The year 2000 marks the end of the 20th and the beginning of the 21st century. For years, it was a synonym for "The Future." Now, suddenly, The Future is almost here! The onset of the Digital Age at the end of the 20th century has led to substantial changes in all aspects of peoples' lives, thus issues related to Human-Computer Interaction are expanding in importance. CHI 2000 will explore the visions and the challenges of the 21st century. See the Technical Program Overview for more information about this.

The CHI Conference is also a global forum, supporting and encouraging our growing global community. As a European CHI, CHI 2000 will highlight the European HCI scene.

The Future Is Here, at CHI, to consider, create, and to take hold of — and we invite you to take part in this exciting event. Make your contribution to the future. Come enjoy the conference. Come to The Future, here, in The Hague!

See you at CHI 2000!

Thea Turner and Gerd Szwillus

CHI 2000 General Conference Co-Chairs

chi2000-chairs@acm.org

Conference At-A-Glance 2

CHI 2000 TUTORIALS

Introduction/Recommended Groupings 3
Saturday Tutorials 3
Sunday Tutorials 4
Monday Tutorials 9

CHI 2000 CONSORTIA

Development Consortium 13
Doctoral Consortium 13

CHI 2000 WORKSHOPS

Introduction 14
Workshop Descriptions 14

CHI 2000 TECHNICAL PROGRAM

Conference Sponsors 20
Technical Program Overview 21
What's New at CHI 2000 21
Tuesday Sessions 22
Wednesday Sessions 24
Thursday Sessions 26

ADDITIONAL CONFERENCE ACTIVITIES

ACM SIGCHI Business Meeting 28
ACM SIGCHI Volunteers Reception 28
The Commons 28
Exhibits 28
Informal SIGs 28
Newcomers' Orientation 28
Reception 28
Walk-In Demostrations 28
Student Volunteers 29
Child Care and CHIkids 29
Call For CHIkids Leaders, Technology 29
Lab Tours 29

CONFERENCE INFORMATION

Questions and Information 30
Global Relations 30
Travel Information 31
Conference Hotels/Map 32
Housing Reservation Form 33
Registration Information/Fees 34
Registration Form 35
Conference Committee 36
Conference Partners 37
About ACM SIGCHI back cover

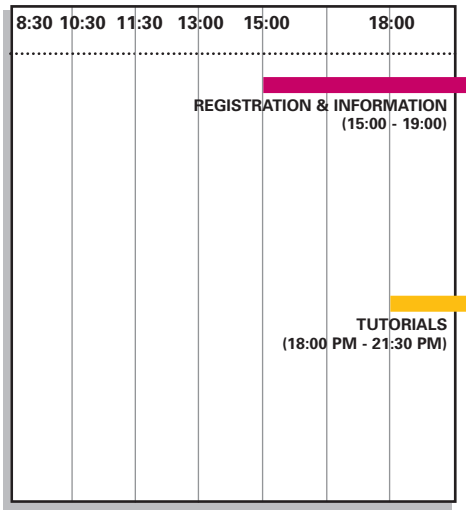
Welcome
Välkommen
Benvinguts!
vítáme Vás
Tervetuloa
Beruchim Habaim
Ongi ettori!
Soyez le bienvenu
Üdvözölve!
Willkommen!
Bine aţi venit!
Benvenuto!
Добро пожаловать!
¡Bienvenido!
Welkom
Velkommen
dobro nam došli
Witamy!

CHI 2000 Conference At-A-Glance

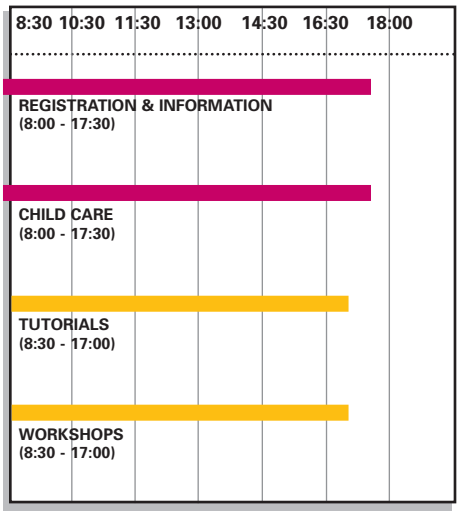
The lunch break is scheduled each day between 12:30 and 14:00.

SERVICES | TECHNICAL SESSIONS | INFORMAL EVENTS | ONGOING EVENTS

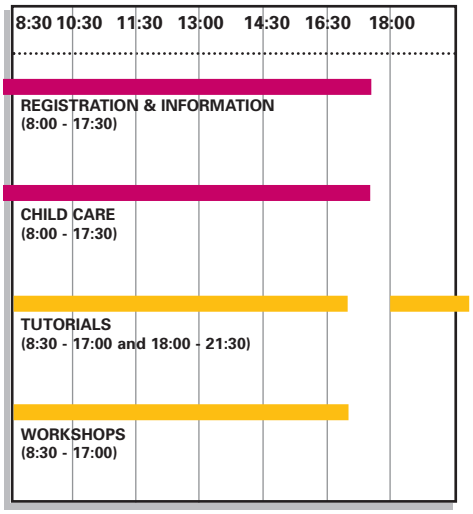
SATURDAY



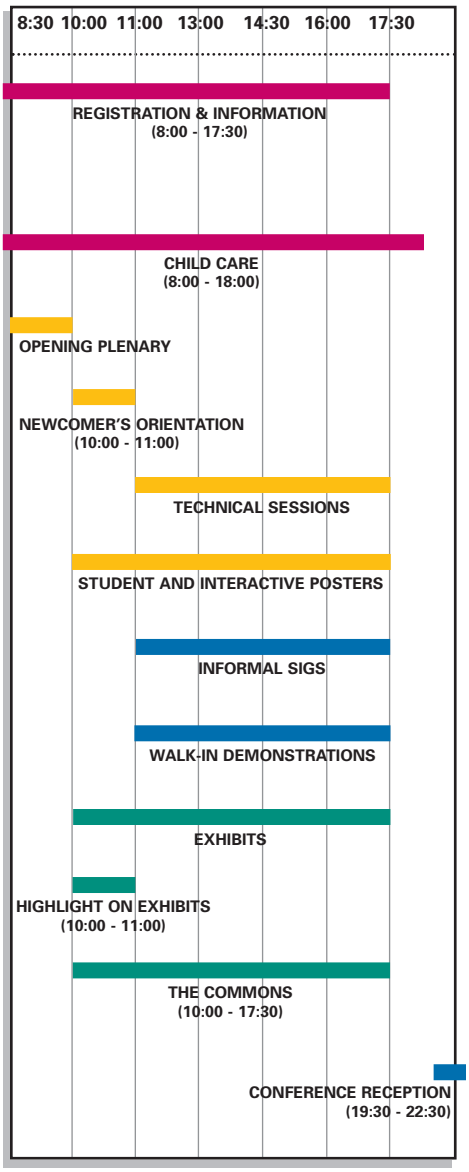
SUNDAY



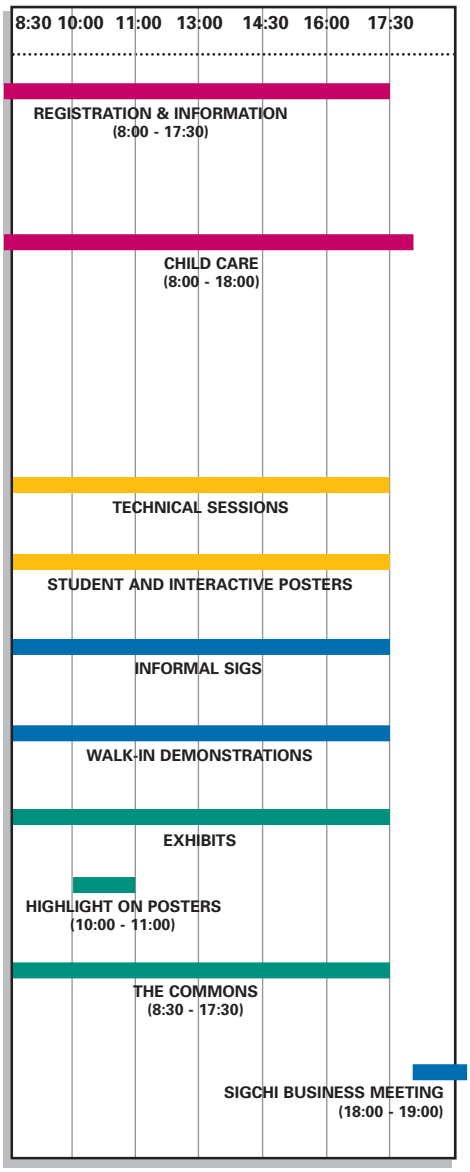
MONDAY



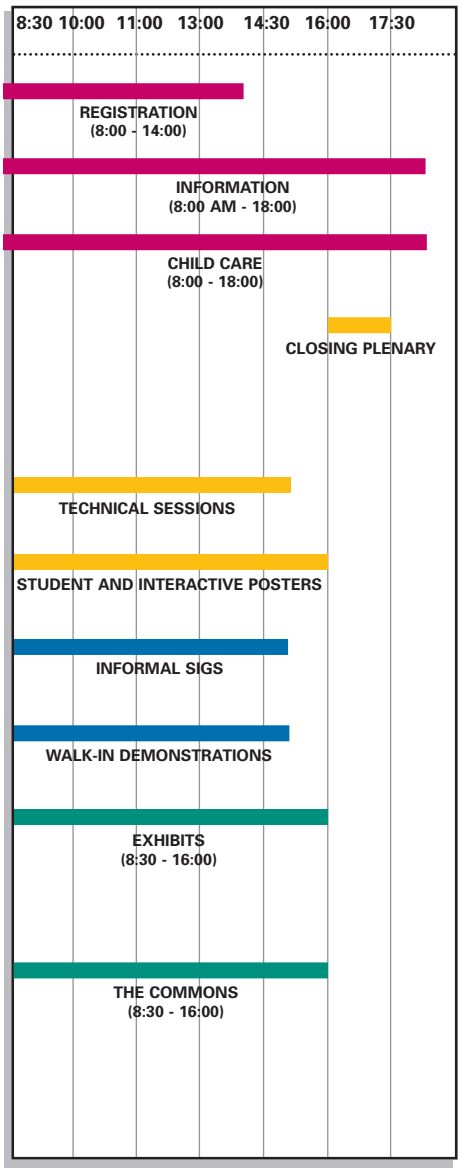
TUESDAY



WEDNESDAY



THURSDAY



Tutorials

Tutorials are courses that offer extended interactions with expert instructors. The courses available at CHI 2000 represent the leading edge of current practice and research in human-computer interaction.

Tutorials cover emerging technologies and markets, along with usability methods and techniques. In-depth training in specialized areas is also provided. The tutorial program has been designed to provide diversity and depth, and to appeal to researchers and practitioners.

Tutorial Schedule

Full-day	8:30 to 17:00
Evening	18:00 to 21:30

Evening Tutorials

1 Human-Computer Interaction: Introduction and Overview

2 System Design for the Older User

30 Speech User Interfaces for Mobile Devices

31 Usability Techniques for Web-Based Services: Diversity and Technology

Earn Continuing Education Units (CEUs)

SIGCHI has been approved as an Authorized CEU Sponsor by the International Association for Continuing Education and Training (IACET). This approval is a recognition of the outstanding professional training available through CHI tutorials. The CEU is a recognized unit of measure for continuing education and professional training programs. Each CEU requires the successful completion of 10 hours of instruction. Successful completion of a CHI tutorial requires that you attend the entire session and participate fully in the learning activities.

You can earn 0.6 CEUs for each full-day tutorial (6 hours of instruction), and 0.3 CEUs for each evening tutorial (3 hours of instruction).

To obtain CEU credit, you must register for CEUs at the same time you register for your tutorials. There is a small administrative charge. The IACET registry (ACE) will send you a letter confirming registration of your CEUs. In most cases, this letter is adequate proof that you have completed CEUs. In the rare case that it is not, ACE can issue an official transcript for a small fee. Please note that the conference does not issue certificates of completion. For further inquiries about obtaining CEU transcripts, call ACE at +1 202 939 9433.

Recommended Groupings

Newcomers
- 1 Human-Computer Interaction (Saturday evening)
- 3 Cognitive Factors in Design (Sunday)
- 24 Understanding Users and Work in Context (Monday)

Designing For The Web
- 12 Styling the New Web (Sunday)
- 19 Web Sites that Work (Monday)
- 23 Design and Rapid Evaluation of Usable Web Sites (Monday)
- 25 Cultivating Convergence (Monday)
- 31 Usability Techniques for Web-Based Services (Monday evening)

Gathering Consumer Data/User Data
- 9 Using Customer Work Models to Drive Systems Design (Sunday)
- 13 Cross-Cultural User-Interface Design (Sunday)
- 14 Successful Strategies for Selling Usability into Organizations (Sunday)
- 24 Understanding Users and Work in Context (Monday)

Usability Engineering
- 6 Scenario-Based Usability Engineering (Sunday)
- 10 Test Design and Statistical Analysis for Usability Evaluation (Sunday)
- 21 Improving Your Skills in Usability Testing (Monday)
- 23 Design and Rapid Evaluation of Usable Web Sites (Monday)
- 31 Usability Techniques for Web-Based Services (Monday evening)

Design
- 5 Activity Theory (Sunday)
- 7 Card Games for Participatory Analysis and Design (Sunday)
- 8 Usage-Centered Design (Sunday)
- 11 Planning and Implementing User-Centered Design (Sunday)
- 16 17 Drawing on the Right Side of the Brain (Sunday or Monday)
- 18 Video Techniques for Participatory Design (Monday)
- 29 Visual Perception for Data Visualization (Monday)

Speech Interfaces
- 4 Designing Speech User Interfaces (Sunday)
- 30 Speech User Interfaces for Mobile Devices (Monday evening)

Future Interfaces
- 2 System Design for the Older User (Saturday evening)
- 4 Designing Speech User Interfaces (Sunday)
- 20 CSCW and Groupware (Monday)
- 22 Enabling Technology for Users with Special Needs (Monday)
- 27 Developing User Interfaces for Information Appliances (Monday)
- 30 Speech User Interfaces for Mobile Devices (Monday evening)

Emerging Markets
- 15 Designing Multimedia Presentations (Sunday)
- 26 Interface Design for Interactive TV (Monday)
- 28 Designing Usable Mobile Services (Monday)
- 30 Speech User Interfaces for Mobile Devices (Monday evening)

1 Human-Computer Interaction: Introduction and Overview

Saturday, Evening

Keith A. Butler • *Boeing Information and Support Services, USA*

Robert J.K. Jacob • *Tufts University, USA*

Jennifer Preece • *University of Maryland Baltimore County, USA*

Benefits

This is a tried-and-true introduction to HCI and a CHI conference tradition, an important course for newcomers to HCI.

Origins

Given each year at CHI since CHI 92.

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 at CHI 2000
- Where to learn more in HCI literature

Audience

Mainly first-time CHI attendees and, typically, professionals from computing-related fields who are new to HCI.

Presentation

Primarily lecture style, plus some videos and/or demos.

Instructors

Keith Butler is a senior principal scientist for user-centered design at Boeing Information and Support Services. Before joining Boeing, he was a member of the technical staff at Bell Labs. Rob Jacob is an Associate Professor of Electrical Engineering and Computer Science at Tufts University. He is a member of the editorial board of ACM *Transactions on Computer-Human Interaction* and ACM *Interactions* magazine and former Vice Chair of SIGCHI. Before joining Tufts, he was in the Human-Computer Interaction Lab at the Naval Research Laboratory. Jennifer Preece is Chair and Professor of Information Systems at the University of Maryland, Baltimore County. She was previously Professor of Information Systems and Human-Computer Interaction, and Director of the Center for People and Systems Interaction at South Bank University in London. She spent fifteen years at the British Open University where she led teams in the development of distance education courses.

2 System Design for the Older User

Saturday, Evening

Wendy A. Rogers •
Georgia Institute of Technology, USA
Sara J. Czaja • *University of Miami, USA*

Benefits

You will learn how age-related perceptual, cognitive, and movement control differences influence use of technology. You will also learn how to improve age-related design and develop product design strategies; understand how training can overcome problems associated with technology usage; and apply basic information about age-related changes to design and training in a broad range of systems.

Origins

An outgrowth of previous CHI conferences: the 1998 workshop titled *Making Technology Accessible for Older Adults*, the 1999 Senior CHI Development Consortium, and the 1999 panel session, *How Can We Make Technology "Elder-Friendly?"*.

Features

- Identify the older user
- Learn what is known about older adults and computer systems
- Discuss training issues
- Discuss interface issues for hardware and software
- Learn methodology
- Participate in an interactive session: critique and redesign

Audience

Individuals in human-computer interaction interested in system design for the older user. The materials will be presented at the beginner level. No background on older adult users necessary.

Presentation

The tutorial will consist of lectures, exercises, and group discussion.

Instructors

Wendy Rogers is an associate professor at Georgia Institute of Technology. Her research focus is human factors issues of skill acquisition, training, and system design in the context of enabling older adults to interact with new technologies. Sara Czaja is a professor at the University of Miami. The focus of her research is aging and cognition, human-computer interaction, and care giving. She has published extensively in these areas.

3 Cognitive Factors in Design: Basic Phenomena in Human Memory and Problem Solving

Sunday, Full-Day

Thomas T. Hewett • *Drexel University, USA*

Benefits

You will learn some theoretical underpinnings and practical aspects of how people remember and how they solve problems. You will also gain ideas about how to use that knowledge during product design and how to take advantage of some of the capabilities of your most important interface component: the human mind.

Origins

This "CHI Classic" has been a top-rated tutorial for five years.

Features

- Understand intuitively a variety of phenomena through, "minds-on" exposure
- Learn to avoid some common errors
- Develop a basis for making educated design choices when guidelines fail
- Relate cognitive phenomena to HCI
- Gain the resources needed for self-directed study in cognitive psychology
- Obtain a useful set of teaching materials for cognitive aspects of human-computer interaction

Audience

Interaction designers and developers, and anyone interested in human-computer interaction and interactive system design who has not done course work in cognitive psychology. This tutorial is not intended for the human factors specialist, for the individual with extensive training in psychology, or for the person seeking a state-of-the-art literature of the latest research in cognitive psychology.

Presentation

Interactive presentation and "minds-on" demonstrations.

Instructor

Tom Hewett is Professor of Psychology at Drexel University. He has offered variants of this tutorial to hundreds of interface designers. He is a published courseware author, has worked on the development and evaluation of several projects, and is currently working with a group of computer scientists who developing a Scientific Problem Solving Environment which integrates symbolic and numeric computing. He is also part of a team of six researchers developing a project in networked engineering design.

