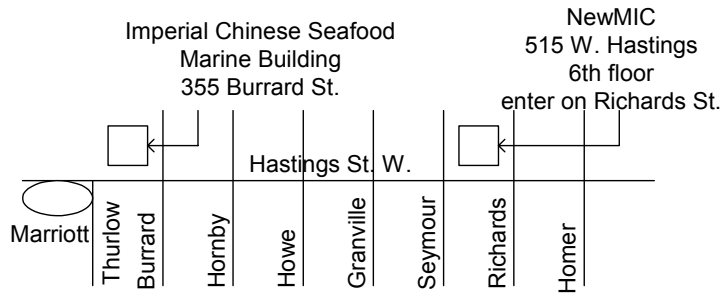
Handy Reference Information

Internet Access

Fifteen wired Internet hookups are available in the Point Grey room. The password for wired access is QG7Q. Wireless access is available throughout the third floor of the hotel, and in the lobby. The password for wireless access is AYXW. In both cases, start up a web browser to be prompted for the password.
Internet access is also available in your hotel room at a discounted rate of CDN $10 per day.

Off-Site Locations



Invited Surveys: Tuesday, November 4, 14:00 – 15:00

Computer Audition: A Survey of Techniques, Standards, and Applications
Michael Casey, Department of Computing, City University of London, UK
Pinnacle Ballroom III

Computer Audition is concerned with capturing, processing, and interpreting arbitrary sound; such as music, sports events, industrial machine noises and environmental audio. Such technology is now being used as an alternate or additional input modality in many applications. In this survey I will summarize the key technologies behind computer audition, discuss their inclusion in standards such as MPEG 7, and describe several practical applications of this technology.

Chemical Sensors: Linking Interactive Systems with the Real World
Dermot Diamond, National Centre for Sensor Research, Dublin City University, Ireland
Pinnacle Ballroom I/II

Leveraging recent advances in analytical chemistry, materials science, and electronics, cost-effective chemical sensing is now becoming available for a bewildering array of applications. These devices are typically built on transducer platforms, with the key issue being how to couple the variation of a chemically (or biologically) important parameter with the signal-generation capability of the transducer. This is often achieved by depositing a chemically sensitive film directly on the device, or by using the transducer to indirectly probe the chemically sensitive film. The variety of transducer platforms, and the increasing range of materials for generating the chemically sensitive films have generated a wide range of routes to accessing signals containing chemical and/or biological information.
The merging of chemical and biological sensing with digital communications technologies is one of the most exciting opportunities for the global research community today. In this survey I will summarize recent technical trends, discuss several sample applications, and provide pointers for UI researchers who would like to incorporate chemical sensors in their interactive systems.

UIST 2003

November 2-5, 2003
Marriott Vancouver Pinnacle Hotel
Vancouver, BC, Canada

Final Program

Conference-at-a-Glance

Sunday, November 2

08:00-16:30	Doctoral Symposium (invitation only)	*Dundarave Room*
17:00-21:00	Registration	*Pinnacle Foyer*
18:00-20:00	Welcoming Reception	*Pinnacle Ballroom*

Monday, November 3

07:45-08:30	Continental Breakfast	*Pinnacle Foyer*
08:30-10:00	Opening Keynote (Ben Shneiderman)	*Pinnacle Ballroom*
10:30-12:00	Session: Collaborative Software	*Pinnacle Ballroom*
12:00-14:00	Lunch on your own	
14:00-15:30	Session: Audio and Paper	*Pinnacle Ballroom*
16:00-17:45	Session: Input	*Pinnacle Ballroom*
19:00-21:30	Conference Banquet	*Imperial Seafood Chinese Restaurant*

Tuesday, November 4

07:45-08:30	Continental Breakfast	*Pinnacle Foyer*
08:30-10:00	Session: Images and Video	*Pinnacle Ballroom*
10:30-12:00	Session: Architectures and Toolkits	*Pinnacle Ballroom*
12:00-14:00	Lunch on your own	
14:00-15:00	Invited Surveys	
	Computer Audition	*Pinnacle III*
	Chemical Sensors	*Pinnacle I/II*
15:30-16:45	Session: Public and Multi-Screen Displays	*Pinnacle Ballroom*
18:00-21:00	Demo Reception	*NewMIC*

