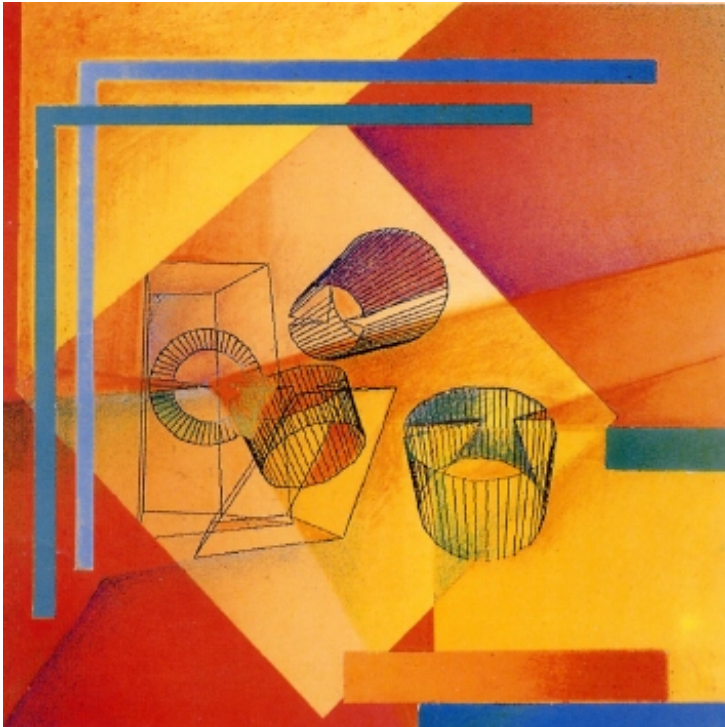


# AVI 2006

International Working Conference  
on Advanced Visual Interfaces



**Venezia, Italy**  
May 23–26, 2006

In cooperation with ACM-SIGCHI, ACM-SIGMM, SIGCHI Italy



<http://www.dsi.unive.it/avi2006>



## Presentation of AVI 2006

The 8th International Working Conference on Advanced Visual Interfaces (AVI 2006) is held in Venice, Italy, May 23–26, 2006. Started in 1992 in Rome, and held every two years in different Italian towns, the Conference brings together experts in different areas of computer science who have a common interest in the conception, design and implementation of visual and, more generally, perceptual interfaces, with a growing interest for mobile devices such as smartphones, palmtops and PDAs, in the framework of traditional and emerging environments, such as ubiquitous and pervasive computer applications. A special theme of this edition, suggested by the beautiful town hosting the conference, is the design and use of advanced interfaces for art, cultural heritage and tourism.

The conference program includes three invited talks, 32 full papers, 45 short papers, and 10 system papers with prototype demonstrations. The proceedings are published by ACM Press and are included in the ACM Digital Library.

The Conference program is integrated by three satellite workshops and two tutorials, given on May 23, 2006.

### Conference Topics

Visual Interface Design	Interface Metaphors
Visual Interaction	Multimodal Interfaces
Information Visualization	Perceptual Interfaces
Graph Layout	Virtual Reality
Visual Databases	Interface Evaluation
Visual Querying	Cognitive Models of the User
Visual Data Mining	End-User Development
Adaptive Interfaces	Controlled Studies and Usability Testing
Animated Interfaces	Computer Supported Cooperative Work
Web Interfaces	Hypermedia & Multimedia Applications
Interfaces for Art, Cultural Heritage and Tourism	

### Conference Venue

AVI 2006 will take place in the “Don Orione Artigianelli” Cultural Centre, an old monastery built in 1422 now transformed into a modern conference centre with state-of-the-art facilities.

It is located on the “Zattere”, one of the most beautiful and typical Venetian waterfronts, at walking distance from the Accademia Bridge over the Grand Canal, with a wonderful view of the Giudecca Canal and the island of Giudecca.

Centro Culturale Don Orione Artigianelli  
Zattere Dorsoduro 909/A , 30123 Venezia, Italy  
Phone +39 041 5224077, Fax +39 041 5286214  
e-mail [info@donorione-venezia.it](mailto:info@donorione-venezia.it)  
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Università "Ca' Foscari" Venezia

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NEXA

Venezia

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Kang Zhang	UTDallas, USA
Xiaofang Zhou	University of Queensland, Australia

## Program at-a-glance

### Tuesday, May 23rd

8:30–9:00 Tutorial & Workshop registration

9:00–11:00 Tutorials & Workshops

*Coffee break*

11:30–13:00 Tutorials & Workshops

*Lunch*

14:30–16:00 Tutorials & Workshops

*Coffee break*

16:30–18:30 Tutorials & Workshops

15:00–18:30 AVI 2006 Registration

### Wednesday, May 24th

8:30–9:15 Registration

9:15–9:30 Welcome address

9:30–10:30 Invited talk. Riccardo Rabagliati, Accademia di Belle Arti di Venezia, Italy