4 Designing Speech User Interfaces

Sunday, Full-Day

Jennifer Lai •
IBM T.J. Watson Research Center, USA

Benefits

You will learn how to design an effective speech interface by understanding the challenges and benefits of using speech technology. You will also learn strategies for designing effective prompts, methods for handling user and system errors, as well as techniques for providing user feedback.

Origins

An updated version of a highly regarded CHI 99 and CHI 98 tutorial.

Features

- An introduction to the basic concepts of speech input (recognition) and output (synthesis)
- Examples of speech products and application areas
- Design issues that affect both multi-modal and speech-only systems including techniques for providing user feedback, strategies for designing effective prompts, methods for handling user and system errors
- User studies that are appropriate at different stages of a speech application's life cycle

Audience

Intended for user interface designers and application developers who are interested in understanding the issues involved in designing effective speech interfaces. No prior knowledge of speech input or output is assumed.

Presentation

This tutorial uses a combination of lecture and small group exercises. Examples of existing products and research prototypes, both live demonstrations and recorded audio and video, are used to illustrate system features and design techniques.

Instructor

Jennifer Lai is a Speech Interface designer at IBM Research. She has published papers on the use of speech in multi-modal systems and the development of statistical language models, and holds three patents in natural language translation.

5 Activity Theory: Basic Concepts and Applications

Sunday, Full-Day

Victor Kaptelinin •
Umeå University, Sweden

Bonnie A. Nardi •
AT&T Labs-Research, USA

Benefits

You will learn basic concepts and principles of activity theory and will acquire practical skills for applying these concepts to the analysis of problems of human-computer interaction. Tutorial participants will gain a vocabulary for talking about issues of human-computer interaction and a conceptual structure for approaching field studies, evaluation work, and design.

Origins

Successfully given several times, including CHI 97 and CSCW 98. Materials updated.

Features

- Five basic principles of activity theory
- Where activity theory is situated with respect to other theories such as those of cognitive science, distributed cognition, situated action, actor-network theory as well as approaches such as task analysis and scenario-based design
- How to apply activity theory to real world problems of design and evaluation
- How to select an appropriate methodology for the problem to be studied

Audience

Researchers, designers, engineers, or managers who want to understand how computers are used in the context of real activity.

Presentation

Lecture, group discussion, and group exercise. HCI-based examples used throughout.

Instructors

Victor Kaptelinin is a Senior Researcher at the Department of Informatics, Umeå University, Sweden. He received his Ph.D. in psychology from Moscow State University and has held several research and teaching positions. His current research is on contextual factors of human-computer interaction and skill automatization in computer use. Bonnie A. Nardi is an anthropologist at AT&T Labs-Research and is currently working on social networks in the workplace. She is the editor of *Context and Consciousness: Activity, Theory and Human-Computer Interaction*; the author of *A Small Matter of Programming: Perspectives on End User Computing*; and co-author of *Information Ecologies: Using Technology with Heart.*

6 Scenario-Based Usability Engineering

Sunday, Full-Day

John M. Carroll • *Virginia Tech, USA*

Mary Beth Rosson • *Virginia Tech, USA*

Benefits

You will learn about the interdisciplinary history and foundations of scenario-based design. You will learn an iterative, scenario-based development methodology.

Origins

This tutorial is new for CHI 2000.

Features

- General analysis of why and how scenarios are effective design tools
- Example project walk-through
- Interactive exercises

Audience

This tutorial is especially appropriate for software developers, user interface designers, usability engineers, and project managers seeking a broad, methods-oriented introduction to scenario-based design. It is also appropriate for those who are already experienced with scenario-based methods, and interested in an integrative methodology.

Presentation

Brief lecture segments followed by project walkthroughs and interactive exercises.

Instructors

John M. Carroll is Director of the Center for Human-Computer Interaction at Virginia Tech. His recent books include *Scenario-Based Design: Envisioning Work and Technology in System Design* (John Wiley, 1995), *Design Rationale: Concepts, Techniques and Use* (with Tom Moran; Erlbaum, 1996), and *Making Use: Scenario-Based Design of Human-Computer Interactions* (MIT Press, 2000). Mary Beth Rosson is an Associate Professor of Computer Science at Virginia Polytechnic Institute. She is author of *Instructor's Guide to Object-Oriented Analysis and Design with Applications*, along with numerous articles, book chapters, and tutorials. She is General Chair of OOPSLA 2000.

7 Card Games for Participatory Analysis and Design: Variations

Sunday, Full-Day

Michael J. Muller •
Lotus Development Corporation, USA

Daniel Lafrenière •
GESPRO Technologies, Canada

Tom Dayton • *Sun Microsystems, USA*

Benefits

You will learn three proven card-based techniques for participatory analysis and design: CARD, CUTA and TOD. Benefits are both tangible (improved task analyses, high-level designs, object-oriented designs) and intangible (enhanced collaboration and shared vision, analysis, and design). This dynamic and action-oriented tutorial provides hands-on experience.

Origins

This tutorial was taught at CHI 99 and UPA 98.

Features

- Learn how to conduct participatory sessions facilitating collaborative problem-solving with diverse teams
- Develop hands-on competence with three techniques
- Learn how to adapt the practices to meet one's own needs
- Understand the diversity of participatory practices

Audience

Intermediate level, for people with some experience in usability work or software lifecycles.

Presentation

Exercises (three hours of practical work), participatory discussions, and lectures.

Instructors

Michael Muller is an internationally-recognized expert in participatory design, currently a research scientist at Lotus Development Corporation (USA). Daniel Lafrenière is a usability consultant at GESPRO Technologies (Canada), with extensive contract work in software systems, and a book on HCI. Tom Dayton has invented participatory methods, and is a Senior Usability Engineer in Sun Microsystems (USA).

8 Usage-Centered Design: Practical Abstract Modeling with Use Cases

Sunday, Full-Day

Larry Constantine •
University of Technology, Australia
Lucy Lockwood •
Constantine & Lockwood, USA

Benefits

You will learn advantages of abstract models for UI design, especially performance support and task-centered applications, task modeling with essential use cases and user roles, and abstract prototyping. You will also gain experience applying abstract models systematically.

Origins

Newly revised; earlier tutorials include OZCHI 98 and TorCHI.

Features

- Model driven process overview
- Understanding user-system relationships with user roles
- Advantages of essential use cases over concrete use cases and scenarios
- Constructing and simplifying use cases
- Prototyping with abstract content and navigation models
- Designing from abstract models

Audience

Professionals with direct responsibility in usability and UI design, including designers, usability specialists, and developers, as well as managers, academics, and researchers. Assumes basic knowledge/experience in usability and UI design.

Presentation

Multimedia, demonstrations, individual and small group exercises.

Instructors

Larry Constantine is a Professor of Computing Sciences at the University of Technology, Sydney, and a software engineering pioneer. He is also the author of several books and articles, chair of the Software Development Conference, and an editorial advisor to IEEE Software, CACM, and others. Lucy Lockwood, President of Constantine & Lockwood, has 15 years design and development experience. She is the UI track chair for the Software Development Conference, and is on advisory boards of Performance Support and other conferences.

9 Contextual Design: Using Customer Work Models to Drive Systems Design

Sunday, Full-Day

Hugh Beyer • *InContext Enterprises, USA*
Karen Holtzblatt •
InContext Enterprises, USA

Benefits

You will learn the latest methods for representing detailed information about work practice and using these representations to drive the design of products and systems. The customer work models presented synthesize a wealth of details into a structured, comprehensible representation which reveals the structure and strategies of work and supports the design of systems.

Origins

This has been a popular tutorial at CHI for the last five years.

Features

- Learn work modeling techniques
- Learn how to construct one set of models to represent a system's users
- Learn how to drive design conversations from work models

Audience

Anyone interested in customer-centered design, requirements analysis, or tailoring products and systems to people's work. Most valuable to those with prior experience with customer field interviews, and for those who have taken the Contextual Inquiry tutorial.

Presentation

A combination of lecture, video, and group exercises.

Instructors

Karen Holtzblatt and Hugh Beyer are the developers of Contextual Design, a customer-centered design process extending the Contextual Inquiry data gathering technique. Dr. Holtzblatt originated the Contextual Inquiry approach to field data collection and has pioneered the introduction of this technique into working engineering teams. Hugh Beyer has been a programmer, architect, and consultant; has designed and developed object-oriented repositories and integrated CASE systems; and has developed processes for using customer data to drive object-oriented design. Holtzblatt and Beyer are co-founders of InContext Enterprises Inc., a firm which works with companies throughout the computer industry, coaching teams to design products, product strategies, and information systems from customer data.

10 Test Design and Statistical Analysis for Usability Evaluation

Sunday, Full-Day

Andrew Dillon • *Indiana University, USA*
Cliff McKnight •
Loughborough University, UK

Benefits

You will learn how to plan and identify reliable and valid statistical tests of user interfaces. You will get hands-on experience with data analysis, learn to plan usability evaluations and to analyze and interpret the resulting data.

Origins

This tutorial is new for CHI 2000.

Features

- How to design experiments to get maximum information
- How to analyze data in a statistically appropriate manner
- How to interpret results of analysis
- How to critique usability tests and user data analyses

Audience

Everyone who must gather and analyze usability data but who has no formal training in experimental design or statistical analysis.

Presentation

Brief lecture segments, discussion sessions, small team exercises and individual exercises.

Instructors

Andrew Dillon is an Associate Professor of Information Science at Indiana University. He received his Ph.D. in 1991 from Loughborough University; has published over 70 articles and four books on various aspects of HCI; and has consulted widely in the software industry. He serves on the editorial board of the *International Journal of Human-Computer Studies* and the *New Review of Hypermedia and Multimedia*. Cliff McKnight is Professor of Information Studies and Head of the Department of Information Science at Loughborough University. He received his Ph.D. in 1976 and has worked in a wide variety of industrial and academic settings. He is Editor in Chief of the *Journal of Digital Information* and is on the editorial board of several other journals. He is an associate fellow of the BPS, a fellow of the BCS, and a member of ACM SIGWEB.

11 Planning and Implementing User-Centered Design

Sunday, Full-Day

Nigel Bevan • *Serco Usability Services, UK*

Benefits

You will learn a structured approach to user-centered design based on the principles of the forthcoming International Standard, "Human Centered Design Processes for Interactive Systems" (ISO 13407), and other associated standards.

Origins

An improved version of a tutorial given at CHI 98 and CHI 99.

Features

- Receive an introduction to user-centered design
- Learn how ISO 13407 can be used in conjunction with other standards
- Gain practical experience of core techniques to support user-centered design
- Learn how to assure usability
- Learn how to select appropriate methods within a limited budget
- Receive a copy of the handbook of user centered design

Audience

This introductory tutorial is intended for Project Managers and Business Managers who wish to improve the usability of their systems, IT Procurers who wish to ensure their suppliers have a human-centered design process in place, and Human Factors Consultants interested in the practical application of appropriate methods. Some knowledge of usability is an advantage, but the tutorial is not aimed at experienced usability professionals or researchers.

Presentation

Lecture and small group exercises.

Instructor

Nigel Bevan is Research Manager of Serco Usability Services. He has a Ph.D. in man-machine interaction. He managed the EC INUSE project which established a network of Usability Support Centers around Europe. Nigel currently provides commercial consultancy in user centered design, and manages the TRUMP project that is incorporating user centered design into the development processes of two large organizations. He contributed to the development of ISO 13407, and is editor of several other standards.

12 Styling the New Web: Web Usability with Style Sheets

Sunday, Full-Day

Steven Pemberton • *CWI, The Netherlands*

Benefits

You will learn how to use Cascading Style Sheets (CSS) to style the presentation of pages using HTML, XHTML (the new HTML) and XML, and how this helps usability. Emphasis is on the 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.

Origins

The tutorial is based on tutorials given several times, and has been updated for developing material within W3C.

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.

Audience

The tutorial is for people who want to learn about new developments in Web technology, and how to apply them. They 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.

The Instructor

Steven Pemberton is a researcher at the CWI, Amsterdam, currently involved in research on usability of web-based services. He has been involved with the Web from the start, organizing two workshops at the first WWW conference in 1994, and chairing the first Style Sheets Workshop in 1995. He is a member of the CSS working group, and chair of the HTML working group. He has given tutorials on CSS and XHTML several times before. He is editor-in-chief of *ACM/interactions*.

13 Cross-Cultural User-Interface Design: Accommodating Cultural Preferences, Acceptance, and Constraints

Sunday, Full-Day

Aaron Marcus •
Aaron Marcus and Associates, USA

Emilie West Gould, •
Rensselaer Polytechnic Institute, USA

Donald L. Day • *Towson University, USA*

Pia Honold • *Siemens AG, Germany*

Benefits

- You will learn terminology, principles, and guidelines
- Gain practical experience through group exercises
- Improve ability to make user-interfaces more acceptable/preferable
- Discover research issues

Origins

CHI SIGs and panels from 1990-1999.

Features

- Introduction to cultural models for analysis of user interfaces
- Group design/evaluation exercises

Audience

Basic knowledge of user-interface design required. Valuable for user-interface and information-visualization designers, software developers, human factors specialists, cognitive scientists, technical documentation specialists, teachers, and researchers.

Presentation

Illustrated lectures and group pen-paper exercises with role-playing, and group discussion/evaluation.

Instructors

Aaron Marcus has been a Tutorial presenter at CHI and SIGGRAPH. He is the author/co-author of four books, including *Graphic Design for Electronic Documents and User Interfaces*. He has authored/co-authored 100 articles and has led international communication projects. Emilie W. Gould is an human factors engineer and communication researcher, and is a faculty member of Rensselear Polytechnic Institute's Sino-US MBA program. Donald Day is a guest editor of *Interacting with Computers* and co-editor of *Computers, Communication & Mental Models*. Pia Honold is currently researching cultural diversity for her Ph.D. thesis and has presented the findings at IWIPS 99, HCII 99.

14 Successful Strategies for Selling Usability into Organizations

Sunday, Full-Day

Sarah Bloomer • *The Hiser Group, Australia*
Rachel Carey • *Serco Usability Services, UK*

Benefits

You will learn techniques for building a case for usability. Selling usability into organizations involves convincing a range of stakeholders from upper management to end users, each with different agendas. Efforts to incorporate usability must consider people, processes and tools across an organization, and analyze the needs, objectives and culture of the business. Each topic is illustrated with real world case studies, and participants practice techniques on a mock organization.

Origins

Successful Strategies was presented at CHI 97, CHI 98, CHI 99, Interact 97, BayCHI, UI 98 and UI 99 West.

Features

Participants will learn:

- To understand where usability can make a difference to your organization
- To present those opportunities in terms understood by different audiences
- How to identify barriers and opportunities that can hinder or support usability initiatives intended

Audience

Experienced usability professionals, user interface designers, developers and management who are working to improve the acceptance of usability activities within their organizations.

Presentation

Brief presentation, hands-on exercises, and group discussion.

Instructors

Sarah Bloomer is director of The Hiser Group with over 10 years consulting experience. Relocating to Australia after 5 years at Citicorp, Sarah established The Hiser Group, consulting in user interface design, usability and strategy development. Sarah presented this tutorial at CHI 97. Rachel Carey is Manager of Serco Usability Services, and consults on a wide range of user interface design projects. Before joining Serco Usability Services, Rachel was a Senior Consultant at The Hiser Group. Rachel has seven years experience in human factors. She presented this tutorial at CHI 97.

15 Designing Multimedia Presentations

Sunday, Full-Day

Alistair Sutcliffe • *UMIST, UK*

Benefits

You will learn design principles and guidelines for multimedia user interface design with the cognitive psychology that motivates them, and how to apply a soundly based design method that addresses user requirements, mapping media to information content, integrating multimedia for effective understanding, dialogue design and scripting.

Origins

This new tutorial for CHI 2000 is based on 7 years research published in CHI and the forthcoming ISO 14915 (part 3) standard.

Features

- Basic psychology to understand multimedia interaction
- Design method covering user requirements and information content, media selection, combination and integration, navigation and dialogue control
- Design principles based on psychology
- Guidelines for media integration, directing users' attention and navigation control

Audience

Everyone who is involved in design of multimedia systems including CDROM authors, Web site, VR and UI designers; HCI researchers and educators and anyone interested in effective use of ISO 14915 standard, part 3: Media Selection and Combination. Suitable for beginners and seasoned designers.

Presentation

Lectures interleaved with case study exercises and critique of design examples using video, CDROM, and the Web.

Instructor

Alistair Sutcliffe is Professor of Systems Engineering in the Department of Computation, UMIST. He has more than 15 years research experience in HCI; has authored more than 150 publications; is chair of IFIP TC-13 Working Group 13.2 'Methodology for User Centered Design'; is a member of the IEEE, ACM and BCS; serves on the editorial board of IJHCS; and is editor of ISO Standard 14915, on Multimedia User Interface Design, part 3 (Media Combination).

16/17 Drawing on the Right Side of the Brain

(16) Sunday, Full-Day
(17) (Repeated) Monday, Full-Day

Brian Bomeiseler •
Drawing on the Right Side of the Brain, LLC, USA

Benefits

Drawing on the Right Side of the Brain is one of the most effective teaching methods for drawing ever developed. In this tutorial, you will learn the underlying theory behind the method. The bulk of the session will involve practical hands-on exercises, which demonstrate the participants' ability to learn to draw, and to learn to "see things more clearly."

You will learn basic strategies for accessing the visual, perceptual mode of thinking. This type of thinking is learned through the acquisition of very basic drawing skills and the acquisition of an understanding of the nature of drawing.

Origins

This top-rated tutorial from CHI 97, CHI 98, and CHI 99 is a one-day version of Betty Edwards' renowned drawing course.

Features

- An understanding of the nature of drawing
- Basic drawing skills

Audience

Intended for a wide audience. No previous drawing experience required. In fact, it is designed for people who believe they cannot draw.

Presentation

Lecture with hands-on drawing exercises.

Instructor

Brian Bomeiseler is an exhibiting New York painter and instructor of drawing. He holds a bachelor's degree in fine art from the Pratt Institute of New York. His work appears in the permanent collection of the San Diego Museum of Contemporary Art and in corporate and private collections worldwide. He has taught with Betty Edwards for over 10 years.

18 Video Techniques for Participatory Design: Observation, Brainstorming and Prototyping

Monday, Full-Day

Wendy E. Mackay •
University of Aarhus, Denmark

Benefits

Video is a flexible tool for supporting participatory design. You will learn how to use video to observe users, analyze multimedia data, capture brainstorming sessions, simulate and test interaction styles, prototype new designs, and present design ideas, gaining hands-on experience using video equipment and addressing ethical issues.

Origins

This is a repeat of a highly-rated tutorial from CHI 99. Variations of this course have been taught to university and post-graduate students, as well as to practicing HCI developers in industry. The techniques are derived from the authors' experiences in multimedia research and product development.