Wednesday, November 5 – Joint Day with ICMI-PUI 2003

07:45-08:30	Continental Breakfast	*Pinnacle Foyer*
08:30-10:00	Joint Keynote Address (Sandra Marshall)	*Pinnacle Ballroom*
10:30-12:10	Joint Paper Session with ICMI-PUI 2003	*Pinnacle Ballroom*
12:10-14:00	Poster Lunch (buffet station)	*Pinnacle Foyer, Shaughnessy*
14:00-15:30	Session: Novel Interaction	*Pinnacle Ballroom*
16:00-17:30	ICMI-PUI Session: Attention and Integration	*Pinnacle Ballroom*
19:00-22:00	UBC Demo Reception (optional, additional fee)	*Bus to/from UBC*

Ongoing:

- Registration desk open during conference hours Monday - Wednesday
- Breaks between sessions held in Pinnacle Foyer
- UIST posters on display: Mon. afternoon through Wed. lunch (Shaughnessy Room)
- Internet available via wireless (throughout floor) or wired (Point Grey room)

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Demonstrations
Kellogg Booth, *Univ. of British Columbia*
Ed Chi, *Palo Alto Research Center*

Posters
Patrick Baudisch, *Microsoft Research*
Eric Lecolinet, *ENST*

Doctoral Symposium
Scott Hudson
Carnegie Mellon University

Interaction Contest
Kathy Ryall, *MERL*
David McGee, *Natural Interaction Systems*

Invited Surveys
Joe Marks
MERL

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Ian Smith, Palo Alto Research Center
Maureen Stone, StoneSoup Consulting

Wednesday, November 5, 2003

10:30-12:10 **Joint Session with ICMI-PUI** *Pinnacle Ballroom*
Session Chairs: Chris Schmandt and Matthew Turk

VisionWand: Interaction Techniques for Large Displays using a Passive Wand Tracked in 3D
Xiang Cao, Ravin Balakrishnan (University of Toronto)

Perceptually-Supported Image Editing of Text and Graphics
Eric Saund, David Fleet, Daniel Larner, James Mahoney
(Palo Alto Research Center)

ICMI-PUI Paper: *A System for Fast Full-Text Entry for Small Electronic Devices*
Saied Nesbat (ExIdeas, Inc.)

ICMI-PUI Paper: *Mutual Disambiguation of 3D Multimodal Interaction in Augmented and Virtual Reality*
Ed Kaiser, Alex Olwal, David McGee, Hrvoje Benko, Andrea Corradini,
Xiaoguang Li, Phil Cohen, Steven Feiner
(Oregon Health and Science University/OGI School of Science & Engineering,
Columbia University, and Pacific Northwest National Laboratory)

12:10-14:00 **Poster Lunch** *Pinnacle Foyer and Shaughnessy*

14:00-15:30 **Session: Novel Interaction** *Pinnacle Ballroom*
Session Chair: Ken Hinckley

Multi-Finger and Whole Hand Gestural Interaction Techniques for Multi-User Tabletop Displays
Mike Wu, Ravin Balakrishnan (University of Toronto)

PreSense: Interaction Techniques for Finger Sensing Input Devices
Jun Rekimoto (Sony Computer Science Laboratories), Takaaki Ishizawa
(Keio University), Carsten Schwesig, Haruo Oba (Sony CSL)

Stylus Input and Editing Without Prior Selection of Mode (TechNote)
Eric Saund (Palo Alto Research Center),
Edward Lank (San Francisco State University)

Tactile Interfaces for Small Touch Screens (TechNote)
Ivan Poupyrev (Sony CSL), Shigeaki Maruyama (Micro Device Center, Sony EMCS)

16:00-17:30 **ICMI-PUI: Attention and Integration** *Pinnacle Ballroom*

ICMI-PUI Paper: *Learning and Reasoning about Interruption*
Eric Horvitz and Johnson Apacible (Microsoft Research)

ICMI-PUI Paper: *Providing the Basis for Human-Robot-Interaction: A Multimodal Attention System for a Mobile Robot*
Sebastian Lang, Marcus Kleinehagenbrock, Sascha Hohenner, Jannik Fritsch,
Gernot A. Fink, and Gerhard Sagerer (Bielefeld University)

ICMI-PUI Paper: *Selective Perception Policies for Limiting Computation in Multimodal Systems: A Comparative Analysis*
Nuria Oliver and Eric Horvitz (Microsoft Research)

ICMI-PUI Paper: *Toward a Theory of Organized Multimodal Integration Patterns during Human-Computer Interaction*
Sharon Oviatt, Rachel Coulston, Stefanie Tomko, Benfang Xiao, Rebecca Lunsford,
Matt Wesson and Lesley Carmichael (Oregon Health and Science Univ./OGI
School of Science & Engineering, CMU and Univ. of Washington)

