### Tuesday at a Glance

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<tr>
<td>09:00 - 10:30</td>
<td>Opening Plenary – Hall D</td>
<td>Next Reality: The Future of Connected Everyday – Jun Rekimoto</td>
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<tr>
<td>11:30 - 13:00</td>
<td>DESIGN EXPO</td>
<td>Getting Down to Business</td>
<td>PAPERS</td>
<td>Managing Multiple Tasks</td>
<td>PAPERS</td>
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<tr>
<td>14:30 - 16:00</td>
<td>PAPERS/SHORT TALKS</td>
<td>Robots I</td>
<td>PAPERS</td>
<td>Information Management</td>
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<td>16:30 - 18:00</td>
<td>PAPERS/SHORT TALKS</td>
<td>Robots II</td>
<td>PAPERS</td>
<td>Collaboration</td>
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### Wednesday at a Glance

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<tr>
<td>09:00 - 10:30</td>
<td>DESIGN EXPO</td>
<td>Designing the Humane Interface</td>
<td>PAPERS</td>
<td>Teamwork</td>
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<tr>
<td>11:30 - 13:00</td>
<td>DESIGN EXPO</td>
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<td>Interruptions, Interruptions</td>
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<tr>
<td>14:30 - 16:00</td>
<td>PANEL</td>
<td>Handhelds and Pervasive Computing</td>
<td>PAPERS</td>
<td>Marrying, Blending and Pointing</td>
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<tr>
<td>16:30 - 18:00</td>
<td>PAPERS</td>
<td>CHI FRINGE</td>
<td>Games</td>
<td>Search and You Will Find</td>
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<tr>
<td>09:00 - 10:30</td>
<td>NO SESSION</td>
<td>PAPERS</td>
<td>Modeling Human Performance</td>
<td>PAPERS</td>
<td>Online Trust</td>
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<tr>
<td>11:30 - 13:00</td>
<td>NO SESSION</td>
<td>PANEL</td>
<td>Mobile Communications</td>
<td>CHI FRINGE 2</td>
<td>Bots/Borgs</td>
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<tr>
<td>14:30 - 16:00</td>
<td>NO SESSION</td>
<td>PANEL</td>
<td>Tangible Computing</td>
<td>SPECIAL AREA</td>
<td>European HCI Research</td>
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<tr>
<td>16:30 - 18:00</td>
<td>Closing Plenary – Hall D</td>
<td>The Future of Designing Experiences – Tim Brown</td>
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### Special Events

- **CHI101 FEE TUTORIAL**
  - 13:15 – 14:15
  - Hall E1
- **CONFERENCE RECEPTION**
  - 20:00 – 22:30
  - Town Hall Vienna
- **ACM SIGCHI MEMBERSHIP MEETING**
  - 13:15 – 14:15
  - Hall E1
- **HOSPITALITY RECEPTIONS**
  - 18:30 – 20:30
  - Conference Center
Welcome to CHI2004 and to Vienna! The annual CHI conference is the leading international forum for the exchange of ideas and information about human-computer interaction (HCI). Vienna is an historical center of art, culture, and science. Our conference theme this year is CONNECT: to technology, to each other, to a broad and diverse array of perspectives, and to new fields and domains. Vienna provides the backdrop of a long cultural and artistic tradition to our explorations into the future of human-computer interaction.

Diverse members of the global HCI community meet at the CHI conference to share the excitement of discovery and invention, to make and strengthen professional relationships and friendships, and to tackle real world problems. We are pleased to welcome you to CHI2004 to take part in strengthening and extending the foundations of our discipline and identifying the challenges yet to be solved.

You are our user; you are our participants, our client, our motivation for creating a conference experience to remember. CHI2004 was approximately two years in the making, through the efforts of a truly international group of dedicated volunteers who worked hard to bring you a stimulating and thoughtful preprogram of tutorials and workshops and the CHI2004|ICSID FORUM, a great technical program, and a wide variety of local Experience Tours to make your conference experience thoroughly memorable.

We are delighted to offer you CHI2004 and we thank you for joining us to present ideas, discuss, debate, innovate, learn, and speculate. Our reward is your continued success in your education, your career, and your life-long learning goals - and the enrichment of our domain. Look for us and tell us what you think!

Elizabeth Dykstra-Erickson • Kinoma Inc., USA
Manfred Tscheligi • CURE and University of Salzburg, AT

CHI2004 Conference Co-chairs
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Contributing Sponsors

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Nokia
Sun Microsystems
The CHI2004 Conference is sponsored by ACM's Special Interest Group on Computer-Human Interaction (ACM SIGCHI). ACM, the Association for Computing Machinery, is a major force in advancing the skills and knowledge of Information Technology (IT) professionals and students throughout the world. ACM serves as an umbrella organization offering its 71,000 members a variety of forums in order to fulfill its members' needs, the delivery of cutting edge technical information, the transfer of ideas from theory to practice, and opportunities for information exchange. Providing high quality products and services, world-class journals and magazines; dynamic special interest groups; numerous "main event" conferences; tutorials; workshops; local special interest groups and chapters; and electronic forums, ACM is the resource for lifelong learning in the rapidly changing IT field.

SIGCHI is the premier international society for professionals, academics and students who are interested in human-technology and human-computer interaction (HCI). We provide a forum for the discussion of all aspects of HCI through our conferences-including our flagship CHI conference, publications, web sites, email discussion groups, and other services. We advance education in HCI through tutorials, workshops and outreach, and we promote informal access to a wide range of individuals and organizations involved in HCI. Members can be involved in HCI-related activities with others in their region through local SIGCHI chapters. Visit our booth at the conference; come to our membership meeting; or visit www.sigchi.org to learn more about SIGCHI.

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

In USA & Canada
Tel.: 800 342 6626
Or: +1 212 626 0500
Fax: +1 212 944 1318
Email: acmhelp@acm.org
Write: ACM Member Services
PO Box 11414
NY, NY 10286-1414
USA

Cooperating Organizations:
Austrian Computer Society
British HCI Group (BCS)
European Association of Cognitive Ergonomics (EACE)
German Society for Informatics (GI)
Human Communication Group (HCG) of the IEICE of Japan
Swedish Interdisciplinary Interest Group for Human-Computer Interaction (STIMDI)

Local SIGCHI Chapters
Africa
South Africa: CHI-SA

Americas (outside USA)
Brazil: Brazil CHI
Canada: CapCHI, ToRCHI, VanCHI, WatCHI
Chile: SIGCHI Chile
Mexico: CHI-MEXICO

Asia / Pacific
China: SIGCHI China
India: CHI Bombay, CHI-South India
Korea: SIGCHI Korea
New Zealand: SIGCHI_NZ
Singapore: SIGCHI Singapore

Europe
Austria: SIGCHI Austria
Belgium: BeLI CHI
Bulgaria: BuSIGCHI
Czech Republic: Czech SIGCHI
Denmark: SIGCHI.DK
Finland: SIGCHI Finland
France: Toulouse SIGCHI
Germany: German SIGCHI

Italy: SIGCHI Italy
Netherlands: SIGCHI.NL
Norway: SIGCHI Norway
Poland: Poland SIGCHI
Portugal: Universidade Fernando Pessoa SIGCHI
Romania: RoCHI
Russia: Russia SIGCHI
Spain: CHISPA
Sweden: STIMDI, West Sweden CHI
Switzerland: SwissCHI

Middle East
Israel: IsraCHI

United States
California: BayCHI, LA-SIGCHI, OCCHI, SanD CHI
Colorado: Rocky Mountain CHI
Connecticut: ConnCHI
District of Columbia: DC_CHI
Georgia: CHI-Atlanta
Illinois: CHI-Squared
Iowa: CHI ISU
Massachusetts: LowellCHI, GB/SIGCHI
Michigan: MOCHI
Minnesota: TwinCHI
Missouri: KC-CHI, GatewayCHI
New York: CornellCHI, NYC-CHI
North Carolina: TriCHI
Ohio: BuckCHI, MOCHI
Oregon: CHIFOO
Pennsylvania: PhilCHI, SIGCHI PGH
Texas: CHI-Austin, Lone Star CHI
Utah: NUCHI
Virginia: GMU SIGCHI
Washington: Puget Sound SIGCHI, University of Washington SIGCHI
Wisconsin: Milwau-CHI
Technical Program Overview
The CHI2004 technical program showcases presentations of outstanding Human-Computer Interaction (HCI) research, demonstrations of new and innovative technology, discussions of timely and controversial issues, and presentations of the latest developments in HCI design and practice.

Pre-conference
Development Consortium
The Development Consortium explores issues and directions that the HCI community and SIGCHI should develop in the coming years.

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.

Tutorials
If you have arrived before the main conference begins, and have any extra time on Saturday, Sunday or Monday, consider registering for one or more of the tutorials offered. Tutorials are courses designed to provide diversity and depth, and to appeal to novice and experienced participants.

Tutorial Notes
Each tutorial attendee receives one set of notes for each tutorial attended. Many of the tutorial notes are available for purchase at the CHI Store beginning Tuesday. Shop at the CHI store to purchase your own set of tutorial notes.

Workshops
Workshops provide a valuable opportunity for small communities of people with diverse perspectives to engage in rich one- and two-day discussions about a topic of common interest. Workshop participants are pre-selected based on submitted position papers.

CHI2004 | ICSID FORUM
The FORUM is a special two-day event focusing on bringing together SIGCHI and ICSID members to discuss HCI and industrial design. It is open to all with limited seats available.

Conference Sessions
Choosing Sessions
The CHI2004 Conference Proceedings CD-ROM and CHI2004 Extended Abstracts CD-ROM contain information about each presentation. You may wish to refer to these materials to help you choose which sessions to attend. You may also attend the Newcomers Orientation at 10:30 AM on Tuesday, where we offer suggestions on planning your conference experience. Conference volunteers will be available to answer questions.

Leaving Sessions
If you plan to leave during the middle of a session, please be considerate of the speakers and others around you by taking a seat near an exit.

Presentation/Session Length
Approximate lengths of each type of presentation are:
- Demonstrations: 30 minutes
- Papers: 30 minutes
- Short Talks: 15 minutes
- Panels: 90 minutes
- Design Case Studies: 15 minutes
- SIGs: 90 minutes
- HCI Overviews: 30 minutes

Expect about the last third of each presentation to be used for a question and answer session.

Design Expo
Using the Design Case Study format initiated in CHI2002 for the CHI2002 | AIGA FORUM, and further developed at the CHI Conference, the Design Expo highlights the best practices of our community. The Design Expo showcases applied HCI, discussing the multi-disciplinary nature of our profession and the real world trade-offs those multi-disciplines require. This year’s Design Expo features case studies from leading software companies as well as leading HCI practitioners.

CHI Fringe 1 and 2
CHI Fringe sessions allow the controversial, hard to publish, alternative perspectives on HCI to express themselves in a format that encourages lively audience participation.

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

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. The panels allow speakers and audience the opportunity to explore, debate, and reflect on these issues.

Papers and Late Breaking Results (Short Papers)
All CHI papers present contributions to research, development, and practice in all areas of HCI, and have a significant impact on the development of HCI principles, theories, and techniques. Papers are rigorously refereed and are published in the archival CHI Conference Proceedings as an issue of CHI Letters, and in the ACM Digital Library. Late Breaking Results are also rigorously refereed, are shorter in length, and are published in the Extended Abstracts volume of the Conference Disc and in the ACM Digital Library.

Special Interest Groups (SIGs)
Special Interest Groups (SIGs) enable conference attendees who share similar interests to meet informally for 90 minutes of facilitated discussion. CHI2004 provides meeting space and advertises SIG meetings to the rest of the conference in the Extended Abstracts and Conference Program.

Following the conference, SIG organizers are encouraged to continue their discussions on CHIplace.
Student Competition
CHI2004 Student Competition entries are posted on posters in The Connectionary. Be sure to review them and attend the Finalists Presentations, and see if you can guess the winners to be announced at the Closing Plenary.

Special Events
To enhance your conference experience, additional activities will be provided throughout the conference. All conference attendees are welcome to register and participate in these events.

Networking Reception
Monday, 18.30 – 20.00
Conference Center-Restaurant Area (Level 01)
Join your fellow CHI participants at a casual kick-off reception. Meet old friends, make new acquaintances, and plan your time at CHI. Light snacks and a cash bar will be provided. Relax, meet new friends and CONNECT!

Newcomers´ Orientation
Tuesday, 10.30 – 11.30
Hall H
Please join us after the Opening Plenary and find out how to get the most from CHI2004. The Newcomers’ Orientation is a special session that offers those attending CHI for the first time information on how to navigate the conference and make session choices in an environment with many options.

Conference Reception
Tuesday, 20:00 – 22:30
Town Hall of Vienna (Rathausplatz 1)
Join us for an evening in the fascinating (New) Town Hall of Vienna. The building was completed in 1883 and is based on Belgian Gothic. The huge complex became a magnificent neo-gothic edifice of superlatives, with open arcades, loggias, balconies, lancet windows, courtyards and a wealth of sculpted ornamentation. The ceremonial hall is the largest in Austria. At the top of the almost 100 meters high main tower stands the “Iron Man of the Town Hall” 6 meters high and weighting 1.8 tons with his standard, a landmark of Vienna. The Town Hall of Vienna is located on the famous Ringstrasse.

The Town Hall is easy to reach by public transport or by a pleasurable walk within the inner city of Vienna.

This event is included in the CHI2004 registration fee. Additional tickets for accompanying persons may be purchased at the registration desk.

Special Events
Conference Reception
Tuesday, 20:00 – 22:30
Town Hall of Vienna (Rathausplatz 1)
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This event is included in the CHI2004 registration fee. Additional tickets for accompanying persons may be purchased at the registration desk.
SIGCHI 101. History, Overview, and Opportunities
Joseph A. Konstan, President, ACM SIGCHI

Tuesday, 13:15 – 14:15
Hall E1
This free tutorial provides a brief look at the history of SIGCHI and an overview of its current structure and activities. It is designed to serve as an introduction for people new to the field, and a one-stop opportunity to learn how to get involved in or organize SIGCHI activities. Among the areas covered are: conferences, local chapters, publications, and special projects. In each case, in addition to reviewing current activities, I will present a case study of how a new activity was proposed and implemented.

ACM SIGCHI Membership Meeting
Wednesday, 13:15 – 14:15
Hall E1
The annual ACM SIGCHI Membership Meeting will be held during the lunch break Wednesday. At this meeting, officers of SIGCHI will present ongoing SIGCHI programs and activities followed by a question and answer session with the audience. Participants interested in participating in shaping SIGCHI’s future are encouraged to attend.

Highlights on Exhibits
Tuesday, 10:30 – 11:30
The Connectionary-Exhibits Area
The Exhibits Area opens immediately after the Opening Plenary session on Tuesday morning.

Interactive Posters and Student Competition Highlights
Wednesday & Thursday, 10:30 – 11:30
Gallery-Level O1
Posters from Late Breaking Results and the Student Competition Finalists are on display throughout the conference. Visit the Posters authors and discuss their work with them directly. Authors may also be available for discussion during other breaks.

Hospitality Receptions
Wednesday, 18:30 – 20:30
Microsoft (Champion Sponsor)
Google (Champion Sponsor)
Human Factors International
Noldus

Experience Visits
Special visits have been set up to experience different theme related locations and institutions in Vienna and nearby Linz and Salzburg.

Technisches Museum Wien Designing Visitor Experiences
Monday, 26 April
16:00 – 18:00
Friday, 30 April
10:00 – 12:00

On the area of 22,000 square meters, the Technisches Museum Wien offers a wide range of fascinating insights into the world of technology. Unique exhibits from the past to the present make the house a venue for exploring exiting technological developments. Text, film, and experiments illustrate the mutual influence between technological achievements and society, economy and culture. Experiences with several themes have been set up, like the medien.welten (history and evolution of transmission media as well as storage media). The virtual reality theater allows visitors to dive into virtual worlds. See www.tmw.at to learn more about the Technisches Museum Wien.

Two special workshops will be offered for conference attendees towards designing visitor experiences. The workshop includes a guided tour through the museum (free of charge). The museum is easy to reach by public transport.

Reservations: Each visit is limited to 30 people. Reservations will be possible on site at the CHI2004 Information Booth.

In addition, the Technisches Museum Wien offers a 20% reduction (valid between April 24 and May 2 based on coupons given on site) on the entrance fee for all CHI2004 attendees.

Sigmund Freud Museum Wien
Back to the Roots
Monday, 26 April
16:00 – 17:30
Friday, 30 April
13:00 – 14:30

In the former living quarters and office of Sigmund Freud in the house at Berggasse 19 in Vienna’s ninth district, the Sigmund Freud Museum presents an exhibition documenting the life and work of the founder of psychoanalysis. Original furnishings, including the waiting room, a selection from Freud’s collection of antiquities, and signed copies and first editions of his works provide a glimpse into Freud’s life, his cultural environment and the development of psychoanalysis. Historical film clips assembled and commented by Anna Freud depict moments in the private life of Freud and his family and enhance the visitors’ experiences of this unique museum. See www.freud-museum.at to learn more.

Two visits will be offered to conference attendees. Each visit includes a guided tour through the museum, access to the museum’s media room where archive video and audio material can be experienced, and access to the museum’s library. The museum is easy to reach by public transport.

Reservations: Each visit is limited to 20 people (admission free). Reservations will be possible on site at the CHI2004 Information Booth.
**S P E C I A L  E V E N T S**

### Tech Gate Vienna Designing Advanced Interaction
**Wednesday, 28 April 18:30 – 20:00**

Meet Virtual Reality and Advanced Interaction research institutions and companies located in TechGate Vienna and see how newest VR-Technologies can be used in different areas. Selected example projects for medicine, archaeology, architecture, town and country planning and entertainment will be presented. "Mixed Reality User Interfaces“ like the Personal Interaction Panel, the Texture Painter and Augmented Painting – all of them used in combination with a 3D stereo projection display – will be demonstrated. Other demonstrations include a Virtual Interactive Collaboration Tool and achievements in computer vision technology. The Tech Gate Vienna, 5 minutes from the conference center has been set up a Technology Park for Vienna. See [www.techgate.at](http://www.techgate.at) to learn more about it.

**Reservations:** The visit is limited to 30 people. Reservations will be possible on site at the CHI2004 Information Booth.

### Ars Electronica Center Linz Looking into the Future
**Friday, 29 April 13:00 – 15:00, Linz**

The “Homebase“ of all Ars Electronica activities is the Ars Electronica Center – Museum of the Future. Opened in 1996, it is a permanent exhibition area of media art and visionary technology, and a center of procurement and information for the population. On five levels of the Ars Electronica Center have been showcasing creative technologies and the innovative ideas of the 21st century to enable visitors to get acquainted with the technology of the future, gain hands-on experience with it and customize it to their needs, and interactively learn in a way that is fun, user-friendly, and designed with all visitors in mind, no matter what their level of computer experience. Projects from artists Hiroshi Ishii, Masaki Fujihata, Hirokazu Kato, Joe Paradiso, Casey Reas, Tina Blaine, Motoshi Chikamori, Kyoko Kunoh, and more. See [www.aec.at](http://www.aec.at) to learn more about it.

**Reservations:** The visit is limited to 35 people (admission free!). Reservation will be possible on site at the CHI2004 Information Booth. Linz is reachable by a two hour train ride.

### The Center for Information, Communication, Society & Technology
**New Dimensions in ICT Friday, 29 April 13 – 15:00, Salzburg**

The newly established Center at the University of Salzburg coordinates and implements studies in the vast field of new information and communication technologies and their interrelationship with society as a whole. The core orientation is the analysis of the social embeddedness of technologies, the development of valuable and socially responsible technical applications, and their social-scientific monitoring. The ICT&S-Center is located in the heart of Salzburg, opposite the famous Festspielhaus ([www.salzburgerfestival.at](http://www.salzburgerfestival.at)), at the Max-Reinhard-Platz. Only few meters away the dome of Salzburg, St. Peter and Castle Hohensalzburg.