Features

- General participatory design techniques
- Technical aspects of video
- Video observation of users
- Video data analysis
- Video brainstorming
- Video prototyping
- Video presentations
- Ethics of using video

Audience

HCI designers in industry and researchers interested using video to support participatory design. Basic knowledge of video is useful, but not essential.

Presentation

Lecture, video, demonstrations, hands-on video exercises, and student presentations.

Instructor

Wendy Mackay received her Ph.D. from MIT and has worked as a designer and manager responsible for over 30 multimedia products and the industry's first interactive video computer system (IVIS). She has managed multimedia research and development groups at Digital, MIT and Xerox EuroPARC. She was a Professor at University de Paris-Sud and is currently a Visiting Professor at the University of Aarhus, in Denmark.

19 Web Sites that Work: Designing with Your Eyes Open

Monday, Full-Day

Jared M. Spool, Tara Scanlon, Will Schroeder, Matthew Klee, Paul Sawyer, and Lori Landisman •
User Interface Engineering, USA

Benefits

You will learn about design factors that affect users' success in finding information on a web site. Includes unpublished results of recent research.

Origins

This course was presented at CHI 98 and CHI 99 and has been updated for CHI 2000.

Features

- Importance of links, and design factors that contribute to their success
- Why traditional ideas about branding aren't effective on the web
- Where users actually look on web pages and how uniform page designs may discourage users from looking at what you want them to see
- Why matching your site's goals to your users' goals will let you market to users at their "seducible moments"
- Page layout factors that make a difference

Audience

Anyone who has experience designing a web site or creating content for one.

Presentation

Lively lecture/discussion, numerous examples including screen shots, and live demonstrations.

Instructors

Jared M. Spool is Founding Principal of User Interface Engineering. He has more than 16 years of experience conducting usability evaluations on a variety of products and web sites. Tara Scanlon, Will Schroeder, Matthew Klee, Paul Sawyer, and Lori Landisman are Jared's usability cohorts. Collectively, they've spent almost a century working to make products more usable. At User Interface Engineering, they conduct a variety of research, including usability testing and field studies, to help clients design more usable and effective products and web sites. The folks at User Interface Engineering wrote the book *Web Site Usability: A Designer's Guide* and the new report series *Designing Information-Rich Web Sites.*

20 CSCW and Groupware: Experiences, State of Art, Future Trends

Monday, Full-Day

Jonathan Grudin • *Microsoft Research, USA*

Steven Poltrock •
The Boeing Company, USA

Benefits

You will learn about groupware technologies being used, problems people encounter, and successes with groupware that have been attained. You will learn how different disciplines contribute to collaborative systems and how these technologies affect individuals, groups, organizations, and society.

Origins

This is an update of a tutorial presented at many CHI and CSCW conferences.

Features

- Discover the multi-disciplinary nature of CSCW
- Discuss experiences with technologies that support communication, collaboration, and coordination
- Understand behavioral, social, and organizational challenges to developing and using these technologies
- Learn successful development and usage approaches
- Anticipate future trends in groupware and global social impacts

Audience

This introductory tutorial is for actual and potential users, developers, researchers, marketers, or managers of CSCW or groupware systems. Broad experience with collaborative technologies is not expected.

Presentation

Lecture, video, and group discussions.

Instructors

Jonathan Grudin and Steven Poltrock, co-chairs of CSCW 98, began collaborating in 1986. Jonathan Grudin, Editor in Chief of *ACM Transactions on CHI*, has worked as developer and researcher in this area. Steven Poltrock introduces, evaluates, and deploys groupware systems to support teamwork, knowledge management, and workflow management. They have co-authored several overviews of CSCW and groupware.

21 Improving Your Skills in Usability Testing

Monday, Full-Day

Rolf Molich • *DialogDesign, Denmark*
Erika Kindlund • *Intraspect Software, USA*

Benefits

You will compare your own approach to usability testing with those used by eleven professional labs during controlled usability tests in realistic, industrial settings. This tutorial gives a rare insight in the practical doings of usability professionals.

Origins

This tutorial is new for CHI 2000.

Features

- Gather insight from (good and bad) examples of usability work done by other professional labs
- Improve your abilities in usability test planning, scenario design, and usability reporting
- Improve your abilities in identifying usability problems
- Learn about effective usability problem communication

Audience

Practitioners with experience in running usability tests under industrial conditions. The tutorial is also relevant for teachers of usability methods. While not aimed at novices, novices can get a good look at a number of realistic problems and suggested solutions in practical usability testing.

Presentation

Lecture segments interspersed with group exercises and discussions.

Instructors

Rolf Molich owns and manages DialogDesign, a small Danish consultancy company specializing in usability. He has recently supervised a number of large-scale comparative usability tests of commercial Web sites in order to determine common strengths and pitfalls in design and usability test processes. Erika Kindlund is the lead User Interface Designer at Intraspect Software, a Silicon Valley start-up developing Collaborative Enterprise Portal solutions for the Web. She was a usability engineer for Sun Microsystems, conducting usability studies on emerging web technologies.

22 Enabling Technology for Users with Special Needs

Monday, Full-Day

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

Benefits

You will learn how the fields of HCI and assistive technology can work together to design technology to enable all users.

Origins

Earlier tutorial at INTERCHI 93, CHI 94 and CHI 95.

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
- Discuss US and European legislation
- Focus on technology for elderly individuals
- Obtain design guidelines
- Solve a group design problem

Audience

User interface designers, developers, managers, and researchers. No specific background is needed to benefit from this tutorial.

Presentation

Lecture format augmented with 35mm slides, videotape footage, and live demonstrations of enabling technology. Group design exercises.

Instructors

Alistair Edwards is a lecturer in the Department of Computer Science at the University of York, England. He researches the use of multiple modalities of interaction to make computers accessible to people with disabilities. He is the author of *Speech Synthesis: Technology for Disabled People* and editor of *Extra-Ordinary Human-Computer Interaction.* Elizabeth Mynatt is an Assistant Professor in the College of Computing at the Georgia Institute of Technology. She developed the Mercator Environment that provides access to GUIs for people who are blind. She worked for three years at Xerox PARC on ubiquitous computing and, most recently, she started the "Aging in Place" project focusing on helping elderly individuals live in their own homes longer.

23 Design and Rapid Evaluation of Usable Web Sites

Monday, Full-Day

Gene Lynch •
Design Technologies, USA

Benefits

You will learn a scenario-design process for creating usable web sites and a quick and effective web site usability evaluation method.

Origins

New to CHI, an early version was given in 1998. It was one of the UPA 99 tutorials.

Features

- Key factors in web site usability
- Personas and tasks in scenario-based design of web sites
- Critiques of web sites with 4 simple graphic design rules
- Frameworks for expert heuristic usability reviews and reports
- Team usability walk-throughs to identify, clarify, and prioritize web site issues

Audience

Some experience in either usability work or web site design, management, or development is recommended.

Presentation

Illustrated presentations, group discussions, and individual and group exercises.

Instructor

Gene Lynch has 12 years of consulting on usability and product design and 15 years industry experience in product development and in leading the research, development, and implementation of a customer-centered design process for interactive products. Prior to the founding of Design Technologies, Dr. Lynch directed Tektronix Design Technology Laboratory, where he was responsible for Corporate Customer-Centered Research & Design, Software Tools, Software Process Improvement Program, and Corporate Industrial Design. Dr. Lynch holds patents in graphical input devices and video information control. He chaired the ANSI/HFS 100 Committee, Co-Chaired CHI 90, and has been a frequent technical contributor to CHI. He was a technical Co-Chair for CHI 92, and was ACM/SIGCHI's Vice-Chair for Conferences from 1993-1998. Gene holds a Ph.D. in Engineering from the University of Notre Dame.

24 Understanding Users and Work in Context: Practical Observation Skills

Monday, Full-Day

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

Benefits

You will learn how to plan for and carry out observations of users. Heavy emphasis is on practical steps for the designer that will lead to success. You will practice two types of observations (Naturalistic Observation and Contextual Inquiry).

Origins

This is an update of a highly rated tutorial from CHI 96, CHI 97, CHI 98 and CHI 99, including additional exercises and revised materials.

Features

- Learn about Structured Observation techniques and how to use them
- Learn three types of techniques:
  - Naturalistic Observation
  - Contextual Inquiry
  - Artifact Walk-throughs
- Practice doing Naturalistic Observation and Contextual Inquiry
- Identify next steps for data analysis and use in design
- Learn when and how to apply these tools to customer-centered design

Audience

This hands-on session will focus on practical solutions and skills and will provide tools for participants to use with their own work. It is aimed at practitioners who want to understand how users work in order to do a better job of system design. This is an introductory tutorial, but will also be useful for those with some experience observing users.

Presentation

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

Instructor

Susan M. Dray has a Ph.D. in Psychology and has worked as researcher, manager and consultant in the design of technology at Honeywell, American Express and, for the past seven years, as an independent consultant. She has published numerous articles on this and other relevant topics. She is a Fellow of the Human Factors and Ergonomics Society (HFES), and has been active in CHI since CHI 85. She is the Business column editor of *Interactions*.

25 Cultivating Convergence: Cross-Product UI Design for Applications and Web Sites

Monday, Full-Day

Kevin Mullet • *Icarian, USA*

Erric Solomon • *Synopsys, USA*

Benefits

You will learn the characteristics of effective software systems that form the basis for successful cross-product UI design. We illustrate proven techniques that you can use to design and build effective software systems within your own development team. By the end of the day, you will be able to produce a personal Convergence Plan for advancing the cause of cross-product UI design in your organization.

Origins

This tutorial is new for CHI 2000.

Features

- How to recognize an effective software system
- How to develop systematic conceptual, presentation, and interaction designs
- How to organize the design and development teams for maximum effectiveness
- How to achieve convergence in the real world

Audience

This is an intermediate-level tutorial in which we assume you've had at least some exposure to "real world" software development environments. It is appropriate for anyone involved in the design, development, or management of cross-product software systems or (in particular) the individual applications or web pages being created within those systems.

Presentation

A lecture featuring real-world examples, and participatory work including extended group discussions and hands-on exercises that give you a chance to put theory into practice.

Instructors

Kevin Mullet is User Interface Architect at Icarian, designing a system of interlocking web-based applications for workforce management in high tech companies. He has been designing convergent software systems for the past ten years at companies like Sun, Macromedia, and Netscape. Erric Solomon is Director of the Interactive Visualization Group at Synopsys Inc. The mission of the group, which he founded, is to provide and promote improved user interfaces, enhanced visualization, and common look and feel across the Synopsys product line.

26 Interface Design for Interactive TV: New Possibilities, Techniques, and Metrics

Monday, Full-Day

Eric Gould • *MONKEYmedia, USA*

Nick West • *MONKEYmedia, USA*

Benefits

- You will explore new design possibilities for interactive broadband – both streaming video on the web and interactive television
- Learn how designing interactive video is qualitatively different than designing static screens.
- See why applying old metrics of success may lead to poor results.
- Understand new design options for interactive TV

Origins

This tutorial is new for CHI 2000.

Audience

The tutorial will interest a wide spectrum of CHI attendees: designers currently considering work in interactive broadband; teachers and project managers; and general designers.

Features

- Evaluating user experience for interactive TV
- How current interactive TV standards affect UI design
- New interface controls for interactive TV
- Specific new design techniques

Presentation

Brief lectures, small group exercises in specific design techniques, and two large group brainstorms to explore new design territory.

Instructors

Eric Gould, MONKEYmedia's CEO, has designed award-winning human-computer interfaces since 1984, published numerous articles on the subject, and has been granted U.S. patents for cutting-edge techniques. *Communication Arts* recently described Gould as "one of the most thoughtful and provocative interface and interaction designers working in the field." Nick West, MONKEYmedia's Advanced Technology Director, has spent over ten years researching new media at Apple, Paramount, New York University, and the Museu Nacional in Rio de Janeiro. *HotWired* dubbed him "the man behind the curtain in the multimedia industry for the past decade."

27 Developing User Interfaces For Information Appliances

Monday, Full-Day

Raghu Kolli •
Meru Research b.v., The Netherlands

Arnold Vermeeren •
Delft University of Technology, The Netherlands

Gert Pasman •
Delft University of Technology, The Netherlands

Benefits

You will:

- Understand issues applicable to the domain of information appliances
- Prepare a development process model covering all phases of the project
- Select techniques for concept design, evaluation and prototyping tasks

Origins

The tutorial was developed from courses taught at Delft University of Technology. See www.maypole.org for details.

Features

- Multi-disciplinary collaborative process covering start-up, context scenarios, application concept, prototyping, and trial phases
- Practical techniques for understanding context, exploring ideas, designing concepts, prototyping, and communication
- Examples of innovative information appliances
- Intelligent communicators, home care systems, interactive toys, smart card devices, and more

Audience

HCI practitioners, product managers, multi-disciplinary team members, educators, and students. No previous experience necessary.

Presentation

Four illustrative lectures and three hands-on exercises in small groups designing a restaurant system. Display and presentation at the end of each exercise.

Instructors

Raghu Kolli is Director of Meru Research, a company specializing in user interface development for information appliances and software products. Arnold Vermeeren is an Assistant Professor at Delft University of Technology and has been teaching interaction design and human factors in product design for 12 years. Gert Pasman is an Assistant Professor at the Delft University of Technology, teaching interactive techniques to industrial design students.

28 Designing Usable Mobile Services

Monday, Full-Day

Anne Kaikkonen •
Nokia Research Center, Finland

David Williams •
Motorola UK Research Center, UK

Benefits

You will learn about the characteristics of the mobile environment. You will get hands-on experience of how to design and evaluate the services for mobile phones. Moreover, you will acquire understanding on how the usability process and tools can be used in mobile service development to make easy-to-use mobile services.

Origins

This tutorial is new for CHI 2000.

Features

- How mobile service usage differs from using the same service built for web
- How to select the right features for mobile service
- Eight steps of developing easy to use services for mobile use
- How to evaluate the mobile services

Audience

Anybody interested in mobile devices and mobile service development, including usability specialists, user interface designers, engineers, and marketing oriented people. Appropriate for beginners and experienced usability professionals interested in mobile service development.

Presentation

Introductory lecture about the characteristics of mobile phones and how they are used. Brief segments of lectures and group works.

Instructor

Anne Kaikkonen has been the human factors specialist at Nokia Research Center since autumn 1998. She acquired a M.Sc. in Psychology from Helsinki University in 1994. Before Nokia she worked as Usability Specialist at ICL Personal Systems and Fujitsu Computers from 1994 to 1998. During 1990 to 1993 she worked at the University of Helsinki in research projects concerning traffic psychology and social psychology. David Williams is the lead human device interaction researcher in Application Research in Motorola Research Center in the UK.

29 Visual Perception for Data Visualization

Monday, Full-Day

Colin Ware •
University of New Brunswick, Canada

Ed Chi • *Xerox PARC, USA*

Rich Gossweiler • *Xerox PARC, USA*

Benefits

You will learn to make data visualizations more effective, through an understanding of human perception. Appreciate what makes icons or data glyphs more visible, and how information should be organized for patterns to be perceived.

Origins

Based on a tutorial given by Colin Ware to Bay CHI and parts of SIGGRAPH tutorials given by Rich Gossweiler.

Features

- Pre-attentive processing theory and how it can be applied to grab attention
- Effective use of color in classifying data
- Making patterns in data easier to perceive
- Object perception and the object display
- Use and misuse of 3D viewing
- Visualization for problem solving

Audience

Anyone who is interested in understanding human perception and applications in data visualization. It should be of special interest to people designing data visualization applications or engaged in visualization research.

Presentation

Lectures, demonstrations, and hands-on exercises.

Instructor

Colin Ware is Professor and Director of the Data Visualization Research Lab at the University of New Hampshire. His book *Information Visualization: Perception for Design* was recently published. Ed Chi has a Ph.D. in Computer Science from the University of Virginia, and is currently doing visualization research at Xerox PARC. He has won awards for both teaching and research. Rich Gossweiler also received his Ph.D. from the University of Virginia where he developed DIVER, a distributed virtual reality system. He is currently working as a Research Scientist at PARC on interactive 3D graphics user interfaces and visualization.

30 Speech User Interfaces for Mobile Devices

Monday, Evening

Elisa del Galdo •
Cambridge Technology Partners, UK

Tony Rose • *Canon Research Centre, UK*

Benefits

You will gain a basic understanding of speech recognition technology and the ways in which speech may be used to enhance user interfaces. In addition, participants will be given the opportunity to apply this knowledge to existing mobile devices in a practical exercise.

Origins

This tutorial was presented at CHI 99. A similar tutorial was given by the authors at HCI'98 in Sheffield and at Interact'99 in Edinburgh.

Features

- An explanation of the fundamental concepts in speech recognition
- Demonstrations of speech recognition technology
- Examination of the interfaces to existing mobile devices
- Techniques and guidelines for the design of speech user interfaces
- Practical experience in the application of those techniques and guidelines

Audience

Intended for individuals who have some user interface design experience and who are interested in the design of user interfaces that incorporate speech recognition technology. No knowledge of speech recognition required.

Presentation

Brief lectures and small-group practical exercises.

Instructors

Elisa del Galdo has worked as a principal human factors engineer with DEC and has run her own human factors consultancy. She joined Canon Research Centre in January 1997 to work on the design and prototyping of speech-driven devices. She is now a human factors consultant with Cambridge Technology Partners. Tony Rose has published widely in the area of speech and language technology. He joined Canon Research Centre in November 1996, and is currently working on a variety of technologies including interface design for information retrieval systems.

31 Usability Techniques for Web-Based Services: Diversity and Technology

Monday, Evening

Steven Pemberton • *CWI, The Netherlands*

Mark Neerincx • *TNO, The Netherlands*

Olaf Donk •
University of Twente, The Netherlands

Jasper Lindenberg • *TNO, The Netherlands*

Benefits

You will gain a broad overview of usability techniques and related technologies for creating usable and inclusive Web services. The subject is treated broadly rather than deeply, so that attendees will leave with an understanding of what there is, and where to focus when designing Web services.

Origins

The tutorial is based on a number of earlier tutorials and lectures, which have been brought together and unified for CHI 2000.

Features

- Internationalization
- Universal accessibility and design for all
- Use of Web technology for structuring, internationalization and accessibility
- Individualization
- Specification Techniques

Audience

This tutorial is for people who wish to obtain a broad overview of usability techniques and methods for the Web. Experience with using the Web is expected, but not with creating web sites.

Presentation

The tutorial will consist of a series of short lectures, punctuated with a paper exercise.

Instructors

All the presenters are members of a team working together on a project Uwish: Usability of Web-based Information Services for Hypermedia. The team was originally selected to represent the many sub-areas of usability and the Web, and therefore are responsible for their own area of expertise in the tutorial.

