing, broadcast, and telecommunications. Invitations for this consortium have already been issued. To be considered, apply to chi2003-dev@acm.org by 3 January 2003.

Doctoral Consortium
The Doctoral Consortium provides an opportunity for a group of invited doctoral students to explore their research interests in an inter-disciplinary workshop with other students and a group of experienced researchers. To be considered, consult **www.chi2003.org/students.html** for submission details.

Tutorials
Tutorials are courses designed to provide diversity and depth, and to appeal to novice and experience participants. This year, in addition to 20 successful tutorials from past CHI conferences, 15 new tutorials cover topics such as design for everyday life, handheld and wireless usability, accessibility, and persuasion. Several of the new tutorials go beyond the traditional scope of HCI and allow attendees to experiment with provocative methods and ideas in areas such as extreme programming, intra/entrepreneurship, recommender systems, and vision-based user interfaces.

Workshops
Workshops provide a valuable opportunity for small communities of people with diverse perspectives to engage in rich one-to two-day discussions about a topic of common interest. Workshop participants are pre-selected and workshops offer an opportunity to explore and develop work collaboratively.

TECHNICAL PROGRAM OVERVIEW

Plenary Sessions
Plenary sessions are general sessions that open and close the conference. The key event of the session is an invited presentation by a prominent person that supports the conference theme and offers a challenge to people interested in HCI. Neil Budde formerly of the *Wall Street Journal Online* and Don Norman will address the CHI 2003 special areas of mass communication and emotion in HCI.

Papers
Papers present contributions to research, development and practice in all areas of HCI, and have a significant impact on the development of HCI principles, theories, and techniques, and on their practical application. Papers are rigorously refereed and are published in the archival *CHI Conference Proceedings* and as an issue of *CHI Letters*.

Short Talks & Interactive Posters
Short Talks and Interactive Posters are particularly suitable for exciting new findings, ongoing work that has demonstrated special promise, preliminary results, timely work still in a state to be influenced, or tightly argued essays or opinion pieces. Posters are visual presentations of work and are displayed throughout the conference. Short Talks are presented in traditional technical sessions.

Demonstrations
Demonstrations offer an opportunity to show an innovative interface concept, HCI system, technique, or methodology. Participants are able to view systems in action and discuss them with the people who created them.

Design and Usability in Practice
The Design and Usability in Practice track provides an opportunity to learn how professionals in the HCI field handle challenging assignments. Each paper reports on work leading to a real product, with an emphasis on innovative designs and the effective use of usability methods under real-world constraints. Sessions include a panel-style discussion with audience participation.

Interactionary
The Interactionary is a game format that allows 4 teams to work on the same design problem, live on stage. Each team has ten minutes to work on the problem while the other teams wait in a soundproof room. An expert panel discusses each team's approach and outcomes. The goal is to expose the dynamic intangibles of design in progress, and to allow an audience to listen in on four teams and observe how they work.

Panels
Panels stimulate thought and discussion about ideas and issues of interest to the human-computer interaction community. Panels typically focus on controversial or emerging issues, allowing speakers and the audience to explore, debate, and reflect on these issues.

Special Interest Groups (SIGs)
SIGs are 90-minute gatherings of people who share an interest in a topic. A successful SIG emphasizes lively and well-organized discussion. SIG leaders must submit a proposal that ensures ample opportunity for participation. Anyone can attend a SIG.

Student Posters
The Student Posters program offers a unique opportunity for students to present their work at CHI and to receive encouragement in their development as HCI professionals. Student posters are displayed during the conference and provide an excellent opportunity to discuss late-breaking and on-going work in an informal setting.

TUESDAY 8 APRIL

09:00 - 10:30

OPENING PLENARY

Neil F. Budde, *Former Publisher & Editor,*
The Wall Street Journal Online

Until recently, Neil Budde oversaw internet-based publishing operations of *The Wall Street Journal.* Beginning in 1993, Mr. Budde directed the design and development of the Online Journal. In 2000, he assumed responsibility for business, marketing and sales in addition to his duties as head of news, design, development and technical operations. Prior to his appointment as founding editor of the Online Journal, Mr. Budde was deputy editorial director for Dow Jones News/Retrieval, where he oversaw design and development of information services, including early natural-language searching features. Previously, Mr. Budde spent a decade as an editor or reporter for several newspapers. He earned a bachelor's degree from Western Kentucky University and an MBA from the University of Louisville.

11:30 - 13:00

Papers/Short Talks
Domesticated Design

The Evolution of Buildings and Implications for the Design of Ubiquitous Domestic Environments
Tom Rodden • *University of Nottingham, UK*

Technology Probes: Inspiring Design for and with Families
Hilary Hutchinson •
HCIL, UMIACS, CS/University of Maryland, USA
Wendy Mackay •
LRI, INRIA Futurs/Université de Paris-Sud, France
Bosse Westerlund •
CID, NADA, Kungl Tekniska Högskolan, Sweden
Benjamin B. Bederson, Allison Druin, Catherine Plaisant •
HCIL, UMIACS, CS/University of Maryland, USA
Michel Beaudouin-Lafon, Stéphane Conversy, Helen Evans, Heiko Hansen, Nicolas Roussel •
LRI, INRIA Futurs/Université de Paris-Sud, France
Björn Eiderbäck, Sinna Linquist, Yngve Sundblad •
CID, NADA, Kungl Tekniska Högskolan, Sweden

For details of accepted short talks for this session, please visit www.chi2003.org after 10 February 2003.

Papers
Accessibility Interfaces

Design and User Evaluation of a Joystick-Operated Full-Screen Magnifier
Sri Kurniawan, Alasdair King, David Gareth Evans, Paul Blenkhorn • *UMIST, UK*

Older Adults and Visual Impairment: What Do Exposure Times and Accuracy Tell Us About Performance Gains Associated with Multimodal Feedback?
Julie A. Jacko • *Georgia Institute of Technology, USA*
Ingrid U. Scott • *Bascom Palmer Eye Institute, USA*
Francois Sainfort, Leon Barnard, Paula J. Edwards, V. Kathlene Emery • *Georgia Institute of Technology, USA*

Multiple Haptic Targets for Motion-impaired Computer Users
Faustina Hwang, Simeon Keates, Patrick Langdon, P. John Clarkson • *University of Cambridge, UK*

Racing With the Wind:
Publishers Learn to Navigate in a Multimedia World

Operating a sailboat requires an understanding of the two media through which a sailboat moves, at once slicing through water as it harnesses the wind. As publishers have moved to the Internet, they too have had to learn how to operate in two media at once. Traditional publishers now deal with issues such as interface design and user experience. More than ever they have to be keenly aware of their customers and understand their needs in a medium that is both mass in its reach and individual in its connection with the user. All the while, they must keep their print publications moving along through murky waters. After a lot of tacking, publishers have been making progress in this multimedia world, but our mastery of it is still incomplete.

Neil Budde, who until recently led *The Wall Street Journal Online's* evolution since its conception in 1993, will share his experience in bringing the Journal online and building the largest paid-subscription news site on the Web. Where will the winds blow next for online publishers? Mr. Budde will offer his predictions.

Design & Usability
Extending Users' Control Over Technology

Designing an On-line Map Tool for Dutch Farmers
Karin van der Hiele, Rob van der Haar, Raghu Kolli •
Meru Research b.v., The Netherlands

An Interactive Poster Exhibit Puts Visitors in the Picture, in Real Time
Kevin Walker • *USA*

A Lost Cause: The Ever-Improving Developer's Map
Mette Kjærsgaard • *Danfoss UCD Group, Mads Clausen Institute, Denmark*
Jesper Pedersen •
Danfoss Drives A/S, Denmark
Tom Djajadiningrat •
University of Southern Denmark, Mads Clausen Institute, Denmark

A Tenant Interface for Energy & Maintenance Systems
Clifford Federspiel •
Center for the Built Environment, USA
Luis Villafana • *School of Information Management and Systems, USA*

Demonstrations
Interaction Techniques for Handheld Devices

Interaction Techniques & Applications for Peephole Displays
Ka-Ping Yee •
University of California at Berkeley, USA

A Fisheye Calendar Interface for PDAs: Providing Overviews for Small Displays
Benjamin Bederson, Aaron Clamage •
University of Maryland, USA
Mary Czerwinski, George Robertson •
Microsoft Research, USA

Panel
Post-cognitivist HCI: Second-wave Theories

Moderator: Bonnie Nardi •
Agilent Laboratories, USA

Victor Kaptelinin •
Department of Informatics, Sweden
Susanne Bodker •
Aarhus University, Denmark
John Carroll • *Virginia Tech, USA*
Jim Hollan • *UC San Diego, USA*
Edwin Hutchins • *UC San Diego, USA*
Terry Winograd •
Stanford University, USA