*Coffee break*

11:00–12:55 Visualization (I)

*Lunch*

14:30–16:10 Designing for the End User

*Coffee break*

16:40–18:25 Advanced Interface Design (I) & Evaluating Interaction (I) (parallel sessions)

18:30–20:30 Visit of the Arsenale of Venice and welcome cocktail

### Thursday, May 25th

9:00–10:00 Invited talk. Gerhard Fischer, University of Colorado, USA

10:00–11:05 Interaction for Art, Cultural Heritage and Tourism

*Coffee break*

11:20–13:00 Poster & Demo Session (I)

*Lunch*

14:30–16:00 Evaluating Interaction (II) & Visualization (II) (parallel sessions)

*Coffee break*

16:15–17:45 Poster & Demo Session (II)

17:15–18:00 Meeting of SIGCHI Italy, Italian Chapter of ACM SICHI

18:00 Sightseeing tour in the Venice lagoon & conference dinner

### Friday, May 26th

9:00–10:00 Invited talk. Elizabeth Mynatt, Georgia Institute of Technology, USA

10:00–11:05 Evaluating Interaction (III)

*Coffee break*

11:30–13:10 Multimodal Interaction

*Lunch*

14:30–15:00 Demo Session (III)

15:00–16:55 Advanced Interaction Design (II)

17:00 Concluding remarks

## AVI 2006 Program

**Tuesday, May 25th**

Tutorial T1 Intelligent Visual Interfaces: An Introduction

Room Canaletto

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*Mark Maybury* (Information Technology Center, The MITRE Corporation, USA)

Intelligent visual interfaces (IUI) are human-machine interfaces that aim to improve the efficiency, effectiveness, and naturalness of human-machine interaction by representing, reasoning, and acting on models of the user, domain, task, discourse, and media (e.g., graphics, natural language, gesture). Intelligent visual interfaces are multifaceted, in purpose and nature, and include capabilities for multimedia input analysis, multimedia presentation generation, and the use of user, discourse and task models to personalize and enhance interaction. Drawing upon material from the Readings in Intelligent User Interfaces (IUI) (Maybury and Wahlster, 1998) and augmented with more recently published results, this tutorial will define terms, outline the history, describe key subfields, and exemplify and demonstrate intelligent visual interfaces in action.

*Dr. Mark Maybury is Executive Director of MITRE's Information Technology Division. Mark also serves as Executive Director of ARDA's Northeast Regional Research Center (nrrc.mitre.org). Mark has published over sixty refereed articles. He is editor of Intelligent Multimedia Interfaces (AAAI/MIT Press 1993), Intelligent Multimedia Information Retrieval (AAAI/ MIT Press 1997), New Directions in Question Answering (AAAI/ MIT Press 2004), co-editor of Readings on Intelligent User Interfaces (Morgan Kaufmann Press 1998), Advances in Text Summarization (MIT Press 1999), Advances in Knowledge Management (MIT Press 2001) and Personalized Digital Television (Kluwer Academic, 2004), and co-author of Information Storage and Retrieval (Kluwer Academic 2000). Dr. Maybury is a graduate of the College of the Holy Cross and Cambridge University, England.*

Tutorial T2 Statistics for Visual Interface Evaluation

Room Manin

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*Monique Noirhomme-Fraiture* (Institute of Informatics, University of Namur, Belgium)

The design of new visual interfaces needs the use of experiments in order to test or compare the quality of the proposed interfaces. An important task is the analysis of the experiment results. As we have noticed in publications, in this kind of experimentation, the number of observations is relatively small. Data analysis cannot be used in this case, but inferential statistics represent an appropriate tool. The goal of the tutorial is to explain the basic principles of inferential statistics with application to tests which are particularly useful in visual interface evaluation: comparison of different methods or types of users and identification of relevant factors. The main focus will be on analysis of variance and on non-parametric statistics. Many examples in visual interface evaluation will illustrate the methods. Attention will be drawn on the test hypotheses.