Consortia

Development Consortium: Beyond the Desktop

Sunday and Monday, 2-3 April

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. For CHI 2000, the Development Consortium will focus on *Beyond the Desktop* – the extraordinary growth of computer based devices and services worldwide that are becoming embedded in the way we live. *Beyond the Desktop* will highlight emerging technologies and their users, interaction techniques, and contexts of use.

The Consortium is made up of an interdisciplinary group of participants representing a variety of perspectives; professional, occupational, and geographical. Participants have been invited on the basis of position papers submitted to the Consortium's organizer.

Ian McClelland
Philips Consumer Electronics

The CHI 2000 Doctoral Consortium

Sunday and Monday, 2-3 April

The Doctoral Consortium is a closed session that provides an opportunity for doctoral students to explore their research interests in an interdisciplinary workshop with a group of established researchers. Participants receive feedback on their work and guidance for its future directions. The Consortium aims to develop a supportive community of scholars and a spirit of collaborative research. Consortium participants, who represent a wide range of disciplines within HCI, have been invited on the basis of submissions about their research projects.

Doctoral Consortium Faculty

Gilbert Cockton, *Chair*
University of Sunderland

Stéphane Chatty,
Centre d'Etudes de la Navigation Aérienne

Sara Kiesler,
Human Computer Interaction Institute, Canegie Mellon University

Lisa Tweedie, *Oracle Corporation*

Workshops

Workshops provide an extended forum for small groups (15-20 people) to exchange ideas on a specific topic of common interest. CHI 2000 offers workshops covering a wide range of HCI topics. Workshops will be held on Sunday and Monday, 2-3 April 2000.

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 for specific information.

Position Paper Deadline

Position papers must be received by **28 January 2000**. Submitters will be notified of selection by 4 February 2000. Accepted workshop participants will be charged a registration fee of US$75/NLG 150 for a one-day workshop and US$150/NLG 300 for a one-and-a-half or two-day workshop.

Workshop Registration

To take advantage of reduced conference fees, register for the conference by the early deadline 18 February 2000 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, address, telephone, fax 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.

Information

For additional information about CHI 2000 Workshops, see www.acm.org/chi2000/ap.

1 Basic Research Symposium

Sunday & Monday

Michael Twidale •
Univeristy of Illinois, USA

José Juan Cañas •
Univeristy of Granada, Spain

The CHI Basic Research Symposium is an opportunity for researchers to exchange new developments and insights from their own fields and expand their vision of human-computer interaction. Participants are selected by a program committee that reviews submitted position papers to bring together a diverse group of researchers with innovative research underway. The symposium includes interactive research presentations, group discussions and small group activities.

The mission is to provide a venue where researchers conducting ground-breaking, controversial, and emerging research can discuss that research with a diverse group of peers.

Our vision for this year's Basic Research Symposium is for each participant to leave with a better understanding of the research methods, goals, and frontiers of a wider range of HCI disciplines. Each participant should contribute to the collective understanding and leave with new ideas for conducting, integrating, and applying research. In keeping with the CHI 2000 theme of vision of HCI in the future, we expect to pick a topic around the issue of tackling real-world problems to be solved by the HCI community. See the Web for details (www.ugr.es/~delagado/BRS2000.htm).

The BRS welcomes two types of submissions:

- Position papers: Up to ten pages introducing your field and your work. Authors of accepted position papers will be given time to present their work in an interactive discussion format.
- Position statements: Up to two pages introducing you and your interests. This can be in the form of a scenario, set of design constraints, or description of observed user activity and why it is problematic. Authors of accepted position statements will be invited to participate in the symposium.

CONTACT

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2 Challenges in the Multicultural HCI Development Environment

Sunday & Monday

Michael G. McKenna • *Sybase, Inc., USA*

Henry Naftulin • *Sybase, Inc. USA*

The effort to ease creation of multicultural systems is being undertaken by an increasingly broad community of application designers and developers. This task is not trivial given lack of tools, knowledge, and standards in the area of cross-cultural human computer interaction. This workshop explores the challenges in the multicultural HCI development environment and ways to overcome them.

We will explore the cultural and linguistic issues of:

- Textual display design
- Visual design
- Intelligent agents
- Social interfaces
- Learning modalities
- Information retrieval
- Language handling
- Distributed systems
- Integration of Unicode features

The workshop will focus on how frameworks and methodologies can aid in providing modular multicultural interaction design and seamless cultural and linguistic feature integration.

Participants will be expected to come to the workshop with examples of frameworks and methodologies, and we will then work together to understand and identify the common experiences and major issues in the field.

The output of the workshop will be recommendations for a framework for modular multicultural interaction design and recommended methodologies for effective multicultural feature integration, to be published in a SIGCHI Bulletin after the Conference.

Contact

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3 Pattern Languages for Interaction Design: Building Momentum

Sunday & Monday

Richard Griffiths •
University of Brighton, UK

Lyn Pemberton •
University of Brighton, UK

Jan Borchers • *University of Linz, Austria*

Adam Stork •
University College London, UK

The potential of pattern languages as a vehicle for the dissemination of human-computer interaction design knowledge has been recognized within the CHI community for a number of years. This potential is based on the ideas of the architect Christopher Alexander, for recording the designs of "living buildings". Patterns are developed to record the invariant properties that exist in a design solution which resolves conflicting social, cognitive, and technological forces. Patterns are interlinked into a network (a pattern language) to support both conceptual and detailed design.

The two-day workshop aims to build momentum following previous successful workshops on pattern languages for interaction design. The first day will be mainly practical, to include a writer's workshop, while the second day will be mainly theoretical. The main goals are to:

- Promote the development of pattern languages for interaction design.
- Refine and develop the application of pattern languages in this area
- Develop an understanding of the relationship between interaction design and software engineering patterns
- Extend the community of pattern writers

Participants will be required to submit a brief position paper and at least one potential interaction design pattern. They are also expected to have read some of Alexander's books: *The Timeless Way of Building* and *A Pattern Language.*

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4 Continuity in Human Computer Interaction

Sunday & Monday

Giorgio P. Faconti •
CNR – Istituto CNUCE, Italy

Mieke Massink •
CNR – Istituto CNUCE, Italy

Novel interaction techniques, such as gesture, speech, body expression recognition, haptic devices, and video, are characterized by the significance of the temporal aspects of interaction. Those techniques, especially when used in combination, require thinking of interaction over time intervals rather than at discrete points.

The concept of Continuity in HCI is intended to distinguish these technologies because their modeling requires notions from continuous mathematics. Currently, knowledge relevant to the design of continuous interfaces is spread over many different disciplines such as theater arts, semiotics, cognitive psychology, linguistics and various technically oriented disciplines in an often ad hoc and unrelated way. There is no theory of continuous interaction that can guide designers in a systematic way in the development of interfaces employing continuous technologies.

The goal of the workshop is to develop a reference model enabling the modeling of continuous interaction techniques and the identification of their relevant properties.

Participants will be required to submit a 2-5 page position paper addressing aspects of continuity in interaction from various perspectives. Alternatively, they can elaborate on one of the case descriptions provided by the workshop organizers available at: http://kazan.cnuce.cnr.it/TACIT/Continuity/

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5 Designing Interactive Systems for 1–to–1 E–Commerce

Sunday & Monday (morning)

Markus Stolze •
IBM Research, Zurich Research Laboratory

Jürgen Koenemann • *humanIT, Germany*

Daniela Handl • *Darmstadt University of Technology, Germany*

Barbara Hayes-Roth •
Stanford University, USA

Economic theory and observations of the emerging markets suggest that e-commerce sellers will be driven towards offering personalized buying interactions and customized products.

The focus is the design and evaluation of interactive systems for e-commerce that provide a personalized user experience for buyers by offering targeted information, individualized interaction opportunities, and/or customizable products and services.

The workshop is directed at designers and researchers working on e-commerce systems that enable personalized interactions and facilitate the buying of complex goods and services. Of interest will be work on novel interfaces, interactive, immersive environments and intelligent support. Methods for instilling confidence in sites and purchase decisions, creating communities, and increasing customer retention are equally relevant.

Restricted to about 20 participants of which about 8 will be invited to present their work. Other participants will have their 2-page position statement included in the online workshop proceedings and will participate in discussions/group work throughout the workshop. Participants will be asked to demonstrate the utility of their approaches. Workshop results and selected papers will be published in a special issue of a journal (to be announced).

Review www.zurich.ibm.com/~mrs/chi2000/ before submitting an application.

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6 Semiotic Approaches to User Interface Design

Sunday

Clarisse Sieckenius de Souza •
PUC-Rio, Brazil

Ernest A. Edmonds •
LoughBorough University, UK

Raquel O. Prates •
UERJ/PUC-Rio, Brazil

Simone D. J. Barbosa •
PUC-Rio, Brazil

Semiotics is the discipline that studies signs, communication, and signification systems and the cultural processes involved in them. Our goal is to bring together researchers/practitioners of HCI and Semiotics to discuss how the fields can provide a new interdisciplinary research agenda in HCI.

The workshop will consider the following:

- Does Semiotics provide HCI with new insights?
- How can Semiotics contribute to delineate the resourceful communicative mechanisms that will help users grasp the intended meanings conveyed by HCI designers through the interface of software applications in general?
- How can Semiotic approaches complement or contribute to user-centered approaches by tackling specifically with the communicative aspects of interaction?

Send a 2-4 page position paper to the organizers. Participants will be selected based on their position paper and the diversity of the approaches and of the participants. Limited to 15 participants.

Accepted position papers will be placed on a web site for participants to read prior to the workshop, and be prepared to discuss their positions. Position papers should be sent electronically (in HTML or Microsoft Word format) to Clarisse Sieckenius de Souza at clarisse@inf.puc-rio.br. See: http://peirce.inf.puc-rio.br/chi2000ws6/

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7 National and International Frameworks for Collaboration Between HCI Research and Practice

Sunday

Jeroen Ubink •
Ministry of Economic Affairs/Senter, The Netherlands

Piet Bögels •
Chairman IOP HMI, The Netherlands

Austin Henderson • *Rivendel Consulting, USA*

Gerard van der Heiden •
Rabobank, The Netherlands

Joan Minstrell •
IBM Toronto Laboratory, Canada

Lucas Noldus •
Noldus Information Technology, The Netherlands

Matthias Rauterberg •
IPO User System Interaction, The Netherlands

Alice Thomas •
IBM Toronto Laboratory, Canada

Gerrit van der Veer •
VU Amsterdam, The Netherlands

Karel Vredenburg •
IBM Corporate UCD, Canada

This workshop will focus on methods of forging ties between industry practitioners and the research communities. Participants will discuss enabling conditions for collaborative projects.

Workshop topics include:

- Successful collaborative initiatives
- Existing and effective collaboration
- Ways to encourage collaboration
- Factors affecting research and industry, and international, collaborations
- Motivations for researchers and for practitioners to collaborate
- Successful methods of educating young researchers and exchanging knowledge between practitioners and researchers
- Evaluation/validation of effects of activities on the larger HCI community
- Improving collaborative research

Participants will be requested to submit a short case history of the organization(s) they are working with and/or collaborative projects they have been involved with. Email communication prior to the workshop will be encouraged. Limited to 25 participants.

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8 Future Mobile Device User Interfaces

Sunday

Matthias Schneider-Hufschmidt •
Siemens, AG, Germany

Satu Ruuska • *Nokia Mobile Phones, Finland*

Kaisa Väänänen-Vainio-Mattila •
Nokia Mobile Phones, Finland

Bruno Von Niman • *Ericsson, Sweden*

The goal is to create an understanding of the special characteristics of users' activities in the mobile contexts of use in which personal devices fit in the future. The aim is to elaborate on the consequences of the user interface design for future communication devices. In the first phase of the workshop we will try to find answers to a number of questions in the four major topic areas:

- Physical, social and cultural context and their effects on the design of mobile devices
- Personalization of mobile devices
- Applications and services for mobile devices
- Connectivity and interoperability of communication devices

The following questions will be answered:

- What will the main characteristics of mobile devices be regarding the topic areas?
- Will we see a trend towards multifunctional devices or will there be many different personal information appliances with different user interfaces?
- How will these future communication devices interact?

In the second workshop phase we will develop a number of paper prototypes of mobile devices. Finally we will try to consolidate our findings in one prototype of a future mobile user interface.

Each applicant should submit a 1-3 page position paper where a view of one or more of the above-mentioned topics is presented. These papers will be reviewed by the organizers for their relevance and originality. Selected participants will be asked to bring their ideas and solutions in the form of paper prototypes to the workshop.

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9 Research Directions in Situated Computing

Sunday

Michel Beaudouin-Lafon •
University of Aarhus, Denmark

Wendy E. Mackay •
University of Aarhus, Denmark

The goal of this one-day workshop is to launch a CHI special interest area to discuss how to explicitly incorporate context throughout all aspects of interactive system design. Situated Computing describes socio-technical systems in which situations of use and context play a central role in the use of computers. Since most computing is arguably situated computing, we need to reflect on our current understanding of context, establish a common language for discussion and define processes for developing "systems-in-use".

Research in Situated Computing requires a multidisciplinary approach, drawing from various HCI fields, including:

- Augmented reality
- Computer-supported cooperative work
- Mobile computing
- Multimodal interaction
- Participatory design
- Persuasive computing
- Ubiquitous computing
- User-centered design
- Wearable computing

The workshop is designed to bring together researchers who work in diverse areas of human-computer interaction and who actively address local context and situations of use in the design, development and evaluation of interactive systems. The workshop is organized around two main activities: presenting current research by the participants and discussing directions for future research. Participation will be based on two-page statements describing the author's interest in situated computing within the context of their work. See www.daimi.au.dk/~mbl/chi2000-sitcomp.

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10 Virtually Collocated Teams in the Workplace

Sunday

Gloria Mark •
University of California at Irvine, USA

Steven Poltrock •
The Boeing Company, USA

Jonathan Grudin • *Microsoft Research, USA*

Distributed teams and the technology to 'virtually collocate' team members are becoming more widespread. This one-day workshop will bring together researchers, designers, developers, and early adopters of these technologies to study how technology can achieve the benefits of physical collocation, for virtually collocated groups.

The problem for virtually collocated teams is that they are expected to perform as physically collocated teams and provide deliverables, meet project schedules, and generate feasible and even innovative problem solutions-all from a distance. Team members often span different departments, organizations, countries, and even companies, often rarely or never meeting face-to-face. How can team members successfully adopt the technology when peer pressures are from a distance, and management and technical support may be weak at local sites?

It is widely believed that a well-functioning group (whether physically or virtually collocated) needs to forge common goals, working procedures, and rules of interaction. The key word in our workshop is teams; we focus on how team social processes are affected by distance, and how they impact work. We intend to clarify research issues concerning experiences and recommendations, team processes, measuring impact, and the value of face-to-face meeting.

Participants will be selected based on a 3-5 page position paper submission describing lessons-learned and recommendations for virtually collocated teams. We are looking for a diverse group of participants with experiences of technology usage by intra- and inter-organizational, interdisciplinary, and cross-cultural groups.

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11 The What, Who, Where, When, Why and How of Context-Awareness

Monday

David R. Morse • *The Open University, UK*

Anind Dey •
Georgia Institute of Technology, USA

Steve Armstrong • *The Open University, UK*

Context-awareness is widely thought to be an important enabling technology for developing ubiquitous, handheld and wearable computer applications. It describes the ability of a computing device or program to sense, react to, or adapt to the environment in which it is running. In order to understand better how we can use context and facilitate the building of context-aware applications, we need to understand more fully what constitutes a context-aware application and what context is. This workshop will attempt to address these issues by asking the six "W" questions of context-awareness: what, who, where, when, and why? These five questions underpin the sixth meta-question of how?

For example:

- What is context?
- Whose context is important to whom, or what?
- Where can an awareness of context be exploited?
- When is context useful?
- Why are context-aware applications useful?
- How do we implement a generic supporting infrastructure for context-aware applications?

Potential participants are encouraged to place their own interpretation on the six questions of context-awareness. Please submit a short position statement giving your viewpoint on these questions, focusing particularly on one of the questions in your submission. This focus will be used to allocate selected participants to small discussion groups that form part of the workshop. Participants will be selected on the basis of their interest in, and familiarity with the problem area. See mcs.open.ac.uk/drm48.

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12 A Compendium of Practical Techniques for HCI Instruction

Monday

Marian G. Williams •
University of Massachusetts Lowell, USA

Andrew Sears •
University of Maryland Baltimore County, USA

If you teach HCI-related courses in industry, at conferences, or in academia, this workshop is your chance to contribute to a collection of practical, reproducible HCI instructional techniques. A lot of work has gone into defining what HCI students should learn from the many disciplines that make up the field, but much less attention has been paid to how to teach it.

This workshop will produce a compendium of how-to information for HCI educators. It is not the place to discuss theories, curricula, one-of-a-kind projects, or the grand scheme of HCI education. It is the place to discuss concrete success stories that can be reproduced by other instructors.

To be considered for participation, submit a position paper, 5 pages maximum, describing a successful technique:

- Subject matter, and how it fits into the curriculum recommendations in www.acm.org/sigchi/cdg/
- Pedagogical goals
- Materials and methods used
- Instructional setting (country, educational system, etc.)
- Assumptions about students' prior knowledge
- How other instructors can reproduce the technique
- Evidence you will bring to demonstrate success with the technique (e.g., videotape of the technique in use, examples of students' work, data from feedback questionnaires, etc.)

The primary criterion for acceptance is demonstrable success with a technique that can be used by other HCI instructors. Accepted participants will be invited to submit chapters to an anthology of successful HCI teaching techniques.

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13 Electronic Communities: Places and Spaces, Contents and Boundaries

Monday

Michael J. Muller •
Lotus Development Corporation, USA

Jessica Friedman •
Lotus Development Corporation, USA

This workshop brings together four related areas of research and practice:

- Electronic communities in CSCW
- Communities of practice in management science
- Places and spaces as constructed venues for collaboration
- Boundaries and boundary objects as crucial areas for collaboration

The goal of the workshop is to increase the existing overlap among these four areas, to enrich their work through mutual education.

We ask participants to consider one or more of the following questions:

- How is the social and computing environment for a community (the attributes of its place or space) shaped or determined? What are the impacts upon different groups inside and outside of the community?
- How does the social and computing environment of a community affect what goes on within the community? What goes on at the boundary of the community?
- What work takes place within a community? What work takes place across boundaries? What work takes place at the boundary?
- To what extent are structures, resources, or persons within the community visible to community members? To outsiders? Can community members control these issues of visibility?

A detailed call for participation may be found at www.lotus.com/research.