**Reservations:** The visit is limited to 25 people. Reservations will be possible on site at the CHI2004 Information Booth. Salzburg is reachable by a 3 to 3 1/2 hour train ride.

More details are available at the CHI2004 Information Booth.

### ZOOM Children's Museum Multimedia Experiences @ ZOOMlab
**Wednesday, 28 April 19:00 – 20:30**

Located within the walls of one of the ten largest cultural centers of the world and one of Vienna’s most pulsing centers of cultural life, the Vienna MuseumsQuartier, the ZOOM Children’s Museum encourages active and self-determined experiences for its young visitors. At ZOOMlab, the museum’s multimedia lab, children can approach new media in a playful way: they learn to deal creatively with new media production processes and achieve immediate results which can be tested and shown around. The products created by the kids are displayed online. See [www.zoomlab.at/e/zoomlab/](http://www.zoomlab.at/e/zoomlab/) to learn more about Austria’s first hands-on museum. See [www.mqw.at](http://www.mqw.at) to learn more about the Vienna MuseumsQuartier.

“Play is the highest form of research” (Albert Einstein)

One special workshop will be offered to conference attendees. The workshop starts with a guided tour through the ZOOMlab explaining how the lab supports the children’s creativity in developing multimedia productions. Attendees will then get the singular chance to face new media challenges like children do by interactively playing with technology. The museum is easy to reach by public transport.

**Reservations:** The visit is limited to 25 people (admission: 4 euros/attendee). Reservations will be possible on site at the CHI2004 Information Booth.
**Fun Run**

**Jogging through the Vienna Prater**

**Wednesday, 28 April 2004,**

07:00 (on time)

For those who love to get up early and do some sports, we offer this “compelling” opportunity to jog among like-minded people along one of the most beautiful running tracks in Vienna: the Prater Hauptallee (Prater’s main avenue). The Prater in Vienna is an expansive area where the Viennese go for recreation, offering a wide variety of open spaces that range from natural riparian landscape to city park. The jogging track, also part of the yearly marathon competition, will be about 6-7 kilometers long and also enables you to catch a glimpse of some of the city’s attractions like the Vienna Lusthaus, the Stadion and one of Vienna’s landmarks the Riesenrad (Giant Ferris Wheel). See [www.touristnet.at/w_pr_1e.htm](http://www.touristnet.at/w_pr_1e.htm) to learn more about the Vienna Prater.

**Meeting Point:** tram station of line 21 at the underground (metro) station U1-Praterstern. Be there in your jogging suit! Contact the CHI2004 Information Booth for further details.

**SIGCHI AWARDS**

SIGCHI is pleased to announce the following award recipients:

**2004 SIGCHI LIFETIME ACHIEVEMENT AWARD**

*for outstanding contributions to the study of human-computer interaction*

**Tom Moran**

**IBM Almaden Research Center, USA**

Tom Moran is a Distinguished Engineer at the IBM Almaden Research Laboratory and previously was Principal Scientist and manager of the user interface area at Xerox PARC. Tom was founding director of Xerox EuroPARC. His early work with Allen Newell and Stu Card on the theoretical foundations of human-computer interaction culminated in the seminal text, *The Psychology of Human-Computer Interaction*. Their model human processor, keystroke-level model, and GOMS model have influenced a generation of HCI researchers. Moran founded and continues as editor of the influential journal *Human Computer Interaction*. His analytic research, in addition to the psychology of HCI, includes a command language grammar, task mapping and mental models, a workaday world paradigm for CSCW, design rationale, and embodied user interfaces. His systems design work includes the Note Cards idea-processing hypertext system, the user-tailorable Buttons system, the RAVE media space, the Tivoli electronic whiteboard, multimedia meeting capture and “salvaging” tools, whiteboard-embedded meeting tools, and camera-captured walls.

**SIGCHI AWARDS**

**2004 SIGCHI LIFETIME SERVICE AWARDS**

*for contributions to the growth of SIGCHI in a variety of capacities*

**Robin Jeffries**

**Sun Microsystems, USA**

Robin Jeffries has been involved in SIGCHI since 1985. Robin has taken on a variety of roles in SIGCHI, including serving as Adjunct Chair for Special Needs, Adjunct Chair for Mentoring, and a member of SIGCHI’s Advisory Board. Through these roles Robin has been responsible for many SIGCHI initiatives. Robin has also held several CHI conference positions, including Papers Co-Chair, and led the CHI Kids effort in its early days.

Robin is a Sun Microsystems Distinguished Engineer and is currently the User Experience Architect in Sun’s Chief Technologist’s Office, where she works on company-wide issues in product design and usability. Robin spent 15 years as a researcher at the University of Colorado, Carnegie-Mellon University, and Hewlett-Packard Laboratories before coming to Sun. She is also Sun’s representative to the Institute for Women and Technology, with the goal of bringing more women into computing and keeping them in the field.
2004 INDUCTEES TO THE CHI ACADEMY
(for substantial contributions to the field of human-computer interaction)

**Gene Lynch**
Design Technologies, USA
Gene’s passion and direction have long shaped the SIGCHI community and the CHI conference. He chaired the ANSI/HFS 100 Committee, co-Chaired CHI’90, and has been a frequent technical contributor to the CHI conferences as author, presenter, panelist, tutorial instructor, workshop leader and participant. He was a technical co-chair for CHI’92, and was ACM/SIGCHI’s Vice-Chair for Conferences from 1993-1998.

Gene has 14 years of experience consulting on usability and product design and an additional 15 years industry experience in interactive product development. Prior to founding Design Technologies, he was the Director of the Tektronix Design Technology Laboratory, where he was responsible for Corporate Customer-Centered Research & Design, Software Tools, Software Process Improvement Program, and Corporate Industrial Design.

**George Furnas**
University of Michigan, USA
George Furnas is a Professor at the University of Michigan in the School of Information and the Department of Computer Science and Engineering. He came to academia from Bellcore and Bell Labs where he was a researcher, manager and director. A principal focus of his research is in advanced information access and visualization. George’s contributions include Generalized Fisheye Views, Space-Scale Diagrams that support effective navigation in the Pad++ Zoomable User Interface, Multitrees that expanded the types of hierarchical structures that we can visualize, developments in Statistical Semantics, Adaptive Indexing, Latent Semantic Indexing, Graphical Deduction Systems, Prosection (a high-dimensional visualization technique) and Collaborative Filtering. Recently he has been working on consolidating theories of design and use at multiple levels of aggregation.

**Jonathan Grudin**
Microsoft Research, USA
Jonathan Grudin is at Microsoft Research in the Adaptive Systems and Interaction Group. He was earlier Professor of Information and Computer Science at University of California, Irvine and has taught at Aarhus University, Keio University and the University of Oslo. He has also worked at the MRC Applied Psychology Unit, Wang Laboratories, and MCC. He is best known for his work on Computer-Supported Cooperative Work and the social context of HCI. He is prolific and influential, authoring papers on topics such as typing errors; definitional studies of consistency, context and interfaces; organizational issues in HCI work; surveys of CSCW; collaborative information retrieval; and information displays. His methods include thought pieces, careful ethnography, and quantitative evaluations. His article on motivation and incentives in collaborative applications has led many people to call this problem the “Grudin Paradox” or the “Grudin Problem.” He is the co-editor of the standard readings book for CSCW, and was recently editor of TOCHI.

**William Newman**
University College London, UK
William Newman is currently an independent consultant on interaction and usability, and previously had academic appointments at the University of Utah. He worked at Xerox PARC and after some years of consulting, at EuroPARC. His 1968 paper “A System for Interactive Graphical Programming,” set the stage for two major intellectual threads – input device independence (logical input devices) and user interface management systems. His early work at PARC on the Officetalk integrated office system helped develop some of today’s common interaction techniques. His co-authored text Principles of Interactive Computer Graphics and second edition helped introduce HCI concepts to computer science students. His more recent co-authored text is Interactive System Design. At EuroPARC he managed the Collaborative and Multimedia Systems group, whose projects included the Pepys automatic diary systems and the digital desktop – thus influencing more recent work in ubiquitous computing.

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**SIGCHI AWARDS**

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SIGCHI AWARDS

Brad Myers
Carnegie Mellon University, USA
Brad Myers is professor in CMU’s Human-Computer Interaction Institute. He is our most prolific user interface software researcher, and is well-known for his influential work with programming by demonstration and UI development tools. His current work is the Pebbles PDA project to synchronously couple a PDA and PC, as well as a digital video authoring system. Earlier work included Garnet and Amulet, two widely-used interactive development environments for UIs, that introduced new concepts such as interactors and integrated support for constraints, command models, and animation. For his dissertation he built Peridot, a “programming by demonstration” user interface system that was the subject of his first book, Creating User Interfaces by Demonstration. Other software systems that Brad developed include Incense, Silver, Lapidary and Sapphire. He has also made contributions to window managers, program visualization and visual programming.

Dan Olsen
Brigham Young University, USA
Dan Olsen Jr. is a Professor of Computer Science at Brigham Young University and was the first director of the CMU Human-Computer Interaction Institute at CMU. He is one of the very earliest and most influential researchers in the user interface software domain. His first contributions were in using formal language techniques (FSMs, BNF) to specify the syntactic structure of a user interface. He has also published two books on user interface software: Developing User Interfaces and User Interface Management Systems: Models and Algorithms. His MIKE system (1988) was an early and influential system for automatically generating a user interface from semantic specifications. Dan has shown great versatility in the past 10 years, creating novel systems in areas ranging from CSCW to Interactive Machine Learning, and developing metrics and principles for human-robot interaction. Dan was founding editor of TOCHI. He is a recipient of CHI’s Lifetime Service Award.

Brian Shackel
Loughborough University, UK
Brian Shackel is Professor Emeritus at Loughborough University. In 1959 he published about the ergonomics of display terminals, many years before HCI existed as a discipline. In 1970 he founded HUSAT, the human sciences research institute at Loughborough, which for many years was the largest HCI research center in Europe. He worked closely with government, industry and international bodies to make HCI an accepted part of political and commercial agendas, such as integrating usability methods and metrics into industry and defense standard engineering methods. In 1981 he became chair of IFIP WG6.3 on “Man-Computer Communication,” and in 1984 was a founder of the Interact conference series and chair of the first conference. In 1989 he was the founding chair of IFIP technical committee 13. His contribution to international HCI was recognized in 1999 by the establishment of the Brian Shackel Award, presented at each succeeding Interact conference.

Terry Winograd
Stanford University, USA
Terry Winograd is a professor of computer science at Stanford University, where he founded and directs the program in human-computer interaction. Terry is a pioneer in cognitive science. His early work on natural language appeared in an entire issue of Cognitive Psychology and as two books: Understanding Natural Language and Language as a Cognitive Process. He shifted his interests to HCI with the co-authored book Understanding Computers and Cognition: A New Foundation for Design. His latest book Bringing Design to Software brought together thinkers from many design fields, pointing the way to integrating design thinking into HCI. Terry has explored other dimensions of the relationship between people and computers, receiving the Rigo Award for lifetime contributions to Computer Documentation (from ACM SIGDOC) and the Founders Award as founder of Computer Professionals for Social Responsibility. He has been a major influence in HCI through broadening its perspectives, demonstrating the relevance and importance of diverse schools of thought to understanding and designing interaction.
Tutorials

Tutorials offer in depth coverage on topics relevant to continuing your professional development. Taught by recognized experts in their field, the courses at CHI2004 range from coverage of important fundamental aspects of disciplines that contribute to successful work in Human-Computer Interaction to application of those concepts in design, development or deployment. Topics range from theory to practice, from emerging to mature technologies, from design and development to usability and re-design.

Some tutorials offer the opportunity to sample new methods and ideas or to expand one’s knowledge and skills in a variety of areas, including HCI business management skills. Some tutorials offer an updated look at core areas of Human Computer Interaction. Some offer an introduction to newly emerging areas that will continue to grow become more central to the field. Whether you are a CHI regular or a newcomer, a manager, a practitioner or a researcher you should be able to find one or more topics of interest that will enhance your background or contribute to your ability to do your professional work, either now or in the future.

Please note that Tutorials are subject to changes in room assignment, and there may be withdrawals or cancellations. Details are available at Registration.

Tutorials Schedule

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

Earning Continuing Education Units (CEUs)

SIGCHI offers CEUs in accordance with guidelines provided by the International Association for Continuing Education and Training (IACET).

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 half-day or 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.

After the conference, the ACE CEU Transcript Service 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, the registry 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, you may contact the ACE registry at:

Email: registries@ace.nche.edu
Tel: +1 202 939 9434
Fax: +1 202 833 3005

Transcripts may be ordered through this Web site: www.acenet.edu/calec/corporate/ceu_transcript.cfm
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<td>Butler, Jacob, Kieras</td>
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<td>3 Design Patterns for Customer-Centered Web Design</td>
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Tutorial 18 has been cancelled.
## RECOMMENDED TUTORIAL GROUPINGS

### Introduction to HCI
- 2 Human-Computer Interaction: Introduction and Overview
- 16 Drawing on the Right Side of the Brain

### Cognition and its Application to Design
- 8 Cognitive Factors in Design: Basic Phenomena in Human Memory and Problem Solving
- 31 A Cognitive Approach to Interactive System Design

### User Interface Technologies
- 1 Avoiding “We can’t change that!”: Software Architecture & Usability
- 9 Xforms: Improving the Web Forms Experience
- 27 Interaction Design of Highly Automated Domain-specific Systems

### User Centered Design and UCD Technologies
- 5 Understanding Users’ Work in Context: Practical Observation Skills
- 6 Introduction to Human-Robot Interaction
- 7 Advanced Usability Testing Methodology
- 8 Cognitive Factors in Design: Basic Phenomena in Human Memory and Problem Solving
- 13 Evaluating Interactive Products For and With Children
- 17 Your Next Usability Lab: Tools for Data Collection and Analysis
- 20 An Introduction to Augmented Reality Interface Design
- 26 Working with and Analyzing Qualitative Data
- 28 Designing Usable Telephone Speech Interfaces

### User Interaction Design
- 3 Design Patterns for Customer-Centered Web Design
- 12 User-Centered Design with Use Case and Agile Methods
- 21 Usability Design Integrating User-Centered Systems Design in the Software Development Process
- 23 Common Look & Feel: Cross-Product UI Design for Web Sites and Applications
- 24 Product Usability: Survival Techniques
- 25 Usability and Beyond! Understanding Usefulness, Usability & Use
- 29 User Requirements: Collection, Data Interpretation and Presentation

### Mobile Technology
- 6 Introduction to Human-Robot Interaction
- 15 Designing Handheld Tool for Learning
- 19 Mobile User-Interface Design: For Work, Home, and On the Way

### Social Interaction and Supporting Group Work
- 4 Cross-Cultural User-Interface Design: For Work, Home, and On the Way
- 11 Computer Supported Cooperative Work
- 14 Analyzing Social Interaction in CMC Systems

### Business Aspects of HCI
- 10 Re-positioning User Experience as a Strategic Process
- 22 Web Bloopers: Avoiding Common Web Design Mistakes
- 30 High-Technology Innovation and Entrepreneurship: Principles and Pitfalls, with Case Studies of HCI Firms
Saturday Evening Tutorials

1 Avoiding “We can’t change that!”: Software Architecture & Usability
Saturday, 18:00 – 21:30
Hall M

Bonnie John & Len Bass • Carnegie Mellon University, USA
Natalia Juristo • Technical University of Madrid, Spain
Maribel Sanchez-Segura • Carlos III University of Madrid, Spain

The usability analyses or user test data are in; the development team is poised to respond. The software had been carefully modularized so that modifications to the UI can be fast and easy. When the usability problems are presented, someone around the table exclaims, “Oh, no, we can’t change THAT!”

2 Human-Computer Interaction: Introduction and Overview
Saturday, 18:00 – 21:30
Hall N

Keith A. Butler • Boeing Mathematics & Computing Technology, USA
Robert J.K. Jacob • Tufts University, USA
David Kieras • University of Michigan, USA

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

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

Sunday Tutorials

3 Design Patterns for Customer-Centered Web Design
Sunday, 09:00 – 17:30
Hall L

James Landay • University of Washington, USA
Douglas van Duyne • NetRaker Corp., USA

When it comes time to build a new web site, does your organization continue to reinvent the wheel? This tutorial provides a foundation to learn from past designs. You will learn the key design patterns that contribute to user success on web sites, as well as how to develop your own patterns to meet your organization’s needs.

4 Cross-Cultural User-Interface Design: For Work, Home, and On the Way
Sunday, 09:00 – 17:30
Hall P

Aaron Marcus • President, Aaron Marcus and Associates, USA

Learn
• Culture-dimension concepts
• How culture dimensions relate to UI design, persuasion, trust, intelligence, cognition
• Influence of culture on corporate UI standards

5 Understanding Users’ Work in Context: Practical Observation Skills
Sunday, 09:00 – 17:30
Hall N

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

Observational studies of users in their work environments are a key element of user-centered design, but doing this kind of research requires new skills. This hands-on tutorial teaches practitioners how to plan and carry out observational studies of users. It focuses on practical solutions, skills and well-proven tools for participants to use in their own work. You will learn four types of observational techniques.

6 Introduction to Human-Robot Interaction
Sunday, 09:00 – 17:30
Room OE-8

Holly Yanco • University of Massachusetts at Lowell, USA
Jean Scholtz • NIST, USA

Participants will get an overview of the emerging field of Human-Robot Interaction (HRI) including a background in robotics, the state of the art in human-robot interaction, and hands-on interaction with robots.

7 Advanced Usability Testing Methodology
Sunday, 09:00 – 17:30
Hall G

Rolf Molich • DialogDesign, Denmark

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

8 Cognitive Factors in Design: Basic Phenomena in Human Memory and Problem Solving
Sunday, 09:00 – 17:30
Hall H

Thomas T. Hewett • Drexel University, USA

You will learn some theoretical and practical aspects of how people remember information and how they solve problems. You will gain insights about how to take advantage of some of these capabilities in designing for your most important interaction component, the human mind.
9

**XForms: Improving the Web Forms Experience**

**Sunday, 09:00 – 17:30**

**Hall K**

Steven Pemberton • W3C and CWI, Amsterdam

This full day tutorial introduces the new XForms technology for doing forms on the Web, and gives you the opportunity to build some working forms hands-on. XForms makes it easier to design and author complicated forms, and improves the user experience by allowing more to be checked in the browser. The tutorial will additionally describe usability, accessibility, device independence, internationalization, and how XForms integrates with XML.

10

**Re-positioning User Experience as a Strategic Process**

**Sunday, 09:00 – 17:30**

**Room OE-6**

Jon Innes • Vitria Technology, USA

Liam Friedland • Westbridge Technology, USA

User Experience (UE) is often relegated to a service role within product development organizations, instead of being viewed as a strategic business asset with direct impact on the company’s bottom line. This tutorial combines lecture and group exercises to demonstrate a framework for understanding UE as a strategic business process and positioning it within your company.

11

**Computer Supported Cooperative Work**

**Sunday, 09:00 – 17:30**

**Room U2-11**

Steven Poltrock • Boeing Phantom Works, USA

Jonathan Grudin • Microsoft Research, USA

Computer use today is about interacting, communicating, collaborating. Learn where we’ve been, where we are, where we’re going. This tutorial considers technologies that support small groups, organizations, and communities. Our focus is on behavior: the activities that technologies support, experiences and challenges in adopting and using them. We discuss research, products, and trends.

12

**User-Centered Design with Use Case and Agile Methods**

**Sunday, 09:00 – 17:30**

**U2-1**

William Hudson • Syntagm Ltd, UK

You will learn how “just-in-time” design presents challenges to the development of usable systems and how to overcome them. The tutorial describes the case for early conceptual design of interactive systems, the practical use of metaphor and an approach to user interface development based on UML.