14:30 - 16:00

Papers
Input Interaction

Shorthand Writing on Stylus Keyboard
Shumin Zhai • *IBM Almaden Research Center, USA*
Per-Ola Kristensson • *Linköping University, Sweden*

High Precision Touch Screen Interaction
Pär-Anders Albinsson • *Swedish Defence Research Agency/FOI/Linköping University, Sweden*
Shumin Zhai • *IBM Almaden Research Center, USA*

Metrics for Text Entry Research: An Evaluation of MSD and KSPC, and a New Unified Error Metric
William Soukoreff, Scott MacKenzie • *York University, Canada*

Papers
New Techniques for Presenting Instructions and Transcripts

Comparative Effectiveness of Augmented Reality in Object Assembly
Arthur Tang, Charles Owen, Frank Biocca, Weimin Mou • *Michigan State University, USA*

Information Use of Service Technicians in Difficult Cases
Yutaka Yamauchi • *University of California, Los Angeles, USA*
Jack Whalen, Daniel Bobrow • *Palo Alto Research Center, USA*

Books with Voices: Paper Transcripts as a Physical Interface to Oral Histories
Scott Klemmer • *UC Berkeley, USA*
Jamey Graham, Gregory Wolff • *Ricoh Silicon Valley, USA*
James Landay • *UC Berkeley, USA*

16:30 - 18:00

Demonstrations
Physical-Virtual World Interaction

Gesture + Play: Full-body Interaction for Virtual Environments
Konrad Tollmar, David Demirdjian, Trevor Darrell • *Massachusetts Institute of Technology, USA*

PenPets: A Physical Environment for Virtual Animals
Shaun O'Mahony, John A Robinson • *University of York, UK*

Personal Universal Controllers: Controlling Complex Appliances With GUIs and Speech
Jeffrey Nichols, Brad A. Myers • *Carnegie Mellon University, USA*
Michael Higgins, Joseph Hughes • *MAYA Design, Inc., USA*
Thomas K. Harris, Roni Rosenfeld, Kevin Litwack • *Carnegie Mellon University, USA*

Papers
Privacy and Trust

Shiny Happy People Building Trust? Photos on e-Commerce Websites and Consumer Trust
Jens Riegelsberger, M. Angela Sasse, John D. McCarthy • *University College London, UK*

Unpacking "Privacy" for a Networked World
Leysia Palen, Paul Dourish • *University of California, Irvine, USA*

Usability and Privacy: A Study of Kazaa P2P File-sharing
Nathaniel Good • *HP Laboratories, USA*
Aaron Krekelberg • *University of Minnesota, USA*

Papers
Sharable Displays

Tailoring Public Displays for Small, Co-located Groups
Elaine Huang, Elizabeth Mynatt •
Georgia Institute of Technology, USA

Designing Novel Interactional Workspaces to Support Face to Face Consultations
Tom Rodden •
University of Nottingham, UK
Yvonne Rogers, John Halloran •
University of Sussex, UK
Ian Taylor • *University of Nottingham, UK*

Social Coordination around a Situated Display Appliance
Kenton O'Hara •
The Appliance Studio, *UK*
Mark Perry • DISC, Brunel University, *UK*
Simon Lewis • The Appliance Studio, *UK*

Panel
Politics and Usability: Test Your Skills Against the Experts

Moderator: Rolf Molich •
DialogDesign, Denmark

Kara Pernice Coyne •
Nielsen Norman Group, USA
Ron Perkins • *Design Perspectives, USA*
Deborah J. Mayhew •
Deborah J. Mayhew and Associates, USA

⬦ Special Area Session
Mass Communication and Interaction

Please see **www.chi2003.org** *for details as they become available.*

Papers/Short Talks
Usability of Large Scale Public Systems

Electronic Voting System Usability Issues
Benjamin Bederson, Bongshin Lee, Robert Sherman, Paul Hermson •
University of Maryland, USA
Richard Niemi •
University of Rochester, USA

Usability and Biometric Verification at the ATM Interface
Lynne Coventry, Antonella De Angeli, Graham Johnson • *NCR - Dundee UK*

For details of accepted short talks for this session, please visit www.chi2003.org after 10 February 2003.

Papers/Short Talks
Peripheral and Ambient Displays

From Data to Display: the Design and Evaluation of a Peripheral Sound Display for the Deaf
F. Wai-ling Ho-Ching, Jennifer Mankoff, James A. Landay • *UC Berkeley, USA*

Heuristic Evaluation of Ambient Displays
Jennifer Mankoff • *UC Berkeley, USA*
Anind Dey • *Intel Research Berkeley, USA*
Gary Hsieh, Scott Lederer •
UC Berkeley, USA
Julie Kientz • *University of Toledo, USA*

For details of accepted short talks for this session, please visit www.chi2003.org after 10 February 2003.

Panel
Research-Based Web Guidelines: Do They Make Better Websites?

Moderators: Sanjay Koyani, Susan Allison •
National Cancer Institute, USA

Robert Bailey •
Computer Psychology, Inc., USA
Barbara Chaparro •
Wichita State University, USA
Melody Ivory •
University of Washington, USA
Sean Wheeler •
Social Security Administration, USA

09:00 - 10:30

⬡ Design & Usability
Ethnography and User-centered Design

Designing a Mobile Terminal for Horse Aficionados
Jari Ijäs • *Nokia, Finland*
Minna Isomursa • *University of Oulu, Finland*
Pekka Isomursu, Mika Mustonen • *Nokia, Finland*
Kaisa Still • *University of Oulu, Nokia, Finland*

A User-Centric Approach to Designing Home Network Interfaces
Kook Hyun Chung, Ms.Kyung Soon Oh, Cheong Hyun Lee
• *Samsung, Korea*
Jae Hyun Park • *Samsung Electronics, Korea*
Sunae Kim, Soon Hee Kim • *Samsung, Korea*
Beth Loring, Chris Hass •
American Instititutes for Research, USA

Using Ethnography to Design a Mass Detection Tool (MDT) for the Early Discovery of Insurance Fraud
Thomas Ormerod, Nicola Morley, Linden Ball •
Lancaster University, UK
Charles Langley, Clive Spenser •
Logic Programming Associates, UK

Ethnographic Interviews Guide Design of Website for Vehicle Buyers
Lori Anschuetz, Stephanie Rosenbaum • *Tec-Ed, Inc., USA*

Papers
Pointing and Manipulation

Human On-Line Response to Target Expansion
Shumin Zhai • *IBM Almaden Research Center*, USA
Stéphane Conversy, Michel Beaudouin-Lafon •
Université Paris-Sud, France
Yves Guiard • *Université de la Méditerranée, France*

An Interface for Creating and Manipulating Curves using a High Degree-of-Freedom Curve Input Device
Tovi Grossman, Ravin Balakrishnan, Karan Singh •
University of Toronto, Canada

Refining Fitts' Law Models for Bivariate Pointing
Johnny Accot, Shumin Zhai •
IBM Almaden Research Center, USA

11:30 - 13:00

Papers
Digital Sociability

Hardware Companions? -- What Online AIBO Discussion Forums Reveal about the Human-Robotic Relationship
Batya Friedman, Peter H. Kahn, Jr., Jennifer Hagman •
University of Washington, USA

Media Inequality in Conversation: How People Behave Differently When Interacting with Computers and People
Nicole Shechtman •
SRI International/Stanford University, USA
Leonard Horowitz • *Stanford University, USA*

Designing Social Presence of Social Actors in Human Computer Interaction
Kwan Lee •
Annenberg University of Southern California, USA
Clifford Nass • *Stanford University, USA*

Papers
Modeling User Behavior

Cognitive Strategies and Eye Movements Used to Search Hierarchical Computer Displays
Anthony Hornof, Tim Halverson •
University of Oregon, USA

Predicting Human Interruptibility with Sensors: A Wizard of Oz Feasibility Study
Scott Hudson, James Fogarty, Christopher Atkeson,
Daniel Avrahami, Jodi Forlizzi, Sara Kiesler, Johnny Lee •
Carnegie Mellon University, USA

Simple Cognitive Modeling in a Complex Cognitive Architecture
Dario Salvucci • *Drexel University, USA*
Frank Lee • *Rensselaer Polytechnic Institute, USA*

Demonstrations/Short Talks
Coordinated Multiple Views

Fusion: Interactive Coordination of Diverse Data, Visualizations, and Mining Algorithms
Chris North, Nathan Conklin, Kiran Indukuri, Varun Saini •
Virginia Polytechnic Institute and State University, USA

SILVER: Simplifying Video Editing With Metadata
A. Chris Long, Juan Casares, Brad A. Myers, Rishi Bhatnagar, Scott M. Stevens, Laura Dabbish, Dan Yocum, Albert Corbett •
Carnegie Mellon University, USA

For details of accepted short talks for this session, please visit www.chi2003.org after 10 February 2003.