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14 Situated Interaction in Ubiquitous Computing

Monday

Albrecht Schmidt •
University of Karlsruhe, Germany

Walter Van de Velde •
Starlab Nv/Sa, Belgium

Gerd Kortuem • *University of Oregon, USA*

This workshop will bring together researchers and practitioners who are concerned with the design, development, and implementation of novel interfaces for mobile devices and environment-based appliances.

The availability of sensing technology gives the opportunity to include information implicitly provided by the situation of use as well as by the surrounding environment in the process of human-computer interaction. Situated interaction is especially attractive for mobile devices and for shared appliances in common spaces.

The main goal of the workshop is to develop an understanding of how the situation of use influences the interaction process. This comprises the following topics:

- Adaptation and optimization of input and output to the situation
- Reducing need for input and output by usage of situational context
- Choosing interruption time and mode appropriate to the situation

We will have a small number of presentations of current research work and time for discussion. We expect participants to search for a common understanding of situated interaction and to define a research agenda in this field.

Participants will be selected based on their submissions, either a position paper or an extended abstract describing ongoing research. Participants accepted for presentation will be expected to submit longer versions that will be presented on a pre-workshop web site. The goal is to produce a review of research in situated interaction in ubiquitous computing that may be published in post-proceedings by the participants. See www.teco.edu/chi2000ws/.

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15 Social Navigation: A Design Approach?

Monday

Kristina Höök • *HUMLE, SICS*

Alan Wexelblat • *Mainspring, USA*

Alan Munro • *Napier University, UK*

Social navigation has been proposed as a means to help users cope with large information spaces. Making other users' actions visible allows us to take advantage of the work they have done to find their way around and to solve problems. By information space, we mean anything from the interface to a normal application to large hypermedia spaces such as the World Wide Web or virtual reality environments. Users' actions can be made visible in various ways: through direct social navigation (talking to or seeing individual users act), indirect social navigation (seeing the aggregated user behavior as in recommender system advice), or readwear (seeing how an object has been used by other users through its texture).

Social navigation seems to be a natural approach to the design of an information space; yet we still have not seen many practical solutions that allow users to behave socially, interfaces that allow for the accumulation of social trails, or the aggregation of user behaviors. We invite practitioners, designers, and evaluators who are trying to design for social navigation of information spaces to come and discuss problems and practical solutions, and develop ideas and solutions.

When we say useful solutions, we do not necessarily mean that social navigation must contribute to the efficiency of the interface from the user point of view. What is gained by social navigation might not be, and maybe should not be, time and efficiency, but instead it might contribute to other factors. Maybe a better question to ask is how do we know that we have created a good navigational experience? Will it be a matter of more aesthetic or emotional factors, such as feelings of flow or having a delightful experience, as opposed to the efficiency measurements usually taken for the prevailing tool-based usability evaluations?

The workshop will bring together as many varied viewpoints around these ideas as we can find.

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16 Natural-Language Interaction

Monday

Candace Kamm •
AT&T Labs Research, USA

David G. Novick •
University of Texas at El Paso, USA

Nils Dahlbäck •
Linköping University, Sweden

Our goal is to create a community of researchers and practitioners by exchanging views on two main topics: 1. Identifying the most important barriers to the use of natural language (NL) interfaces; 2. Identifying the most significant contributions that the NL-CHI community can bring to the development of interaction technology for user-friendly NL interfaces.

Associated workshop objectives include:

- Fostering communication among people who primarily self-identify as belonging to the CHI or NL communities
- Identifying opportunities for NL practitioners to improve their practice and for NL researchers to develop new techniques
- Stimulating research towards improved NL interaction techniques

Researchers and practitioners who have a demonstrated interest in natural language in human-computer interaction are invited to participate. Email a position paper of about 2500 words, written in HTML, to novick@cs.utep.edu. The paper should address one or both of the main topics through one or more of the following:

- Case studies of text-based and spoken-language interfaces or interface components
- New methods/techniques for using NL in HCI
- Critical reviews of research and practice on the role of NL in HCI

The workshop will be a series of discussions of issues in the position papers. (We will have a pre-workshop e-mail discussion with participants to validate the selection of the issues.) The workshop will then address the two main workshop issues and will conclude with developing future plans for the NL CHI community. See www.cs.utep.edu/novick/nlchi/ for details.

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Sponsorship Invitation

There are many benefits to sponsoring the CHI conference, and sponsorships for CHI 2000 are still available. To receive a formal sponsorship invitation, send email to chi2000-sponsor@acm.org or contact Carol Klyver, Sponsorship Coodinator at +1 650 738 1200.

What's New at CHI 2000

Throughout the conference we will be highlighting the various aspects of our Conference theme, *The Future is Here.*

Special Areas of the Theme

Beyond the Desktop addresses the movement of computers away from work environments into a mobile community doing a broad number of activities. This evolution leads to new ways to approach our focus on how humans interact with computers, or *Future HCI*.

In celebration of our European location, CHI 2000 will highlight *European HCI* through a European HCI Village and invited presentations from eminent Europeans in the field.

Recognizing the importance of developing new relationships at the conference and finding opportunities to have stimulating conversations about HCI, CHI 2000's special area *Interaction* is concerned with providing sessions that encourage participants to have provocative discussions. We will provide several discussion areas in the Commons in support of these interactions. An example of a special session is *Interactionary*, which will feature teams of designers tackling a design problem in real-time, allowing the audience to contrast design approaches and activities.

New Technical Program Events

New events in the Technical Program include the return of Organization Overviews along with Short Talks and Interactive Posters. In addition, we will have several invited sessions related to the conference theme.

Global HCI Representation

CHI 2000 is truly a global conference. We have 9 Regional Liaisons from 6 continents, a highly international conference committee and review committees. Not only were there record numbers of submissions in most categories, but the accepted submissions are an excellent representation of the international flavor of the field of HCI.

We hope you enjoy your CHI 2000 experience!

Thea Turner and Gerd Szwillus

CHI 2000 General Conference Co-Chairs

chi2000-chairs@acm.org

Pre-Conference Events

Tutorials

Tutorials are courses designed for novice to experienced participants. Courses cover a wide range of topics from theory to practice.

Development Consortium

The Development Consortium can be used as a vehicle for examining issues and directions that the HCI community and SIGCHI should develop in the coming years. This year the Development Consortium will focus on *Beyond the Desktop*.

Doctoral Consortium

The Doctoral Consortium provides an opportunity for a group of invited doctoral students to explore their research interests in an interdisciplinary workshop with other students and a group of experienced researchers.

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.

Conference Events

Demonstrations (Live and Video)

Demonstrations offer an opportunity to show an innovative interface concept, HCI system, technique or methodology. Attendees are able to view systems in action and discuss them with the people who created them. Demonstrations may be either live or video presentations. CHI demonstrations include both refereed demonstrations and demonstrations informally organized by participants on site.

Organization Overviews

Organization Overviews describe the work of leading organizations engaged in HCI research and practice. The emphasis is on the circumstances under which the work is done, as well as the underlying goals, policies and organizational background and perspectives of the group's past, present and future HCI efforts.

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.

Papers

Papers present significant contributions by researchers and practitioners to the HCI field, capable of influencing the design life cycle of current and future interactive systems. Papers are highly refereed and are published in the archival CHI Conference Proceedings and as an issue of CHI Letters. Papers at CHI may be presented in either text or video form. A video paper provides an alternative to textual papers for authors whose work is difficult to portray on paper. Video papers are published in the CHI Video Proceedings and have an associated four-page textual paper in the CHI Conference Proceedings.

Plenary Sessions

Plenary sessions are general sessions that open and close the conference. The key event of the session is usually an invited presentation by a prominent person that supports the conference theme and offers a challenge to people interested in HCI.

Short Talks and 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 that are displayed throughout the conference. Short Talks are presented in traditional technical sessions.

Special Interest Groups (SIGs)

Special Interest Groups (SIGs) enable conference attendees who share a common interest to meet informally for 90 minutes of discussion at the conference. They differ from workshops in that there is no pre-event selection of participants and all attendees may participate.

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 ongoing work in an informal setting.

Newcomers' Orientation

The Newcomers' Orientation is a special session that follows the opening plenary of the conference. It offers an opportunity for those attending CHI for the first time to learn about SIGCHI and ACM as well as to hear recommendations about how to navigate the conference and make session choices in an environment with so many options.

8:30 to 10:00

OPENING PLENARY

Edge Effects: The Design Challenge of the Pervasive Interface

John Thackara
Doors of Perception, Amsterdam

In biology, the edge effect is the tendency for a greater variety and density of organisms to cluster in the boundaries between communities. As in nature, so too in a networked economy: variety, density and interaction are success factors. The trouble is that most of us work inside traditional environments, not between them. Stuck in boxes, we miss what's going on at the edge. My talk is about two edge developments that are transforming our work: pervasive computing and social agendas for innovation.

Products, it is said, are frozen software. Pervasive computing begins to melt them. Almost everything man-made will soon combine hardware and software. There are already twelve computer chips for

11:00 to 12:30

PANEL

User Interface Design Books: Educating the Masses or Preaching to the Converted?

Organizer: Jeff Johnson, *UI Wizards*
Panelists: Peter Boersma, *General Design*
Diane Cerra, *Morgan Kaufmann Publishers*
Susan Fowler, *Author*
Kevin Mullet, *Author*
Jef Raskin, *Author*
Chauncey Wilson, *BMC Software*

PAPER

Beyond the Workplace

Session Chair: Manfred Tscheligi, *CURE*

Unleashed: Web Tablet Integration into the Home
Anne McClard, Patricia Somers: *MediaOne Labs*

Predicting Text Entry Speed On Mobile Phones
Miika Silfverberg, *Nokia Research Center*
Scott MacKenzie, *York University*
Panu Korhonen, *Nokia Research Center*

Developing a Context-aware Electronic Tourist Guide: Some Issues and Experiences
Keith Cheverst, *Lancaster University*

14:00 to 15:30

INVITED SESSION

European HCI: Roots for the Future of Human-Computer Interaction

Session Chair: Manfred Tscheligi,
Center for Usability Research and Engineering (CURE)

Theories, Disciplines, and Arts: European Developments Towards Grounded Interaction Design
Gerrit C. van der Veer, *Vrije Universiteit*

The Magical Year 2000: Plus and Minus Seven
Jurek Kirakowski, *University College Cork*

European Initiatives Towards Intelligent Information Interfaces: i3 and the Disappearing Computer
Jakub Wejchert,
European Commission, Future and Emerging Technologies

Jumping the Water and the Fence: Appreciating Our Own Diversity
David Gilmore, *IDEO Product Development*

PAPERS

Agents

Session Chair: M. Francesca Costabile, *University of Bari*

The Effects of Animated Characters on Anxiety, Task Performance, and Evaluations of User Interfaces
Byron Reeves, Raoul Rickenberg, *Stanford University*

Helper Agent: Designing an Assistant for Human-Human Interaction in a Virtual Meeting Space
Katherine Isbister, *NTT Open Lab*
Hideyuki Nakanishi, Toru Ishida: *Kyoto University*
Clifford Nass, *Stanford University*

Agents to Assist in Finding Help
Henry Lieberman, Adriana Vivacqua: *MIT Media Lab*

16:00 to 17:30

PANEL

Non-Contractual Trust, Design, and Human Computer Interactions

Organizer: Elisabeth Davenport,
Napier University Business School
Panelists: Mark Dibben, *University of Aberdeen*
Steve Marsh, *National Research Council of Canada*
Howard Rosenbaum, *Indiana University*
Howard Thimbleby, *Middlesex University*
Batya Friedman, *University of Washington*

PAPERS

Models

Session Chair: Philippe Palanque, *University of Toulouse 1*

Instructional Interventions in Computer-Based Tutoring: Differential Impact on Learning Time and Accuracy
Albert Corbett, *Carnegie Mellon University*
Holly Trask, *American Management Systems*

A Model Of Organization Of Email Messages
Olle Balter, *Interaction and Presentation Laboratory*

Using Naming Time to Evaluate Quality Predictors for Model Simplification
Benjamin Watson, Alinda Friedman,
Aaron McGaffey: *University of Alberta*

everyone on the planet; within ten years there will be millions of them, everywhere – all talking to each other. You will look at the garden, and the garden will look at you. How do you design that?

Industry would like to know. We can make amazing things, technically, but are often at a loss to understand what to make. Technological leadership is expensive to achieve and short-lived. Something extra is needed to achieve a sustainable competitive advantage: the social contexts in which products and services are used. People are social, and social context is the key to successful innovation. This is easy to say and hard to do. The interaction of pervasive computing with social agendas for innovation represents a revolution in the way our products and our systems are designed, in the way we use them – and in how they relate to us. We need to re-think our work as the real-time management of highly complex real-world environments in which users become the subject, not the object, of innovation.

John Thackara is Director of Doors of Perception, the conference and knowledge network based in Amsterdam. Until November 1999, he was Director of the Netherlands Design Institute. Mr. Thackara studied philosophy and journalism before working in book publishing and journalism. He was editor of *Design*, founder and managing director of Design Analysis, and Director of Research at the Royal College of Art. Among his books are: *WINNERS! How Today's Successful Companies Innovate By Design* (Gower/BIS ,1997) and *The Edge Effect* (2000, forthcoming). His website is http://www.thackara.com.

PAPERS

Multi-Hand + Multi-DOF

Session Chair: Shumin Zhai, *IBM Almaden Research Center*

Measuring the Allocation of Control in a 6 Degree-of-Freedom Docking Experiment
Maurice Masliah, Paul Milgram: *University of Toronto*

Symmetric Bimanual Interaction
Ravin Balakrishnan, *University of Toronto & Alias|Wavefront*
Ken Hinckley, *Microsoft Research*

Two-Handed Input Using a PDA and a Mouse
Brad Myers, Kin Pou Lie, Bo-Chieh Yang: *Carnegie Mellon University*

ORGANIZATION OVERVIEWS

Challenges to Design

Session Chair: Elizabeth Churchill, *FX Palo Alto Laboratory*

The Methods of Our Madness: Research on Experimental Documents
Anne Balsamo, Matt Gorbet, Steve Harrison, Scott Minneman: *RED, Xerox PARC*

The PLAY Research Group: Entertainment and Innovation in Sweden
Lars Erik Holmquist, *The Interactive Institute and The Viktoria Institute*

Interaction Design at Pixar Animation Studios
Karon Weber, Kitt Hirasaki: *Pixar Animation Studios*

LIVE DEMONSTRATION

Learning Using Technology

Session Chair: Ben Bederson, *University of Maryland*

Simulation Based Learning Environments and the Use of Learning Histories
Catherine Plaisant, Anne Rose, Richard Salter, Gary Rubloff, Ben Shneiderman: *University of Maryland*

Synopsus: A Personal Summary Tool for Video
Amnon Dekel, Ofer Bergman: *The Interdisciplinary Center Herzliya*

PAPERS

Communication Environments

Session Chair: Ian McClelland, *Philips Consumer Electronics*

Lurker Demographics: Counting the Silent
Blair Nonnecke, Jenny Preece: *IFSM University of Maryland Baltimore County*

Talking In Circles: Designing A Spatially-Grounded Audioconferencing Environment
Roy Rodenstein, Judith Donath: *MIT Media Lab*

Jotmail: A Voicemail Interface That Enables You To See What Was Said
Steve Whittaker, *ATT-Labs Research*
Julia Hirschberg, *AT&T*
Richard Davis, *Virtual Ink*
Urs Muller, *AT&T*

SHORT TALKS

VIDEO DEMONSTRATION

Interactions Beyond the Mouse

Session Chair: Julie Jacko, *University of Madison, Wisconsin*

Multiple Computer User Interfaces: "Beyond the Desktop" Direct Manipulation Environments
Jun Rekimoto, *Sony CSL*

Navigation Methods for an Augmented Reality System
Morten Fjeld, Fred Voorhorst, Martin Bichsel, Helmut Krueger: *Swiss Federal Institute of Technology*
Matthias Rauterberg, *Technical University Eindhoven*

Welbo: An Embodied Conversational Agent Living in Mixed Reality Space
Mahoro Anabuki, Hiroyuki Kakuta, Hiroyuki Yamamoto, Hideyuki Tamura: *Mixed Reality Systems*

PAPERS

Tangible UI Systems

Session Chair: George Fitzmaurice, *Alias|Waverfront*

Interactive Textbook and Interactive Venn Diagram: Natural and Intuitive Interfaces on Augmented Desk System
Hideki Koike, *University of Electro-Communications*
Yoichi Sato, *University of Tokyo*

curlybot: Designing a New Class of Computational Toys
Phil Frei, Victor Su, Bakhtiar Mikhak, Hiroshi Ishii: *MIT Media Lab*

HandSCAPE: A Vectorizing Tape Measure for On-Site Measuring Applications
Jay Lee, *MIT Media Lab*

ORGANIZATION OVERVIEWS

Beyond the Desktop: Augmenting Everyday Places and Things

Session Chair: Wendy Mackay, *Aarhus University*

User-System Interaction Technology (USIT): A UI Research Group of Philips Electronics
René Collier, *Philips Research*

Living Laboratories: The Future Computing Environments Group at the Georgia Institute of Technology
Gregory D. Abowd, Christopher G. Atkeson, Aaron F. Bobick, Irfan A. Essa, Blair MacIntyre, Elizabeth D. Mynatt, Thad E. Starner: *Georgia Institute of Technology*

Xerox Research Centre Europe (XRCE)
Allan MacLean, *XRCE*

PAPERS

Bringing Order Out of Chaos

Session Chair: George Robertson, *Microsoft Research*

Bringing Order to the Web: Automatically Categorizing Search Results
Susan T. Dumais, *Microsoft Research*
Hao Chen, *University of California at Berkeley*

Enhancing a Digital Book with a Reading Recommender
Allison Woodruff, Rich Gossweiler, James Pitkow, Ed Chi, Stuart K. Card: *Xerox PARC*

The Scent of a Site: A System for Analyzing and Predicting Information Scent, Usage, and Usability of a Web Site
Ed H. Chi, Peter Pirolli, James Pitkow: *Xerox PARC*

8:30 to 10:00

INVITED SESSION

Interactive Services

On-Line TV Services: A New Consumer Experience
Presenter: Dr. Rick Harwick,
Director of Access and Interactive Systems, Philips Research

Other speakers to be announced.
Please see www.acm.org/chi2000/ap for further details.