13

**Evaluating Interactive Products for and with Children**

**Sunday, 09:00 – 17:30**

**Room O1-5**

Stuart MacFarlane, Janet Read • University of Central Lancashire, UK

Johanna Höysniemi • University of Tampere, Finland and University of Art and Design Helsinki, Finland

Panas Markopoulos • Eindhoven University of Technology, The Netherlands

Participants will become familiar with a number of evaluation methods that have proved useful with child users, appreciate how evaluation can address fun as well as usability, and appreciate the challenges and rewards of working with children as evaluators.

14

**Analyzing Social Interaction in CMC Systems**

**Sunday, 09:00 – 17:30**

**Room OE-7**

Susan Herring • Indiana University, USA

Marc Smith • Microsoft Research, USA

Learn about social software systems and communication in social cyberspaces. Learn conceptual frameworks from linguistics and sociology that provide insight into online social interaction. Select and apply tools for mining and visualizing social information from computer-mediated communication (CMC) databases.

15

**Designing Handheld Tools for Learning**

**Sunday, 09:00 – 17:30**

**Hall O**

Chris Quintana, Elliot Soloway • University of Michigan, USA

Cathleen Norris • University of North Texas, USA

Carolyn Gale • Stanford University, USA

You will explore how the growing family of handheld computing devices (e.g., Palms, Pocket PC’s, etc.) can offer new opportunities to support learning activities “anytime, anywhere.” Hands-on activities give you the opportunity to interact with handheld devices and understand how these mobile tools can support a variety of learning activities.

16

**Drawing on the Right Side of the Brain**

**Sunday, 09:00 – 17:30**

**Hall M**

Brian Bomeisler • DRSBInc., USA

There is a need in the computing world which is largely left-brained dominated, to access each individual’s less dominant right brain not only for enlightenment but for creative problem solving. The course is specifically designed for those “left-brained” individuals.
Monday Tutorials

17
Your Next Usability Lab: Tools for Data Collection and Analysis
Monday, 09:00 – 12:30 (half-day)
Hall P

Lucas P.J.J. Noldus, Tobias Heffelaar •
Noldus Information Technology bv, The Netherlands

In this tutorial, participants will learn:
• the state of the art in usability lab hardware and software technology
• the latest developments in relevant computer and video technology
• how software tools support the key data collection and analysis steps
• how to select the optimal tool for a given set of test requirements
• hands-on experience with tools for data collection and analysis

19
Mobile User-Interface Design: For Work, Home, and On the Way
Monday, 09:00 – 17:30
Hall M

Aaron Marcus • President, Aaron Marcus and Associates, USA

Learn:
• Key UI design issues for phones, PDAs, vehicles
• How to do user models, task analysis, heuristic evaluations, screen layout
• Influence of culture, emotion
• Successes/failures of product/service providers

20
An Introduction to Augmented Reality Interface Design
Monday, 09:00 – 17:30
Hall N

Mark Billinghurst •
University of Canterbury, New Zealand

Augmented Reality (AR) involves the overlay of virtual images on the real world. Participants will learn how to develop effective AR interfaces, techniques for interface evaluation and the tools necessary for application development.

21
Usability Design - Integrating User-Centered Systems Design in the Software Development Process
Monday, 09:00 – 17:30
Hall O

Jan Gulliksen •
Uppsala University, Sweden
Bengt Guransson, Enea Redina •
Sweden

The attendees will learn how the full scope of UCSD can be integrated in a software development process.

22
Web Bloopers: Avoiding Common Web Design Mistakes
Monday, 09:00 – 17:30
Hall G

Jeff Johnson •
UI Wizards, Inc., USA

After completing this tutorial, participants will:
• Have seen the most common Web design errors and ways to avoid them.
• Be able to recognize those errors in websites and Web applications.
• Be better designers and customers of websites and online services.

23
Common Look & Feel: Cross-Product UI Design for Web Sites and Applications
Monday, 09:00 – 17:30
Hall H

Kevin Mullet •
Experience Design Reactor, USA
Erric Solomon •
Synopsys Inc., USA

This tutorial describes 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 Look and Feel Convergence Plan for advancing the cause of cross-product UI design in your organization.

24
Product Usability: Survival Techniques
Monday, 09:00 – 17:30
Hall K

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

To successfully compete in today’s fast-paced environment, development organizations need quick ways to get feedback from their users and incorporate it in the product’s design. This full-day tutorial shows participants how to produce a more usable product by prototyping and testing a design in a matter of hours, using readily available materials that require no specialized expertise.
Usability and Beyond! Understanding Usefulness, Usability & Use
Monday, 09:00 – 17:30
Room U2-11
Diane J. Schiano • Stanford University, USA
Gain understanding of user research design principles and learn a toolkit of practical and effective methods useful throughout product design and deployment, even with limited resources.

Working with and Analyzing Qualitative Data
Monday, 09:00 – 17:30
Room OE-7
David A. Siegel, Ph.D. and Susan M. Dray, Ph.D. • Dray & Associates, Inc., USA
Qualitative user research is essential to user-centered design. Unfortunately, the data from these studies are often overwhelming, both in volume and in ambiguity. As a result, conclusions are often impressionistic or anecdotal, with vague or even misleading implications for design. This workshop will teach you practical strategies for study planning, data collection, and analysis to improve the credibility and validity of your findings, to keep them focused on design, and to help you avoid drowning in your data.

Interaction Design of Highly Automated Domain-specific Systems
Monday, 09:00 – 17:30
Room OE-6
Guy Boy • European Institute of Cognitive Sciences and Engineering, France
Jeffrey Bradshaw • Institute for Human and Machine Cognition, USA
This tutorial will introduce participants to emerging changes in the way people interact with machines, and they will be able to better understand and use more effectively current concepts in interaction design of highly automated domain-specific systems.

Designing Usable Telephone Speech Interfaces
Monday, 09:00 – 17:30
Room U2-1
Jennifer Lai • IBM Research, USA
Bernhard Suhm • BBN Technologies, USA
Kate Dobroth • Mindframe Design, USA
Learn how to design a telephone speech application along with techniques for analyzing existing applications and tools for effective speech usability testing.

User Requirements: Collection, Data Interpretation and Presentation
Monday, 09:00 – 17:30
Room OE-8
Kathy Baxter • eBay, USA
Catherine Courage • Oracle Corp., USA
This tutorial will provide attendees with the skills to conduct three effective and low cost user requirements techniques (Wants and Needs Analysis, Group Card Sort, and Group Task Analysis). Each method provides different information requirements information (functional requirements, information architecture and task flows, respectively).

High-Technology Innovation and Entrepreneurship: Principles and Pitfalls, with Case Studies of HCI Firms
Monday, 09:00 – 17:30
Room O1-5
Ron Baecker • University of Toronto, Canada
You will learn principles for crafting a profitable growing business or line of business, better understand problems and pitfalls, and gain practice thinking about strategic issues.
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Workshops

Workshops provide an extended forum for small groups (15-20 people) to exchange ideas on a specific topic of common interest. CHI2004 offers workshops covering a wide range of HCI topics.

Workshop participants were selected prior to CHI 2004 based on submitted position statements outlining participants’ views on the workshop theme and reasons for interest in the workshop topic.

Sunday & Monday

1. Human-Computer-Human Interaction Patterns: Workshop on the Human Role in HCI Patterns
   Sunday & Monday, 9:00 – 17:30
   Room U2-6
   Till Schuemmer • FernUniversitaet in Hagen, Germany
   Jan Borchers • RWTH Aachen, Germany
   John C. Thomas • IBM T. J. Watson Research Center, USA
   Uwe Zdun • Vienna Univ. of Economics, Austria

2. Designing for Reflective Practitioners: Sharing and Assessing Progress by Diverse Communities
   Sunday, 9:00 – 17:30
   Room U2-3
   Johan Schuurmans • IBM, The Netherlands
   Boris de Ruyter • Philips, The Netherlands
   Harry van Vliet • Telematica Instituut, The Netherlands

3. Identifying Gaps between HCI, Software Engineering and Design, and Boundary Objects to Bridge Them
   Sunday & Monday, 9:00 – 17:30
   Room U2-7
   Bonnie E. John • HCI Institute, Carnegie Mellon University, USA
   Len Bass and Rick Kazman • Software Engineering Institute, Carnegie Mellon University, USA
   Eugene Chen • Aaron Marcus and Associates, Inc. (AM+A), USA

4. Time Design
   Sunday, 9:00 – 17:30
   Room U2-2
   Michael Hildebrandt • York University, UK
   Alan Dix • UK
   Herbert A. Meyer • Germany

5. User Profiling
   Sunday, 9:00 – 17:30
   Room U2-3
   Johan Schuurmans • IBM, The Netherlands
   Boris de Ruyter • Philips, The Netherlands
   Harry van Vliet • Telematica Instituut, The Netherlands

6. Cross-Dressing and Border Crossing: Exploring Experience Methods Across Disciplines
   Sunday, 9:00 – 17:30
   Room U2-5
   Ron Wakkary, Thecla Schiphorst, Jim Budd • Simon Fraser University, Canada

7. Shaping Human-Robot Interaction
   Sunday, 9:00 – 17:30
   Room U2-8
   Christoph Bartneck • Technical University of Eindhoven, The Netherlands
   Jodi Forlizzi • Carnegie Mellon University, USA

8. HCI and Homecare: Connecting Families and Clinicians
   Sunday, 9:00 – 17:30
   Room U2-9
   Lena Mamykina • Siemens Corporate Research, Inc., USA
   Jakob E. Bardram • University of Aarhus, Denmark
   Ilkka Korhonen • VTT Information Technology, Finland
   Elizabeth Mynatt • Georgia Institute of Technology, USA
   Wanda Pratt • University of Washington, USA

9. Lost in Ambient Intelligence
   Sunday, 9:00 – 17:30
   Room U2-10
   Anton Nijholt • Technical University of Eindhoven, The Netherlands
   Thomas Rist • DFKI, Germany
   Kees Tuinenbreijer • Philips CDS, The Netherlands

10. Ambient Intelligence for Scientific Discovery
    Sunday, 9:00 – 17:30
    Room U2-12
    Co-Chairs:
    Yang Cai • Carnegie Mellon University, USA
    Judith Klein-Seetharaman • Forschungszentrum Juelich, Germany

Workshop Program Committee:
- Elena Zudilova • University of Amsterdam, Netherlands
- Gregory O’Hare • University College Dublin, Ireland
- Peter Jones • Redesign Research, USA
- Yongxiang Hu • NASA Langley Research Center, USA
- Birh Pham • Queensland University of Technology, Australia
- Tony Adriaansen • Telecommunications & Industrial Physics CSIRO, Australia

Monday

1. Exploring the Relationship between Design and HCI
   Sunday, 9:00 – 17:30
   Room O1-2
   John Zimmerman • Shelley Evenson, Carnegie Mellon University, USA
   Konrad Baumann • FH Joanneum, Austria
   Peter Purgathofer • University of Technology, Design and Assessment, Austria
12 The Temporal Aspects Of Work For HCI
Sunday, 9:00 – 17:30
Room U2-2
Peter Wild, Peter Johnson • University of Bath, UK
Christ Roast • Sheffield Hallam University, UK
Mary Czerwinski • Microsoft Research, USA

16 Helping Users to Use Help: Improving Interaction with Help Systems
Sunday, 9:00 – 17:30
Room U2-8
Garett Dworman, Stephanie Rosenbaum • TecEd, Inc., USA

13 Home Technologies to Keep Elders Connected
Sunday, 9:00 – 17:30
Room U2-3
Jay Lundell, Margaret Morris • Intel Research, USA
Stephen Intille • MIT, USA

14 Considering Trust in Ambient Societies
Sunday, 9:00 – 17:30
Room U2-4
Stephen Marsh • National Research Council, Canada
Pamela Briggs • University of Northumbria, UK
Waleed Wagaeila • University of Strathclyde, UK

15 “Scientists, designers seek same for good conversation”: A Workshop on Online Dating
Sunday, 9:00 – 17:30
Room U2-5
Andrew T. Fiore, Jeana Frost, Judith S. Donath • MIT Media Lab, USA

17 Forecasting Presence and Availability
Sunday, 9:00 – 17:30
Room U2-9
Joe Tullio • Georgia Institute of Technology, USA
James “Bo” Begole • Sun Microsystems Laboratories Europe, France
Eric Horvitz • Microsoft Research, USA
Elizabeth D. Mynatt • Georgia Institute of Technology, USA

18 Reflective HCI: Towards a Critical Technical Practice
Sunday, 9:00 – 17:30
Room U2-10
Paul Dourish • University of California, Irvine, USA
Janet Finlay • Leeds Metropolitan University, UK
Phoebe Sengers • Cornell University, USA
Peter Wright • University of York, UK

19 Social Learning through Gaming
Sunday, 9:00 – 17:30
Room U2-12
Elaine Raybourn • Sandia National Laboratories, USA
Annika Vaaram • Swedish Institute of Computer Science, Sweden

Development Consortium
Sunday, Room O1-2

Development Consortium Co-Chairs:
Austin Henderson • Pitney Bowes, USA
Gerrit van der Veer • Vrije Universiteit, The Netherlands

Former and current political situations as well as monetary issues still do prevent full development of HCI in several parts of the world, e.g. the Eastern part of Europe and parts of the Middle East and of Asia. HCI activities there have been rather isolated from each other and from the rest of the world. CHI2004, taking place in Vienna, the very heart of Europe and close to the Middle East, focuses on the connection between the “traditional” SIGCHI community and HCI related groups and individuals in this part of the world. The Development Consortium supports development and connection, building on existing nuclei of HCI related people and projects in Industry and Academia, including individual efforts as well as established local groups.

Participants have been invited on the basis of position papers submitted to the Consortium’s organizer. This session is open to anyone attending CHI2004.

Development Consortium Participants
Ivan Burmistrov • Moscow State University, Russia
Cristina Chisali • Vrije Universiteit Amsterdam, The Netherlands
Platon Dneprovsky • UDesign Group Moscow, Russia
Igor Garnik • Gdansk University of Technology, Poland
Kaushik Ghosh • Computer Society of India, Mumbai, India
Anirudha Joshi • Indian Institute of Technology, Bombay, India
Alexey Kopylov • UIDesign Group Moscow, Russia
Yaroslav Perevalov • RTS Stock Exchange Moscow, Russia
Costin Pribeanu • National Institute R&D in Informatics, Bucharest, Romania
Marcin Sikorski • Gdansk University, Poland
Andy Smith • University of Luton, UK
Marcin Wichary • Technical University of Eindhoven, The Netherlands
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. This session is open only to confirmed participants.

**Doctoral Consortium Co-Chairs**

Elizabeth Churchill • FX Palo Alto, USA
Jean Vanderdonckt • Université Catholique de Louvain, Belgium

**Doctoral Consortium Participants**

The Affective Connection: How And When Users Communicate Emotion
Lesley Axelrod • Brunel University, UK

Modeling Analyst Performance for Usability Inspection
Alan Woolrych • University of Sunderland, UK

VRMath: Knowledge Construction of 3D Geometry in Virtual Reality Microworlds
Andy Yeh • Queensland University of Technology, Australia

Nonprogrammer Web Application Development
Jochen Rode • Virginia Polytechnic Institute and State University, USA

Supporting The Professional Readers Of Online Documents
Mark Melenhorst • University of Twente, The Netherlands

Objectively Evaluating Entertainment Technology
Regan Lee Mandryk • Simon Fraser University, Canada

How Do People Organize Their Desktops?
Sarah Henderson • University of Auckland, New Zealand

MAPS: Creating Socio-Technical Environments in Support of Distributed Cognition for People with Cognitive Impairments and Their Caregivers
Stefan Carmien • University of Colorado at Boulder, USA

Designing Interfaces that Influence Group Processes
Joan Morris DiMicco • MIT Media Lab, USA

Barriers to Inclusive Design in the UK Industry
Hua Dong • University of Cambridge, UK

Connecting Bridges across the Digital Divide
William D. Tucker • University of Cape Town, South Africa

Designing Smooth Connections Between Worlds
Daniela Gorski Trevisan • Université Catholique de Louvain, Belgium

Connecting With the Absent Presence: Pervasive Technology Use and Community Level
Lisa Kleinman • University of Texas, USA

Interactivity and Conceptual Learning in Virtual Environments for Children
Maria Roussou • University College London, UK

Factors Affecting the Utility of Technology-Mediated Collaboration in Science and Engineering
Jeremy Birnholtz • University of Michigan, USA

**CHI Fringe 1 and 2**

These two sessions let controversial, hard to publish, alternative perspectives on HCI express themselves. Contributions to CHI Fringe were selected by the fringe chairs and are available on-line at CHI Place (www.chiplace.org).

**Sessions:**

Wednesday, 16:30 – 18:00
Hall E1

Thursday, 11:30 – 13:00
Hall E2

**Co-Chairs:**

Roel Vetegaal • Queen’s University, Canada
Philip McKay • Sony Corp., USA

**Ambient Intelligence (AmI) Sessions**

This year there are special sessions for five special areas:

- Ambient Intelligence (AmI)
- European HCI Research
- Games
- Mobile Communications
- Robotics and Transport

In Europe the vision of Ambient Intelligence (AmI) has been adopted to guide and shape EC-funded research activities on information and telecommunication technologies for the coming 10 years. HCI will be one of the central building blocks of the upcoming AmI era.

**Chair:**

Thomas Rist • DFKI, Germany

**Ambient Intelligence (AmI) Chair:**

Thomas Rist • DFKI, Germany

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**Chair:**

Thomas Rist • DFKI, Germany
European HCI Research
Session: Thursday 14:00 – 16:30
Hall G

Co-Chairs:
Phillipe Palanque • LIHS-IRIT
Université Toulouse 3, France

Gerd Swillus •
University of Paderborn, Germany

CHI2004 takes advantage of its central European location to focus on HCI research by and for the European community.

Games
Session: Tuesday, 11:30 – 13:00
Hall D

Chair: Kevin Keeker • Microsoft, USA

Games represent one of the most diverse set of challenges and user experiences in our field with innovations in interface design, input devices, graphics, social communication and development processes.

Mobile Communications
Sessions: Thursday, 09:00 – 10:30, Hall H
Thursday, 11:30 – 13:00, Hall E1

Chair: Bruno von Niman • von niman consulting & ETSI, Sweden

Mobile communications are offering expanded and increasingly complex and interesting applications to a rapidly growing base of users. These sessions focus on the user interface for the future information technology society, shifting the device-driven perspective to a service- and experience-centered world.

Robotics and Transport
Sessions: Tuesday
14:30 – 16:00 &
16:30 – 18:00, Hall D

Chair: Jean Scholtz • NIST, USA

CHI2004 will look at designing for interaction on the move, focusing on robots and transport. Sessions will explore the challenges in designing user interfaces for platforms with some degree of autonomy that move in physical spaces.
Opening Plenary
09:00 – 10:30, Hall D

Next Reality: The Future of Connected Everyday
Jun Rekimoto • Sony Computer Science Laboratories, Inc., Japan

As the wave of ubiquitous computing rapidly penetrates into our everyday lives, the focus of human computer interactions is also shifting from simply improving individual “boxes” to enhancing more connected activities and communications. In this talk Dr. Rekimoto will discuss how such pervasive connectivity will change our physical space, and what the user interface challenges will be, presenting a new way of thinking about human interfaces and applications especially in a ubiquitous computing domain.

Jun Rekimoto received the B.A.Sc., the M.Sc. and the Ph.D. in Information Science from Tokyo Institute of Technology in 1984, 1986, and 1996, respectively. From 1986 to 1994, he worked for the Software Laboratory of NEC. During 1992-1993, he worked in the Computer Graphics Laboratory at the University of Alberta, Canada, as a visiting scientist. Since 1994 he has worked for Sony Computer Science Laboratories. In 1999 he formed, and has since directed, the Interaction Laboratory within Sony CSL.