Papers
Large Displays

Fisheyes are Good for Large Steering Tasks
Carl Gutwin, Amy Skopik •
University of Saskatchewan, Canada

Women Go With the (Optical) Flow
Desney Tan •
Carnegie Mellon University, USA
Mary Czerwinski, George Robertson •
Microsoft Research, USA

With Similar Visual Angles, Larger Displays Improve Spatial Performance
Desney Tan, Darren Gergle, Peter Scupelli, Randy Pausch •
Carnegie Mellon University, USA

Panel
The "Magic Number 5:" Is it Enough for Web Testing?

Moderator: Nigel Bevan •
Serco Usability Services, UK

Carol Barnum • *Southern Polytechnic State University, USA*
Gilbert Cockton •
University of Sunderland, UK
Jakob Nielsen •
Nielsen Norman Group, USA
Jared Spool •
User Interface Engineering, USA
Dennis Wixon •
Microsoft Corporation, USA

Papers
Designing Design

Design-Oriented Human-Computer Interaction: Philosophy, Methodology, and Conduct
Daniel Fallman •
Umeå University, Sweden

Ambiguity as a Resource for Design
William Gaver, Jake Beaver, Steve Benford •
University of Nottingham, UK

Sense and Sensibility: Evaluation and Interactive Art
Kristina Höök • *Swedish Insitute of Computer Science, Sweden*
Phoebe Sengers • *Cornell University, USA*
Gerd Andersson • *Swedish Insitute of Computer Science, Sweden*

Panel
Voting: User Experience – Technology and Practice

Moderator: Ted Selker •
MIT Media Lab, USA

Eric A. Fisher •
Congressional Research Service, USA
Ben Benderson •
Human-Computer Interaction Lab, University of Maryland, USA
Conny McCormack •
Los Angeles County, California, USA
Clifford Nass • *Stanford University, USA*

Special Area Session
e-Learning

Organizers:
Lisa Neal •
eLearn Magazine and EDS, USA
Gavan Lintern • *Aptima, USA*

Speakers:
Nancy Brennan • *Plimoth Plantation, USA*
Steve Draper • *University of Glasgow, UK*
Masaaki Kurosu • *National Institute of Multimedia Education, Japan*
Ray Perez • *Office of Naval Research Cognitive & Neural Science & Technology Division, USA*
Jenny Preece • *University of Maryland Baltimore County, USA*

Please see details on page 16.

WEDNESDAY 9 APRIL

Papers/Short Talks
Issues in Software Development

Stuck in the Middle: The Challenges of User-Centered Design and Evaluation for Middleware
W. Keith Edwards, Victoria Bellotti •
Palo Alto Research Center, USA
Anind K. Dey • *Intel Research Lab at Berkeley, USA*
Mark W. Newman • *Palo Alto Research Center, USA*

Harnessing Curiosity to Increase Correctness in End-user Programming
Aaron Wilson, Margaret Burnett, Laura Beckwith,
Orion Granatir, Ledah Casburn, Curtis Cook •
Oregon State University, USA

For details of accepted short talks for this session, please visit www.chi2003.org after 10 February 2003.

Papers
Designing Applications for Handheld Devices

Pocket PiCoMap: A Case Study in Designing and Assessing a Handheld Concept Mapping Tool for Learners
Kathleen Luchini, Chris Quintana, Elliot Soloway •
University of Michigan, USA

Navigating in a Mobile XHTML Application
Anne Kaikkonen, Virpi Roto •
Nokia Research Center, Finland

Mobile Computing in the Retail Arena
Erica Newcomb, Toni Pashley, John Stasko •
Georgia Institute of Technology, USA

Papers
Searching and Organizing

Strategy Hubs: Next-generation Domain Portals with Search Procedures
Suresh Bhavnani, Christopher Bichakjian,
Timothy Johnson, Frederick Peck, Jennifer Schwartz,
Victor Strecher • *University of Michigan, USA*

Faceted Metadata for Image Search and Browsing
Ka-Ping Yee, Kirsten Swearingen, Kevin Li, Marti Hearst •
University of California, Berkeley, USA

How Do People Manage Their Digital Photographs?
Kerry Rodden • *University of Cambridge, UK*
Kenneth Wood • *Microsoft Research Limited, UK*

Papers
Design for the Socially Mobile

The Mad Hatter's Cocktail Party: A Social Mobile Audio Space That Supports Multiple Simultaneous Conversations
Paul Aoki, Matthew Romaine, Margaret Szymanski,
James Thornton, Daniel Wilson, Allison Woodruff •
Palo Alto Research Center, USA

Mobile Phones for the Next Generation: Device Designs for Teenagers
Alex Taylor •
Digital World Research Centre/University of Surrey, UK
Sara Berg • *Umeå University, Sweden*
Richard Harper • *Appliance Studio, UK*

Wan2tlk?: Everyday Text Messaging
Rebecca Grinter • *Palo Alto Research Center, USA*
Margery Eldridge • *Image Semantics Ltd, UK*

14:30 - 16:00

16:30 - 18:00

Demonstrations/Papers
Tools for User-Centered Design

A Tool Supporting Capture and Analysis of Field Research Data Using the Contextual Design Methodology
Karen Holtzblatt, Hugh Beyer •
InContext Enterprises, Inc., USA

Streaming Format Software for Usability Testing
Mike Lister • *NetAnalytic Limited, UK*

Are Informal Tools Better? Comparing DEMAIS, Pencil and Paper, and Authorware for Early Multimedia Design
Brian Bailey, Joseph Konstan •
Department of Computer Science - University of Minnesota, USA

Papers
Integrating Tools and Tasks

Taking Email to Task: The Design and Evaluation of a Task Management Centered Email Tool
Victoria Bellotti, Nicolas Ducheneaut, Mark Howard, Ian Smith •
Palo Alto Research Center, USA

UMEA: Translating Interaction Histories into Project Contexts
Victor Kaptelinin •
Umeå University, Sweden

Understanding Sequence and Reply Relationships within Email Conversations: A Mixed-Model Visualization
Gina Danielle Venolia •
Microsoft Research, USA
Carman Neustaedter •
University of Calgary, USA

Papers
Techniques for On-screen Shapes, Text and Handwriting

Using Pixel Rewrites for Shape-Rich Interaction
George Furnas, Yan Qu •
University of Michigan, USA

The Kinedit System: Affective Messages Using Dynamic Texts
Jodi Forlizzi, Johnny Lee, Scott Hudson •
Carnegie Mellon University, USA

Reflowing Digital Ink Annotations
David Bargeron •
Microsoft Research, USA
Tomer Moscovich • *Brown University, USA*

Papers/Short Talks
Psychology and Physiology

Things Happening in the Brain While Humans Learn to Use New Tools
Yoshifumi Kitamura,
Yoshihisa Yamaguchi •
Osaka University, Japan
Hiroshi Imamizu • *ATR, Japan*
Fumio Kishino • *Osaka University, Japan*
Mitsuo Kawato • *ATR, Japan*

For details of accepted short talks for this session, please visit www.chi2003.org after 10 February 2003.

Panel
Culture Issues and Mobile UI Design

Moderator: Aaron Marcus •
Aaron Marcus and Associates, Inc., USA

Emilie W. Gould • *Lally School of Management, Rensselaer Polytechnic Institute, USA*
Pia Honold • *Siemens, Germany*
Masaaki Kurosu • *National Institute of Multimedia Education, Japan*
Christian Lindholm •
Nokia Mobile Phones, Finland

09:00 - 10:30

⬡ Design & Usability
User Interfaces to Overwhelming Data

Using Converging Methods Across Disciplines to Guide the Redesign of a Large, Information-Rich Web Site
Susan J. Robinson • *Centers for Disease Control and Prevention; Georgia Institute of Technology, USA*
Bradford W. Hesse • *Westat, USA*
Abdul R. Shaikh •
School of Information, University of Michigan, USA

MiTAP for Real Users, Real Data, Real Problems
Laurie Damianos, Steve Wohlever, Robyn Kozeroik, Jay Ponte • *The MITRE Corporation, USA*

Designing the User Interface of a Data Collection Instrument for the Consumer Price Index
Jean E. Fox • *Bureau of Labor Statistics, USA*

Developing an Airline Freight Management System: Meeting Airline and End-User Challenges
Sam J. Racine, John C. Curtin • *Unisys Coporation, USA*

Papers
Camera-based Input and Video Techniques

A Design Tool for Camera-based Interaction
Jerry Fails, Dan Olsen • *Brigham Young University, USA*

Videography for Telepresentations
Yong Rui • *Microsoft Research, USA*
Anoop Gupta • *Microsoft, USA*
Jonathan Grudin • *Microsoft Research, USA*