Sunday, November 2, 2003

08:00-16:30 **Doctoral Symposium** (Invitation Only) *Dundarave Room*
posters on display at welcoming reception

Understanding Images of Graphical User Interfaces: A new approach to activity recognition for visual surveillance
Li Yu (Lehigh University)

Human-Computer Interaction in Context-Aware Mobile Handheld Devices
Jonna Häkkilä (University of Oulu)

Papier-Mâché: Toolkit support for tangible interaction
Scott Klemmer (UC Berkeley)

Intelligent groupware to support communication and persona management
Joe Tullio (Georgia Institute of Technology)

Territory-Based Interaction Techniques for Tabletop Collaboration
Stacey Scott (University of Calgary)

INCA: An Infrastructure to Support Novel Explorations of the Capture & Access Design Space
Khai Truong (Georgia Institute of Technology)

A Multiscale Workspace for Managing and Exploring Personal Digital Libraries
Daniel Bauer (University of California, San Diego)

Damask: A Tool for Early-Stage Design and Prototyping of Cross-Device User Interfaces
James Lin (UC Berkeley)

17:00-21:00 **Registration** *Pinnacle Foyer*

18:00-20:00 **Welcoming Reception** *Pinnacle Ballroom*

See old friends and meet new ones! The welcoming reception features a variety of hot and cold hors d'oeuvres as well as a bar (your first drink is on us!). Also come meet the students who participated in the doctoral symposium and see their posters.

Tour the University of British Columbia's
Imager Lab for Graphics, Visualization and HCI

Wednesday evening
7-10 pm
hors d'oeuvres served

Tickets must be purchased in advance
(inquire at registration)

Bus transportation provided between the
Marriott hotel and the UBC campus

Monday, November 3, 2003

07:45-08:30 Continental Breakfast *Pinnacle Foyer*

08:30-10:00 Opening Keynote *Pinnacle Ballroom*

Creativity Support Tools: A Grand Challenge for Interface Designers

Ben Shneiderman (University of Maryland at College Park)

The challenge of supporting creative work is pushing user interface designers and human-computer interaction researchers to develop improved models of creative processes. This talk begins with a comparison of creativity models and focuses on Czikszentmihalyi's domain, field, and individual, as a basis for software requirements. These requirements lead to eight creative activities that could be facilitated by improved interfaces:

- searching and browsing digital libraries,
- visualizing data and processes,
- consulting with peers and mentors,
- thinking by free associations,
- exploring solutions, what-if tools,
- composing artifacts and performances,
- reviewing and replaying session histories, and
- disseminating results.

These activities can be supported in existing software applications, built into web services, or inspire novel tools. However, rapid performance, minimal interface distraction, and scalable solutions are necessary for success. Smoother coordination across multiple windows and better integration of tools is vital. A second facilitating goal is compatible actions with consistent terminology, such as the widely used cut-copy-paste or open-save-close. Higher levels of actions that are closer to the task domain are candidates, such as annotate-consult-revise, initiate-compose-evaluate, or collect-explore-visualize. Adding to the challenge of doing research in this area is the difficulty of doing evaluation. Benchmark tasks can hardly reveal the efficacy for creative work and discovery. While case studies or ethnographic observations are useful as formative design studies, they are weak in their capacity to provide rigorous validation.

Ben Shneiderman is a Professor in the Department of Computer Science, Founding Director (1983-2000) of the Human-Computer Interaction Laboratory, and Member of the Institutes for Advanced Computer Studies & for Systems Research, all at the University of Maryland at College Park. He was elected as a Fellow of the ACM in 1997 and a Fellow of the American Association for the Advancement of Science in 2001. He received the ACM SIGCHI Lifetime Achievement Award in 2001.

Ben is the author of *Software Psychology: Human Factors in Computer and Information Systems* (1980) and *Designing the User Interface: Strategies for Effective Human-Computer Interaction* (4th ed. 2004). He pioneered the highlighted textual link in 1983, and it became part of Hyperties, a precursor to the web. His move into information visualization helped spawn the successful company Spotfire. He is a technical advisor for the HiveGroup, ILOG, and Clockwise3D. With S Card and J. Mackinlay, he co-authored *Readings in Information Visualization: Using Vision to Think* (1999). *Leonardo's Laptop: Human Needs and the New Computing Technologies* (MIT Press) appeared in October 2002, and his newest book with B. Bederson, *The Craft of Information Visualization* (Morgan Kaufmann) was published in April 2003.