At Sony CSL, Dr. Rekimoto initiated and led the “Real-World User Interfaces” project since 1994. This project produced several research accomplishments, including NaviCam (a situationally-aware mobile assistant), Pick-and-Drop (a direct-manipulation technique for inter-appliance computing), Multiple-Device Digital Whiteboard, Augmented Surfaces, and TimeScape (time-machine user interface environment). Some of these results are being commercialized in Sony’s personal computer series called “VAIO.”

Dr. Rekimoto’s research interest includes computer augmented environments, mobile/wearable computing, virtual reality, and information visualization. He has authored dozens of refereed publications in the area of human-computer interactions, including ACM CHI and UIST. One of his works was recognized with the 30th commemorative papers award from the Information Processing Society Japan (IPSJ) in 1992. He also received the Multi Media Grand Prix Technology Award from the Multi-Media Contents Association Japan in 1998, and Yamashita Memorial Research Award from IPSJ in 1999.

Tuesday 11:30 – 13:00

Design Expo 1
Getting Down to Business
Hall F

Session Chair: Ian McClelland • Philips Digital Systems Laboratory, The Netherlands

From Tools to Tasks: Discoverability and Adobe Acrobat 6.0
Ron Mendoza, Kaari Peterson • Adobe Systems, USA

The Palm Zire 71 Camera Interface
Ron Fernandez • PalmOne, Inc., USA

User-Centered eService Design and Redesign
Esin Kiris • AT&T Research Lab, USA

Keylekh: A Keyboard for Text Entry in Indic Scripts
Anirudha Joshi • India Institute of Technology, Bombay, India
Ashish Ganu, Aditya Chand, Vikram, Parmar, Gaurav Mathur • Media Lab Asia

Collision Warning Design to Mitigate Driver Distraction
John Lee, Joshua Hoffman • University of Iowa, USA
Elizabeth Hayes • Daimler/Chrysler, USA

Creating an Educational Digital Library: GROW a National Civil Engineering Educational Resource Library
Janice Lodato • University of Arizona, USA

Papers
Keeping Safe
Hall E1

Session Chair: Fabio Paternò • ISTI-C.N.R., Italy

Presiding Over Accidents: System Direction of Human Action
Jeffrey Heer, Nathaniel S. Good, Ana Ramirez, Marc Davis, Jennifer Mankoff • UC Berkeley, USA
Leila Takayama • Stanford University, USA
James Landay • Intel Research Seattle, USA

Ubiquitous Computing for Firefighters: Field Studies and Prototypes of Large Displays for Incident Command
Xiaodong Jiang, Jason Hong • UC Berkeley, USA
Leila Takayama • Stanford University, USA
James Landay • Intel Research Seattle, USA

Collision Warning Design to Mitigate Driver Distraction
John Lee, Joshua Hoffman • University of Iowa, USA
Elizabeth Hayes • Daimler/Chrysler, USA
Tuesday 11:30 – 13:00

**Papers**

**Managing Multiple Tasks**
**Hall E2**

Session Chair: Mary Czerwinski • Microsoft, USA

**Effects of Instant Messaging on the Management of Multiple Project Trajectories**
Susan Fussell, Sara Kiesler, Leslie Setlock, Peter Scupelli • Carnegie Mellon University, USA
Suzanne Weisband • University of Arizona, USA

**IM Here: Public Instant Messaging on Large, Shared Displays for Workgroup Interactions**
Elaine M. Huang • Georgia Institute of Technology, USA
Daniel M. Russell, Alison E. Sue • IBM Almaden Research Center, USA

**Acquiring In Situ Training Data for Context-Aware Ubiquitous Computing Applications**
Stephen S. Intille, Ling Bao, Emmanuel Munguia Tapia, John C. Rondoni • Massachusetts Institute of Technology, USA


Tuesday 11:30 – 13:00

**Papers**

**Ambient Intelligence**
**Hall G**

Session Chair: Mikael Wieberg • Umeå University, Sweden

**Social and Temporal Structures in Everyday Collaborations**
Danyel Fisher, Paul Dourish • University of California, Irvine, USA

**Telemurals: Linking Remote Spaces with Social Catalysts**
Karrie Karahalios, Judith Donath • Massachusetts Institute of Technology, USA

**Transcendent Communication: Location-Based Guidance for Large-Scale Public Spaces**
Hideyuki Nakanishi • Kyoto University, Japan
Satoshi Koizumi • JST CREST Digital City Research Center, Japan
Toru Ishida, Hideaki Ito • Kyoto University, Japan


Tuesday 11:30 – 13:00

**Special Area Games**

**What’s My Method? A Game Show on Games**
**Hall D**

Organizers: Nicole Lazarro • XEODesign, Inc., USA
Kevin Keeker • Microsoft, USA

Game Show Participants:
Jun Kim • Microsoft Game Studios, USA
Nicole Lazarro • XEODesign, Inc., USA
Heather Desurvire • Behavioristics, Inc., USA
Jonathan Sykes • Glasgow Caledonian University, Scotland
Steve Cornett • Indiana University, USA
Bill Fulton • Microsoft Game Studios, USA
Kevin Keeker • Microsoft Game Studios, USA


Tuesday 11:30 – 13:00

**Short Talks**

**Out-of-Pocket Experiences**
**Hall I**

Session Chair: Manfred Tscheligi • University of Salzburg and CURE, Austria

Facilitating Mobile Communication with Multimodal Access to Email Messages on a Cell Phone
Jennifer Lai • IBM Research, USA

The Effects of Background Music on Using a Pocket Computer in a Cafeteria: Immersion, Emotional Responses, and Social Richness of Medium
Kari Kallinen • Helsinki School of Economics, Finland

Use of Mobile Appointment Scheduling Devices
Thad E. Starner, Cornelis M. Snoeck, Benjamin A. Wong, R. Martin McGuire • Georgia Tech, USA

Designing Visual Notification Cues for Mobile Devices
Christopher Campbell • IBM Almaden Research Center, USA
Peter Tarasewich • Northeastern University, USA

MiniMedia Surfer: Browsing Video Segments on Small Displays
Maryam Kamvar • Columbia University, USA
Patrick Chiu, Lynn Wilcox, Sandeep Casi, Surapong Lertsithichai • FX Palo Alto Laboratory USA

Examining Mobile Phone Text Legibility while Walking
Terhi Mustonen, Maria Olkkonen, Jukka Häkkinen • Nokia Research Center, Finland

**SIG**

**Tips and Tricks for a Better International Usability Test**
**Hall M**

Organizers: Rolf Molich • DialogDesign, Denmark
Susan Dray, David Siegel • Dray & Associates, USA


Tuesday 11:30 – 13:00

**Short Talks**

**Out-of-Pocket Experiences**
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**Hall M**

Organizers: Rolf Molich • DialogDesign, Denmark
Susan Dray, David Siegel • Dray & Associates, USA
Tuesday Sessions

Short Talks
Sharing for a Better Tomorrow
Hall K

Session Chair: Lena Mamykina • Siemens Corporate Research, USA

Collections: Flexible, Essential Tools for Information Management
Dennis Quan • IBM T. J. Watson Research Center, USA
David Karger • MIT CSAIL, USA

IdeaKeeper Notepads: Scaffolding Digital Library Information Analysis in Online Inquiry
Chris Quintana • University of Michigan, USA

Tangible Interface for Collaborative Information Retrieval
Alan F. Blackwell, Mark Stringer, Eleanor F. Toye, Jennifer A. Rode • University of Cambridge, UK

Document Co-organization in an Online Knowledge Community
Harris Wu, Michael D. Gordon, Kurt DeMaagd • University of Michigan, USA

Release, Relocate, Reorient, Resize: Fluid Techniques for Document Sharing on Multi-User Interactive Tables
Meredith Ringel • Stanford University, USA
Kathy Ryall, Chia Shen, Clifton Forlines • Mitsubishi Electric Research Laboratories, USA
Frederic Vernier • University of Paris, France

An Information Visualization Framework for Intrusion Detection
Anita Komlodi, John R. Goodall, Wayne G. Lutters • UMBC, USA

Tuesday 14:30 – 16:00

Papers/Short Talks
Robots 1
Hall F

Session Chair: Jill Drury • MITRE Corporation, USA

PAPERS
Fan-out: Measuring Human Control of Multiple Robots
Dan Olsen, Stephen Wood • Brigham Young University, USA

Dual Ecologies of Robot as Communication Media: thoughts on Coordinating Orientations and Projectability
Hideaki Kuzuoka • University of Tsukuba, Japan
Keiichi Yamazaki • Saitama University, Japan
Akiko Yamazaki • Future University-Hakodate, Japan
Jun’ichi Kosaka • University of Tsukuba, Japan
Yasuko Suga • Saitama University, Japan

SHORT TALKS
Robotic Pets in the Lives of Preschool Children
Peter H. Kahn Jr., Batya Friedman • University of Washington, USA
Deanne R. Perez-Granados • Stanford University, USA
Nathan G. Freier • University of Washington, USA

Active Eye Contact for Human-Robot Communication
Dai Miyauchi, Arihiro Sakurai, Akio Nakamura, Yoshinori Kuno • Saitama University, Japan
Tuesday 14:30 - 16:00

Papers
Information Management
Hall E2

Session Chair: George Furnas • University of Michigan, USA

What A To-Do: Studies of Task Management Towards the Design of a Personal Task List Manager
Victoria Bellotti, Brinda Dalal • PARC, USA
Nathaniel Good • UC Berkeley, USA
Peter Flynn • Cornell University, USA
Danny Bobrow, Nicolas Ducheneaut • PARC, USA

Stuff Goes in But it Doesn’t Come Out: A Cross-tool Study of Personal Information Management
Richard P. Boardman • Imperial College London, UK
M. Angela Sasse • University College London, UK

If Not Now, When?: The Effects of Interruption at Different Moments Within Task Execution
Piotr D. Adamczyk, Brian P. Bailey • University of Illinois at Urbana-Champaign, USA

Papers
Universal Usability
Hall G

Session Chair: Costin Pribeanu • ICI National Institute for R&D in Informatics, Romania

The Participatory Design of a Sound and Image Enhanced Calendar for People with Aphasia
Karyn Moffatt, Joanna McGrenere, Barbara Purves • University of British Columbia, Canada
Maria Klawe • Princeton University, USA

Isolating the Effects of Visual Impairment: Exploring the Effect of Amd on the Utility of Multimodal Feedback
Julie A. Jacko, Leon Barnard, Thitima Kongnakorn, Kevin P. Moloney, Paula J. Edwards, V. Kathlene Emery, François Sainfort • Georgia Institute of Technology, USA

Analyses of Combinatorial User Effect in International Usability Tests
Effie Lai-Chong Law • Eidgenössische Technische Hochschule Zürich, Switzerland
Ebba Thora Hvannberg • University of Iceland, Iceland

Tuesday 14:30 - 16:00

Demos
Computer-Supported Interactions
Hall H

Session Chair: Cecile Paris • CSIRO, Australia

ED-Lite: A Portable System for Anywhere Interactions
Nori Sukaviriya, Rick Kjeldsen, Claudio Pinhanez, Lijun Tang, Anthony Levas, Gopal Pingali, Mark Podlaseck • IBM TJ Watson Research Labs, USA

Explorations in an Activity-Centric Collaboration Environment
Beth Brownholtz, Werner Geyer, Michael Muller, Eric Wilcox, David Millen • IBM TJ Watson Research Labs, USA

Ambient Agoras - InfoRiver, SIAM, Hello.Wall & ViewPort
Thorsten Prante, Richard Stenzel, Carsten Röcker, Norbert Streitz, Carstan Magekurth • Fraunhofer IPSI, Germany

Panel
Video Visions of the Future: A Critical Review
Hall D

Organizer: Eric Bergman • Sun Microsystems, USA

Eric Bergman • Sun Microsystems, USA
Arnold Lund • Microsoft Corporation, USA
Hugh Dubberly • Dubberly Design Office, USA
Bruce Tognazzini • Nielsen Norman Group, USA
Stephen Intille • MIT, USA
HCI Overviews 1
User Centered Technologies and Society
Hall M

Session Chair: Tom Gross • Bauhaus-University Weimar, Germany

HCI Group of the Department of Ergonomics and Psychology at the Budapest University of Technology and Economics
Lajos Izsó, Károly Hercegfi • Budapest University of Technology and Economics, Hungary

User Centered Technologies Research Institute
Guido Kempter, Miglena Dontschewa, Philipp von Hellberg, Karl-Heinz Weidmann • University of Applied Sciences Vorarlberg, Austria

Advanced Studies and Research in Information and Communication Technologies & Society: The ICT&S-Center
Manfred Tscheligi • CURE – Center for Usability Research & Engineering, Austria
Regina Bernhaupt • ICT&S-Center, Salzburg University, Austria

Organizers:
Kevin Keeker, Randy Pagulayan • Microsoft Games Studios, USA
Jonathan Sykes • Glasgow Caledonian University, Scotland
Nicole Lazzaro • XEODesign Inc., USA

SIG
The Untapped World of Video Games
Hall N

Short Talks
Tell Me How You Really Feel
Hall I

Session Chair: Dorian Gorgan • Technical University of Cluj-Napoca, Romania

Passwords You’ll Never Forget, but Can’t Recall
Daphna Weinshall, Scott Kirpatrick • Hebrew University, USA

Affective Sensors, Privacy, and Ethical Contracts
Carson Reynolds, Rosalind Picard • MIT Media Lab, USA

Devices for Sharing Thoughts and Affection at a Distance
Khai Truong, Heather Richter, Gillian Hayes, Gregory Abowd • Georgia Institute of Technology, USA

Keeping in Touch with the Family: Home and Away with the ASTRA Awareness System
Panos Markopoulos, Natalia Romero, Joy van Baren, Wijnand Ijsselsteijn • Technical University Eindhoven, The Netherlands
Boris De Ruyter • Philips Research, Netherlands
Babak Farschian • Telenor Research, Norway

HIM: A Framework for Haptic Instant Messaging
Loy Rovers, Harm Essen • Eindhoven University of Technology, The Netherlands

Using Mental Load for Managing Interruptions In Physiologically Attentive User Interfaces
Daniel Chen, Roel Vertegaal • Queen’s University, Canada

Short Talks
Feet-back and Other Haptic Happenings
Hall K

Session Chair: Gerrit van der Veer • Vrije Universiteit Amsterdam, The Netherlands

Two-Handed Interaction on a Tablet Display
Ka-Ping Yee • University of California, Berkeley, USA

Appropriateness of Foot Interaction for Non-Accurate Spatial Tasks
Toni Pakkanen, Roope Raisamo • University of Tampere, Finland

Haptic Feedback for Pen Computing: Directions and Strategies
Ivan Poupyrev • Sony Computer Science Laboratories, Japan
Makoto Okabe • University of Tokyo, Japan
Shigeaki Maruyama • Sony EMCS, Japan

Finger Talk: Collaborative Decision-making Using Talk and Fingertip Interaction Around a Tabletop Display
Yvonne Rogers, William R. Hazlewood, Eli Blevis, Yoon-Kyung Lim • Indiana University - Bloomington, USA

Pointing Without a Pointer
John Williamson, Roderick Murray-Smith • University of Glasgow, UK

Preschool Children’s Use of Mouse Buttons
Juan Pablo Hourcade • U.S. Bureau of the Census, USA
Benjamin B. Bederson, Allison Druin • University of Maryland, USA
Tuesday 16:30 – 18:00

Papers/Short Talks
Robots 2
Hall F

Session Chair: Michael Goodrich • Brigham Young University, USA

PAPERS
Telepresence Control of the NASA/DARPA Segwanaut
S. Michael Goza, Robert O. Ambrose • NASA Johnson Space Center, USA
Myron A. Diftler, Ivan M. Spain • Lockheed Martin/NASA Johnson Space Center, USA

Robotic Camera Control for Remote Exploration
Stephen Hughes, Michael Lewis • University of Pittsburgh, USA

SHORT TALKS
Human-Robot Speech Interface Understanding Inexplicit Utterances Using Vision
Zaliyana Mohd Hanafiah, Chizu Yamazaki, Akio Nakamura, Yoshinori Kuno • Saitama University, Japan

A Tangible Architecture for Creating Modular, Subsumption-Based Robot Control Systems
Tim Gorton, Bakhtiar Mikhak • MIT Media Laboratory, USA

Tuesday 16:30 – 18:00

Papers
Speech and Sound
Hall E1

Session Chair: Jennifer Lai • IBM Research, USA

Flat Volume Control: Improving Usability by Hiding the Volume Control Hierarchy in the User Interface
Patrick Baudisch • Microsoft Research, USA
John Pruitt, Steve Ball • Microsoft, USA

Semantic Speech Editing
Steve Whittaker • Sheffield University, UK
Brian Amento • AT&T Labs-Research, USA

Improving Speech Playback Using Time-Compression and Speech Recognition
Sunil Vemuri, Philip DeCamp, Walter Bender, Chris Schmandt • Massachusetts Institute of Technology, USA

Tuesday 16:30 – 18:00

Papers
Collaboration
Hall E2

Session Chair: Chia Shen • Mitsubishi Electric Research Labs, USA

One Hundred Days in an Activity-Centric Collaboration Environment Based on Shared Objects
Michael Muller, Werner Geyer, Beth Brownholtz, Eric Wilcox, David R Millen • IBM Research, USA

Revealing Delay in Collaborative Environments
Carl Gutwin • University of Saskatchewan, Canada
Steve Benford • University of Nottingham, UK
Jeff Dyck • University of Saskatchewan, Canada
Mike Fraser, Ivan Vaghi, Chris Greenhalgh • University of Nottingham, UK

Caretta: A System for Supporting Face-to Face Collaboration by Integrating Personal and Shared Spaces
Masanori Sugimoto, Kazuhiro Hosoi • University of Tokyo, Japan

Tuesday 16:30 – 18:00

Papers
In the Classroom
Hall G

Session Chair: Carolyn Gale • Stanford University, USA

A Study of Digital Ink in Lecture Presentation
Richard J. Anderson • University of Washington, USA
Ruth Anderson • University of Virginia, USA
Crystal Hoyer, Steven A. Wolfman • University of Washington, USA

Design Strategies and Trade-Offs for Learner-Centered Handheld Software
Kathleen Luchini, Chris Quintana, Elliot Soloway • University of Michigan, USA

Off-Task Behavior in the Cognitive Tutor Classroom: When Students “Game The System”
Ryan Shaun Baker, Albert T Corbett, Kenneth R Koedinger, Angela Z Wagner • Carnegie Mellon University, USA
TUESDAY SESSIONS

Tuesday 16:30 – 18:00

TUESDAY SESSIONS

Demos
Engaging the Digital Environment
Hall H

Session Chair: Ron Boring • INEEL, USA

Nodding in Conversations With a Robot
Christopher Lee, Neal Lesh, Candace Sidner • MERL, USA
Louis-Philippe Morency, Ashish Kapoor, Trevor Darrell • MIT, USA

Gustbowl: Technology Supporting Affective Communication Through Routine Ritual Interactions
W. van der Hoog, Ianus Keller, Pieter Jan Stappers • Delft University of Technology, The Netherlands

Eye Contact Sensing Glasses for Attention-Sensitive Wearable Video Blogging
Connor Dickie, Roel Vertegaal, Jeffrey Shell, Changuk Sohn, Daniel Cheng, Omar Aoudeh • Queen’s University, Canada

SIG
End Users Creating Effective Software
Hall M

Organizers: Brad Myers • Carnegie Mellon University, USA
Margaret Burnett • Oregon State University, USA

SIG
eLearning and Fun
Hall N

Organizers: Lisa Neal • E-Learn Magazine, USA
Ray Perez • Office of Naval Research, USA
Diane Miller • Aptima, USA

Panel
Connecting With Large Market Customers: Can We Still Call It Usability?
Hall D