A Low-Latency Lip-Synchronized Videoconferencing System
Milton Chen • *Stanford University, USA*

11:30 - 13:00

Papers
Web Usability

The Bull's-Eye: A Framework for Web Application User Interface Design Guidelines
Betsy Beier, Misha W. Vaughan •
Oracle Corporation, USA

Repairing Usability Problems Identified by the Cognitive Walkthrough for the Web
Marilyn Hughes Blackmon • *University of Colorado, USA*
Muneo Kitajima • *National Institute of Advanced Industrial Science and Technology (AIST), Japan*
Peter G. Polson • *University of Colorado, USA*

The Bloodhound Project: Automating Discovery of Web Usability Issues using the InfoScentô Simulator
Ed Chi, Adam Rosien, Gesara Supattanasiri, Christiaan Royer, Amanda Williams, Celia Chow •
Palo Alto Research Center, USA

Papers
New Directions in Video Conferencing

Effects of Head-Mounted and Scene-Oriented Video Systems on Remote Collaboration on Physical Tasks
Susan Fussell, Leslie Setlock, Robert Kraut •
Carnegie Mellon University, USA

GAZE-2: Conveying Eye Contact in Group Video Conferencing Using Eye-Controlled Camera Direction
Roel Vertegaal, Ivo Weevers, Changuk Sohn, Chris Cheung • *Queen's University, Canada*

The Impact of Avatar Realism on Perceived Quality of Communication in a Shared Immersive Virtual Environment
Maia Garau, Mel Slater, Vinoba Vinayagamoorthy, Andrea Brogni, Anthony Steed, M. Angela Sasse •
University College London, UK

Papers
Interaction Techniques for Constrained Displays

Multimodal "Eyes-Free" Interaction Techniques for Wearable Devices
Stephen Brewster, Joanna Lumsden, Marek Bell, Malcolm Hall •
University of Glasgow, UK

Peephole Displays: Handheld Computers as Virtual Windows
Ka-Ping Yee, Marti Hearst •
University of California, Berkeley, USA

Halo: a Technique for Visualizing Off-Screen Objects
Patrick Baudisch •
Microsoft Research, USA
Ruth Rosenholtz •
Palo Alto Research Center, USA

Demonstrations/Short Talks
World Wide Web

Sparrow Web: Group-Writable Information on Structured Web Pages
Eric A. Bier, Kenneth Pier •
Palo Alto Research Center, USA

For details of accepted short talks for this session, please visit www.chi2003.org after 10 February 2003.

Panel
Evaluating Globally: How to Conduct International or Intercultural Usability Research

Organiser: Laurie Roshak •
Sun Microsystems, USA

Moderator: Jared Spool •
User Interface Engineering, USA

Vanessa Evers •
University of Amsterdam, Netherlands
Rolf Molich • *DialogDesign, Denmark*
Colleen Page •
Microsoft Corporation, USA
Ann-Byrd Platt • *Swisscom, Switzerland*

Papers
Between U and I

iStuff: A Physical User Interface Toolkit for Ubiquitous Computing Environments
Rafael Ballagas, Meredith Ringel •
Stanford University, USA
Maureen Stone •
StoneSoup Consulting, USA
Jan Borchers •
Stanford University, USA

XWand: UI for Intelligent Spaces
Andrew Wilson, Steven Shafer •
Microsoft Research, USA

Two Worlds Apart: Bridging the Gap Between Physical and Virtual Media for Distributed Design Collaboration
Katherine Everitt, Scott Klemmer, Robert Lee, James Landay •
University of California, Berkeley, USA

Panel
Spam, Spam, Spam, Spam… How Can We Stop It?

Moderator: Jonathan Lazar •
Dept. of Computer and Information Sciences, Towson University, USA

Elizabeth Churchill •
FX Palo Alto Laboratory, USA
Jenny Preece • *University of Maryland Baltimore County, USA*
Hans deGraaff •
KPN Mobile, Netherlands
Batya Friedman •
University of Washington, USA
Joseph Konstan •
University of Minnesota, USA

Special Area Session
Emotion and the Design of New Technology

Organizer: Jodi Forlizzi •
Carnegie Mellon University, USA

Speakers:
Paul Hekkert •
ID Studiolab TU Delft, The Netherlands
Kees Overbeeke •
Eindhoven University of Technology, The Netherlands
Sara Kiesler •
Carnegie Mellon University, USA
Aaron Marcus •
Aaron Marcus and Associates, USA

Please see details on Page 16.

14:30 - 16:00

Papers
People at Leisure: Social Mixed Reality

Exertion Interfaces: Sports over a Distance for Social Bonding and Fun
Florian Mueller •
Media Lab Europe and MIT Media Lab, Ireland & USA
Stefan Agamanolis • *Media Lab Europe, Ireland*
Rosalind Picard • *MIT Media Lab, USA*

Where On-line Meets on the Streets: Experiences with Mobile Mixed Reality Games
Martin Flintham, Steve Benford, Rob Anastasi,
Terry Hemmings, Andy Crabtree, Chris Greenhalgh •
University of Nottingham, UK

Lessons from the Lighthouse: Collaboration in a Shared Mixed Reality System
Barry Brown, Ian MacColl, Matthew Chalmers,
Areti Galani • *University of Glasgow, UK*
Cliff Randell • *University of Bristol, UK*
Anthony Steed • *University College London, UK*

Papers/Short Talks
Recommender Systems and Social Computing

Is Seeing Believing? How Recommender System Interfaces Affect Users' Opinions
Dan Cosley, Shyong K. Lam, Istvan Albert,
Joseph A. Konstan, John Riedl •
University of Minnesota, USA

Recommending Collaboration with Social Networks: A Comparative Evaluation
David McDonald •
The iSchool, University of Washington, USA

For details of accepted short talks for this session, please visit www.chi2003.org after 10 February 2003.

16:30 - 18:00

CLOSING PLENARY

Don Norman, *Northwestern University & Nielsen Norman Group*

Don Norman spends half his time with the Nielsen Norman group, half his time as Professor of Computer Science at Northwestern, half his time writing – his latest book, Emotion and Design, will be published in the Fall of 2003 – and the remaining half of his time serving on company advisory boards and organizations, such as the Institute of Design. He is a fellow of lots of organizations, including ACM, a member of both CHI and IDSA, and former lots of things, including VP of Advanced Technology at Apple Computer, Professor of first Psychology, then Cognitive Science, at University of California, San Diego, and even President of a startup. He resides at jnd.org, in the Chicago suburbs.

Panel
The Next Revolution: Vehicle UI Design

Moderator: Aaron Marcus •
Aaron Marcus and Associates, Inc., USA

Paul Allen Green •
Univeristy of Michigan, USA
Hideki Hada • *Mitsubishi Motors, USA*
David Wheatley • *Motorola Labs
Applications Research Lab, USA*

CHI Fringe
Chair: Kristina Höök •
Swedish Institute of Computer Science, Sweden

To shape the CHI Fringe, join the discussion at **www.chiplace.org**.

Emotion & Design

Last year, I got the CHI "lifetime achievement" award. Oops? Does that mean my lifetime was over? I resolved that if so, the only solution was to start a new life.

The new life is emotion – emotion and design. Usable products don't have to be ugly. In fact, the brain works differently when happy rather than anxious, so products can actually be easier to use if they give fun and pleasure, along with beauty.

In the past year I've been catching up on the scientific work in emotion. The result is a new theory of emotion, with implications for the development of autonomous machines and robots as well as to design.

The theory suggests that emotion and cognition are inseparable, both essential for effective functioning. There are three levels of processing: The visceral is automatic, biological, and cross–cultural – this is where attractiveness starts. The behavioral level is all about doing things, about meeting expectations. This is the home of usability. The reflective level provides conscious analysis. This is the home of self-image and where cultural values and influences are felt. Each level has different, sometimes conflicting, lessons for design.

Additional activities are featured throughout the conference. All conference attendees are welcome to participate in these events.

LOCAL SIGS WORKSHOP
Monday, 7 April
9:00 – 17:30

The Local SIGs Workshop is a one-day working meeting for SIGCHI Local Chapter representatives organized by SIGCHI. Its goal is to get Local SIG representatives together and exchange experiences, share successes, discuss challenges and come up with good ideas. If you are a member of a SIGCHI Local chapter make sure there is a representative from your chapter in the meeting.

Contact
Raquel O. Prates
SIGCHI Vice-Chair for Local SIGs
email: chi-ac-local-sigs@acm.org

NETWORKING RECEPTION
Monday, 7 April
21:00 – 23:00

Join us at a casual kick-off reception for all CHI participants. Meet with old friends, make new acquaintances, and plan your time at CHI. Light snacks provided. Cash bar. Relax before CHI 2003 gets up to speed!