Wednesday, November 5, 2003

07:45-08:30 Continental Breakfast *Pinnacle Foyer*

08:30-10:00 Joint Keynote with ICMI-PUI *Pinnacle Ballroom*

New Techniques for Evaluating Innovative Interfaces with Eye Tracking

Sandra Marshall (Eye Tracking, Inc. and San Diego State University)

Computer interfaces are changing rapidly, as are the cognitive demands on the operators using them. Innovative applications of new technologies such as multimodal and multimedia displays, haptic and pen-based interfaces, and natural language exchanges bring exciting changes to conventional interface usage. At the same time, their complexity may place overwhelming cognitive demands on the user. As novel interfaces and software applications are introduced into operational settings, it is imperative to evaluate them from a number of different perspectives. One important perspective examines the extent to which a new interface changes the cognitive requirements for the operator.

The presentation describes a new approach to measuring cognitive effort using metrics based on eye movements and pupil dilation. It is well known that effortful cognitive processing is accompanied by increases in pupil dilation, but measurement techniques were not previously available that could supply results in real time or deal with data collected in long-lasting interactions. We now have a metric—the Index of Cognitive Activity—that is computed in real time as the operator interacts with the interface. The Index can be used to examine extended periods of usage or to assess critical events on an individual-by-individual basis.

While dilation reveals when cognitive effort is highest, eye movements provide evidence of why. Especially during critical events, one wants to know whether the operator is confused by the presentation or location of specific information, whether he is attending to key information when necessary, or whether he is distracted by irrelevant features of the display. Important details of confusion, attention, and distraction are revealed by traces of his eye movements and statistical analyses of time spent looking at various features during critical events.

Together, the Index of Cognitive Activity and the various analyses of eye movements provide essential information about how users interact with new interface technologies. Their use can aid designers of innovative hardware and software products by highlighting those features that increase rather than decrease users' cognitive effort.

In the presentation, the underlying mathematical basis of the Index of Cognitive Activity will be described together with validating research results from a number of experiments. Eye movement analyses from the same studies give clues to the sources of increases in cognitive workload. To illustrate interface evaluation with the ICA and eye movement analysis, several extended examples will be presented using commercial and military displays.

Sandra Marshall is President & CEO of EyeTracking, Inc. and Professor of Psychology at San Diego State University. Her research in cognition and assessment has received federal funding for the past twenty years and has had important theoretical and practical impact. Early research on problem solving culminated in the book *Schemas in Problem Solving*. Her recent work has focused on the use of eye tracking to understand cognitive activity in training and performance on military simulations. In research sponsored by the U.S. Office of Naval Research, the U.S. Air Force Office of Scientific Research, and the U.S. Defense Advanced Research Projects Agency (DARPA), Dr. Marshall developed new methods for assessing cognitive strategies and cognitive workload based on eye measures. The techniques are now being used to evaluate interfaces for military and non-military applications.

Tuesday, November 4, 2003

07:45-08:30 **Continental Breakfast** *Pinnacle Foyer*

08:30-10:00 **Session: Images and Video** *Pinnacle Ballroom*

Session Chair: Gregory Abowd

Automatic Thumbnail Cropping and its Effectiveness
Bongwon Suh, Haibin Ling, Benjamin B. Bederson, David W. Jacobs (University of Maryland)

Fluid Interaction Techniques for the Control and Annotation of Digital Video
Gonzalo Ramos, Ravin Balakrishnan (University of Toronto)

Rapid Serial Visual Presentation Techniques for Consumer Digital Video Devices
Kent Wittenburg, Clifton Forlines, Tom Lanning, Alan Esenther (Mitsubishi Electric Research Laboratories), Shigeo Harada, Taizo Miyachi (Mitsubishi Electric Corporation -- Industrial Design Center)

10:30-12:00 **Session: Architectures and Toolkits** *Pinnacle Ballroom*

Session Chair: Scott Klemmer

GADGET: A Toolkit for Optimization-Based Approaches to Interface and Display Generation
James Fogarty, Scott E. Hudson (Carnegie Mellon University)

A molecular architecture for creating advanced GUIs
Eric Lecolinet (GET / ENST and CNRS LTCI)

User Interface Continuations
Dennis Quan, David Huynh, David R. Karger, Robert Miller (MIT Computer Science and Artificial Intelligence Laboratory)

14:00-15:00 **Invited Surveys**

see highlighted box on back-cover

15:30-16:45 **Session: Public and Multi-Screen Displays**

Session Chair: Mary Czerwinski *Pinnacle Ballroom*

Synchronous Gestures for Multiple Persons and Computers
Ken Hinckley (Microsoft Research)