Organizer: Misha W. Vaughan • Oracle Corporation, USA
Misha Vaughan, Catherine Courage • Oracle Corporation, USA
Janice Rohn • World Savings, USA
Kath Elliot • SAP Labs, USA

Short Talks
Hail Ubiquity!
Hall I

Session Chair: Nathalie Portolan • France Telecom, France

Ubiquitous Computing Design Principles: Supporting Human-Human and Human-Computer Transactions
Tony Salvador, Steve Barile, John Sherry • Intel Corporation, USA

IN-Visible: Perceiving Invisible Urban Information through Ambient Media
Goncalo Ducla-Soares, Alejandro Zulas, Panagiotis Chatzitsakyris • MIT, USA

How Do Users Think about Ubiquitous Computing?
Khai Truong, Elaine Huang, Molly Stevens, Gregory Abowd • Georgia Institute of Technology, USA

Exploring the Design and Use of Peripheral Displays of Awareness Information
Ed S. De Guzman, Margaret Yau, Anthony Gagliano, Austin Park • UC Berkeley, USA
Anind K. Dey • Intel Research Berkeley, UC Berkeley, USA

Z-Tiles: Building Blocks for Modular, Pressure-Sensitive Floorspaces
Bruce Richardson, Krispin Leydon, Mikael Fernstrom • University of Limerick, Ireland
Joseph A. Paradiso • Media Lab Europe

A Cognitive Meta-Analysis of Design Approaches to Interruptions in Intelligent Environments
Antti Oulasvirta, Antti Salovaara • Helsinki Institute for Information Technology, Finland
Short Talks
Mark My Memories
Hall K

Session Chair: George Robertson •
Microsoft Research, USA

Context Photography:
Modifying the Digital Camera
Into a New Creative Tool
Sara Ljungblad, Maria Håkansson,
Lalya Gaye, Lars Erik Holmquist •
Viktoria Institute, Sweden

Viewing and Annotating Media
with MemoryNet
Rakhi Rajani, Alex Vorobau •
Hewlett Packard Laboratories, USA

3Book: A Scalable 3D Virtual Book
Stuart K. Card, Lichan Hong,
Jock D. Mackinlay, Ed H. Chi •
PARC, USA

eBooks with Indexes that
Reorganizes Conceptually
Ed H. Chi, Lichan Hong, Julie Heiser,
Stuart K. Card • PARC, USA

Photo Annotation on a
Camera Phone
Anita Wilhelm, Yuri Takhteyev •
University of California Berkeley, USA
Risto Sarvas • Helsinki Institute for
Information Technology, Finland
Nancy VanHouse, Marc Davis •
University of California Berkeley, USA

Digital Graffiti: Public Annotation of
Multimedia Content
Scott Carter • UC Berkeley, USA
Elizabeth Churchill, Laurent Denoue,
Jonathan Helfman, Les Nelson •
FX PAL, USA
### Wednesday 09:00 – 10:30

**Design Expo 2**

**Designing the Humane Interface**

*Hall F*

**Session Chair:** Jodi Forlizzi • Carnegie Mellon University, USA

**Disneyworld.com Redesign**

Shilpa Sood, Rhonda Gilligan, Chris Chandler, Shelley Slack • Walt Disney Parks and Resorts Online, USA

**Designing Tangible Interfaces for Children’s Collaboration**

Diana Africano, Kent Lindbergh, Peter Lundholm, Fredrik Nilbrink • Umeå University, Sweden

**360 Degrees of Usability Testing**

Michael Morgan, Laura Borns • eBay, Inc., USA

**Designing Remail: Reinventing the Email Client Through Innovation and Integration**

Bernard Kerr, Eric Wilcox • IBM Research, USA

**Flexible Interface/Application Design for Awards e-Catalog**

Larisa Gieneart, Ellissum Wolterstorff, James Matson, Martin Tschofen • Carlson Marketing Group, USA

**Designing a Multimedia Conversation Aid for Reminiscence Therapy in Dementia**

Gary Gowans, Jim Campbell, Alm Norman, Richard Dye • University of Dundee, Scotland

Atlene Astell, Maggie Ellis • Department of Psychology, University of St. Andrews, Scotland

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**Papers**

**Teamwork**

*Hall E1*

**Session Chair:** Jonathan Grudin • Microsoft, USA

**Persistence Matters: Making the Most of Chat in Tightly-Coupled Work**

Darren Gergle • Carnegie Mellon University, USA

David R. Millen • IBM T.J. Watson Research, USA

Robert E. Kraut, Susan R. Fussell • Carnegie Mellon University, USA

**Computational GOMS Modeling of a Complex Team Task: Lessons Learned**

David E. Kieras • University of Michigan, USA

Thomas P. Santoro • Naval Submarine Medical Research Laboratory, USA

**A Social Proxy for Distributed Tasks: Design and Evaluation of a Working Prototype**

Thomas Erickson • IBM T.J. Watson Research Center, USA

Wei Huang • University of Michigan, USA

Catalina Danis, Wendy A. Kellogg • IBM T.J. Watson Research Center, USA

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**Student Competition 1**

**Finalists Presentation**

*Hall E2*

**Session Chairs:** Jonathan Sykes • Glasgow Caledonian University, Scotland

Todd Zazelenchuk • Whirlpool Corporation, USA

**Papers**

**Stylus, Tap and Text**

*Hall G*

**Session Chair:** Shumin Zhai • IBM Research, USA

**Tapping vs. Circling Selections on Handheld Devices: Evidence for Different Performance-Shaping Factors**

Sachi Mizobuchi • Nokia Japan, Japan

Michiaki Yasumura • Keio University, Japan

**Performance of Menu-augmented Soft Keyboards**

Paika Isokoski • University of Tampere, Finland

**TNT – A Numeric Keypad Based Text Input Method**

Magnus Ingmarsson, David Dinka • Linköping University, Sweden

Shumin Zhai • IBM Almaden Research Center, USA

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**Papers**

**Can You Feel Me Now?**

*Hall H*

**Session Chair:** Angela Chang • Motorola Advanced Concepts Group, USA

**Papier-Mâché: Toolkit Support for Tangible Input**

Scott Klemmer, Jack Li, James Lin • UC Berkeley, USA

James Landay • University of Washington, USA

**Feeling Bumps and Holes without a Haptic Interface: the Perception of Pseudo-Haptic Textures**

Anatole Lécuyer • IRISA/INRIA, France

Jean-Marie Burkhardt • INRIA, France

Laurent Etienne • IRISA, France

**Pressure Widgets**

Gonzalo Ramos, Matthew Boulou, Ravin Balakrishnan • University of Toronto, Canada
Panel
Technology: A Mean for Enhancing the Independence and Connectivity of Older People
Hall D

Organizer: Sara J. Czaja • University of Miami, USA
Herman Bourma • Eindhoven University of Technology, The Netherlands
Sara J. Czaja • University of Miami, USA
Hiroyuk Umemuro • Tokyo Institute of Technology, Japan
Wendy A. Rogers • Georgia Institute of Technology, USA
Richard Schulz • University of Pittsburgh, USA
Sri Hastuti Kuniawan • University of Manchester, UK

SIG
Safety-Critical Interaction: Usability in Incidents and Accidents
Hall M

Organizers:
Philippe Palanque • LIIS-IRIT, France
Chris Johnson • University of Glasgow, Scotland
Floor Koornneef • Delft University of Technology, The Netherlands
Gerd Szwillis • University of Paderborn, Germany
Peter Wright • University of York, UK

Papers
End-User Programming
Hall I

Session Chair: Austin Henderson • Pitney Bowes, USA

a CAPPElla: Programming by Demonstration of Context-Aware Applications
Anind K. Dey • Intel Research Berkeley, USA
Raffay Hamid • Georgia Institute of Technology, USA
Chris Beckmann, Daniel Hsu • UC Berkeley, USA
Ian Li • University of Washington, USA

Impact of Interruption Style on End-User Debugging
Shrinu Prabhakararao, T. J. Robertson, Margaret Burnett, Curtis Cook, Joseph Ruthruff, Laura Beckwith, Amit Phalgune • Oregon State University, USA

Designing the Whyline: A Debugging Interface for Asking Questions about Program Failures
Andrew J. Ko, Brad A. Myers • Carnegie Mellon University, USA

Short Talks
Users Have Issues, Too
Hall K

Session Chair: Richard Anderson • Riander, USA

Augmenting Icons for Deaf Computer Users
Helen Petrie, Wendy Fisher • City University London, UK
Kurt Weimann, Gerhard Weber • Multimedia Campus Kiel, Germany

A Process for Creating the Business Case for User Experience Projects
Jeff Herman • eBay, Inc., USA

Email Task Management Styles: The Cleaners and the Keepers
Jacek Gwizdka • University of Toronto, Canada

Remarkable Computing - the Challenge of Designing for the Home
Marianne Graves Petersen • University of Aarhus, Denmark

Techniques for Researching and Designing Global Products in an Unstable World: A Case Study
Brooke Foucault, Ryan Russell, Genevieve Bell • Intel Corporation, USA

Electronic Privacy, Trust and Self-Disclosure in E-Recruitment
Heike Schaumburg • Humboldt Universität zu Berlin, Germany
Nickel Jennifer • Free University Berlin, Germany
Days: Wednesday 11:30 – 13:00

**Design Expo 3**
**Stories on User Experience**
**Design and Case Study Panel**
Hall F

**Session Chairs:**
- Jonathan Arnowitz • PeopleSoft, USA
- Luke Ball • Independent Consultant, USA

**The Drift Table: Designing for Ludic Engagement**
William Gaver, Andy Boucher, Sara Pennington, Brendan Walker, Royal College of Art, UK
John Bowers •
Royal Institute of Technology, UK
Hans Gellerson, Albrecht Schmidt, Nicholas Villars •
Lancaster University, UK
Anthony Steed •
University College London, UK

**Wi-Fi and Handhelds - Perfect Synergy**
Sce Pike • PalmOne, USA
Paul Osborne •
Hewlett Packard, USA

**Matching User and Business Goals**
Dana Chisnell •
Usability Works, USA
Meredith Brown •
Blue Shield of California, USA

**Papers**
**Interruptions, Interruptions, Interruptions**
**Hall E1**

**Session Chair:**
- Antti Oulasvirta • Helsinki Institute for Information Technology, Finland

**A Diary Study of Task Switching and Interruptions**
Mary Czerwinski, Eric Horvitz • Microsoft Research, USA
Susan Wilhite • Microsoft, USA

**Examining the Robustness of Sensor-Based Statistical Models of Human Interruptibility**
James Fogarty, Scott Hudson • Carnegie Mellon University, USA
Jennifer Lai • IBM Research, USA

**Constant, Constant Multi-tasking Craziness: Managing Multiple Working Spheres**
Victor Gonzalez, Gloria Mark • University of California, Irvine, USA

**Student Competition 2**
**Finalists Presentation**
**Hall E2**

**Session Chairs:**
- Jonathan Sykes • Glasgow Caledonian University, Scotland
- Todd Zazelenchuk • Whirlpool Corporation, USA

**Papers**
**Mobile Text Entry**
**Hall G**

**Session Chair:**
- John Arnott • University of Dundee, Scotland

**Twiddler Typing: One-Handed Chording Text Entry for Mobile Phones**
Kent Lyons, Thad Starner, Daniel Plaisted, James Fusia, Amanda Lyons, Aaron Drew, Ernest Wayne Looney • Georgia Institute of Technology, USA

**A Comparison of Consecutive and Concurrent Input Text Entry Techniques for Mobile Phones**
Daniel Wigdor, Ravin Balakrishnan • University of Toronto, Canada

**Model for non-Expert Text Entry Speed on 12-Button Phone Keypads**
Andriy Pavlovych, Wolfgang Stuerzlinger • York University, Canada

**Can You See Me Now?**
**Hall H**

**Session Chair:**
Pavel Slavik • Czech Technical University, Czech Republic

**Mouse and Touchscreen Selection in the Upper and Lower Visual Fields**
Barry A. Po, Brian D. Fisher, Kellogg S. Booth • University of British Columbia, Canada

**Sharp or Smooth? Comparing the Effects of Quantization vs. Frame Rate for Streamed Video**
John D. McCarthy, M. Angela Sasse, Dimitrios Miras • University College London, UK

**Unintended Effects: Varying Icon Spacing Changes Users’ Visual Search Strategy**
Sarah P. Everett, Michael D. Byrne • Rice University, USA
### Wednesday 11:30 – 13:00

#### Special Area
**Robotics & Transport**

**Hall D**

**Session Chair:** Sara Kiesler • Carnegie Mellon University, USA

**Organizer:** Jean Scholtz • NIST, USA

**RoboDemo Demonstration:**
- **Teleoperation Telepresence**
  - Ludek Zalud • Brno University of Technology, Czech Republic

**NASA Robonaut**
- S. M. Goza • NASA Johnson Space Center, USA

**Operator Interactions with Autonomous Robots**
- David Bruemmer • Idaho National Engineering and Environmental Laboratory, USA

### HCI Overviews 2
**Special Needs and Aging**

**Hall M**

**Session Chair:** Julie Jacko • Georgia Institute of Technology, USA

**About Interaction Group**
- Sung Woo Kim • Samsung Electronics, Republic of Korea

**CUHTec: The Centre for Usable Home Technology**
- Andrew Monk, Julia Brant, Peter Wright, John Robinson • University of York, UK

**CREATE: Center for Research and Education on Aging and Technology Enhancement**
- Wendy A. Rogers • Georgia Institute of Technology, USA
- Sara J. Czaja • University of Miami, USA

**SIG**
**Techniques for Designing Mobile Applications with Customer Data**

**Hall N**

**Organizers:**
- Karen Holtzblatt • InContext Enterprises, USA
- Pekka Ketola • Nokia Multimedia, Finland
- Thea Turner • Motorola Labs, USA

### Wednesday 11:30 – 13:00

#### Papers
**Visualizing Work**

**Hall I**

**Session Chair:** Garett Dworman • Tec-Ed, Inc., USA

**Physically Large Displays Improve Path Integration in 3D Virtual Navigation Tasks**
- Desney Tan, Darren Gergle, Peter Scupelli, Randy Pausch • Carnegie Mellon University, USA

**Connecting Time-oriented Data And Information to a Coherent Interactive Visualization**
- Ragnar Bade • University of Magdeburg, Germany
- Silvia Miksch • Vienna University of Technology, Austria

**Designing to Support Awareness: A Predictive, Composite Model**
- Rachid Hourizi, Peter Johnson • University of Bath, UK

### Short Talks
**Eye Told You So**

**Hall K**

**Session Chair:** Liza Boyd • Intuit, USA

**Regressions Re-visited: a New Definition for the Visual Display Paradigm**
- James Renshaw, Janet Finlay • Leeds Metropolitan University, UK
- David Tyfa, Robert Ward • University of Huddersfield, UK

**EyeDraw: A System for Drawing Pictures with the Eyes**
- Anthony Harnof, Anna Cavender, Rob Hoselton • University of Oregon, USA

**Attentive Display: Paintings as Attentive User Interfaces**
- David Holman, Roel Vertegaal, Changuk Sohn, Daniel Cheng • Queen’s University, Canada

**Eye Gaze Interaction with Expanding Targets**
- Darius Miniotis, Oleg Spakov • University of Tampere, Finland
- I. Scott MacKenzie • York University, Canada

**Impact of Video Editing Based on Participants’ Gaze in Multiparty Conversation**
- Yoshinao Takemae, Kazuhiro Otsuka, Naoki Mukawa • NTT Corporation, Japan

**Haptic Chameleon: A New Concept of Shape-Changeing User Interface Controls with Force Feedback**
- Georg Michelitsch, Jason Williams, Martin Olsen, Beatriz Jimenez, Stefan Rapp • Sony International (Europe) GmbH, Germany
Papers

**Handhelds and Pervasive Computing**

**Hall F**

**Session Chair:** Andrew Monk • University of York, UK

The Potential for Energy-aware User Interfaces on Handheld Devices
Tim Harter • Hewlett Packard, USA
Sander Vroegindeweij, Erik Geelhoed • Hewlett Packard/HP Labs, UK
Meera Manahan, Partha Ranganathan • Hewlett Packard, USA

Breaking the Book: Translating the Chemistry Lab Book into a Pervasive Computing Lab Environment
M.C. Schraefel, Gareth Hughes, Hugo R. Mills, Graham Smith, Terry R. Payne, Jeremy Frey • University of Southampton, UK

Understanding the Micronote Lifecycle: Improving Mobile Support for Informal Note Taking
Min Lin, Wayne Lutters • UMBC, USA
Tina Kim • Rice University, USA

Panel

**Trading Design Spaces: Exchanging Ideas on Physical Design Environments**

**Hall E1**

**Organizer:** Wendy Ju • Stanford University, USA

Margot Berenton • University of Queensland, Australia
Michael Haller • Upper Austria University, Austria
Amanda Parkes • MIT, USA
Scott Klemmer • University of California Berkeley, USA
Brian Lee • Stanford University, USA
Dan Rosenfeld • NYU, USA

Papers

**Morphing, Blending and Pointing**

**Hall E2**

**Session Chair:** Alexander Nikov • Fatih University, Turkey

Multiblending: Displaying Overlapping Windows Simultaneously Without the Drawbacks of Alpha Blending
Patrick Baudisch • Microsoft Research, USA
Carl Gutwin • University of Saskatchewan, Canada

Designing a Compelling User Interface for Morphing
David Vronay • Microsoft Research Asia, China
Shuo Wang • Tsinghua University, China

Semantic Pointing: Improving Target Acquisition with Control-Display Ratio Adaptation
Renaud Blanch, Michel Beaudouin-Lafon • Université Paris-Sud, France
Yves Guiard • CNRS, France

Papers/Short Talks

**Measuring Usability**

**Hall G**

**Session Chair:** Ebba Thora Hvannberg • University of Iceland, Iceland

**PAPERS**

A Comparison of Static, Adaptive, and Adaptable Menus
Leah Findlater, Joanna McGrenere • University of British Columbia, Canada

Master Usability Scaling
Michael McGee • Oracle Corporation, USA

**SHORT TALKS**

From Mental Effort to Perceived Usability: Transforming Experiences into Summary Assessments
Marc Hassenzahl • Darmstadt University of Technology, Germany
Nina Sandweg • Siemens Corporate Technology, Germany

Applying User Testing Data to UEM Performance Metrics
Jarinee Chattratichart • London Metropolitan University, UK
Jacqueline Brodie • Brunel University, UK
### Wednesdays 14:30 – 16:00

#### Demos
**Finding your Way**

**Hall H**

**Session Chair:** Michael Muller • IBM Research, USA

- **The Future of Signs: Interactive Information, Inexpensively!**
  Aradhana Goel, Michael Higgins, Mickey McManus, Marc Peterson • MAYA Design, USA
- **IDeixis: Image Based Deixis for Finding Location-Based Information**
  Konrad Tollmar, Tom Yehm, Trevor Darrell • MIT, USA
- **ReMail: A Reinvented Email Prototype**
  Steven Rohall, Dan Gruen, Paul Moody, Martin Wattenberg, Mia Stern, Bernard Kerr, Bob Stachel, Kushal Dave, Robert Amres, Eric Wilcox • IBM Watson Research, USA

#### Special Area
**Ambient Intelligence**

**Hall D**

- **Organizer:** Thomas Rist • DFKI, Germany
- **Ambient Intelligence from a Consumer Electronics Point of View**
  Emile Aarts • Philips Research & Eindhoven University of Technology, The Netherlands
- **Smart Environments and the Disappearing Computer**
  Norbert Streitz • Fraunhofer IPSI, Germany
- **A New Paradigm for Human-Centered IT Applications and Services – The Ambient Intelligence Framework**
  José L. Encarnação • Technische Universität Darmstadt, Germany