PAPERS

Video Summarization
Session Chair: Ben Bederson, *University of Maryland*

Browsing Digital Video
Francis Li, *Group for User Interface Research*
Anoop Gupta, Elizabeth Sanocki, Liwei He, Yong Rui: *Microsoft Research*

Comparing Video Presentation Summarization Methods
Liwei He, Elizabeth Sanocki, Anoop Gupta, Jonathan Grudin: *Microsoft Research*

An Interactive Comic Book Presentation for Exploring Video
Andreas Girgensohn, John Boreczky, Gene Golovchinsky, Shingo Uchihashi: *FX Palo Alto Laboratory*

11:00 to 12:30

INVITED SESSION

The Art of Beyond the Desktop: Interview & Performance
Session Chair: Panu Korhonen

Interview
Christian Lindholm, *Nokia Mobile Phones*
Tim Brown, *IDEO*
John Thackara, *Doors of Perception*

Performance
Tommi Ilmonen, *Helsinki University of Technology*

PAPERS

WWW Navigation Aids
Session Chair: Laurence Nigay, *University of Grenoble*

Tradeoffs In Displaying Peripheral Information
Paul Maglio, *IBM Almaden Research Center*

The Impact of Fluid Documents on Reading and Browsing: An Observational Study
Bay-Wei Chang, Polle Zellweger, Jock Mackinlay: *Xerox PARC*
Susan Harkness Regli, *Carnegie Mellon University*

Effects of Contextual Navigation Aids on Browsing Diverse Web Systems
Joonah Park, Jinwoo Kim: *Yonsei University*

14:00 to 15:30

SPECIAL EVENT

Interactionary: An Interaction Design Competition
Organizer: Scott Berkun, *Microsoft Corporation*

PAPER

Speech
Session Chair: Niles Ole Bernsen, *University of Southern Denmark*

Speak Out and Annoy Someone: Experiences with Intelligent Kiosks
Andrew Christian, Brian Avery: *Compaq*

The Effect of Task Conditions on the Comprehensibility of Synthetic Speech
Jennifer Lai, *IBM T.J. Watson Research Center*
David Wood, *IBM Research*

Does Computer-Generated Speech Manifest Personality? An Experimental Test of Similarity-Attraction
Clifford Nass, Kwan Lee: *Stanford University*

16:00 to 17:30

PANELS

Story Spaces: Interface for Children's Voice
Organizer: Justine Cassell, *MIT Media Lab*
Panelists: Allison Druin, *University of Maryland*
Jack Klaff, *Starlab NV*
Brenda Laurel, *Los Gatos*
Nicole Pinkard, *University of Michigan*
Kimiko Ryokai, *MIT Media Lab*

PAPERS

Novel Input
Session Chair: Ken Hinckley, *Microsoft Research*

Pen Gesture Similarity
A. Chris Long, James Landay, Lawrence Rowe, Joseph Michiels: *University of California at Berkeley*

Providing Integrated Toolkit-Level Support for Ambiguity in Recognition-Based Interfaces
Jennifer Mankoff, *Georgia Institutue of Technology*
Scott Hudson, *Carnegie Mellon University*
Gregory Abowd, *Georgia Institutue of Technology*

Programming and Enjoying Music with Your Eyes Closed
Steffen Pauws, Don Bouwhuis: *IPO, Center for User-System Interaction*
Berry Eggen, *Philips Research Laboratories Eindhoven*

PAPERS

Emotions and Values

Session Chair: Tom Moher, *University of Illinois at Chicago*

Face to InterFace: Facial Affect in HuMan and Machine
Diane J. Schiano, Sheryl Ehrlich, Krishnawan Rahardja, Kyle Sheridan: *Interval Research*

Hedonic and Ergonomic Quality Aspects Determine a Software's Appeal
Marc Hassenzahl, Axel Platz, Michael Burmester, Katrin Lehner: *Siemens*

Alternatives: Exploring Information Appliances Through Conceptual Design Proposals
Bill Gaver, Heather Martin: *Royal College of Art*

PAPERS

Tangible UI Design Issues

Session Chair: Beverly Harrison, *Softbook*

An Observational Study of How Objects Support Engineering Design Thinking and Communication: Implications for the Design of Tangible Media
Margot Brereton, Ben McGarry: *University of Queensland*

Tagged Handles: Merging Discrete and Continuous Manual Control
Karon MacLean, Scott Snibbe: *Interval Research*
Golan Levin, *MIT Media Lab*

Traversable Interfaces Between Real and Virtual Worlds
Boriana Koleva, Holger Schnadelbach, Steve Benford, Chris Greenhalgh: *University of Nottingham*

LIVE DEMONSTRATION:

Handheld Interactions

Session Chair: Hans de Graaff, *KPN Research*

The SyMoN Tactile Array: Bringing Dynamic Shapes to Hand
Alan Wing, David McIntyre, *SyMoN, School of Psychology*

The Pebbles Project: Using PCs and Hand-held Computers Together
Brad Myers, *Carnegie Mellon University*

PAPERS

Eye Gaze

Session Chair: David Gilmore, *IDEO*

Interacting with Eye Movements in Virtual Environments
Vildan Tanriverdi, Robert Jacob: *Tufts University*

Intelligent Gaze-Added Interfaces
Dario Salvucci, *Cambridge Basic Research*
John Anderson, *Carnegie Mellon University*

Evaluation of Eye Gaze Interaction
Linda Sibert, *Naval Research Laboratory*
Robert Jacob, *Tufts University*

SHORT TALKS

PAPERS

User Experience in E-Commerce

Session Chair: Jürgen Koenemann, *humanIT*

Enriching Buyers' Experiences: The Smartclient Approach
Pearl Pu, Boi Faltings: *EPFL*

Quality is in the Eye of the Beholder: Meeting Users' Requirements for Internet Quality of Service
Anna Bouch, *University College London*
Allan Kuchinsky, Nina Bhatti: *Hewlett Packard Labs*

What Makes Internet Users Visit Cyber Stores Again? Key Design Factors for Customer Loyalty
Joonah Park, Jungwon Lee: *Yonsei University*
Jae Yun Moon, *New York University*

PAPERS

Usability

Session Chair: Gilbert Cockton, *University of Sunderland*

A Toolkit for Strategic Usability: Results from Workshops, Panels, and Surveys
Stephanie Rosenbaum, *Tec-Ed*
Janice Rohn, *Sun Microsystems*
Judee Humburg, *JL Humburg Associates*

Measuring Usability: Are Effectiveness, Efficiency, and Satisfaction Really Correlated?
Erik Frøkjær, *University of Copenhagen*

The Streamlined Cognitive Walkthrough Method: Working Around Social Constraints Encountered in a Software Development Company
Richard Spencer, *Microsoft*

ORGANIZATION OVERVIEW

Mobile Communication

Session Chair: Birgit Bomsdorf, *University of Paderborn*

Usability Research in Nokia: Evolution, Motivation, and Trust
Panu Korhonen, *Nokia Research Center*

User Centered Research and Design at Motorola
Larry Marturano, David Wheatley: *Motorola Labs*

Making Usability Enginering Happen: Center for Usability Research and Engineering (CURE)
Verena Giller, Manfred Tscheligi: *CURE*

VIDEO DEMONSTRATION

Physical and Shared Spaces

Session Chair: Raquel Oliveira Prates, *PUC-RJ*

Private and Public Spaces: The Use of Video Mediated Communication in a Future Home Environment
Sören Lenman, *Centre for User Oriented IT-design*
Stefan Junestrand, *The Interactive Institute*
Björn Thuresson, *Centre for User Oriented IT-design*
Konrad Tollmar, *The Interactive Institute*

TouchCounters: Designing Interactive Electronic Labels for Physical Containers
Paul Yarin, Hiroshi Ishii: *MIT Media Lab*

Tivoli: Integrating Structured Domain Objects into a Freeform Whiteboard Environment
Thomas P. Moran, William van Melle: *Xerox Palo Alto Research Center*

PAPERS

Awareness and Gaze in Group Communication

Session Chair: Alistair Sutcliffe, *UMIST*

Presenting to Local and Remote Audiences: Design and Use of the TELEP System
Gavin Jancke, *Microsoft*
Jonathan Grudin, Anoop Gupta: *Microsoft Research*

Coming to the Wrong Decision Quickly: Why Awareness Tools Must be Matched with Appropriate Tasks
Jonathan Cadiz, *Microsoft Research*
Alberto Espinosa, Luis Rico-Gutierrez, Robert Kraut, William Scherlis: *Carnegie Mellon University*
Glenn Lautenbacher, *University of Pittsburgh*

Gaze Communication using Semantically Consistent Spaces
Michael Taylor, Simon Rower: *Canon Research Centre Europe*

SHORT TALKS

INVITED SESSION

The Development Consortium: Beyond the Desktop

Session Chair: Ian McClelland, *Philips Consumer Electronics*

8:30 to 10:00

PANELS

Scaling for the Masses: Usability Practices of the Web's Most Popular Sites

Organizer: Jared M. Spool, *User Interface Engineering*
Panelists:
Laura Borns, *eBay*
Eleri Dixon, *Fidelity Investments*
Joshua Paluch, *CNET.com*
David Shen, *Yahoo!*
Marie Tahir, *Intuit*

PAPERS

Haptic Force Feedback

Session Chair: David Crow, *Reactivity*

Eye-Hand Coordination with Force Feedback
Colin Ware, Roland Arsenault: *University of New Brunswick*

Putting the Feel in 'Look and Feel'
Ian Oakley, Marilyn McGee, Stephen Brewster, Philip Gray: *University of Glasgow*

Force-Feedback Improves Performance For Steering And Combined Steering-Targeting Tasks
Jack Dennerlein, *Harvard University*
David Martin, *Dartmouth College*
Christopher Hasser, *Stanford University*

11:00 to 12:30

PANELS

Smart Toys: Brave New World?

Organizer: Helen Shwe, *Zowie Intertainment*
Panelists: Linda Dalton, *LEGO MINDSTORMS*
Herman D'Hooge, *Intel/Mattel Smart Toy Lab*
Debra Lieberman, *University of California*
Claire O'Malley, *University of Nottingham*

PAPERS

Chat

Session Chair: Alison Lee, *IBM T. J. Watson Research Center*

Anchored Conversations: Chatting in the Context of a Document
Elizabeth Churchill, Jonathan Trevor: *FX Palo Alto Laboratory*
Sara A. Bly, *Sara Bly Consulting*
Lester Nelson, *FX Palo Alto Laboratory*
Davor Cubranic, *University of British Columbia*

The Social Life of Small Graphical Chat Spaces
Marc Smith, Shelly Farnham, Steven Drucker: *Microsoft Research*

The Effect of Communication Modality on Cooperation in Online Environments
Carlos Jensen, *Georgia Institute of Technology*
Shelly Farnham, Steven Drucker: *Microsoft Research*
Peter Kollock, *University of California at Los Angeles*

14:00 to 15:30

PAPERS

Tools for Design

Session Chair: Michael Harrison, *University of York*

A Comparison of Tools for Building GOMS Models
Bonnie John, Lynn Baumeister: *Carnegie Mellon University*
Mike Byrne, *Rice University*

DENIM: Finding a Tighter Fit Between Tools and Practice for Web Site Design
James Lin, Mark Newman, Jason Hong, James Landay: *University of California at Berkeley*

Tool Support for Cooperative Object-Oriented Design: Gesture Based Modeling on an Electronic Whiteboard
Michael Thomsen, Christian Heide Damm, Klaus Marius Hansen: *University of Aarhus*

16:00 to 17:30

CLOSING PLENARY

Sufficiently Advanced Technology: Using Magic to Control the World

Kim Binsted,
Interaction Lab of SONY CSL, Tokyo

Arthur C. Clarke's third law, "Any sufficiently advanced technology is indistinguishable from magic," is usually interpreted to mean that, to the average non-magician user, advanced technology is usable but not comprehensible. However, there is more to magic than incomprehensibility. Magic is about having power over the world around us, and the typical forms of imagined magic reflect the powers we would wish to have.

Magic, as described in folklore and fantasy, is rarely raw power. It is encoded into spells, hardwired into tools, and granted by familiars. Also, it is rarely general purpose. Typical magical applications include farsensing, shapeshifting, teleportation, prediction, and mind-reading. Not surprisingly, technology too has some of these characteristics. We use specialized software and hardware that is sometimes mediated by a helpful agent (or a not-so-helpful demon), to communicate ideas, transport objects, and predict future events.

PAPERS

Glimpses of the Future

Session Chair: Robin Jeffries, *Sun Microsystems*

Power Browser: Efficient Web Browsing for PDAs
Orkut Buyukkokten, Hector Garcia-Molina, Andreas Paepcke, Terry Winograd: *Stanford University*

A Diary Study of Information Capture in Working Life
Barry Brown, Abigail Sellen: *Hewlett Packard Labs*

Instrumental Interaction: An Interaction Model for Designing Post-WIMP User Interfaces
Michel Beaudouin-Lafon, *University of Aarhus*

ORGANIZATION OVERVIEWS

Virtual Worlds and Virtual Communities

Session Chair: Angel Puerta, *RedWhale Software*

The Interactive Collaborative Environments Laboratory
Adrian Bullock, Anneli Avatare, Lennart Fahlén, Emmanuel Frécon, Pär Hansson, Bino Nord, Kristian Simsarian, Mårten Stenius, Olov Ståhl, Anders Wallberg, Karl-Petter Åkesson : *Swedish Institute of Computer Science (SICS)*

Digital City Project: NTT Open Laboratory
Jun-ichi Akahani, Katharine Isbister: *NTT Communication Science Labs*
Toru Ishida, *Kyoto University*

TeleCHI: An On-line Community for HCI Professionals
Liwana S. Bringelson, Tom Carey: *University of Waterloo*

LIVE DEMONSTRATION

Persuasive Agents and Architectures

Session Chair: John Morkes, *Trilogy Software*

Agent-Based Support for Human/Agent Teams
Terry Payne, *Carnegie Mellon University*
Terri Lennox, Susan Hahn: *University of Pittsburgh*
Katia Sycara, *Carnegie Mellon University*
Michael Lewis, *University of Pittsburgh*

CommuterNews: A Prototype of Persuasive In-Car Entertainment
Jason Tester, BJ Fogg: *Stanford Persuasive Technology Lab*
Michael Maile, *DaimlerChrysler*

PAPERS

3D Environments

Session Chair: Jock Mackinlay, *Xerox PARC*

Using a Large Projection Screen as an Alternative to Head-Mounted Displays for Virtual Environments
Emilee Patrick, *Motorola Labs*
Dennis Cosgrove, Aleksandra Slavkovic, Jennifer Rode, Thom Verratti, Greg Chiselko: *Carnegie Mellon University*

Alice: Lessons Learned from Building a 3D System for Novices
Jeff Pierce, *Carnegie Mellon University*
Matthew Conway, *University of Virginia*
Randy Pausch, *Carnegie Mellon University*

The Task Gallery: A 3D Window Manager
George Robertson, Maarten van Dantzich: *Microsoft Research*
Daniel Robbins, *Microsoft*
Mary Czerwinski, Ken Hinckley: *Microsoft Research*
Kirsten Risden, *Microsoft*
David Thiel, *Microsoft Research*
Vadim Gorokhovsky, *Microsoft*

SHORT TALKS

VIDEO DEMONSTRATION

Multimodal, Fish Eyes & PDAs

Session Chair: Rob Jacob, *Tufts University*

The Efficiency of Multimodal Interaction
Philip R. Cohen, David McGee, Josh Clow: *Oregon Graduate Institute*

HishiMochi: A Zooming Browser for Hierarchically Clustered Documents
Masashi Toyoda, *University of Tokyo*
Etsuya Shibayama, *Tokyo Institute of Technology*

Capstone Design at the University of Washington: User Interfaces for Portable Devices
Gaetano Borriello, *University of Washington*

PAPERS

3D Input

Session Chair: Michel Beaudouin-Lafon, *University of Aarhus*

The Cubic Mouse
Bernd Froehlich, John Plate: *GMD*

The Role of Contextual Haptic and Visual Constraints on Object Manipulation in Virtual Environments
Yanqing Wang, Christine L. MacKenzie: *Simon Fraser University*

Non-Isomorphic 3D Rotational Techniques
Ivan Poupyrev, *ATR MIC Labs*
Suzanne Weghorst, *University of Washington*
Sidney Fels, *University of British Columbia*

ORGANIZATIONAL OVERVIEWS

User Centred Design Processes

Session Chair: Gerrit van der Veer, *Vrije Universiteit*

Interval Research Corporation
Bonnie Johnson, Arati Prabhakar, Debby Hindus: *Interval Research Corporation*

From Behaviour to Innovation at Nortel Networks
Mike Atyeo, Judith Ramsay, Judith Rattle: *Nortel Networks*

Design in Harmony with Human Life
David Gilmore, Velma Velázquez: *IDEO Product Development*

PAPERS

Story Telling

Session Chair: John Carroll, *Virginia Technological Institute*

Joking, Storytelling, Artsharing, Expressing Affection: A Field Trial of Children and Their Social Network Communicate with with Digial Images in Leisure Time
M. Tscheligi, *CURE & University of Vienna*
A. Mäkelä, *Helsinki University of Technology*
V. Giller, R. Sefelin: *CURE & University of Vienna*

Designing Storytelling Technologies to Encourage Collaboration Between Young Children
S. Benford, *University of Nottingham;* B. Bederson, *University of Maryland;* K. Åkesson, *SICS;* V. Bayon, *University of Nottingham;* A. Druin, *University of Maryland;* P. Hansson, *SICS;* J. P. Hourcade, *University of Maryland;* R. Ingram, H. Neale, C. O'Malley: *University of Nottingham;* K. Simsarian, *SICS;* D. Stanton, *University of Nottingham;* Y. Sundblad, G.Taxén: *Royal Institute of Technology*

Storytelling with Digital Photos
M. Balabanovic, *Ricoh Silicon Valley*
L. Chu, *Stanford University*
G. Wolff, *Ricoh Silicon Valley*

In this talk, I will argue that effective and appealing technology will increasingly come to resemble imagined magic. I will also discuss topics such as familiars and their foibles, practical shapeshifting, the advantages and disadvantages of invisibility, and the use of mind-reading in computer games.

Kim is an associate researcher in the Interaction Lab of Sony CSL in Tokyo. Her main research interests are character design, augmented performance, and expressive communication. Recent projects include Byrne, an emotionally expressive talking head football commentator, and HyperMask, a system which lets a performer wear someone else's face.

Kim did her Ph.D. in Artificial Intelligence at the University of Edinburgh on the computer generation of punning riddles. She then went to the Kansai Advanced Research Center in Kobe, where she adapted her program to generate puns in Japanese. After traveling around the Pacific Rim for a few months, she returned to Japan to work for Sony.

Unpaid activities include improvisational comedy, underwater videography, and random outdoorsy dilettantism.
See www.csl.sony.co.jp/person/kimb/.

Bibliography:
Arthur C. Clarke. *"Profiles of the Future: An inquiry into the Limits of the Possible."*

Kim Binsted, Shigeo Morishima, Frank Nielsen and Claudio Pinhanez. *"HyperMask: Virtual Reactive Faces for Storytelling". "Emerging Technologies: The Millenium Motel."* SIGGRAPH 1999.