NEWCOMERS' ORIENTATION
Tuesday, 8 April
10:30 – 11:30

The Newcomers' Orientation is a special session that immediately follows the Opening Plenary Session. It offers an opportunity for those attending CHI for the first time to learn about SIGCHI and ACM. During the orientation you will also learn how to navigate the conference and make session choices.

CONFERENCE RECEPTION
Tuesday, 8 April
19:30 – 22:30

Join us for an evening of fellowship, steel drums and tropical delicacies at the Loggerhead Café in picturesque John U. Lloyd State Park.

The Conference Reception is included with Conference and Accompanying Persons registration. Additional tickets may be purchased when you register or on site. Attendees are welcome to bring their children to the reception. Children are welcome (see the registration form for the children's ticket prices).

ACM SIGCHI BUSINESS MEETING
Wednesday, 9 April
18:30 – 19:30

The annual ACM SIGCHI Business Meeting will be held after the last session of the day on Wednesday. At this meeting, officers will present ongoing SIGCHI programs and activities and then conduct a question and answer session with the audience. Participants interested in learning more about SIGCHI or participating in shaping SIGCHI's future are encouraged to attend.

ACM SIGCHI VOLUNTEER RECEPTION
Wednesday, 9 April
19:45 – 21:00

(Following ACM SIGCHI Business Meeting)
ACM SIGCHI exists because of the contributions of time, energy, and resources given by the many volunteers who participate in running SIGCHI activities (including the CHI Conference). If you are one of the many volunteers who has helped SIGCHI (reviewed papers, ran a newsletter for your local chapter, or otherwise gave of your time and energy), OR if you are interested in becoming a volunteer and want to meet the SIGCHI board to talk about how you can get involved, you are invited to attend this reception.

THE COMMONS

Located in the Exhibit Hall on the first floor of the Convention Center, The Commons is a large central area that is the site for all main conference breaks, Exhibits, Interactive Posters, Recruiting Boards, Student Posters, and other interactive activities. You will also find the Internet Room and the Message Boards. Seating areas make The Commons the perfect place to meet with old or new friends, enjoy food and beverages, or just relax between sessions.

The Commons Hours

Saturday	15:00 – 19:00
Sunday	08:00 – 18:30
Monday	08:00 – 18:30
Tuesday	10:30 – 19:00
Wednesday	08:00 – 19:00
Thursday	08:00 – 16:30

EXHIBITS

Exhibits provide an opportunity for conference attendees to learn about a broad spectrum of HCI offerings. They feature the latest in HCI-oriented products and services from commercial vendors, institutions, and publishers. Exhibits are a wonderful way to promote your organization, network with the HCI community, and recruit new talent.

Exhibit Hours

Tuesday	10:00 – 17:30
Wednesday	08:30 – 17:30
Thursday	08:30 – 16:00

Interested in Exhibiting?
Contact
CHI 2003 Conference Office
Tel. +1 312 321 4096 or
Email: chi2003-office@acm.org

RECRUITING BOARDS

A designated area in The Commons focusese on recruiting. Organizations interested in recruiting new personnel can reserve space to display pertinent information on the Recruiting Boards. The conference will collect resumes from interested persons and deliver them to authorized representatives of the recruiting organization. This is an excellent opportunity for all conference participants to obtain valuable information on industry opportunities and increase their networking with HCI professionals.

For information and for the cost to reserve a 4' x 3' space on a Recruiting Board for your organization, contact:

Contact
CHI 2003 Conference Office
Tel. +1 312 321 4096 or
Email: chi2003-office@acm.org

SUITES

All reservations for hotel suites must be made through the CHI Conference Office. To reserve a suite, contact:
+1 312 321 4096 or
chi2003-office@acm.org.

INFORMAL SPECIAL INTEREST GROUPS (SIGs)

Find people who share your interest in a topic by organizing an Informal SIG. Look for the Informal SIG board in the Commons, sign up for a 90-minute time slot, and (optional) post a 1-page invitation to describe your topic. Anyone can spontaneously organize or attend an Informal SIG.

WALK-IN DEMONSTRATIONS

CHI 2003 participants interested in showing their work in progress are encouraged to use the Walk-In Demonstration area. A limited number of Walk-In Demonstrations may be scheduled in advance with the Demonstrations Co-Chairs (email: chi2003-demos@acm.org). All other slots will be available on site on a first-come, first-served basis. No advance submissions are required for this event.

CHI 2003 will provide a flip chart and some basic equipment including an IBM PC and Apple Macintosh (both with built-in audio support) and a VCR. No external speakers, external CD-ROM drives, or ZIP drives will be provided. Participants with more extensive needs should bring their own hardware and software. Participants from outside the United States who plan on shipping equipment, please contact:

Contact
CHI 2003 Conference Office
+1 312 321 4096 or
chi2003-office@acm.org

STUDENT VOLUNTEERS

Student Volunteers are integral to the success of each CHI conference. Students from all disciplines are invited to be part of the most exciting event in the HCI field. Many of the duties are not glamorous, but all provide opportunities to interact with CHI 2003 attendees from all parts of the world. In return for their help at the conference, Student Volunteers receive many benefits including free conference registration, some meals, a Conference Reception ticket, a Student Volunteer T-shirt, and an invitation to the Student Volunteer thank-you party. Student Volunteers are responsible for their own housing, travel to and from Fort Lauderdale, and those meals not provided. Reduced housing rates are often available for Student Volunteers. Student Volunteers will have access to the Student Volunteer Web site, which provides them with the latest program information and helps to create a community before the conference. Volunteers must be undergraduate, Master's, or PhD students during the 2002-2003 academic year. All students, regardless of discipline, are encouraged to apply. No experience is required. We are looking for enthusiastic, intelligent, reliable people. Volunteers must commit to a total of 20 volunteer hours of work at the conference during 5 – 10 April 2003.

Student Volunteer Application and Information

While the deadline for applying is 25 January 2003, there is already a waiting list. Historically, many people from the waiting list are accepted, so we encourage all potential volunteers to apply.

Contact
Erika Orrick and Dan Horn
Student Volunteers Co-Chairs
Email: chi2003-sv@acm.org
www.chi2003.org/volunteering.html

CHIKIDS TECHNOLOGY CAMP AND CHILD CARE PROGRAM

The Child Care Program and the CHIkids Technology Camp are available during the conference for children between the ages of 6 months to 14 years old. Program details and age ranges for each program are described below.

Child Care Program

Sunday and Monday,
08:30 – 18:00
Tuesday, Wednesday, Thursday,
08:30 – 18:30

The Child Care Program, provided by KiddieCorp, offers fun-filled and developmentally appropriate activities. Activities include exciting themes, group games, music & movement, board games, story time, dramatic play, and more. Our goal is to provide your children with a comfortable, safe and happy experience. The Child Care Program is available Sunday through Thursday for children 6 months to 6 years old, and on Sunday and Monday only for children 7 to 14 years old. The registration fee is US $85 per day, and includes activities, lunch and snacks. Children ages 7 to 14 years may participate in the CHIkids Technology Camp on Tuesday through Thursday.

CHIkids Technology Camp

Tuesday, Wednesday, Thursday,
08:30 – 18:00

CHIkids Technology Camp is a place where kids 6 to 14 years of age, adults, and technology come together with common goals and do meaningful things. With the tools of technology, children can be conference reporters, web designers, multimedia storytellers, software testers, conference attendees, and more! CHIkids combines the feeling of summer camp with the fun of technology, all as a part of this unique conference experience.

There will be a mixture of off-computer activities to complement their technology experiences. All CHIkids activities will be led by a team of CHI volunteers with experience in technology, kids, and fun!

Assistance will be provided by KiddieCorp, our experienced childcare facilitators. Each day, children will be able to choose from a variety of activities. The registration fee is US $100 per day, and includes lunch, snack, and a t-shirt.

Child Care Program and CHIkids Technology Camp Registration

The deadline for registration is 15 March 2003. Registration forms are available at www.chi2003.org. Space is limited, and there will be no on-site registration. Therefore, registration is on a first-come, first-served basis. A waiting list will be formed if all spaces are filled. Waiting list registrants will be notified if space becomes available. Participants are not considered registered until all appropriate fees are paid.

Contact
For questions about the CHIkids Technology Camp Program:
Sabrina Liao, CHIkids Co-Chair
Email: chi2003-kids@acm.org

For questions about the Child Care Program:
KiddieCorp
Email: chikids@kiddiecorp.com
Tel: +1 858 455 1718
Fax: + 1 858 455 5841

CHI 2003 is more to the HCI profession than just the leading technical forum. It provides attendees with opportunities to make new contacts and renew old friendships with colleagues from around the world.