#### HCI Overviews 3
**Global HCI**

**Hall M**

- **Session Chair:** V. Kathlene Emery • Georgia Institute of Technology, USA
- **User-Driven Innovation in the Future Applications Lab**
  Lars Erik Holmqvist • Viktoria Institute, Sweden
- **Designing Between Borders: The Distributed UI Design Team at Adobe**
  Katja Rimmi • Adobe Systems Inc., USA
  Jonathan Rath • Adobe Systems Inc., Canada
  Lynn Shade • Adobe Systems Inc., USA
- **24/7 or Bust: Designing for the Challenges of Global UCD**
  Dan Rosenberg, Uday Gajendar • Oracle, USA

#### Short Talks
**Social Dot Net**

**Hall I**

- **Session Chair:** James “Bo” Begole • Sun Labs Europe, France
- **Conference State Estimation by Biosignal Processing - Observation of Heart Rate Resonance**
  Masamichi Hosoda, Akira Nakayama, Minoru Kobayashi, Satoshi Iwaki • NTT Corporation, Japan
- **Friendster and Publicly Articulated Social Networking**
  Danah Boyd • UC Berkeley, USA
- **Dealing With Mobile Conversations in Public Places: Some Implications for the Design of Socially Intrusive Technologies**
  Steve Love, Mark Perry • Brunel University, UK
- **All Together Now: Visualizing Local and Remote Actors of Localized Activity**
  Scott Lederer, Jeffrey Heer • University of California, Berkeley, USA
- **Text Analysis as a Tool for Analyzing Conversation in Online Support Groups**
  Adam D. I. Kramer, Susan R. Fussell, Leslie D. Setlock • Carnegie Mellon University, USA
- **Production of Pace as a Collaborative Activity**
  Areti Galani, Matthew Chalmers • University of Glasgow, Scotland
Short Talks
Web For All, and All For Web
Hall K

Session Chair: Fred Sampson • PeopleSoft, USA

Banner Ads Hinder Visual Search and Are Forgotten
Moira Burke • University of Oregon, USA
Nicholas Gorman, Erik Nilsen • Lewis & Clark College, USA
Anthony Hornof • University of Oregon, USA

Link Colors Guide a Search
Tim Halverson, Anthony J. Hornof • University of Oregon, USA

American Sign Language of the Web
Deborah Fels • Ryerson University, Canada
Jan Richards • University of Toronto, Canada
Jim Hardman • Canadian Hearing Society, Canada
Sima Soudian, Charles Silverman • Ryerson University, Canada

Older Adults and Web Usability: Is Web Experience the Same as Web Expertise?
Ann-Marie Chadwick-Dias, Donna Tedesco, Tom Tullis • Fidelity Investments USA

Blogging by the Rest of Us
Diane J. Schiano • Stanford University, USA
Bonnie A. Nardi • UC Irvine, USA
Michelle Gumbrecht, Luke Swartz • Stanford University, USA

Search Result Exploration: A Preliminary Study of Blind and Sighted Users’ Decision Making and Performance
Melody Ivory • University of Washington, USA
Shiqing Yu • Encysys Consulting USA
Kathryn Gronemyer • University of Washington, USA

Papers
Games
Hall F

Session Chair: Desney Tan • Carnegie Mellon University, USA

Moving Out of the Control Room: Decentralizing Orchestration of a Mixed Reality Game
Andy Crabtree, Steve Benford, Tom Rodden, Martin Flintham, Rob Anastasi, Adam Drozd • University of Nottingham, UK
Matt Adams, Nick Tandavanitj, Ju Row-Farr • Blast Theory, UK
Anthony Steed • University College London, UK
Chris Greenhalgh • University of Nottingham, UK

The Usability of Massively Multiplayer Online Role-Playing Games: Designing for New Users
Steven Cornett • Indiana University, USA

Labeling Images with a Computer Game
Luis von Ahn, Laura Dabbish • Carnegie Mellon University, USA

CHI Fringe 1
Connect
Hall E1

Session Chair: Roel Vertegaal • Queen’s University, Canada

tranSticks: Media Virtually Connected Beyond Space
Yuji Ayatsuka, Jun Rekimoto • Sony Computer Science Laboratories, Japan

Personification Technologies: Developing Artificial Companions for Older People
Oliver Mival, Stewart Cringean, David Benyon • Napier University, UK

The Watcher and The Watched: Social Judgments about Privacy in a Public Place
Batya Friedman, Peter H. Kahn, Jr., Jennifer Hagman • University of Washington, USA

blue-c: Using 3D Video for Immersive Telepresence Applications
Silke Lang, Stephan Wuermlin, Ludger Hovestadt, Markus Gross • ETH Zurich, Switzerland
Jan Borchers • RWTH Aachen, Germany

A Phenomenological Account of Social Interactions with Computers
Seth Nickell • Stanford University, USA
### Papers

**Search and You Will Find**

**Hall E2**

**Session Chair:** Thea Turner • Motorola Labs, USA

- **Clustering Find and Replace**
  Robert C. Miller, Alisa M. Marshall • Massachusetts Institute of Technology, USA

- **The Perfect Search Engine Is Not Enough: An Observational Study of Orienteering Behavior in Directed Search**
  Jaime Teevan, Christine Alvarado • Massachusetts Institute of Technology, USA
  Mark S. Ackerman • University of Michigan, USA
  David R. Karger • Massachusetts Institute of Technology, USA

- **WaveLens: A New View onto Internet Search Results**
  Tim Paek, Susan Dumais, Ron Logan • Microsoft Research, USA

**Design Methods**

**Hall G**

**Session Chair:** Elizabeth Dykstra-Erickson • Kinoma Inc., USA

- **Finding Meaningful Uses for Context-Aware Technologies: The Humanistic Research Strategy**
  Antti Oulasvirta • Helsinki Institute for Information Technology, Finland

- **Putting the Users Center Stage: Role Playing and Low-fi Prototyping Enable End Users to Design Mobile Systems**
  Dag Svanaes, Gry Seland • Norwegian University of Science and Technology, Norway

- **Variation in Element and Action: Supporting Simultaneous Development of Alternative Solutions**
  Michael Terry, Elizabeth Mynatt • Georgia Tech, USA
  Kumiyo Nakakoji, Yasuhiro Yamamoto • University of Tokyo, Japan

### Demos

**Enabling Alternative Interactions**

**Hall H**

**Session Chair:** Rachel White • NCR, Scotland

- **Non-Visual Information Display Using Tactons**
  Stephen Brewster, Lorna Brown • University of Glasgow, UK

- **TERESA: A Transformation-Based Environment for Designing Multi-Device Interactive Applications**
  Silvia Berti, Giulio Mari, Fabio Paterno, Carmen Santoro • ISTI-CNR, Italy

- **Not Just Intuitive: Examining the Basic Manipulation of Tangible User Interfaces**
  Chen-Jie Huang • University of Washington, USA

- **Common Sense Investing - A User-Centric Approach**
  Sharad Chandra Sundararajan • IBM, USA
  Ashwani Kumar • MIT, USA

### Invited Session

**Emerging Initiatives in HCI: From Idea to Reality**

**Hall D**

**Organizers:**
- Thomas Rist • DFKI, Germany
- Norbert Streitz • Fraunhofer IPSI, Germany
- Ephraim P. Glinert • National Science Foundation, USA
- Bernd Reuse • Federal Ministry of Education and Research (BMBF), Germany

- **EU-IST Research Initiatives and Funding Opportunities in Ambient Systems**
  Thierry Van der Pyl • European Commission, EU

- **Where and How does Funding for HCI and UA Fit into the New CISE?**
  Ephraim P. Glinert • National Science Foundation, USA
**Wednesday Sessions**

**Wednesday 16:30 – 18:00**

**SIG Universal Remote Console Standard: Natural User Interaction in Ambient Intelligence**
**Hall M**

Organizers:
Gottfried Zimmermann, Gregg Vanderheiden • Trace Center, USA
Maribeth Gandy • Georgia Tech, USA

**SIG Including Accessibility as a Component of Web-Related Research**
**Hall N**

Organizers:
Markku Hakkinen • Japan DAISY Consortium, USA
Carlos Velasco • Fraunhofer-FIT, Germany

**Short Talks**
**Sharing and Caring**
**Hall I**

**Session Chair:** Nathan Bos • University of Michigan, USA

**Interviewing Over Instant Messaging**
Amy Voida, Elizabeth D. Mynatt • Georgia Institute of Technology, USA
Thomas Erickson, Wendy A. Kellogg • IBM T.J. Watson Research Center, USA

**Towards Caring Machines**
Timothy W Bickmore • Boston University School of Medicine, USA
Rosalind W Picard • MIT Media Lab USA

**Communicating Emotions in Online Chat Using Physiological Sensors and Animated Text**
Hua Wang, Helmut Prendinger, Takeo Igarashi • University of Tokyo, Japan

**Don’t Blame Me, I am Only the Driver: Impact of Blame Attribution on Attitudes and Attention to Driving Tasking**
Marie Jonsson • Toyota ITC/Stanford University, USA
Clifford Nass • Stanford University, USA
Jack Endo, Ben Reaves • Toyota ITC, USA
Helen Harris, Janice Ta, Nicholas Chan, Sean Knapp • Stanford University, USA

**Online Personals: An Overview and Call for Research**
Andrew T. Fiore, Judith S. Donath • MIT Media Lab, USA

**Catalyzing Social Interaction with Ubiquitous Computing: A Needs Assessment of Elders Coping with Cognitive Decline**
Margaret Morris, Jay Lundell, Eric Dishman • Proactive Health, Intel Research, USA

**A Reduced QWERTY Keyboard for Mobile Text Entry**
Nathan Green, Jan Kruger, Chirag Faldu, Robert St. Amant • North Carolina State University, USA

**MouthType: Text Entry by Hand and Mouth**
Michael J. Lyons • ATR Intelligent Robotics and Communication Labs and ATR Media Information Science Labs, Japan
Chi-ho Chan • ATR Media Information Science Labs, Japan
Nobuji Tetsutani • ATR Media Information Science Labs and ATR Intelligent Robotics and Communication Labs, Japan

**A Commonsense Approach to Predictive Text Entry**
Tom Stocky, Alex Faaborg, Henry Lieberman • MIT Media Laboratory, USA

**Recent Developments in Text-Entry Error Rate Measurement**
William Soukoreff, Scott MacKenzie • York University, Canada

**A User Interface Framework for Kinetic Typography-enabled Messaging Applications**
Gregor Möhler, Martin Osen, Heli Harrikari • Sony Corporate Laboratories Europe, Germany
### Thursday at a Glance

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<th>Time</th>
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<td>09:00 - 10:30</td>
<td>NO SESSION</td>
<td>PAPERS: Modelling Human-Performance</td>
<td>PAPERS: Online Trust</td>
<td>PAPERS: Telephones, Sickness and Affect</td>
<td>SPECIAL AREA: Mobile Communications</td>
<td>PANEL: How to Trust Robots Further Than We Can Throw Them</td>
<td>HCI OVERVIEWS: Open Source, Patents, and Big Players</td>
<td>SIG: Asynchronous Learning Networks: Priorities for Development</td>
<td>SHORT TALKS: Sensor Sensibility</td>
<td>SHORT TALKS: Come Play With Me</td>
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**Closing Plenary – Hall D**
The Future of Designing Experiences – Tim Brown

### Other Activities

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<td>NONE</td>
<td>08:30 – 14:00</td>
<td>08:30 – 16:30</td>
<td>08:30 – 14:00</td>
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</table>
Thursday 09:00 – 10:30

Papers
Modelling Human-Performance
Hall E1

Session Chair: Michael Arent • PeopleSoft, USA

Model-based Evaluation of Cell Phone Menu Interaction
Robert St. Amant, Thomas E. Horton • North Carolina State University, USA
Frank E. Ritter • Pennsylvania State University, USA

A Constraint Satisfaction Approach to Predicting Skilled Interactive Cognition
Alonso Vera • NASA Ames Research Center, USA
Andrew Howes • Cardiff University, UK
Michael McCurdy • NASA Ames Research Center, USA
Richard L. Lewis • University of Michigan, USA

Predictive Human Performance Modeling Made Easy
Bonnie E. John, Konstantine Prevas • Carnegie Mellon University, USA
Dario D. Salvucci • Drexel University, USA
Kenneth R. Koedinger • Carnegie Mellon University, USA

Papers
Online Trust
Hall E2

Session Chair: John Thomas • IBM TJ Watson Research Center, USA

Trust and Mistrust of Online Health Sites
Elizabeth Sillence, Pamela Briggs, Lesley Fishwick • Northumbria University, UK
Peter Harris • Sheffield University, UK

Deception and Design: The Impact of Communication Technologies on Lying Behavior
Jeff Hancock, Jennifer Thom-Santelli, Thompson Ritchie • Cornell University, USA

Privacy Policies as Decision-Making Tools: A Usability Evaluation of Online Privacy Notices
Carlos Jensen, Colín Potts • Georgia Institute of Technology, USA

Papers
Telephones, Sickness, and Affect
Hall G

Session Chair: Marcin Sikorski • Gdańsk University of Technology, Poland

Exploring PC-Telephone Convergence with the Enhanced Telephony Prototype
JJ Cadiz, Attila Narin, Gavin Jancke, Anoop Gupta • Microsoft, USA
Michael Boyle • University of Calgary, Canada

Virtual Guiding Avatar: An Effective Procedure to Reduce Simulator Sickness in Virtual Environments
James Jeng-Veei Lin, Habib Abirached, Michal Lahav • University of Washington, USA

Categorical Imperative NOT: Facial Affect is Perceived Continuously
Diane J. Schiano • Stanford University, USA
Sheryl Ehrlich • Adobe Systems, USA
Kyle Sheridan • WebMD, USA

Special Area
Mobile Communications: Adding Content, Fun and Simplicity Into the Mobile User Experience
Hall H

Organizer:
Bruno von Niman • von niman consulting & ETSI, Sweden

Participants:
Stephen Brewster • University of Glasgow, UK
Johan Hjelm • Ericsson and Open Mobile Alliance, Sweden
Tim Kinnunen • Digia, Finland
Sofia Svanteson • Ocean Observations, Sweden
Panel
How to Trust Robots Further Than We Can Throw Them
Hall D

Organizer: David Bruemner • Idaho National Laboratory, USA

David Bruemner • Idaho National Laboratory, USA
Michael Goodrich • Brigham Young University, USA
Nilajon Sarkar • Vanderbilt University, USA
Bill Smart • Washington University in St. Louis, USA
Douglas Few • Idaho National Laboratory, USA
Don Norman • Nielsen Norman Group, USA
Jean Scholtz • National Institute of Standards and Technology, USA
Mark Swinson • USA Army Research Office, USA
Holly Yanco • University of Massachusetts Lowell, USA

HCI Overviews 4
Open Source, Patents, Big Players
Hall M

Session Chair: Michael Byrne • Rice University, USA

Professional Usability in Open Source Projects: GNOME, OpenOffice.org, NetBeans
Calum Benson • Sun Microsystems Ireland Ltd., Republic of Ireland
Matthias Müller-Prove • Sun Microsystems GmbH, Germany
Jiri Mazurek • Sun Microsystems Czech, Czech Republic

The Rise of Intrusive Online Advertising and the Response of User Experience Research at Yahoo!
Christian Rohrer, John Boyd • Yahoo Inc., USA

User Centered Design at European Patent Office
Alard Weisscher, Josine van de Ven, Raghu Kolli • Meru Research, Netherlands
Ged Owens • European Patent Office, Germany

SIG
Asynchronous Learning Networks: Priorities for Software Development
Hall N

Organizers:
Starr Roxanne Hiltz • NJIT, USA
Maryam Alavi • Emory University, USA
Donna Dufner • University of Nebraska, USA

Short Talks
Sensor Sensibility
Hall I

Session Chair: William Gaver • Royal College of Art, UK

Sensing GamePad: Electrostatic Potential Sensing for Enhancing Entertainment Oriented Interactions
Jun Rekimoto • Sony Computer Science Laboratories, Japan
Hua Wang • Tokyo University, Japan

Lessons Learned Using Ubiquitous Sensors for Data Collection in Real Homes
Jennifer Beaudin, Stephen Intille, Emmanuel Munguia Tapia • Massachusetts Institute of Technology, USA

Giveaway Wireless Sensors for Large-Group Interaction
Mark Feldmeier, Joseph Paradiso • MIT Media Lab, USA

Interactive Therapy with Instrumented Footwear
Joseph Paradiso, Stacy Morris, Ari Benbasat, Erik Asmussen • MIT Media Lab, USA

‘ensemble’: Playing with Sensors and Sound
Kristina Andersen • STEIM, The Netherlands

FingerSense - Augmenting Expressiveness to Physical Pushing Button by Fingertip Identification
Jingtao Wang, John Canny • University of California Berkeley, USA

Short Talks
Come Play With Me
Hall K

Session Chair: Scott Mainwaring • Intel, USA

A Grounded Investigation of Game Immersion
Paul Cairns, Emily Brown • UCL Interaction Centre, UK

More Than Just Fun and Games: Assessing the Value of Educational Video Games in the Classroom
Jeremy Lee, Kathleen Luchini, Benjamin Michael, Cathie Norris, Elliot Soloway • University of Michigan, USA

Does it Matter if You Don’t Know Who’s Talking? Multiplayer Gaming with Voiceover IP
John Halloran, Geraldine Fitzpatrick • University of Sussex, UK
Yvonne Rogers • Indiana University, USA
Paul Marshall • University of Sussex, UK

Project Massive: A Study of Online Gaming Communities
A. Fleming Seay, William Jerome, Kevin Sang Lee, Robert Kraut • Carnegie Mellon University, USA

Using Heuristics to Evaluate the Playability of Games
Heather Desurvire • Behavioristics, Inc., USA
Martin Caplan • Avatar-X, USA
Jozsef A. Toth • Institute for Defense Analysis, USA

Social Interaction in ‘There’
Barry Brown, Marek Bell • University of Glasgow, UK
**Invited Session**

**Mobile Communication**

*Hall E1*

**Organizer:**
Bruno von Niman • von niman consulting & ETSI, Sweden

**Mobile Industry User Experience Leaders: Struggling for the Ultimate Mobile User Experience-Present Issues and Future Hopes**

Mikael Anneroth • Ericsson, Sweden
Martin Böcker • Siemens, Germany
Panu Korhonen • Nokia, Finland
Michael von Roeder • Vodafone, Germany
Tim Brown • IDEO, USA

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**CHI Fringe 2**

**Bots I Borgs**

*Hall E2*

**Session Chair:** Philip McKay • Sony, USA

**PAPERS**


Ed Chi • PARC & Stanford Taekwondo Program, USA

Jin Song, Greg Corbin • Impact Measurement, USA

Game-Based Design of Human-Robot Interfaces for Urban Search and Rescue

Bruce Maxwell, Nicolas Ward, Frederic Heckel • Swarthmore College, USA

The Experience of Enchantment in Human-Computer Interaction

John McCarthy • University College Cork, Ireland

Peter Wright • University of York, UK

Jayne Wallace, Andrew Dearden • Sheffield Hallam University, UK

Between Bodies: Using Experience Modeling to Create Gestural Protocols for Physiological Data Transfer

Thecla Schiphorst • Simon Fraser University, Canada

Kristina Andersen • STEIM, The Netherlands

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**SHORT TALKS**

**Interaction Techniques Using Prosodic Features of Speech and Audio Localization**

Alex Olwal • Royal Institute of Technology (KTH), Columbia University, Sweden

Steven Feiner • Columbia University, Sweden

Using Social Geometry to Manage Interruptions In Attentive Office Cubicles

Maria Danninger • Technische Universität München, Germany

Roel Vertegaal • Human Media Lab Queen’s University, Canada

Daniel P. Siewiorek • HCI Institute Carnegie Mellon University, USA

The Transparent Video Facetop and its Use in Support of Distributed Collaborative Tasks