Dynamo: A public interactive surface supporting the cooperative sharing and exchange of media
Shahram Izadi[*], Harry Brignull[†], Tom Rodden[*], Yvonne Rogers[†], Mia Underwood[†] ([*]University of Nottingham, [†]University of Sussex)

A fast, interactive 3D paper-flier metaphor for digital bulletin boards (TechNote)
Laurent Denoue, Les Nelson, Elizabeth Churchill (FX Palo Alto Laboratory)

18:00-21:00 **Demo Reception** *NewMIC*

Come see refereed demos from UIST and ICMI-PUI, along with demonstrations from paper authors and sponsors, at the New Media Innovation Centre—a research center just a short walk from the conference hotel. Light reception food will be provided.

Monday, November 3, 2003

10:30-12:00 **Session: Collaborative Software** *Pinnacle Ballroom*

Session Chair: Kathy Ryall

A Widget Framework for Augmented Interaction in SCAPE
Leonard D. Brown (Beckman Institute, University of Illinois), Hong Hua (University of Hawaii at Manoa), Chunyu Gao (Beckman Institute, University of Illinois)

Rhythm Modeling, Visualizations and Applications
James "Bo" Begole, John C. Tang (Sun Microsystems Laboratories), Rosco Hill (University of Waterloo)

Classroom BRIDGE: using collaborative public and desktop timelines to support activity awareness
Craig H. Ganoe, Jacob P. Somervell, Dennis C. Neale, Philip L. Isenhour, John M. Carroll, Mary Beth Rosson, D. Scott McCrickard (Virginia Polytechnic Institute)

14:00-15:30 **Session: Audio and Paper** *Pinnacle Ballroom*

Session Chair: James Landay

SmartMusicKiosk: Music Listening Station with Chorus-Search Function
Masataka Goto (PRESTO, JST / National Institute of Advanced Industrial Science and Technology)

TalkBack: a conversational answering machine
Vidya Lakshmipathy, Chris Schmandt, Natalia Marmasse (MIT Media Lab)

Paper Augmented Digital Documents
François Guimbretière (University of Maryland)

16:00-17:45 **Session: Input** *Pinnacle Ballroom*

Session Chair: Jeff Pierce

EdgeWrite: A Stylus-Based Text Entry Method Designed for High Accuracy and Stability of Motion
Jacob O. Wobbrock, Brad A. Myers, John A. Kembel (Carnegie Mellon University)

Tracking Menus
George Fitzmaurice, Azam Khan, Robert Pieké, Bill Buxton, Gordon Kurtenbach (Alias|wavefront)

TiltText: Using Tilt for Text Input to Mobile Phones
Daniel Wigdor, Ravin Balakrishnan (University of Toronto)

Considering the Direction of Cursor Movement for Efficient Traversal of Cascading Menus (TechNote)
Masatomo Kobayashi, Takeo Igarashi (University of Tokyo)

19:00-21:30 **Banquet** *Imperial Chinese Seafood Restaurant*

Enjoy a traditional Chinese banquet at a restaurant overlooking the Vancouver waterfront. Vegetarian dishes are included throughout the meal. Unlimited soft drinks and one alcoholic beverage are included. See the map on the back cover.

Peer-Reviewed Posters*

Body Mnemonics: Portable device interaction design concept
Jussi Angesleva, Ian Oakley, Stephen Hughes, and Sile O'Modhrain (Media Lab Europe)

Natural Gesture in Descriptive Monologues
Jacob Eisenstein and Randall Davis (MIT)

Video editing based on motion recognition using temporal templates
Kensaku Fujii and Kenichi Arakawa (NTT)

Form Interaction for Pen-based Devices
Jeffrey Green (Columbia University)

Free-Space Transparency: Exposing Hidden Content Through Unimportant Screen Space
Edward Ishak and Steven Feiner (Columbia University)

Digital Video Processing To Enhance ClearBoard: A Technique and Possibilities
Minoru Kobayashi (NTT Cyber Space Laboratories)

CoolPaint: Direct Interaction Painting
Dustin Lang, Leah Findlater, and Michael Shaver (University of British Columbia)

The Flexible Pointer: An Interaction Technique for Selection in Augmented and Virtual Reality
Alex Olwal and Steven Feiner (Columbia University)

Rubbing the Fisheye: Precise Touch-Screen Interaction with Gestures and Fisheye Views
Alex Olwal and Steven Feiner (Columbia University)