ACCOMPANYING PERSONS

CHI 2003 welcomes Accompanying Persons of 18 years or older to the conference to share in the excitement of the event. Accompanying Persons registration is US $100 each and includes access to The Commons, Opening and Closing Plenary Sessions, and the Conference Reception. Please complete the appropriate section of your registration form on behalf of the person(s) accompanying you.

ALCOHOLIC BEVERAGES

Legal drinking age in Ft. Lauderdale is 21.

ATTIRE/WEATHER

CHI conferences are casual dress. A light jacket and/or sweater is suggested for the evenings. The Convention Center is air conditioned and may be cool. Ft. Lauderdale weather in April averages 75 degrees F/24 degrees C.

THE CHI STORE

Conference t-shirts, mugs, publications and videos will be sold at the CHI Store located near Registration in Exhibit Hall B of the Broward County Convention Center. The CHI Store opens at 12:00 noon on Sunday, and will be open registration hours.

INFORMATION BOOTHS

Information Booths will be located Exhibit Hall B near Registration in the Convention Center. Local representatives will be available to answer your questions regarding local attractions, tours and dining options.

Information Booth Hours

Saturday .... 15:00 – 19:00

Sunday through
Wednesday.......... 08:00 – 17:30

Thursday.............. 08:00 – 16:30

ELECTRICAL POWER

It is ACM SIGCHI policy to use the local power source. In Ft. Lauderdale, electricity is supplied at 120 Volt, A.C., single phase, 60 cycle. CHI 2003 does not provide power converters, extension cords power strips, or other electric accessories.

INTERNET ACCESS

Internet access will be available in The Commons. For internet access from guest rooms, please check with your assigned hotel.

MESSAGE SERVICE

A telephone line for incoming calls will be available at the Lobby Information Booth starting at 15:00 on 5 April 2003. During the conference, messages can be taken for you at this number and posted on the message board. You may also use the message board to post messages for other conference participants.

RECORDING PROHIBITED

The use of any type of audio or video recording device is not permitted during any part of the conference. The use of still cameras is permissible; however, reprinting photographs in print or electronic publications is prohibited without the written permission of the people photographed.

SMOKING POLICY

CHI conferences are smoke-free. There are easily accessible outdoor areas at the Convention Center where smoking will be permitted.

CELL PHONE COURTESY

CHI 2003 requests that all cellular phones, pagers and other equipment with audible alarms be turned off in all sessions as a courtesy to the presenters and to the other attendees.

SPECIAL NEEDS AND ACCESS

The conference registration form includes space for any special needs you may have. Information about special directions for persons with impaired mobility, sign language services, interpreters, dietary restrictions, or other assistance is available upon request. If you need special assistance, please contact the Conference Office. See contact information in next column.

TIME

All times listed in this Advance Program are US Eastern Time Zone time / GMT -5 unless otherwise noted.

CURRENCY EXCHANGE

Ft. Lauderdale airport offers an exchange service located in Terminal 2 between the hours of 07:30 and 17:00 and in the Customs area, lower level Terminal 4, during international inbound flights.

Miami airport offers an exchange service located on the second floor of Concourse E, next to the airport's hotel. It is available 24 hours and be reached by calling +1 305 876 0040.

Contact for Information/Questions

CHI 2003 Conference Office
9:00 to 17:00 US CST
Tel: +1 312 321 4096
Fax: + 1 312 673 6961
Email: chi2003-office@acm.org

GLOBAL RELATIONS

COMMUNITY LIAISONS

Community Liaison Chair
Marilyn Salzman, *Salzman Consulting, USA*
chi2003-liaison-chair@acm.org

REGIONAL & LANGUAGE LIAISONS

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   chi2003-liaison-EACE@acm.org

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Simone Diniz Junqueira Barbosa,
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Both can be reached at:
chi2003-liaison-lat-america@acm.org

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chi2003-liaison-n-america@acm.org

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chi2003-liaison-new-zealand@acm.org

DOMAIN LIAISONS
Gaming
Staffan Björk,
PLAY, Interactive Institute, Sweden
chi2003-liaison-gaming@acm.org

TRAVEL TO CHI 2003

For your convenience, CHI 2003 has partnered with Apollo Travel to provide you with the lowest prices in airfare and car rentals. Apollo Travel Management has negotiated directly with major airlines and rental car agencies. Their 24-hour on-line booking site will search out the cheapest fares – included negotiated, published and web-only fares. You can make your travel arrangements now by visiting **www.chi2003travel.com**.

Travel into Fort Lauderdale

The Ft. Lauderdale/Hollywood International Airport is only seven minutes away from the Broward County Convention Center and surrounding major hotels.

Taxis and Shuttle Service
Taxi cab stands are centrally located at the airport and major hotels. A taxi ride from the Ft. Lauderdale Airport to Broward County Convention Center is approximately US $6. Yellow Cab/Checker can be reached at +1 954 777 7777.

Airport Express, a shared-ride service, offers transportation to the Broward County Convention Center for US $8 per person. Kiosks are located outside of each terminal's baggage claim area. Reservations can be made in advance by calling +1 954 561 8888.

Travel into Miami

The Miami International Airport (MIA) is approximately 45 minutes away from the Broward County Convention Center and surrounding major hotels. The MIA Info Line is +1 305 876 7000.

Taxis and Shuttle Service
Taxis and SuperShuttle vans are available 24 hours per day. Taxis are available on the arrival and departure levels at MIA. Taxi fare from MIA to Broward County Convention Center can range from US $60 – US $80.

SuperShuttle vans can be found on the ground level of the terminal building, outside the baggage claim area. Reservations are not needed for SuperShuttle or taxi service originating at MIA. SuperShuttle charges approximately US $25 for one way service from Miami airport to Broward County Convention Center. The telephone number for SuperShuttle is +1 800 874 8885.

Parking Facilities

The Broward County Convention Center has a parking garage available for a fee of US $12 a day.

Travel Tips

We suggest you contact your airline carrier to confirm their services, schedules, meals, preflight airport arrival times, baggage restrictions and other travel-related questions that you may have. Most carriers have information posted on their Web sites to assist travelers in making their flights as uncomplicated as possible. You may also wish to contact your local airport to verify parking availability and restrictions.

Additional Information

The Greater Ft. Lauderdale Convention and Tourism Bureau can be accessed by visiting www.sunny.org.

The CHI 2003 Housing Bureau will be providing the hotel housing service for all the delegates booking accommodations at the CHI 2003 conference hotels. Housing forms may be submitted online, by fax or by mail. Reservations at the special conference rates will not be accepted directly by the hotels. See form on facing page.

The Housing Registration Form is also available on the CHI Conference Web site, www.chi003.org. **Please use this form to make your housing arrangements through the Housing Bureau.** Telephone reservations will not be accepted. Please do not use more than one method of submitting your reservation; this may result in multiple reservations.

SPECIAL CONFERENCE RATES

Special reduced hotel rates have been negotiated at the conference hotels and are available on a first-come, first-served basis through the CHI 2003 Housing Bureau. Your choice of hotel will be honored as space permits. Please note that reservations at the special conference rates will not be accepted directly by the hotels. The CHI 2003 Housing Bureau will inform you by fax, email or postal mail of your hotel assignment within seven (7) days receipt of your housing form. Rates do not include applicable taxes, currently 11%.

A credit card number is necessary to reserve each room. No advance is necessary. Credit cards will be charged upon actual check-in or late cancellation.
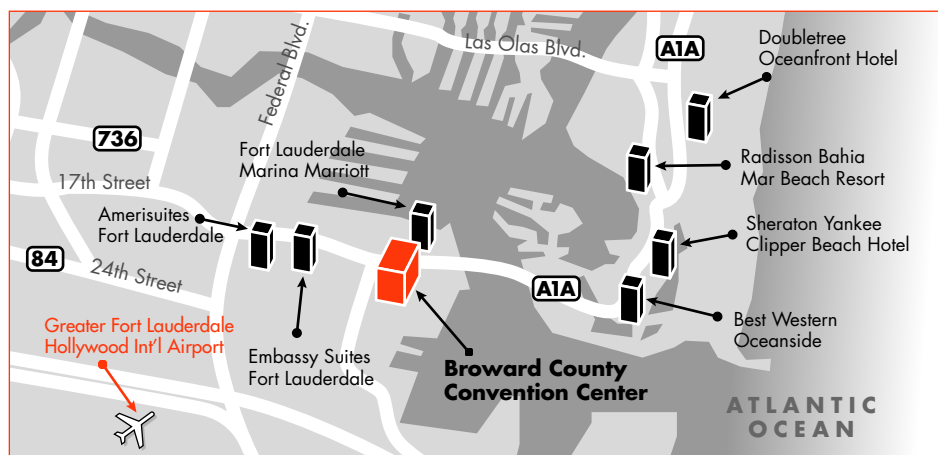
CHECK-IN & CHECK-OUT TIMES

Check-in time ranges between 15:00 and 16:00 at all conference hotels. However, the hotels will make every effort to accommodate earlier arrivals. Check-out time falls between 11:00 and 12:00 at each conference hotel.