Dorian Miller, David Stotts • University of North Carolina at Chapel Hill, USA

An Ethnography of Lists in Mothers’ Work

Laurel Swan • Independent, UK

Alex Taylor • Social Shaping Research, UK

Problems of Identity in Online Poker Games

Scott Golder, Judith Donath • MIT Media Laboratory, USA

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**Papers**

**Multi-Modal Creation**

*Hall G*

**Session Chair:** Noelle Carbonell • LORIA and CNRS/INRIA, France

Animaatiokone - an Installation for Creating Clay Animation

Perttu J. Hämäläinen • Helsinki University of Technology, Finland

Mikko Lindholm, Ari Nykänen • University of Art and Design Helsinki UIAH, Finland

Johanna Höysniemi • University of Tampere, Finland

Manipulating Music: Multimodal Interaction for DJs

Timothy Beamish, Karon Maclean, Sidney Fels • University of British Columbia, Canada

I/O Brush: Drawing with Everyday Objects as Ink

Kimiko Ryokai, Stefan Marti, Hiroshi Ishii • MIT Media Laboratory, USA
Thursday 11:30 - 13:00

**Demos**
Games and Virtual Environments
Hall H

Session Chair: Randy Pagulayan • Microsoft Game Studios, USA

**Human Pacman:**
A Wide Area Socio-Physical Interactive Entertainment System in Mixed Reality
Adrian Cheok, Kok Hwee Goh, Farzam Farbiz, Wei Liu, Yu Li, Siew Wan Fong, Xubo Yang, Sze Lee Teo • National University of Singapore, Singapore

**Measuring Presence in Virtual Environments**
Rod McCall, Shaleph O’Neil, Fiona Carroll • Napier University, Scotland

**Genres as a Tool for Understanding and Analyzing User Experience in Games**
Zhan Ye • Blackwell Consulting Services, USA

**Panel**
Interface, Autonomy and Interactions in Automotive Driving
Hall D

**Organizers:**
Erwin Boer • Erwin Boer Consulting, USA
Michael A. Goodrich • Brigham Young University, USA
Robert Gardner • Motorola Technical Staff, USA
Marika Hoedemaeker • TNO, The Netherlands
Toshiyuki Inagaki • University of Tsukuba, Japan
Satoshi Kitazaki • Nissan Research Center, Japan
John Lee • University of Iowa, USA
Aaron Marcus • Aaron Marcus and Associates Inc., USA
Nicholas Ward • University of Minnesota, USA

**HCI Overviews 5**
Methodologies, Toolkits, and Performance
Hall M

Session Chair: Ji Soo Yi • Georgia Institute of Technology, USA

**Collaborating on Ethnography & Design Research:**
Center for Ethnography & Contextual Innovation at HFI
Kaushik Ghosh, Apala Lahiri Chavan • Human Factors International, Mumbai

**Laboratory for Automation Psychology and Decision Processes**
Kent L. Norman • University of Maryland, USA

**IBM Almaden’s User Sciences & Experience Research Lab**
Daniel M. Russell, Steve Cousins • IBM Almaden, USA

**SIG**
Context-Sensitive Design and Human-Centered Interactive Systems
Hall N

**Organizers:**
Keiichi Sato • Illinois Institute of Technology, USA
Ken Douros • Motorola Labs, USA

**Papers**
On-Line Communities
Hall I

Session Chair: Joe Konstan • University of Minnesota, USA

**Studying Cooperation and Conflict between Authors with History Flow Visualizations**
Fernanda Viegas • MIT Media Lab, USA
Martin Wattenberg, Dave Kushal • IBM Research, USA

**Slash(dot) and Burn:**
Moderation in a Massive Online Conversation Space
Cliff Lampe, Paul Resnick • University of Michigan, USA

**Think Different:**
Increasing Online Community Participation Using Uniqueness and Group Dissimilarity
Pamela Ludford, Dan Cosley, Dan Frankowski, Loren Terveen • University of Minnesota, USA
Thursday 11:30 – 13:00

Short Talks

**Hands and Tools**

*Hall K*

**Session Chair:** Mark Handel •
University of Michigan, USA

**Single-Handed Interaction Techniques for Multiple Pressure-Sensitive Strips**
Gabor Blasko, Steven Feiner •
Columbia University, USA

**HabiliDraw 3.0: A Bimanual Tool-Based Direct Manipulation Drawing Environment**
Colin Butler, Robert St. Amant •
North Carolina State University, USA

**Interacting with Sketched Interface Design**
Beryl Plimmer •
University of Auckland, New Zealand
Mark Apperley •
University of Waikato, New Zealand

**ICARE: A Component-Based Approach for the Design and Development of Multimodal Interfaces**
Jullien Bouchet, Laurence Nigay •
clips-imag, France

**FingerPrint: Supporting Social Awareness in a Translucent Sensor-mediated Cue-based Environment**
Cristian Bogdan, Kerstin Severinson Eklundh •
KTH, Sweden

**Learner Articulation in an Immersive Visualization Environment,**
Joan Mazur, Cindy Lio •
University of Kentucky, USA

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Thursday 14:30 – 16:00

**Papers**

**Tangible Computing**

*Hall E1*

**Session Chair:** Jonathan Arnowitz •
PeopleSoft, USA

**DiamondSpin: An Extensible Toolkit for Around-the-Table Interaction**
Chia Shen • Mitsubishi Electric Research Labs, USA
Frédéric Vernier •
University of Paris, France
Clifton Forlines • Mitsubishi Electric Research Labs, USA
Meredith Ringel •
Stanford University, USA

**Gummi: A Bendable Computer**
Carsten Schwesig, Ivan Poupyrev •
Sony Computer Science Laboratories, Japan
Eijiro Mori •
Sony Design Center, Japan

**Topobo: A Constructive Assembly System with Kinetic Memory**
Hayes Raffle, Amanda Parkes, Hiroshi Ishii • MIT Media Lab, USA

**Special Area**

**European HCI Research**

*Hall E2*

**Organizers:**
Philippe Palanque • UHHS-IRIT, Université Toulouse 3, France
Gerd Szwillus • Universität Paderborn, Germany

**The Causes of Accidents and Incidents Involving Interactive Systems in Europe and the USA**
Chris Johnson •
University of Glasgow, UK

**European HCI Theory - a Uniquely Disparate Perspective**
Alan Dix • Lancaster University, UK

**A User-centred Perspective on the Design of Affective Interaction Involving Both Body and Mind**
Kristina Höök •
DSV at SU/KTH, Sweden
Papers
Sharing Your World
Hall G

Session Chair: Claire O’Malley • University of Nottingham, UK

RAW: Conveying Minimally-mediated Impressions of Everyday Life With an Audio-photographic Tool
Joëlle Bitton, Stefan Agamanolis, Matthew Karau
Media Lab Europe, Ireland

Supporting Social Presence through Lightweight Photo Sharing On and Off the Desktop
Scott Lee Tiernan • Microsoft Research, USA
Eric Fellheimer • Massachusetts Institute of Technology, USA

The Familiar Stranger: Anxiety, Comfort, and Play in Public Places
Eric Paulos, Elizabeth Goodman • Intel Research, USA

Demos
Visualizing Information
Hall H

Session Chair: Dan Olsen • Brigham Young University, USA

Haystack: A Personalized, Unified Interface to Creating, Browsing, and Organizing Arbitrary Information
Dennis Quan • IBM TJ Watson Research, USA
David Karger • MIT CSAIL, USA

Browsing Through an Information Visualization Design Space
Thomas Baudel • ILOG, France

CareView: Analyzing Nursing Narratives for Temporal Trends
Lena Mamykina, Stuart Goose, David Hedqvist • Siemens Corporate Research Inc., USA
David V. Beard • Idaho State University, USA

Anthropomorphic Visualization: A New Approach For Depicting Participants in Online Spaces
Ethan Perry, Judith Donath • MIT Media Lab, USA

SIG
Personal Information Management
Hall M

Organizers:
Ofer Bergman • Tel Aviv University, Israel
Richard Boardman • Imperial College London, UK
Jacek Gwizdka • University of Toronto, Canada
William Jones • University of Washington, USA

Current Issues in Assessing and Improving Information Usability
Hall N

Organizers:
Stephanie Rosenbaum • Tec-Ed, Inc., USA
Dana Chisnell • UsabilityWorks, USA

Short Talks
Truth, Lies, and Usability Tapes
Hall I

Session Chair: D. J. Hoets • Flipside User Experience Design, The Netherlands

A Comparison of Synchronous Remote and Local Usability Studies for an Expert Interface
A.J. Brush • University of Washington, USA
Morgan Ames • University of California, Berkeley, USA
Janet Davis • University of Washington, USA

Automatic Support for Web User Studies with SCONE and TEA
Hartmut Obendorf, Harald Weinreich, Torsten Häß • University of Hamburg, Germany

Computerized Self-Administered Questionnaires on Touchscreen Kiosks: Do They Tell the Truth?
Pieter Blignaut • University of the Free State, South Africa

Task-Evoked Pupillary Response to Mental Workload in Human-Computer Interaction
Brian Bailey, Shamsi Iqbal • University of Illinois, USA
Sam Zheng • Beckman Institute, University of Illinois, USA

Reconditioned Merchandise: Extended Structured Report Formats in Usability Inspection
Gilbert Cockton, Alan Woolrych, Mark Hindmarsh • University of Sunderland, UK

(Continued on next page.)
(Continued from previous page.)

From Quality in Use to Value in the World
Gilbert Cockton • University of Sunderland, UK

Short Talks
We Do Windows
Hall K

Session Chair: Todd Zazelenchuk • Whirlpool Corp., USA

WinCuts: Manipulating Arbitrary Window Regions for More Effective Use of Screen Space
Desney Tan • Carnegie Mellon University, USA
Brian Meyers • Microsoft, USA
Mary Czerwinski • Microsoft Research, USA

Gooey Interfaces: An Approach for Rapidly Repurposing Digital Content
Les Nelson, Elizabeth F. Churchill, Denoue Laurent, Jonathan Halfman, Paul Murphy • FX Palo Alto Laboratory, USA

Wideband Displays: Mitigating Multiple Monitor Seams
Jock Mackinlay • PARC, USA
Jeffrey HEER • University of California, Berkeley, USA

Letting Every Pupil Learn Japanese Hand Alphabets with Visual Interfaces
Miki Namatame • Tsukuba College of Technology, Japan
Yasushi Harada, Fusako Kusonoki • Tama Art University, Japan
Takao Terano • Tsukuba University, Japan

Focus+Context Sketching on a Pocket PC
Edward Lank, Son Phan • San Francisco State University, USA

Mouse Ether: Accelerating the Acquisition of Targets Across Multi-Monitor Displays
Patrick Baudisch, Currell Edward, Ken Hinckley • Microsoft Research, USA
Robert Gruen • Microsoft, USA

Closing Plenary
16:30 – 18:00, Hall D

The Future of Designing Experiences
Tim Brown • IDEO, USA

Why is designing a product not the same as designing an experience? How come technology as often as not frustrates rather than enhances a great experience? This talk discusses some of the learning IDEO has gained from working in thirty five industries on things as diverse as the future of the patient experience in healthcare to advanced retail prototypes.

Tim Brown is CEO and President of IDEO, the world’s leading design consultancy specializing in turnkey product development and innovation strategy. Prior to taking his current position in 2000, Tim led IDEO Europe from 1995 to 2000 and managed IDEO’s San Francisco office from 1990 to 1995.

Tim has led strategic client relationships with such companies as Apple, NEC, Steelcase, Sony, Epson, Whirlpool, and Matsushita. He has received numerous design awards, and his designs have been exhibited at the Axis Gallery in Tokyo and Design Museum in London.

Tim’s special interest has been in cultivating great design and innovative thinking within multidisciplinary teams. He has been active in design education for many years, lecturing at Stanford University, Cranbrook Academy of Art, the Royal College of Art, and the University of Northumberland. Tim earned his Master of design degree from the Royal College of Art in London and his BA in Design for Industry from the University of Northumberland.
POSTERS
Posters present exciting new findings, ongoing with demonstrated promise, preliminary results, timely work still in a state to be influenced, tightly argued essays, or opinion pieces. Posters are visual presentations of work and are displayed throughout the conference. Visit the posters and discuss these late breaking and ongoing works with the authors in an informal setting.

Social Networking

IP01
The Keep-In-Touch Phone: A Persuasive Telephone for Maintaining Relationships
Scott Golder • MIT Media Laboratory, USA

IP02
BumpList: Developing Beneficial Email List Structures
Jonah Brucker-Cohen • Media Lab Europe and Trinity College Dublin, Ireland
Michael Bennett • Media Lab Europe and University College Dublin, Ireland
Stefan Agamanolis • Media Lab Europe, Ireland
Fred Cummins • Media Lab Europe and University College Dublin, Ireland
Linda Doyle • Trinity College Dublin, Ireland

IP03
In-Car Concepts to Support Working Parents
Rachel Eardley, Jenny Hyams, Abigail Sellen • Hewlett-Packard Laboratories, UK

IP04
Apeer: A Peripheral Interface to Improve Social Awareness of Brief Topical Discussion
Chad Thornton, Neema Moraveji, Patrick Barry, Kevin Shiue • Carnegie Mellon University, USA

IP05
SWIM: Fostering Social Network Based Information Search
Jun Zhang, Marshall Van Alstyne • School of Information, University of Michigan, USA
**Affective User Interface**

**IP06**
The Efficacy of Psychophysiology for Realising Affective Computing
Louise Venables, Jennifer Allanson, Stephen Fairclough • Liverpool John Moores University, UK

**IP07**
Lovelet: A Heartwarming Communication Tool for Intimate People by Constantly Conveying Situation Data
Hidenori Fujita, Kazushi Nishimoto • Japan Advanced Institute of Science and Technology, Japan

**Home**

**IP08**
Tele-Biographies: Data Collection Techniques to Capture the ways People Interact with Digital TV
Mark A. Blythe, Jisoo Park, Andrew F. Monk • University of York, UK

**Entertainment**

**IP09**
Making Recipes in the Kitchen of the Future
Itiro Siio • Tamagawa University Japan
Noyuri Mima, Ian Frank, Tetsuo Ono, Hielke Weintraub • Future University-Hakodate, Japan

**Robots**

**IP11**
Ambient Urban Interludes: Passing Glances
Cati Vaucelle • Media Lab Europe, Ireland
Katherine Moriwaki, Linda Doyle • Trinity College Dublin, Ireland

**Passing Glances**

**IP07**
Lovelet: A Heartwarming Communication Tool for Intimate People by Constantly Conveying Situation Data
Hidenori Fujita, Kazushi Nishimoto • Japan Advanced Institute of Science and Technology, Japan

**E-Learning**

**IP12**
Hands-on Learning of Computer Programming in Introductory Stage Using a Model Railway Layout
Haruo Noma, Hirokazu Sasamoto • ATR Media Information Science, Japan
Youchi Itoh, Yoshitsumi Kitamura, Fumio Kishino • Osaka University, Japan
Nobuyi Tetsutani • ATR Media Information Science, Japan

**IP13**
Yasushi Harada • Tama Art University, Japan
Miki Namatame • Tsukuba College of Technology, Japan
Fusako Kusunoki • Tama Art University, Japan
Takao Terano • Tsukuba University, Japan

**Agents**

**IP18**
Well-Integrated Needs-Oriented Recommender Components Regarded as Helpful
Markus Stolze • IBM Research, Zurich Research Laboratory, Switzerland
Fabian Nart • ETH Zurich, Switzerland

**Information Retrieval**

**IP19**
Human Computer Interaction in Multiplayer Computer Games
Joseph Maclnnes • Saint Mary’s University, USA

**Document Access**

**IP23**
Telling Stories to Computers for Document Retrieval
Daniel Gonçalves, Joaquim Jorge • Instituto Superior Técnico, Portugal

**TV Remote Control**

**IP25**
Interaction and Product Design of Gesture Based TV Remote Control
Sang-Hwan Kim, Joahn Ok, Hyun Joo Kang, Min-Chul Kim, Miyeong Kim • Samsung Electronics, Republic of Korea

**New Interaction Design**

**IP29**
Developing Tangible Interaction and Augmented Reality in Director
Ji-Dong Yim, Tek-Jin Nam • KAIST, Korea

**Display**

**IP27**
Office Window of the Future? Two Case Studies of an Augmented Window
Batya Friedman, Nathan G. Freier, Peter H. Kahn, Jr. • University of Washington, USA

**IP28**
Evaluating the Comprehension of Ambient Displays
Lars Erik Holmquist • Viktoria Institute, Sweden

**IP20**
MetaCrystal: Visual Interface for Meta Searching
Anselm Spoerri • Rutgers University, USA

**IP24**
Readiness” – A Design Exploration of Personal Document Management in Historical and Collaborative Context
Michael Muller • IBM Research, USA

**IP14**
Accessing Services: Dumb Clients in a Smart Classroom
Edward Lank, Amy Ichnowski, Shahid Khatri • San Francisco State University, USA

**IP21**
Depth- and Breadth-First Processing of Search Result Lists
Kerin Kloecckner, Nadine Wirschum, Anthony Jameson • German Research Institute for Artificial Intelligence (DFKI), Germany

**IP15**
Emotion In a Ticket
Apala Lahini Chavan, Sushmita Munshi • Human Factors International, India

**IP22**
Who’s My Daddy? An Approach to Decentralized Information Architecture
Abe Crystal, Jesse Wilbur • University of North Carolina at Chapel Hill, USA

**IP16**
Robotic Walker Interface: Designing for the Elderly
Irina Shklovski, Yuan-Chou Chung, Robert Adams • Carnegie Mellon University, USA

**IP25**
Interaction and Product Design of Gesture Based TV Remote Control
Sang-Hwan Kim, Joahn Ok, Hyun Joo Kang, Min-Chul Kim, Miyeong Kim • Samsung Electronics, Republic of Korea

**IP26**
Effective Interaction Techniques for Moving Cursor Using a Remote Control
Soo-Chul Lim, Ji Hyea Han, Min Young Jo, Eun Mi Jeon, Woo Sik Choi, Chang Geun Song, Song Yong Sim, Sung Woo Kim • Samsung Electronics, Republic of Korea

**IP27**
Office Window of the Future? Two Case Studies of an Augmented Window
Batya Friedman, Nathan G. Freier, Peter H. Kahn, Jr. • University of Washington, USA

**IP30**
Interaction Design for Electronic Musical Interfaces
Bert Schiettecatte • Vrije Universiteit Brussel, Belgium

**IP29**
Developing Tangible Interaction and Augmented Reality in Director
Ji-Dong Yim, Tek-Jin Nam • KAIST, Korea

**IP28**
Evaluating the Comprehension of Ambient Displays
Lars Erik Holmquist • Viktoria Institute, Sweden

**IP23**
Telling Stories to Computers for Document Retrieval
Daniel Gonçalves, Joaquim Jorge • Instituto Superior Técnico, Portugal

**IP17**
Design Guidelines for Improved Human-Robot Interaction
Jill L. Drury • The MITRE Corporation, USA
Dan Hestand, Holly A. Yanco • University of Massachusetts Lowell, USA
Jean Scholtz • National Institute of Standards and Technology, USA
POSTERS

Input & Interaction Technology

IP31
Measuring Gaze Point on Handheld Mobile Devices
Kristian Lukander • Finnish Institute of Occupational Health, Finland

IP32
Joystick Text Entry with Date Stamp, Selection Keyboard, and EdgeWrite
Jacob Wobbrock, Brad Myers, Htet Htet Aung • Carnegie Mellon University, USA

Mobile Interaction

IP33
Kick-Up Menus
Volker Paelke, Christian Reimann, Dirk Stichling • University of Paderborn, Denmark

IP34
What You See is Where You Go: Preliminary Findings in Situated Way-Finding Research
Christopher Lueg • University of Technology, Australia
Nicola Bidwell • Charles Darwin University, Australia

Web Usability

IP35
Measuring Visual Appeal of Web Pages
Ronald Boring • INEE, USA
Gary Fernandes • Carleton University, Canada

IP36
Managing Icon Abundance on eBay
Maureen Fan, Kathleen Ko • eBay Inc., USA

Usability

IP37
Using Monetary Incentives and Auction to Elicit User Preferences between Usable and Beautiful Systems
Tamar A. Ben-Bassat, Joachim Meyer, Noam Tractinsky • Ben-Gurion University of the Negev, Israel

IP38
Testing Multimodal Notification Cues on a Mobile Device
Peter J. Irausewich, Tashleen Bhimdi, Myra Dideles • Northeastern University, USA

IP39
Reengineering Planning Process Guided by Usability Evaluation
Sérgio Luisir Díscola, Júnia C. A. Silva • Federal University of São Carlos, Brazil

User-Centered Design

IP40
Designing for Privacy: A Method for Structured Analysis of Privacy Vulnerabilities
Carlos Jensen • Georgia Tech, USA

IP41
Story Lifecycle in a Product Development Organization
Magie Zeller, Sandra Kogan • IBM Software Group, USA
Michael Muller • IBM Research, USA
Merry Morse • IBM Software Group, USA

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.