Kim Binsted. *"Character Design for Soccer Commentary."* pp 23-35, Proceedings of the RoboCup workshop, 1998.

CHI 2000 Additional Activities

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

ACM/SIGCHI Business Meeting

Wednesday, 5 April 2000, 18:00

The annual ACM SIGCHI Business Meeting will be held after the last session of the day on Wednesday. This meeting will review ongoing SIGCHI programs and activities, discuss issues affecting SIGCHI and SIGCHI's future, and answer any questions you care to raise.

ACM/SIGCHI Volunteers Reception

Wednesday, 5 April 2000
(Following ACM SIGCHI Business Meeting)

ACM SIGCHI appreciates the contributions of time, energy, and resources given by the many volunteers who participate in running the SIGCHI conferences and organization. If you are one of the many volunteers who have served on committees, reviewed papers, served on a task force, worked for your local SIG, or otherwise volunteered your time and energy to SIGCHI, you are invited to attend.

The Commons

Located in the Staten Hall of the Congress Centre, The Commons is a large central area that is the site for all conference breaks, posters, and other interactive activities. You will also find the Internet Room, and the Informal SIGs. Seating areas make the Commons the perfect place to meet with old or new friends, enjoy food and beverage, or just relax between sessions.

Commons Hours

Tuesday	10:00 to 17:30
Wednesday	8:30 to 17:30
Thursday	8:30 to 16:00

Informal SIGs

Informal Special Interest Groups (SIGs) are meetings where small groups can discuss specific topics of common interest. Organizing a lunch-time informal SIG is a great way to guarantee yourself interesting lunch companions. Anyone can organize an informal SIG and anyone can attend. Informal SIGs will be scheduled in The Commons during its open hours.

Internet Access

Internet access will be available in The Commons.

Newcomers' Orientation

The Newcomers' Orientation is a special session that follows the opening plenary of the conference. It offers an opportunity for those attending CHI for the first time to learn about SIGCHI and ACM as well as to hear recommendations about how to navigate the conference and make session choices in an environment with so many options.

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.

Exhibitors (at press time) include:

- Diamond Bullet Design
- Elsevier
- IBM
- Lawrence Erlbaum Associates
- Microsoft Corporation
- MIT Press
- Morgan Kaufmann Publishers
- Motorola
- Nokia Research Center
- Noldus Information Technology
- Philips
- Portal Software
- Sapient
- Senter
- Sun Microsystems

Exhibit Hours

Tuesday	10:00 to 17:30
Highlight on Exhibits	10:00 to 11:00
Wednesday	8:30 to 17:30
Thursday	8:30 to 16:00

Interested in Exhibiting?

In North America, contact:
CHI 2000 Conference Office
Tel: +1 410 263 5382
Fax: +1 410 267 0332
Email: chi2000-exhibits@acm.org
In Europe, contact:
Lidy Groot Congress Events
Tel: +31 20 6793218
Fax: +31 20 6758236
Email: Lidy.Groot@inter.NL.net

Call for European HCI Village

To highlight Europe's role in HCI, CHI 2000 will include an European HCI Village in parallel to the well known CHI program and activities. The European HCI Village will be located in The Commons Area of the conference. Some goals of the European HCI Village are to:

- present successful and trend-setting European initiatives in HCI
- present European organizations
- showcase European-based projects
- act as a meeting place within a fascinating mosaic of European HCI activities
- present stories, ideas, viewpoints, research results, innovations, and other aspects of HCI in Europe in an interactive and creative way

Organizations are still being sought to participate in this special event. See the CHI 2000 web site for details on submitting a proposal. The deadline is 13 December 1999.

Information and Proposals

Contact: Manfred Tscheligi,
European HCI Chair
Email: chi2000-europeanchi@acm.org

Reception

Tuesday, 4 April 2000, 19:30 to 23:30
Steigenberger Kurhaus Hotel

CHI 2000 is hosting the Conference Reception at the five star Steigenberger Kurhaus Hotel, a national monument located on the promenade in Scheveningen, overlooking the North Sea.

We invite you to join your colleagues for an exciting evening of entertainment, music, and fine food. The Conference Reception is included with conference registration and Accompanying Persons registration. Additional tickets may be purchased when you register or on site at the CHI Store.

Attendees are welcome to bring their children to the reception. Please see the registration form for the prices of children's tickets.

Walk-In Demonstrations

CHI 2000 participants interested in showing their work in progress, either live or on video, 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. All other slots will be available on site on a first-come, first-served basis. No advance submissions are required for this event.

CHI 2000 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. Access to the Internet is also available.

Contact

For information and scheduling contact:
Hans de Graaff and David Crow
Demonstrations Co-Chairs
Email: CHI2000-demos@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. A wide variety of positions are available at the conference. Many of the duties are not glamorous, but all provide opportunities to interact with CHI 2000 contributors, attendees, and committee members from all parts of the world and from diverse areas of the HCI community.

In return for working during the conference, volunteers receive free registration, a Conference Reception ticket, a T-shirt, and an invitation to the volunteer thank-you event. Student Volunteers are responsible for their own housing, and travel to and from The Hague. Volunteers must be undergraduate, Master's, or doctoral students during the 1999-2000 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 1-6 April 2000.

Application and Information

While the deadline for applying is **28 January 2000**, there is already a waiting list.

Contact

Garett Dworman and Tom Gross
Student Volunteers Co-Chairs
Email: chi2000-sv@acm.org
www.acm.org/chi2000/call/stuvols.html

Child Care and CHIkids

Children aged 6 months to 14 years can participate in the CHI 2000 Child Care program. Traditional child care, provided by De Blokkendoos, will offer fun-filled developmentally appropriate activities on site from Sunday through Thursday. Dutch, English, and a few other languages are spoken by caregivers.

Child Care Hours:

Sunday	8:00 to 17:30
Monday	8:00 to 17:30
Tuesday	8:00 to 18:00
Wednesday	8:00 to 18:00
Thursday	8:00 to 18:00

CHIkids, a special program mixing the feeling of summer camp with the fun of exploring an exciting technology program, will be offered Tuesday through Thursday only to children of ages 7 to 14 years. Children in the CHIkids technology option will be able to create multimedia stories, sample the latest multimedia educational materials, or be CHI conference reporters using desktop publishing tools and the Web.

CHIkid Technology Program Hours:

Tuesday	8:00 to 18:00
Wednesday	8:00 to 18:00
Thursday	8:00 to 18:00

Child Care and CHIkids Registration

Deadline for registration is 1 March 2000. Registration forms are available at www.acm.org/chi2000. Because of space constraints at the Congress Centre, only 20 children per day can participate in the CHIkids option. Therefore, registration will be 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.

Due to the program's popularity, **there will be no on site registration for CHIkids**. Participants are not considered registered until all appropriate fees are paid.

Child Care and CHIkids Questions

For questions about the traditional child care option or the CHIkids technology option contact:
Angela Boltman, *CHIkids Chair*
Tel: +1 301 484 2157
Fax: +1 301 405 6707
Email: chi2000-kids@acm.org

Medical/Liability Coverage for Children

Parents of children participating in childcare or CHIkids should review their personal liability and medical insurance to determine if their coverage applies to The Netherlands. ACM will not be responsible in the circumstance where a parent and/or child is considered negligent.

Call for CHIkids Leaders, Technology

Dedicated CHIkids Leaders (as well as daily volunteers) are currently being sought. Information about applying for these positions is available on the CHI 2000 web site. **The submission deadline for CHIkids Leaders is 3 January 2000**.

Individuals and organizations interested in focusing on projects that involve kids in innovative educational technological experiences are also encouraged to submit their work and products for use by the children in the program. Information about this opportunity is also available on the CHI 2000 Web Site.

Information and Proposals

See the CHI 2000 Web Site or contact:
Angela Boltman, CHIkids Chair
Tel: +1 301 484 2157
Fax: +1 301 405 6707
Email: aboltman@umiacs.umd.edu

Lab Tours

Delft University of Technology Tour

Wednesday, 5 April 2000, 19:00–21:00

The Delft University of Technology will present several demonstrations of research into human computer interaction. The Industrial Design Engineering faculty will demonstrate innovative interaction and display techniques. Technical Mathematics and Informatics faculty will present research on the treatment of acrophobia. The interdepartmental UBICOM research project will present their research on mobile communications systems. The Work and Interaction Technology lab will present their approach to usability testing.

Transportation

Transportation from the Congress Centre to the main library of the Delft University of Technology and back will be provided.

Reservations

Tour is limited to 50 people. To reserve contact Maarten Gribnau at m.w.gribnau@io.tudelft.nl

TNO Tour

Friday, 7 April 2000, 9:00–13:00

TNO Human Factors Research Institute presents *Testing The Future*, a tour of its high-tech lab and simulator facilities. The tour will provide demonstrations of the facilities, example projects, and new user-interface concepts such as "shared workspaces" in future operation rooms, avatars to communicate emotion, navigation assistants for the Web, Virtual Environments to assess ship designs, 3D and head-up displays in the cockpit, and interfaces in the car.

Transportation

Buses will leave from the Kurhaus Hotel. Buses back to The Hague and to the Dutch Design Day Tour will be provided.

Reservations

Tour is limited to 70 people. To reserve, contact vantilburg@tm.tno.nl. Visitors will receive a confirmation and a program. See www.tm.tno.nl.

Dutch Design Day Tour

Friday, 7 April 2000, 12:00–18:00

Spend the day in Amsterdam sampling the best in Dutch Visual and Interaction Design! Dutch organizations involved in Interaction and Visual Design will give small exhibits spread throughout the heart of central Amsterdam, within a short walking distance from each other. The Dutch Design Day will highlight the most advanced design projects, including web design, application techniques, HCI products, and experimental designs.

Transportation

Buses to the Dutch Design Day Tour and back to The Hague will be provided.

Reservations

Pre-registration is on a first-come, first-served basis, and is limited. Please refer to www.ddd.informaat.nl for the registration form. For further information please contact Jonathan Arnowitz at: jonathan_arnowitz@informaat.nl

CHI 2000 Conference Information

CHI 2000 is more to the HCI profession than just the leading technical forum. It provides attendees with an excellent opportunity to make new contacts and renew old friendships with colleagues from around the world.

Accompanying Persons

CHI 2000 welcomes Accompanying Persons of 18 years or older to the conference to share in the excitement of the event. Accompanying Persons registration is US$95/NLG 190 each, and includes access to The Commons, Opening and Closing Plenaries, 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 The Netherlands is 18.

Attire

CHI conferences are casual dress. A warm jacket and/or sweater is suggested for the evenings. The Congress Centre is air conditioned and may be cool.

The CHI Store

Conference sweatshirts, T shirts, mugs, publications, and videos will be sold at the CHI Store located near Registration in the lobby of the Congress Centre. The CHI Store opens at 12:00 on Sunday and will be open during registration hours.

Electrical Power

It is ACM SIGCHI policy to use the local power source. In The Netherlands, electricity is supplied at 220V-50Hz A.C. CHI 2000 does not provide power converters, adapters or other electric accessories.

Information Booths

Information Booths will be located in the Ground Floor Lobby and near Registration in the Congress Centre. Local representatives will be available to answer your questions regarding local attractions, tours, and dining options.

Information Booth Hours:

Saturday	15:00 to 19:00
Sunday-Wednesday	8:00 to 17:30
Thursday	8:00 to 18:00

Message Service

An incoming telephone line will be available at the information booth, and the number will appear in the Final Program. 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 Congress Centre where smoking will be permitted.

Special Needs and Access

The conference registration form includes space for indicating 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 North American Conference Office. See contact information below.

Medical Help

In The Netherlands, once treatment has been provided, non-resident injured individuals must pay for services rendered, then personally submit all expenses to their insurance carriers for reimbursement (includes ambulance, medical staff, hospital, etc.). Medical services in The Netherlands will not process non-residents' insurance for payment.

Individuals traveling to The Netherlands should check to see if their own insurance covers medical expenses abroad.

Time

All times listed in this Advance Program are Central European Time Zone (GMT+1) unless otherwise noted.

Contact for Information/Questions

North American Conference Office

9:00 to 17:00 US EST
Tel: +1 410 263 5382
Fax: +1 410 267 0332
Email: chi2000-office@acm.org

European Conference Office

9:00 to 17:00 (GMT+1)
Tel: +31 20 592 4210
Fax: +31 20 592 4199
Email: chi2000-office-eu@acm.org

Global Relations

Regional Liaisons are available in many geographic areas to offer assistance. You may also contact the North American or European Conference Offices for help.

Regional Liaison Contacts

Africa
Jacques Hugo, *Jacques Hugo Associates*
South Africa
Tel: +27 12 653 1909
Fax: +27 12 653 1909
Email: chi2000-africaliaison@acm.org

Asia Pacific
Masaaki Kurosu, *Shizuoka University*
Japan
Tel./Fax: +81 53 478 1481
Email: chi2000-asialiaison@acm.org

Australia
Sarah Bloomer, *The Hiser Group*
Australia
Tel: +61 3 9521 3311
Fax: +61 3 9521 3011
Email: chi2000-auliaison@acm.org

Eastern Europe
Claus Unger, *University of Hagen (Fernuniversität)*
Germany
Tel.: +49 2331 987 2999
Fax : +49 2331 987 390
Email: chi2000-eeuropeliaison@acm.org

Western Europe
Michel Beaudouin-Lafon, *University of Aarhus*
Denmark
Tel.: +45 89 42 56 44
Fax: +45 89 42 56 24
Email: chi2000-weuropeliaison@acm.org

Scandinavia
Yvonne Wærn, *Linköping University*
Sweden
Tel.: +46 13 282937
Fax: +46 13 282299
Email: chi2000-scandliaison@acm.org

United Kingdom
Allan MacLean, *Xerox Research Centre Europe*
United Kingdom
Tel: +44 1223 341 517
Fax: +44 1223 341 525
Email: chi2000-ukliaison@acm.org

North America
Susan Dray, *Dray & Associates*
USA
Tel.: +1 612 377 1980
Fax: +1 612 377 0363
Email: chi2000-naliaison@acm.org

South America
Raquel Oliveira Prates, *UERJ/PUC-Rio*
Brazil
Tel: +55 21 539 8005
Fax: +55 21 511 5645
Email: chi2000-saliaison@acm.org

Location

CHI 2000 will be held at the Nederlands Congress Centre (NCC), Churchillplein 10, The Hague, The Netherlands.

For details on how to reach The Nederlands Congress Centre by car and air, please see: www.acm.org/chi2000

Public Transport

The use of public transportation rather than cars is strongly recommended.

Cars can be hired at the airport, but their use within the city is strongly discouraged. Traffic is usually heavy enough to make cars a much slower form of transportation than express trams, trams, or even bicycles.

Strippenkaarten are used to pay fares for all public transport within The Hague. The fare is one strip per travelling zone plus one additional strip per ride. Journeys between the NCC and the city center are 2 zones, and therefore 3 strips. From the NCC to Scheveningen is 2 strips. Trams 7 and 8 stop near the Congress Centre. The cards are stamped in a machine inside the tram or by the bus driver. A card with 15 strips can be purchased for approximately NLG 11.75 ($6.00 US) at the ticket office of railway stations, tobacconists, and most hotels. Single journey cards can also be purchased from tram or bus drivers, but they are 50% more expensive. These cards cannot be used for trains to and from the airport.

Parking Facilities

The Nederlands Congress Centre has a private underground car park with a total of 750 paid parking places. The maximum height of cars is 2 meters. Vans and trucks have to be parked in the neighborhood around the Congress Centre.

Air Travel

Passports

Conference participants from countries other than The Netherlands will need a passport to attend CHI 2000. Visas will not be required for travelers from the EC (European Community) or North America.

Schiphol Airport

Schiphol International Airport is located 40 kilometers northeast of The Hague. Currency exchange banks are available in both the arrival and departure halls. For information about Amsterdam Airport Schiphol see: www.schiphol.nl.

Airport Taxicabs

Taxicabs are available outside the airport terminal. We recommend you take the train to The Hague and not a taxi as it is very expensive, about US$60/NLG 120.

Conference Airline Rates

KLM Royal Dutch Airlines

NORTHWEST AIRLINES

Northwest / KLM Airlines is offering special rates to CHI 2000. All callers must refer to the WorldFile/Ticket designator number: RB314 to obtain information or reserve seats for this program.

Within North America

You or your travel agent may call 1-800-328-1111 from 9:00–17:00 (CT).

Outside North America

Attendees from Europe or Asia may call their local Northwest/KLM reservations office in their country of origin.

Tickets issued in North America/Asia must be issued on NWA (012) ticket stock and tickets issued in Europe must be issued on on KLM (074) ticket stock. Tickets must also reflect the fare basis/ticket designator (not to exceed 13 characters including the slash).

Delta Air Lines

Delta Air Lines is also offering special rates to CHI 2000 for both domestic and international flights. When making reservations, please refer to File Number #135451A.