HOTEL RESERVATION DEADLINE
Friday, 7 March 2003

The deadline date for hotel reservations is Friday 7 March, 2003. Please note that if the conference blocks fill early, every attempt will be made to secure comparable hotels for any overflow requests. The housing service will try to accommodate all reservation requests through 27 March, 2003 on a space and rate available basis.

Map showing conference hotels around the Broward County Convention Center, including Doubletree Oceanfront Hotel, Radisson Bahia Mar Beach Resort, Sheraton Yankee Clipper Beach Hotel, Best Western Oceanside, Fort Lauderdale Marina Marriott, Amerisuites Fort Lauderdale, Embassy Suites Fort Lauderdale, and Greater Fort Lauderdale Hollywood Int'l Airport.

CHANGES & CANCELLATIONS DEADLINES AND FEES

Submit any changes or cancellations to the CHI 2003 Housing Bureau via fax, postal mail or email at gflhousing@broward.org. Cancellations received after 7 March 2003 will be assessed a US $100 processing fee. Early departures and changes after 7 March are subject to penalty fees set by the hotel(s). A charge of the first night's room and tax will be applied if you do not cancel your reservation and do not arrive at your confirmed hotel on your scheduled arrival date.

CHI 2003 CONFERENCE HOTELS

All hotels are within 2 miles of the Broward County Convention Center. CHI is also providing shuttle service between all conference hotels and the Broward County Convention Center. For more information on guest services and amenities offered by each hotel, please visit the websites listed below.

AmeriSuites Ft. Lauderdale
www.amerisuites.com/hotels/ajfz.shtml

Best Western Oceanside Inn
www.bestwestern.com/prop_10212

Doubletree Oceanfront Hotel
www.doubletree.com

Embassy Suites Ft. Lauderdale
www.embassysuites.com

Ft. Lauderdale Marina Marriott
Conference Headquarters Hotel
www.marriott.com

Radisson Bahia Mar Resort
www.radisson.com/hoteldirectory/

Sheraton Yankee Clipper Hotel
www.starwood.com/sheraton/

CONVENTION CENTER

The Convention Center Address is:
1950 Eisenhower Boulevard
Fort Lauderdale, Florida 33316
Tel: +1 954 765 5900

FORT LAUDERDALE

Fort Lauderdale offers an unsurpassed combination of cultural, recreational, and educational amenities. The world famous Fort Lauderdale Beach, the downtown Riverwalk, the Center for the Performing Arts and the Museum of Art, and Las Olas Boulevard, are just a few places to relax before or after CHI 2003. With 3,000 hours of annual sunshine here, and an average temperature of 77F (25C), relaxing is easy.

The main conference hotel is the Fort Lauderdale Marina Marriott. Situated on the Intracoastal Waterway, the Marina Marriott is opposite the conference facility, just three minutes from the Fort Lauderdale business district, and one mile from the beaches.

CHI 2003 takes place in Broward County Convention Center, next to Port Everglades, the world's second largest cruise port. If you have some free time after the conference, sightseeing cruises on the Intracoastal Waterway take just a few hours. Day cruises to the Bahamas and longer trips also leave from Port Everglades. With its reputation as a point of departure for people seeking new horizons, Fort Lauderdale is the ideal place for CHI 2003 to set sail to explore its own *New Horizons.*

Conference Dates: April 5-10, 2003   **Hotel Reservation Deadline: March 7, 2003**

Online Registration: www.chi2003.org
FAX: +1 954 765 4414 or +1 954 765 4197
E-MAIL: gflhousing@broward.org
PHONE: +1 877 664 4774 *(Telephone reservations not accepted)*
CHECK ONE: ☐ Attendee   ☐ Exhibitor

Mail Form to:
CHI Housing Bureau
c/o Greater Fort Lauderdale
Convention & Visitors Bureau
1850 Eller Drive, Ste. #303
Fort Lauderdale, FL 33316

HOTEL PREFERENCE *Rank 1-11*	Official CHI 2003 Hotels	Distance to Conference	Single 1 preson/1 bed	Double 2 presons/1-2 beds	Triple 3 presons/2 beds	Quad 4 presons/ 2 beds
	Amerisuites	1.25 mi.	$135.00	$135.00	$145.00	$155.00
	Best Western Oceanside	1.50 mi.	$125.00	$125.00	$135.00	$145.00
	Doubletree Oceanfront Hotel	1.75 mi.	$152.00	$152.00	$172.00	$172.00
	Embassy Suites	1.00 mi.	$159.00	$159.00	$169.00	$179.00
	Ft. Lauderdale Marina Mariott	0.50 mi.	$133.00	$143.00	$153.00	$163.00
	Radisson Bahia Mar Resort	1.50 mi.	$159.00	$169.00	$179.00	$189.00
	Sheraton Yankee Clipper	1.50 mi.	$152.00	$152.00	$167.00	$182.00

Participant Attending: _____   # of Persons in Room: _____

Room Type (i.e. Single, Double, etc.): _____   Sharing Room With: _____

Special Requests (i.e. handicapped room, smoking preference, etc.): _____

_____

Arrival Date: _____   Time: _____   Departure Date: _____

Credit Card:

Type: _____   Number: _____   Exp. Date: _____

Card Holder Name: _____   Signature: _____

Send Confirmation to:

Name: _____   Company Name or Institution: _____

Address: _____

City, State, Postal Code, Country: _____

Home Phone: _____   Business Phone: _____

Fax: _____   Email: _____

INSTRUCTIONS

Complete **ONE** housing form for **EACH ROOM** requested. Phone reservations are not accepted. **ALL** reservations **MUST** be made through the **CHI Housing Bureau OR online at www.chi2003.org**. If booking online, be sure to print a copy of your acknowledgement. If you do not receive an **acknowledgement number, the CHI Housing Bureau did NOT receive your reservation**. An acknowledgement of your reservation request will be sent to you via e-mail or fax by the CHI Housing Bureau within two weeks. Check the accuracy of your acknowledgement. You will **NOT** receive a separate confirmation from your hotel.

Booking Policy: Room reservations will **ONLY** be held when guaranteed by a valid credit card. Contact the CHI Housing Bureau to make payment arrangements by check. Shuttle service is included from all official CHI hotels. *Rates do not include 11% tax.*

Cancellation Policy: All cancellations must be received in writing and will be issued a cancellation date and number. Cancellations made after **7 March 2003** (30 days prior to arrival) will result in a **US $100 non-refundable penalty**, and may also result in forfeiture of one-night's lodging rate charged at your hotel's discretion.

Changes/Early Departure Policy: Access your reservation online at **www.chi2003.org** OR contact the CHI Housing Bureau in writing via fax, e-mail, or post through **1 April 2003**. Please reference your acknowledgement number. An early departure penalty of one-night's room rate plus tax may be charged at your hotel's discretion.

Registrations are accepted by postal or express mail or fax. You may also register online at **www.chi2003.org**.

Telephone registrations will not be accepted. On-site registration hours are noted below.

CONFERENCE FEES

Member: If you are a member of ACM or ACM SIGCHI you qualify for the member registration fee.

Non-Member: Included in the registration fee for non-members is a one year membership in ACM and ACM SIGCHI.

Student: Full time students qualify for the student registration fee. Students must provide proof of full-time status, such as a student identification card, at the time of registration.

Payment: Registration forms must be accompanied by payment. Participants may pay for their conference registration by check, international money order or credit cards (VISA, MasterCard or American Express).

Please make checks and money orders payable to **ACM/CHI 2003**. Wire transfers, purchase orders and government vouchers will not be accepted.

TUTORIAL REGISTRATION

Evening, half-day and full-day tutorials are offered 5-7 April, 2003. There is a separate fee for each tutorial. Registration for tutorials is limited and assigned in the order received. Tutorial availability information may be found at www.regmaster.com/chi2003.

WORKSHOP REGISTRATION

Workshops are held on 6-7 April, 2003. Workshop participation fees are US $150 for a one-day workshop or US $300 for a two-day workshop.

ACCOMPANYING PERSONS

CHI 2003 welcomes Accompanying Persons (an adult 18 years and older to the conference). Accompanying Persons can be registered for US $100 each. Fee includes access to The Commons, Opening and Closing Plenary Sessions, and the Tuesday evening Conference Reception.

CONFERENCE RECEPTION TICKETS

Conference participants and registered Accompanying Persons will receive a reception ticket in their registration packet. Additional reception tickets are available for US $50 on the advance registration form. Reception tickets are available at a reduced rate of US $25 for children 7-12 years or age. Children aged 6 and younger are free.