Better Transparent Overlays by Applying Illustration Techniques and Vision Findings
W. Bradford Paley (Digital Image Design; Columbia University)

Modelling non-Expert Text Entry Speed on Phone Keypads
Andriy Pavlovych and Wolfgang Stuerzlinger (York University)

A Re-Interpretation of Marking Menus: The Usage of Gestalt Principles as Cognitive Tools
Eva Soliz (Columbia University), W. Bradford Paley (Digital Image Design; Columbia University)

Spatial Layer Display Technique to Perceive What Remote Partner is interested in
Yoshihiro Shimada, Minoru Kobayashi, and Takashi Yagi (NTT Cyber Space Laboratories)

Arrayed Air Jet Based Haptic Display:Implementing An Untethered Interface
Yuriko Suzuki and Minoru Kobayashi (NTT Cyber Space Laboratories)

Tracking Multiple Laser Pointers for Large Screen Interaction
Florian Vogt, Justin Wong, Sid Fels (University of British Columbia), and Duncan Cavens (Swiss Federal Institute of Technology Zurich)

A Study of Semantics Synchronous Understanding on Speech Interface Design
Kuansan Wang (Microsoft Research)

Playing Well with Others: Applying Board Game Design to Tabletop Display Interfaces
Tara Whalen (Dalhousie University)

*additional sponsor posters may be displayed

Peer-Reviewed Demonstrations*

Halo: Supporting Spatial Cognition on Small Screens
Patrick Baudisch (Microsoft Research)

Around the World in Seconds with Speed-Dependent Automatic Zooming
Andy Cockburn, Julian Looser, and Joshua Savage (University of Canterbury)

Programming for Multiple Touches and Multiple Users: A Toolkit for the DiamondTouch Hardware
Rob Diaz, Edward Tse, and Saul Greenberg (University of Calgary)

The InfoVis Toolkit
Jean-Daniel Fekete (INRIA Futurs/LRI)

MouseHaus Table, a Physical Interface for Urban Design
Chen-Je Huang, Ellen Yi-Luen Do, and Mark Gross (University of Washington)

FEEL Phone: Manipulating Endpoints of Audio, Video and Data Sessions
Michimune Kohno, Yuji Ayatsuka, and Jun Rekimoto (Sony Computer Science Laboratories)

Favorite Folders: A Configurable, Scalable File Browser
Bongshin Lee and Benjamin B. Bederson (University of Maryland at College Park)

DART: The Designers Augmented Reality Toolkit
Blair MacIntyre, Maribeth Gandy, Jay Bolter, Steven Dow, and Brendan Hannigan (Georgia Tech)

Haystack: Metadata-Enabled Information Management
Dennis Quan (MIT Artificial Intelligence Laboratory) and David Karger (MIT Laboratory for Computer Science)

Two-handed interaction in a tool-based environment
Robert St. Amant and Colin Butler (North Carolina State University)

EyePliances and EyeReason: Using Attention to Drive Interactions with Ubiquitous Appliances
Jeffrey S. Shell, Roel Vertegaal, Aadil Mamuji, Thanh Pham, Changuk Sohn, and Alexander Skaburskis (Human Media Lab Queen's University)

Calendar Navigator Agent and Dialog Tabs Demonstration
Cornelis Snoeck and Thad Starner (Georgia Institute of Technology)

The Vis-a-Vid Transparent Video Facetop
David Stotts, Jason Smith, and Dennis Jen (University of North Carolina)

ActiveInk
Hiroaki Tobita (Sony CSL Interaction Lab)

Animated Chat
Hua Wang and Takeo Igarashi (University of Tokyo)

WorldCursor: Pointing in Intelligent Environments with a Tele-operated Laser Pointer
Andy Wilson (Microsoft Research)

StoryTable: Computer Supported Collaborative Storytelling
Massimo Zancanaro, A. Cappelletti, and O. Stock (ITC-irst)

*additional author, ICMI-PUI, and sponsor demos will be shown

UIST 2003 Publications

UIST 2003 Proceedings

The conference proceedings, an issue of the *CHI Letters* serial, contains the most rigorously refereed content: UIST's full papers and TechNotes.

UIST 2003 Supplement

The conference supplement contains abstracts accepted in the doctoral symposium, posters program, and demonstrations program.

UIST Proceedings DVD

The UIST 2003 Proceedings DVD contains electronic versions of both proceedings and supplement content, plus videos that accompany papers and Technotes and selected complete posters.