Within North America:

Contact Delta Meeting Network®
Reservations: Tel: +1 800 241 6760
Weekdays 7:30–23:00
Weekends 8:30–23:00
US EDT (GMT-5)

Outside of North America:

Contact your local Delta Air Lines office:

United Kingdom

Travel Agents call:	0800-064-7064
Attendees call:	0800-064-9064

Italy

Travel Agents call:	167-848-752
Attendees call:	167-749-746

France

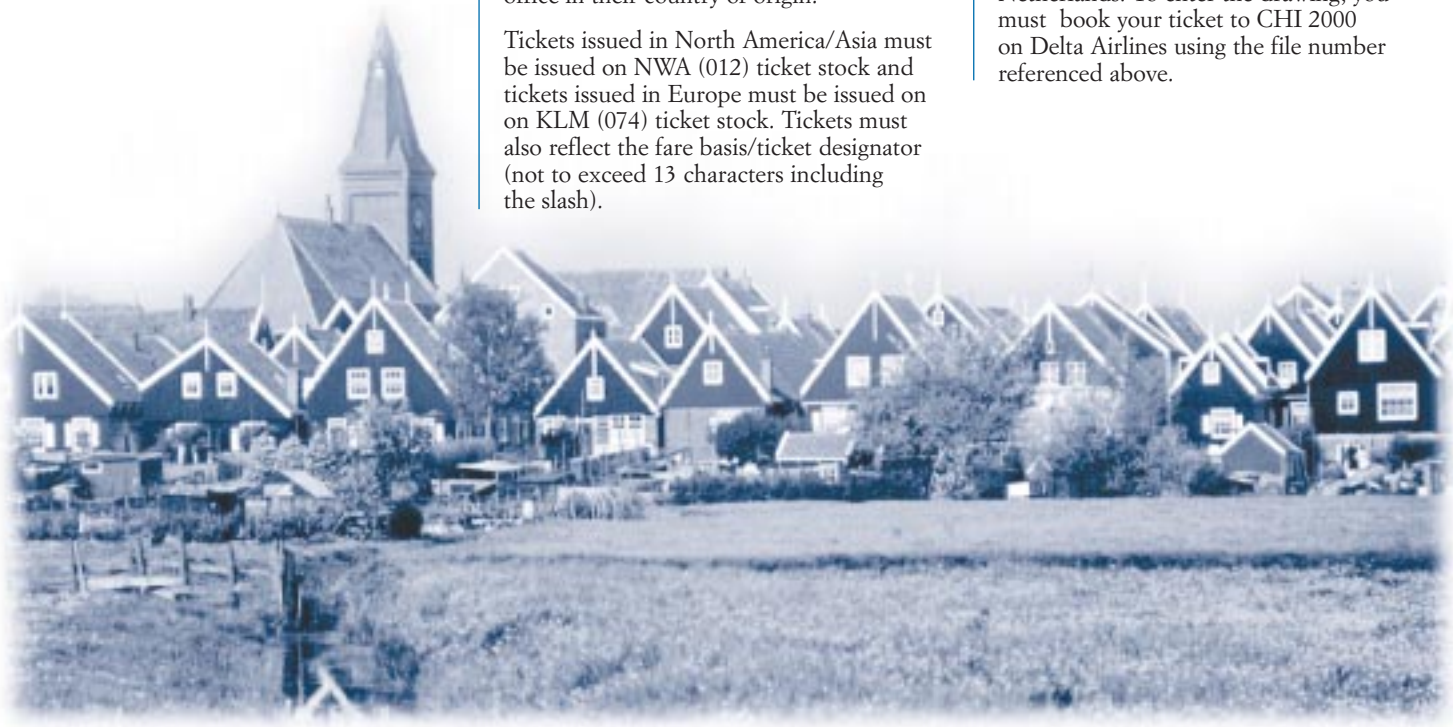
Travel Agents call:	0800-477-862
Attendees call:	0800-771-766

Germany

Travel Agents call:	0800-100-1900
Attendees call:	0800-100-1831

Win FREE Tickets

In the spirit of promoting participation in CHI 2000, Delta Airlines will award a Domestic Coach ticket (good for travel to any Delta city in the 48 contiguous U.S.) to one lucky Delta passenger flying to The Netherlands. To enter the drawing, you must book your ticket to CHI 2000 on Delta Airlines using the file number referenced above.



CHI 2000 Hotels/Map

Housing

To register for housing, complete the Housing Registration Form and mail or fax before **10 February 2000** to Lidy Groot Congress Events at the address listed on the Housing Registation Form. Please note that the housing reservation deadline is **before** the early registration deadline for the conference. Telephone reservations cannot be accepted. If faxing, please do not mail a duplicate hard copy, as this may result in multiple reservations. Make copies of the housing form if additional room reservations are needed. **April is a busy time in The Hague, so it is important to reserve early.**

Conference Hotel Rates

Special hotel rates are available only through Lidy Groot Congress Events. Reservations cannot be accepted directly by hotels.

Reservations and Confirmation

No rooms can be reserved without a valid credit card guarantee. Hotel guarantee by bank transfer or check cannot be accepted. Please include your credit card number, name on the card, and expiration date on the hotel reservation form. Room charges must be paid directly to the hotel when checking out.

Lidy Groot Congress Events will confirm your hotel assignment by fax or email. If you cannot accept a fax or email, you will be notified by postal mail. Rooms are assigned on a first-come, first-served basis. Your choice of hotel will be honored as space permits.

Housing Reservations Deadline

Housing Reservation Forms must be received by **10 February 2000** or the conference cannot guarantee that hotel rooms will be available. Lidy Groot Congress Events reserves the right to book you into a similar category hotel if your requested hotels are already fully booked.

Hotel Categories

Rates: Hotel rooms at reduced rates can be reserved in the following rate categories.

Category	Single	Double
L	NLG 305 - 375	NLG 315 - 375
A	NLG 245 - 300	NLG 240 - 285
B	NLG 175 - 240	NLG 200 - 330
C	NLG 85 - 170	NLG 165 - 190

All prices are excluding city tax and breakfast unless hotel listing indicates otherwise.

Service: Hotels are also listed by level of service (two star to five star).

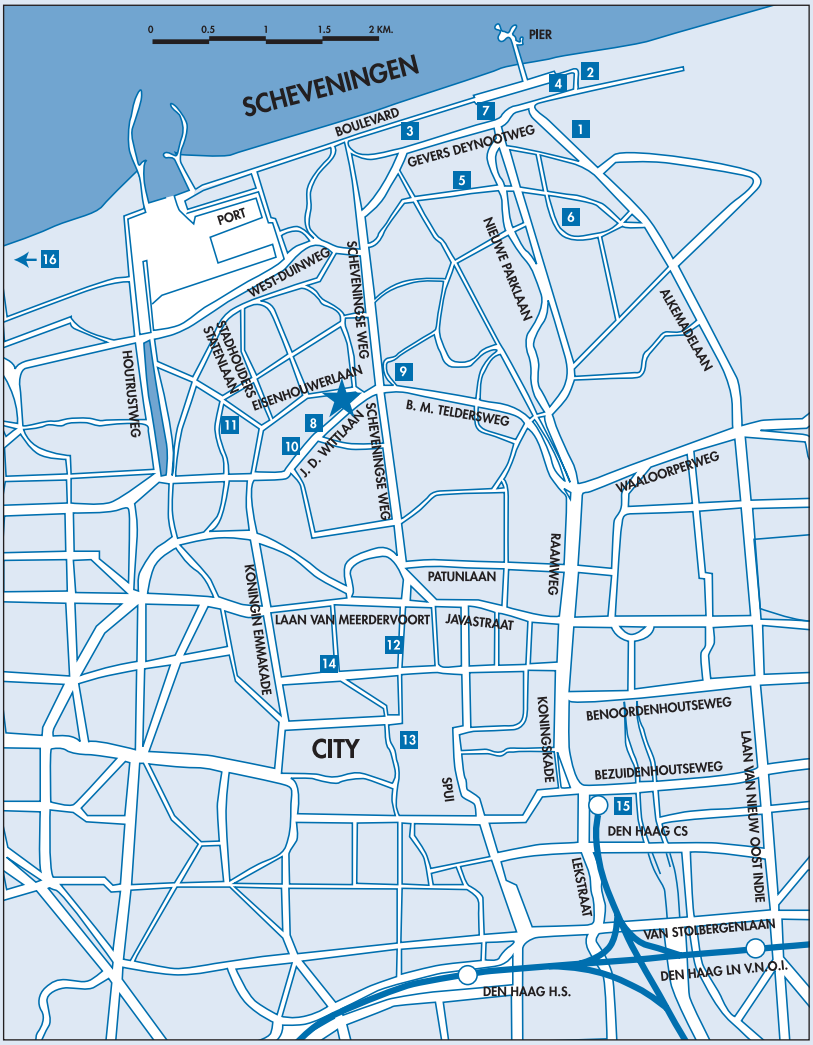
Check-In Time

Check-in at all conference hotels is 15:00. However, the hotels will make every effort to accommodate earlier arrivals. Arrivals before 10:00 usually require an extra night reservation.

Changes and Cancellations

Changes and cancellations for an existing reservation may be made in writing by fax or email to:
Lidy Groot Congress Events
Fax:+31 20 6758236
Email: Lidy.Groot@inter.NL.net

Cancellations received after 1 March 2000 or no-shows will result in the first night being charged to your credit card.



NCC HOTELS TRAIN STATIONS

Conference Hotels By Location

Beach District, Scheveningen

Approximately 20 minutes from the Nederlands Congress Centre (NCC) and 30 minutes from the city center by tram.

1. Bilderberg Europa Hotel, ★★★★ *Category L*
2. Carlton Beach Hotel, ★★★★ *Category L, located on the beach*
3. Badhotel Scheveningen, ★★★ *Category B*
4. Aquarius Hotel, ★★★ *Category C (breakfast included)*
5. Hotel City, ★★★ *Category C (breakfast included), located in the heart of Scheveningen*
6. Hotel van Zanen, ★★★ *Category C (breakfast included), located just outside the centre of Scheveningen*
7. Steigenberger Kurhaus Hotel, ★★★★★ *Category A, headquarters hotel, located on the beach*

Near the Nederlands Congress Centre

Within walking distance of the NCC, and are a 15-20 minute tram ride to the beach or city center.

8. Dorint Hotel, ★★★★ *Category L, built on top of the NCC with fitness facilities*
9. Crowne Plaza Promenade, ★★★★★ *Category L*
10. Golden Tulip Bel Air, ★★★★ *Category A, located next to the NCC with swimming pool*
11. Staten Hotel, ★★ *Category C (breakfast included)*

City Centre of The Hague

Within 15 minutes of the Nederlands Congress Centre by tram; within 30 minutes of the beach.

12. Delta Hotel, ★★ *Category C (breakfast included)*
13. Parkhotel, ★★★★ *Category B (breakfast included)*
14. Hotel Sebel, ★★ *Category C (breakfast included)*
15. Hotel Sofitel, ★★★★★ *Category L*

Outside The Hague

30 minutes from the NCC and the beach by public transport.

16. Atlantic Hotel, ★★★★ *Category A, 6 km from The Hague*

CHI 2000 Housing Registration Form

Each hotel is holding a block of rooms to be assigned through Lidy Groot Congress Events at conference rates until **10 February 2000**. Submit your room request on this form to qualify for the conference rate. Please use one form per room. Make copies of this form for any additional rooms. Telephone requests will not be accepted. Submit any changes or cancellations via fax, e-mail, or in writing to the Lidy Groot Congress Events. After 10 February, Lidy Groot Congress Events cannot guarantee that hotel rooms will be available.

PLEASE TYPE OR PRINT CLEARLY.

Last Name First Name Mr./Ms.

Company/Organization

Mailing Address

City Prov/State

Postal/Zip Code Country

Telephone Fax

E-mail

HOTEL DATA

Arrival Date	Departure Date

Instructions: See the opposite page for a listing of hotels by rate and category of service. Indicate your rate category below (L, A, B, C), then indicate your first three choices of hotels within that rate category.

Rates are subject to room tax and individual reservation deadlines. Space in conference hotels may not be available after 10 Feb. 2000.

HOTEL CATEGORY

❑ L ❑ A ❑ B ❑ C

1st Choice Hotel Name

2nd Choice Hotel Name

3rd Choice Hotel Name

If your choices are not available, you will be assigned to the next available hotel within your rate category.

ROOM TYPE

❑ Single (1 person 1 bed) ❑ Double (2 persons 1 bed)
❑ Twin (2 persons 2 beds) ❑ Triple (3 persons 2 beds)

Occupants (list all including self):

Special requirements:

Preference: ❑ Smoking or ❑ Non-Smoking

METHOD OF PAYMENT

A deposit is required at all conference hotels. You must make your deposit by providing credit card information. Your signature authorizes the hotel to charge your card the amount of one night's lodging. For cancellations received after 1 March 2000 or a no-show, the first night will be charged to your credit card unless we can reallocate the room to another guest.

CREDIT CARD GUARANTEE

❑ American Express ❑ EURO/MasterCard ❑ Visa

Card Number

Expiration Date – –

Signature

Credit card charges will be processed at the NLG fee.
When this is converted on your credit card statement to domestic currency the amount may be different than the NLG quoted here.

MAIL TO: CHI 2000 Hotel Reservations
Lidy Groot Congress Events
1080 AA Amsterdam
The Netherlands

FAX TO: +31 20 6758236 (from anywhere in the world, anytime)

EMAIL TO: Lidy.Groot@inter.NL.net

CHANGES, CANCELLATIONS, AND INQUIRIES ONLY TO:
Lidy.Groot@inter.NL.net

CHI 2000 Conference Registration

Registration Deadlines

Friday, 18 February 2000

The early registration discount deadline is **18 February 2000**. To qualify for the **greatest discount**, forms must be received by this date. Early registration for tutorials is important since popular tutorials fill up quickly.

Monday, 20 March 2000

The last day to register in advance is **20 March 2000**. 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.

How to Register

Registrations are accepted by postal mail, courier, and fax. You may also register online at www.acm.org/chi2000. Telephone registrations will not be accepted. On-site **(most expensive)** registration will take place in the lobby of the Congress Centre.

On-Site Registration Hours:

Saturday	15:00 to 19:00
Sunday-Wednesday	8:00 to 17:30
Thursday	8:00 to 14:00

Conference Registration Includes:

- Three days of Technical Sessions
- *CHI 2000 Conference Proceedings*
- *CHI 2000 Extended Abstracts*
- *CHI 2000 Video*
- Conference Reception
- Coffee Breaks
- Exhibits

There are separate fees for Tutorials and Workshops.

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 full payment. Payment may be by credit card (Visa, EURO/MasterCard, or American Express), check, money order, or bank transfer. Registering by bank transfer must be done via www.regmaster.com/chi2000xfer.html. Checks and money orders should be made payable to ACM/CHI 2000. CHI 2000 cannot accept purchase orders, or government vouchers.

Tutorial Registration

Evening and full-day tutorials are offered on 1-3 April. 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/chi2000.html.

Workshop Registration

Workshops are on 2-3 April. Workshop participation fees are: US$75/NLG 150 for a one-day workshop or US$150/NLG 300 for a one-and-a-half or two-day workshop.

To take advantage of reduced conference fees, register by the early deadline (18 February 2000) even if you have not received notification of workshop acceptance.

When you receive notification of acceptance, please send workshop payment to the CHI 2000 Registration office along with a note including the name of your workshop, your name, address, telephone, fax, and email. If you register for the conference following notification of workshop acceptance, you may register for the workshop and conference with the conference registration form.

Accompanying Persons

CHI 2000 welcomes Accompanying Persons, an adult 18 years and older, to the conference. Accompanying Persons can be registered for US$95/NLG 190 each. Fee includes access to The Commons, Opening and Closing Plenaries, and the 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/NLG 100 on the advance registration form or at the CHI Store.

Reception tickets are available at reduced rates for children 7 to 12 years of age (US$25/NLG 50). Children aged 6 and younger are free.

Confirmation

Allow up to two weeks for mailed confirmation of your registration. CHI 2000 cannot fax or email confirmations. **If your registration form is received after 20 March 2000, 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 20 March 2000. A US$75/NLG 150 cancellation fee will be deducted to cover processing costs. **CHI 2000 cannot accept refund requests after 20 March 2000.**

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.

Merchandise

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

CHI 2000 Advance Registration Form

First Name _____ Last Name _____

Company/Institution _____

Address _____

_____

City _____ State/Province _____

Zip/Postal Code _____ Country _____

Tel _____ Fax _____

E-mail _____

(Please circle the appropriate fee)

MAIL FORM TO:
CHI 2000 Registration
P.O. Box 941126
Maitland, FL 32794-1126 USA

FOR EXPRESS MAIL OR COURIER ONLY:
CHI 2000 Registration
c/o Registration Systems Lab
2060 Goldwater Court
Maitland, FL 32751 USA

FAX TO: + 1 407 628 3186

ONLINE REGISTRATION
www.acm.org/chi2000

FEES in U.S. DOLLARS:	On or Before 18 Feb. 2000			19 Feb. - 20 March 2000			After 20 March (No confirmation provided)		
	Student	Member	Non-Member	Student	Member	Non-Member	Student	Member	Non-Member
Conference Fee Only	$125	$435	$563*	$140	$635	$763*	$150	$835	$963*
Each Tutorial Unit with Conference Fee	$110	$275	$275	$125	$375	$375	$145	$475	$475
Each Tutorial Unit without Conference Fee	$185	$335	$335	$200	$435	$435	$220	$535	$535

FEES in NLG:	On or Before 18 Feb. 2000			19 Feb. - 20 March 2000			After 20 March (No confirmation provided)		
	Student	Member	Non-Member	Student	Member	Non-Member	Student	Member	Non-Member
Conference Fee Only	250	870	1126*	280	1270	1526*	300	1670	1926*
Each Tutorial Unit with Conference Fee	220	550	550	250	750	750	290	950	950
Each Tutorial Unit without Conference Fee	370	670	670	400	870	870	440	1070	1070

* ❑ 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 information.

❑ I have Special Needs:_____

❑ I am a member of ACM or ACM 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.

TUTORIAL SELECTIONS (Please circle tutorial numbers)

	UNITS	TUTORIAL NUMBERS
Saturday Evening	1	1 2
Sunday Full-Day	2	3 4 5 6 7 8 9 10 11 12 13
	2	14 15 16
Monday Full-Day	2	17 18 19 20 21 22 23 24 25 26 27 28 29
Monday Evening	1	30 31
Total Units		Add Tutorial units above; the maximum number of units is 6.

ALTERNATIVE TUTORIALS:
Saturday:_____ Sunday:_____ Monday:_____

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

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

WORKSHOPS (Please circle workshop numbers)

Sunday and Monday	US$150	NLG 300	1 2 3 4
Sunday and 1/2 Monday	US$150	NLG 300	5
Sunday Only	US$75	NLG 150	6 7 8 9 10
Monday Only	US$75	NLG 150	11 12 13 14 15 16

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

PAYMENT COMPUTATION

Conference Fee ..... ____
Tutorial Units: ____ x US$ ____ / NLG ____ ..... ____
CEU Fee per Tutorial Unit: ____ x US$5____ / NLG 10 ____ ____
Workshops Fee (accepted registrants only) ..... ____
Accompanying Person (incl. reception) US$95 / NLG 190 ..... ____
Acc. Person's Name: _____
Extra Reception Tickets: ____ x US$50 NLG 100 ..... ____
7-12 yrs. old Reception Ticket: ____ x US$25 NLG 50 ..... ____
Extra *Proceedings*: ____ x US$50 NLG 100 ..... ____
Extra *Extended Abstracts*: ____ x US$25 NLG 50 ..... ____
Extra NTSC Video: ____ x US$20 NLG 40 ..... ____
Extra PAL Video: ____ x US$20 NLG 40 ..... ____
Mugs: ____ x US$7 NLG 14 ..... ____
T-shirts:† M L XL ____ x US$15 NLG 30 ..... ____
Sweat shirts:† M L XL ____ x US$25 NLG 50 ..... ____
Free video with registration†: ____❑ NTSC ❑ PAL

Total Fees Enclosed: ____

†Circle shirt size and/or check video format.
Conference is not responsible for unclaimed merchandise.

Forms without payment will NOT be processed. Make checks and money orders payable to ACM/CHI 2000. Registering by bank transfer must be done via www.regmaster.com/chi2000xfer.html. Purchase orders and government vouchers will not be accepted. Credit card charges will be processed at the US dollar fee. When this is converted on your credit card statement to domestic currency the amount may be different than the NLG rate quoted. If paying by Visa, EURO/MasterCard, or American Express, please provide the following credit card information in full to avoid delays:

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