CONFERENCE REGISTRATION DEADLINES

Early Deadline: Thursday 20 February 2003, 24:00 US ET / GMT -5
The early registration discount deadline is 20 March, 2003. To qualify for the greatest discount, forms must be received by this date. Early registration is important since popular tutorials fill up quickly!

Late Deadline: Thursday, 20 March 2003, 24:00 US ET / GMT -5
The last day to register in advance is 20 March, 2003. If your registration form is received at the Registration Office after this date, you will be charged the on-site registration fee and you will not receive a confirmation prior to the conference.

On-Site Registration Hours

Saturday, 5 April ....15:00 – 19:00
Sunday, 6 April ....08:00 – 17:30
Monday, 7 April ....08:00 – 21:30
Tuesday, 8 April.............08:00 – 17:30
Wednesday, 9 April ....08:00 – 17:30
Thursday, 10 April ....08:00 – 14:00

Conference Registration Includes:
• Three days of Technical Sessions
• Conference Proceedings
• Extended Abstracts
• CHI 2003 DVD
• Conference Reception Ticket
• Coffee Breaks
• Exhibit Entrance
• Networking Reception

CONFIRMATION

Allow up to two weeks for mailed confirmation of your registration. CHI 2003 cannot fax or email confirmations. If your registration form is received after 20 March 2003, you will not receive confirmation prior to your arrival.

REFUND REQUESTS

Refund requests must be submitted in writing and must be received at the Registration Office on or before Monday, 24 March 2003. A US $75 cancellation fee will be deducted to cover processing costs. CHI 2003 cannot accept refund requests after 24 March 2003.

REGISTRATION TRANSFERS

If you cannot attend, your registration may be transferred by giving a colleague a letter authorizing the transfer. The letter must be presented at registration on-site.

MERCHANDISE

Pre-ordered merchandise may be picked up in the registration area until 13:00 on Thursday 10 April. Unclaimed pre-ordered merchandise will be sold at the CHI Store after this time.

First Name: _____ Last Name: _____

Company Name or Institution: _____

Address: _____

City, State, Postal Code, Country: _____

Telephone: _____ Fax: _____

Email: _____

FEES in US DOLLARS (Please circle the appropriate fee)	On or Before 20 February, 2003			21 February - 20 March, 2003			After 20 March, 2003*		
	Student	Member	Non-Member	Student	Member	Non-Member	Student	Member	Non-Member
Conference Fee (CF) Only	$135	$485	$635	$155	$685	$835	$175	$885	$1035
Each Half-Day Tutorial (with CF)	$130	$295	$295	$150	$345	$345	$170	$395	$395
Each Full-Day Tutorial (with CF)	$260	$590	$590	$300	$690	$690	$340	$790	$790
Each Half-Day Tutorial (without CF)	$195	$355	$355	$215	$405	$405	$235	$455	$455
Each Full-Day Tutorial (without CF)	$390	$710	$710	$430	$810	$810	$470	$910	$910

*No confirmation provided prior to on-site.

☐ I do NOT want ACM SIGCHI Membership included in the non-member conference fee.

☐ I do NOT want my name on a mailing list given or sold to outside organizations.

☐ I would like to have Child Care Program information.

Where did you hear about CHI 2OO3 (check all that apply).

☐ CHI 2OO2 Attendee ☐ Call Booklet ☐ Radio
☐ Poster ☐ Web site ☐ Advertisement**

**What Publication? : _____

☐ I am a member of ACM or SIGCHI, my Membership number is:
_____

☐ I am a full-time student and will provide proof of current student status with my registration.

☐ This is my first time attending CHI.

☐ I have special needs (explain below or on an attached sheet):
_____

TUTORIAL SELECTION

Units → Tutorial Numbers →

	Units	Tutorial Numbers
Saturday Evening	1	1 2 3
Sunday Full-Day	2	4 5 6 7 8 9 10 11 12 13 14 15 16 17
Monday Morning	1	18 19
Monday Afternoon	1	20 21
Monday Full-Day	2	22 23 24 25 26 27 28 29 30 31 32
Monday Evening	1	33 34 35

TOTAL UNITS ☐

2nd Choices	Saturday:	Sunday:	Monday:

For CEU credits, please provide your social security number or other personal ID#:
_____

CEU credit is optional.
Compute appropriate CEU fees in payment computation section.

WORKSHOPS (please circle workshop numbers)

Sunday & Monday	US $300	1 2 3
Sunday Only	US $150	4 5 6 7 8 9 10
Monday Only	US $150	11 12 13 14 15 16 17

Workshops are open to Accepted Registrants Only (see page 14).

PAYMENT COMPUTATION

Conference Fee	_____
Half-Day & Evening Tutorials: ____ x US $_____	_____
Full-Day Tutorials: _____ x US $_____	_____
CEU fee per Tutorial Unit: ____ x US $5	_____
Workshop Fee (accepted registrants only)	_____
Accompanying Person (includes reception) US$100	_____
Acc. Person's Name:	
Extra Reception Ticket(s): ____ x US $50	_____
7-12 yrs. old Reception Ticket: ____ x US $25	_____
Extra Proceedings: ____ x US $50	_____
Extra Extended Abstracts: ____ x US $25	_____
Extra DVD(s): ____ x US $15	_____
Mugs: ____ x US $7.50	_____
T-Shirts:* M L XL ____ x US $20	_____
Free DVD with registration!	
TOTAL FEES ENCLOSED $	_____

*Circle shirt size. Conference is not responsible for unclaimed merchandise.

Forms without payments will not be processed. Make checks and money orders payable to ACM/CHI2003. Bank (Wire) transfers, purchase orders and government vouchers will not be accepted. Credit card charges will be processed at the US dollar fee. If paying by Visa, MasterCard, Eurocard, or American Express, please provide the credit card information in full to avoid delays.

Card Number: _____ Exp. Date: _____

Cardholder's Name: _____

Cardholder's Signature: _____

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For general inquiries, please contact the conference office. Contact email addresses for all committee members can be found on the CHI 2003 website at:

www.chi2003.org/ conference_committee.html

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Chicago, IL 60611, USA

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fax: +1 312 673 6961
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    SanD CHI
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New York: CornellCHI, NYC-CHI
North Carolina: TriCHI
Ohio: BuckCHI, MOCHI
Oregon: CHIFOO
Pennsylvania: PhiCHI, SIGCHI PGH
Texas: CHI-Austin, Lone Star CHI
Utah: NUCHI
Virginia: GMU SIGCHI
Washington: Puget Sound SIGCHI,
    University of Washington SIGCHI
Wisconsin: Milwau-CHI

For the most current conference information see the CHI 2003 Web sites at:

www.chi2003.org
www.chiplace.org

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eLearn
MAGAZINE

User Interface Engineering

CHI 2003 gratefully acknowledges its sponsor program participants. The generosity of these organizations enables the conference to provide technical content and operational services that otherwise might not be possible.

Sponsorship Invitation
There are many benefits to sponsoring the CHI Conference, and sponsorships are still available.

To receive a formal sponsorship invitation, contact:

Carol Klyver,
Sponsorship Coordinator
Tel: +1 650 738 1200
Email:
chi2003-sponsor@acm.org

The CHI 2003 Conference is sponsored by ACM's Special Interest Group on Computer-Human Interaction (ACM SIGCHI). ACM, the Association for Computing Machinery, is a major force in advancing the skills and knowledge of Information Technology (IT) professionals and students throughout the world. ACM serves as an umbrella organization offering its 71,000 members a variety of forums in order to fulfill its members' needs, the delivery of cutting-edge technical information, the transfer of ideas from theory to practice, and opportunities for information exchange. Providing high quality products and services, world-class journals and magazines; dynamic special interest groups; numerous "main event" conferences; tutorials; workshops; local special interest groups and chapters; and electronic forums, ACM is the resource for lifelong learning in the rapidly changing IT field.

The scope of **SIGCHI** consists of the study of the human-computer interaction process and includes research, design, development, and evaluation efforts for interactive computer systems. The focus of SIGCHI is on how people communicate and interact with a broadly defined range of computer systems. SIGCHI serves as a forum for the exchange of ideas among computer scientists, human factors scientists, psychologists, social scientists, system designers, and end users. Over 5,000 professionals work together toward common goals and objectives.

Membership Information

Please contact ACM's Member Services Department online: www.acm.org

In USA & Canada

Tel.:   +1 800 342 6626

Or: +1 212 626 0500

Fax: +1 212 944 1318

Email: acmhelp@acm.org

Write: ACM Member Services
PO Box 11414
New York, NY 10286-1414
USA

5-10 April 2003
Ft. Lauderdale Florida, USA