Exhibit Hours
Tuesday .................. 10:30 – 19:00
Wednesday .......... 08:00 – 19:00
Thursday .. ............... 08:00 – 16:30

EXHIBITOR LISTINGS

BIOBSERVE
Stand G
BIOBSERVE provides powerful and innovative tools for usability testing experiments. We offer a system for software usability testing that allows full screen capture of computer screens without any loss of information. We also provide software running on handheld computers for mobile data acquisition.

CURE
Stand 11
CURE has pioneered human-computer interaction and usability research in Austria and performs high profile applied research activities. USECON offers commercial usability and user experience services covering all phases of the product lifecycle well integrated into a solid human-centric management approach.

Cybelius Software
Stand 8
Cybelius Maestro™ is a simulation and development tool for user centered mobile devices. Maestro™ relies on component-based and reusable product simulations that can be utilized in usability engineering.

Google
Stand M
Google’s ease of use is the result of a continued focus on putting the user first. If you’re interested in the challenge of making information easily accessible to a global audience, please stop by our booth. We have several open positions and would be happy to discuss them with you.
FrogPad
Stand 3
FrogPad™ is the only one-handed fully functional keyboard that is 1/5 the size of a normal Qwerty keyboard and emulates all of its functions. It works with most USB compatible devices and is quickly becoming the data entry standard for mobile devices.

Human Factors International
Stand E
Human Factors International offers consulting, training, and products in software usability. Since 1981, we have worked on over 2,300 interface projects and taught over 1,400 courses on interface design worldwide.

InContext Enterprises
Stand 7
We’ll be demonstrating CDTools, our new software application designed specifically to support customer-centered design. We’ll also be happy to talk to you about Contextual Design, the front-end, customer-centered design process created by InContext. Visit www.incent.com.

Interface Consult
Stand F
Interface Consult (www.usability.at) is a leading usability company in Austria, founded in 1994. The company offers a broad range of usability consulting services for all phases of the project lifecycle.

John Wiley & Sons, Ltd.
Stand K
John Wiley and Sons Ltd are a leading publisher of computing books, providing timely and reliable resources for both the professional and academic markets.

Lawrence Erlbaum Assoc.
Stand 6
LEA publishes the scholarly journal, Human-Computer Interaction, as well as cutting edge books and other journals in HCI, human factors, CSCW, educational technology, cognitive science, applied psychology and related disciplines. Please visit our booth.

LC Technologies Eyegaze System
Stand 4
LC Technologies Eyegaze Development System is an instrument for measuring, recording, playing back, and analyzing what a person’s eyes are doing. Calibration takes only 10 seconds. Now available portable or with binocular eyetracking.

Mangold Software
Stand 18
We offer leading solutions for the collection, transcription and analysis of observational data in human and animal behaviour. Our products have been used all over the world for more than 10 years.

Microsoft Corporation
Stands C & D
Our mission is to enable people and businesses throughout the world to realize their full potential. Try out our latest software and connect with the people behind it.

Morgan Kaufmann Publishers
Stand H
Morgan Kaufmann publishes the Series in Interactive Technologies for interaction design professionals, academics, and students as well as for all software, WWW, and multimedia developers involved in user interface design. New titles this year include Richard Ling’s The Mobile Connection; Susan Fowler’s Web Application Development Handbook; Colin Ware’s Information Visualization, 2nd Ed; and Barbara Mirel’s Interaction Design for Complex Problem Solving.

Noldus Information Technology
Stands 1 & 2
Noldus offers software and integrated systems including portable and stationary labs for recording and analyzing human-computer interaction. The new Observer is available for live observations and video analysis and will be displayed in our booth. We will also demonstrate new tools for mobile observations.

Samsung Electronics Co. Ltd., (Interaction Group, Software Center)
Stand 9
The Interaction Group from Samsung Electronics presents GIA (gesture-based interactive photo album) along with a number of research outcomes. Discuss career opportunities in the interaction design/HCI areas with us!

SAP
Stand L
SAP presents its knowledge base for user interface design (SAP Design Guild), the “UI First” development process as well as new user interface concepts. Specialists in user productivity will be available to discuss career opportunities at SAP.

Smart Eye AB
Stand 17
Smart Eye Pro is targeted at users and applications that require high-accuracy measurements of head pose and gaze in 3 dimensions at full frame rate. Web: www.smarteye.se.

Springer Verlag
Stand J
Springer’s publishing programme contains a wide range of books, journals and electronic media covering all fields of computer science. For detailed information about all publications, please visit www.springeronline.com.

Taylor & Francis
Stand 10
Building on two centuries’ experience, Taylor & Francis has grown rapidly to become a leading international academic publisher. With offices worldwide, the Taylor & Francis Group publishes more than 800 journals.

TechSmith
Stand N
Morae is the only fully integrated, all-digital software solution for analyzing human-computer interaction. Powered by patent-pending, Rich Recording Technology™, Morae allows you to record, log, analyze and share.

The MIT Press
Stand 5
The MIT press is a premiere publisher in titles on computer-human interaction. New and recent back list titles are available at 20% conference discount. New title highlights include: Design Research by Brenda Laurel and Activity-Centered Design by Geri Gay and Helene Hembrooke.
RECRUITING BOARDS

A designated area in The Connectionary focuses on recruiting. Organizations interested in recruiting new personnel have purchased poster board space to display pertinent information about available positions. Bring your resume and it will be delivered to authorized representatives of these recruiting organizations. This area provides an excellent opportunity for all conference participants to obtain valuable information about employment opportunities as well as increase their networking with HCI professionals.

About Vienna
The CHI2004 Conference City

CHI2004 will be held in Vienna, Austria’s capital, which combines imperial tradition with modern creativity. Vienna is a city full of culture, history, art, music, fun, and much more. Its incomparable wealth of historical treasures, its great traditions and its exciting artistic and cultural scene makes Vienna as a major European tourist destination. Vienna ranks among the worldwide top international conference destinations.

Vienna, with its approximately 1.5 million inhabitants, spreads over 415 square kilometres and is divided into 23 districts. Almost half of the city is covered by parks – Vienna has more parks than any other European capital. There are not only “city greens,” such as the Stadtpark (with the most photographed object in the city, the golden Johann Strauss monument), the woods and meadows of the Prater, and the spacious Schönbrunn Palace Park, but also the Vienna Woods, vineyards and farmland, and the expansive river banks of the legendary Danube. During summer, the temperature rarely rises above 30°C; during the winter it hardly ever falls below -5°C.

Vienna’s history goes back to the first century, when the Romans founded the military camp Vindobona. In 1137, the city of Vienna was first mentioned in documents, and around 1155 the Dukes of Babenberg chose it as their residence. From 1282 on, the Habsburgs reigned for more than six centuries. Today’s cityscape is dominated by the Baroque, which for the main part originated during the reign of Empress Maria Theresia. Emperor Franz Joseph I also put his imprint on the city when he levelled the city walls in 1857 and saw to it that the splendid Ringstrasse boulevard was built. After 68 years as emperor, he died during World War I, and in 1918 Vienna became the capital of the Republic of Austria. After the so-called “Anschluss” of Austria to Hitler’s Germany, Vienna was designated a “Reichsgau” (an administrative district of the Third Reich during the Nazi period) in 1938; after 1945, it once again became the capital of the Austrian Republic. Since 1967, the city has been one of only three United Nations cities (in addition to New York and Geneva) and in 1995 it became one of 15 capitals of the European Union.

About Vienna
From Roman Camp to Capital of the Republic

Tobii Technology
Stand B
Tobii Technology provides solutions for eye-tracking and applications based on this. Check out our unique tools for usability/advertising studies, and a preview of upcoming products for eye-based computer interaction.

Yahoo! Inc.
Stand A
Yahoo! is the leading destination on the web for people to find anything, communicate with anyone, or buy anything, wherever they are.

Recruiting Organizations
Champion Sponsors
Google
Microsoft
SAP
Yahoo!

Contributing Sponsors
Intel
Nokia
Sun Microsystems

Exhibitors
Human Factors International

Recruiting Board Hours:
Tuesday………………10:00 – 18:00
Wednesday…………08:30 – 18:30
Thursday…………….08:30 – 16:30
Imperial Romance and World-Class Art

Tourists are eager to visit Vienna because of the city’s exciting combination of the royal-imperial flair of the past with the latest trends, the responsible cultivation of a precious heritage and charming traditions. The Habsburg architecture is a suitable setting for this image: magnificent buildings date back to the baroque, to historicism (the so-called “Ringstrassen Style”), and to art nouveau. In Vienna, one still revels in the romantic center of a long-lost empire.

But much more than old buildings turn Vienna into a city of beauty: one also finds excellent museums, fine art collections and world-renowned works of art in the city. The Museum of Fine Arts offers the world’s largest collection of paintings by Bruegel. Many works by Gustav Klimt and Egon Schiele are exhibited in the Austrian Gallery at Belvedere and in the Leopold-Museum in the new Museumsquartier.

In 2001 Vienna opened the MuseumsQuartier Wien in the center of the city, next to two renowned museums. Covering 45,000 square meters it is an architecturally fascinating combination of a baroque building (the former Imperial Stables) with future-oriented design. With 60,000 square meters of usable floor space on eight different levels, it is one of the ten largest cultural centers in the world, offering a unique combination of events. Among the highlights are the Leopold Museum with the largest collection of Schiele paintings in the world, and works of such renowned modern Austrian artists as Klimt, Kokoschka and Gerst. The MuseumsQuartier also houses the Museum of Modern Art, the Tobacco Museum, the Vienna Architecture Center, and the Kunsthalle Wien.

City of Music with Lifestyles from Gemütlich to Trendy

Vienna has traditionally placed high value placed on art, fostering creativity by its citizens, and attracting artists from other countries. Vienna boasts 50 theaters, including three opera houses and two theaters staging musicals, 100 museums, as well as renowned drama, music and dance festivals. In addition, outstanding exhibitions are shown all year long. This means that an extraordinarily rich cultural program is available throughout the year, which makes Vienna one of the leading cultural centers of Europe.

Vienna, as a city of music, enjoys a paramount reputation around the world. No other city has been home to so many composers of international renown: some, such as Schubert, Strauss, Schoenberg and Berg were born there; others, such as Haydn, Mozart, Beethoven, Brahms and Mahler chose to live there. The Wiener Philharmoniker is one of the world’s great orchestras, and the Vienna Symphony and several other orchestras and groups are not far behind. The Vienna State Opera is one of the finest opera houses anywhere, and the city is home to two additional opera houses. The Vienna Boys’ Choir enchants music lovers around the world. In addition to classical music, Vienna has also made its mark as a city of musicals, and recent successes in electronic music show that the avant-garde is also taken seriously in Vienna. A very special way to enjoy music is presented at the House of Music - a unique high-tech adventure journey into the phenomenon of music – where sounds become visible, organ pipes may be walked on and visitors can be turned into virtual conductors or composers.

Lifestyle: Royal-Imperial Nostalgia and New Trends

This juxtaposition of such traditional gems as coffeehouses and Heurigen (wine restaurants), which demonstrate Vienna’s ability to enjoy life in a relaxed atmosphere, and ultra-modern events such as the Life Ball and the Festival for Electronic Music, conveys a lifestyle that is attractive to the modern tourist offering an array from which he or she may choose according to his or her mood: relaxation and serenity or action and stimulation.

Around the Naschmarkt, Vienna’s multi-national fruit and vegetable market – every Saturday, a Flea Market next to it adds a special flair – an extraordinarily diverse gastronomic scene has developed over the past years. Mariahilfer Strasse – the direct link between the historic old city and Vienna’s most popular sightseeing attraction, Schönbrunn Palace – has been transformed into an attractive Shopping Mile since the completion of the Underground line U 3. During the summer, Viennese and tourists alike visit not only the Prater with its Riesenrad (Giant Ferris Wheel), but also the Copa Cagrana on Danube Island – which boasts Europe’s largest open-air party. And the Heurigen regions on the hillsides of the Vienna Woods invite one and all to seriously “study” Vienna and its wines.

Austria Center Vienna

The CHI2004 Conference Venue CHI2004 will take place in the Austria Center Vienna, located at the eastern part of the city. The conference center is situated near the United Nations buildings and the New Danube. Around the New Danube the Danube Island has become the largest and most popular leisure area of the city with over 40 km of bathing beaches, countless restaurants and leisure facilities. The Conference Center is also in the heart of the Danube City, which has been developed over the last years as a center of business and technology. The conference center is easily accessible by all means of transport.

Jugendstil

The CHI2004 Design Inspiration

In April 1897, the Secession Artists Association was founded in Vienna, a unique variety of the European Jugendstil (Art Nouveau) movement. Its leading figures were Otto Wagner and Gustav Klimt. The aim of the movement was for art to penetrate all aspects of life. Vienna shows a rich collection of Jugendstil at different places in Vienna. Famous architectural examples include the Secession, a small building housing the 26 meter long Beethoven Friese by Gustav Klimt; the Otto Wagner Ensemble; and the Postsparkasse (Post Office Savings Bank).

Woods invite one and all to seriously enjoy life in a relaxed and satisfying atmosphere, and ultra-modern events such as the Life Ball and the Festival for Electronic Music, conveys a lifestyle that is attractive to the modern tourist offering an array from which he or she may choose according to his or her mood: relaxation and serenity or action and stimulation. Around the Naschmarkt, Vienna’s multi-national fruit and vegetable market – every Saturday, a Flea Market next to it adds a special flair – an extraordinarily diverse gastronomic scene has developed over the past years. Mariahilfer Strasse – the direct link between the historic old city and Vienna’s most popular sightseeing attraction, Schönbrunn Palace – has been transformed into an attractive Shopping Mile since the completion of the Underground line U 3. During the summer, Viennese and tourists alike visit not only the Prater with its Riesenrad (Giant Ferris Wheel), but also the Copa Cagrana on Danube Island – which boasts Europe’s largest open-air party. And the Heurigen regions on the hillsides of the Vienna Woods invite one and all to seriously “study” Vienna and its wines.

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Vienna Waits For You
12 Tips to Experience and Enjoy Arts & Delights
Vienna is old and new, classical and trendy, nostalgic and dynamic. Here are 12 tips for the newcomer to help you explore, experience and enjoy the arts and delights of the city: a sort of check-list for your visit to Vienna:

- A 1000-year-old crown and “Sissi’s” Bathtub: the Imperial Palace with all its treasures
- The “Ringstrasse” – a window on the former Habsburg monarchy and a splendid boulevard today
- The Joys and Frustrations of the Habsburgs: Schönbrunn Palace - witness to the history of the monarchy, from Maria Theresia to the resignation of the last emperor
- MuseumsQuartier: The vast new cultural premises attract visitors with the largest Schiele collection of the world, Warhol’s portraits and much more
- The Kunsthistorisches Museum, a delight for lovers of classical art housing works by Bruegel, Titian and more
- The Viennese Coffeehouse: a traditional meeting place for romantic travelers and leisurely bon vivants
- Austrian Gallery Belvedere, Bank Austria Kunstforum and Kunsthalle Wien - three guarantees of first-class art exhibitions
- Cool & Trendy: from shopping to clubbing – take a 24-hour trip through the Vienna Scene of young people
- Art Nouveau & Secession: The golden luster of Vienna at the turn of the last century
- Vienna State Opera: a grand building with grand opera and the Opera Ball
- Musikverein with its Golden Hall: home to the Vienna Philharmonic Orchestra
- Vienna & Wine: Heurigen inns invite visitors to the outlying districts where tall stories are told and much wine is drunk

Further Information Links:
Vienna Information: info.wien.at
Vienna Information: www.wien.qv.at
Secession: www.secession.at
Conference Center: www.acv.at

Enjoy Arts & Delights
12 Tips to Experience and Enjoy Vienna
Vienna Waits For You
**ELECTRICAL POWER**
It is ACM SIGCHI policy to use the local power source. The electrical voltage in Austria is 230V AC.
CHI2004 does not provide power converters, extension cords, power strips, or other electric accessories. If you are presenting at CHI2004, please be sure to contact your session chair if you have questions about connecting your laptop or peripherals in session.

**PRESS OFFICE**
CHI2004 welcomes members of the press. Please stop by the Press Office for information on press events this week and to learn more about CHI2004, SIGCHI and future CHI conferences. We will be happy to schedule interviews with selected authors at the conference.

**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 each individual photographed.

**REGISTRATION**

**Entrance Area - Level OE**
Tel.: +43-1-26069-2000

Onsite Registration Hours:
- Saturday, 24 April 15:00 - 19:00
- Sunday, 25 April 08:00 - 17:30
- Monday, 26 April 08:00 - 21:30
- Tuesday, 27 April 08:00 - 17:30
- Wednesday, 28 April 08:00 - 17:30
- Thursday, 29 April 08:00 - 14:00

**HOTEL & INFORMATION BOOTH**

**Level OE**
The CHI2004 Hotel & Information Booth provides hotel and local information. Visit the booth for confirmations and vouchers for your hotels reservations, as well as local tourist information. The Hotel & Information Booth is located in the entrance area (Level OE) opposite the registration desks. It can be reached by telephone at +43-1-26069-2002.

**Information Booth Hours:**
- Sunday 15:00 - 19:00
- Monday 09:00 - 17:30
- Tuesday 08:30 - 18:30
- Wednesday 08:30 - 18:30
- Thursday 08:00 - 14:00

**CONFERENCE OFFICE**

**Level OE**
The Conference Office is located near the entrance area (Level OE). Telephone messages can be taken for you and posted to the message boards. It can be reached at +43-1-26069-2003

**MESSAGE BOARDS**
The Connectionary
Message boards can be used to post messages to other conference participants.

**STUDENT VOLUNTEERS**
Student Volunteers are a great source of information about the conference and are a pleasure to meet. Many are working on their Ph.D.s and some are looking for job opportunities. You will recognize Student Volunteers by their red CHI2004 Student Volunteer T-Shirt.

**TRANSPORTATION/PARKING**
CHI2004 will provide no busing. Vienna has a comprehensive public transport system. To reach the conference center from the city center (Stephansplatz) take the U1 underground line (red). Exit at Vienna International Centre/Kaisermühlen and take the exit marked Schüttaustraße. Travelling time is about 8-10 minutes from the city center (Stephansplatz).

If you need a taxi, please contact the Hotel & Information Booth.

Parking Decks are located directly below the conference center (Austria Center Vienna). There are around 1000 spaces. Parking is charged on an hourly basis.

**VOLUNTEERING**
If you are interested in volunteering for future SIGCHI conferences and events, please speak with someone at the SIGCHI booth in the The Connectionary or visit The Conference Office. Volunteering is a great way to make new contacts in the field of HCI and gain valuable experience.