*Monique Noirhomme-Fraiture holds a PhD in Mathematics and is a Professor at the Informatics Institute of Namur University. She has been teaching Probability and Statistics, as well as Data Analysis to students in Computer Science since the beginning of her career. She also teaches Human Computer Interaction. She has supervised theses and research works in these different fields. She has participated to several European projects in data mining, particularly in Symbolic Data Analysis. She is responsible for the DESTINE project for automatic evaluation of interface. With her team and students, she has used many statistical tests for evaluation of visual interface, in particular on mobile phones and PDAs.*

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*Chairs: Enrico Bertini (Università di Roma "La Sapienza", Italy)  
Catherine Plaisant (University of Maryland, USA)  
Giuseppe Santucci (Università di Roma "La Sapienza", Italy)*

The evaluation of an information visualization system is a very complex task and there is a growing sense in the community that new methods of evaluation are needed, from longitudinal field studies, insight based evaluation and other metrics adapted to the perceptual aspects of visualization as well, as the exploratory nature of discovery require evaluation efforts targeted at the component level, the system level, and the work environment level. The aim of the workshop is to solicit position and research papers on innovative infovis evaluation methods. That includes new ways of conducting user studies, definition and assessment of infovis effectiveness through the formal characterization of perceptual and cognitive tasks and insights, definition of quality criteria and metrics. Case study and survey papers are also welcomed when clearly presenting general guidelines, practical advices, and lessons learned.

*Chairs: Kris Mihalic (University of Salzburg, Germany)  
Manfred Tscheligi (University of Salzburg, Germany)  
Alexander Braendle (Microsoft Research Cambridge, UK)  
Marco Combetto (Microsoft Research Cambridge, UK)*

This 1-day workshop aims to explore recent research and findings on context relevant for advanced user interfaces. The goal of the workshop is to raise discussions on the current understanding and relevance, various subtopics, and leverage a share of experiences among people addressing the aspects from different perspectives, e.g. human-computer interaction, intelligent interfaces, graphical interfaces, virtual interfaces, ambient environments. The approach is multidisciplinary and we suggest to consider: psychology, cognitive science, communication science, design, etc., in order to individuate novel approaches, methodologies and applications. Workshop participants are requested to submit a position paper. All position papers will be reviewed. Submissions will be selected on the basis of the significance of the work presented and with respect to how well they will help reach the aim of the workshop. We will try to create a good mix of people looking at the topic from different perspectives. Space permitting, we will allow multiple attendees for co-authored papers.

*Chairs: Antonella De Angeli (The University of Manchester, UK)  
Nadia Bianchi-Berthouze (UCL, UK)*

The goal of this interdisciplinary workshop is to address the relevance of gender for interaction design, with an emphasis on attitudinal and behavioural differences between males and females in the perception, acceptance, and usage of interactive technologies. Furthermore, we are interested in discussing issues related to the sexualisation of embodied conversational agents, the effect of emotional computing on male and female users and gender-differences in navigation and orientation within virtual worlds. The program will feature the presentation of refereed papers followed by interactive sessions drawn on a number of design scenarios. A part of the discussion will concentrate on the definition of a roadmap for future research.



## Wednesday, May 24th

8:30–9:15 AVI 2006 Registration

9:15–9:30 Welcome address

Aula Magna

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9:30–10:30 Invited talk

Aula Magna

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*Chair: Augusto Celentano* (Università Ca' Foscari di Venezia)

AVI and the Art System: Interactive Works at the Venice Biennale

*Riccardo Rabagliati* (Accademia di Belle Arti di Venezia, Italy)

*Coffee break*

11:00–12:55 Visualization (I)

Aula Magna

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*Chair: Mary Czerwinski* (Microsoft Research, USA)

A Comparison of Static and Moving Presentation Modes for Image Collections

*Katy Cooper, Robert Spence, Mark Witkowski* (Imperial College, UK), *Oscar de Bruijn* (University of Manchester, UK)

Line Graph Explorer: Scalable Display of Line Graphs Using Focus+Context

*Robert Kincaid* (Agilent Laboratories, USA), *Heidi Lam* (University of British Columbia, Canada)

Querying Spatio-Temporal Databases Using a Visual Environment

*Valeria M.B. Cavalcanti, Ulrich Schiel, Cláudio de Souza Baptista* (Federal University of Campina Grande, Brazil)

Task-At-Hand Interface for Change Detection in Stock Market Data

*Carmen Sanz Merino* (MicroStrategy Ibérica, Spain), *Mike Sips, Daniel A. Keim* (University of Konstanz, Germany), *Christian Panse* (FGCZ - UniETH Zurich, Switzerland), *Robert Spence* (Imperial College, UK)

Browsing through 3D Representations of Unstructured Picture Collections: an Empirical Study (short paper)

*Olivier Christmann, Noëlle Carbonell* (LORIA, France)

*Lunch*

14:30–16:10 Designing for the End User

Aula Magna

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*Chair: Michel Beaudouin-Lafon* (Université Paris-Sud, France)

Appropriating and Assessing Heuristics for Mobile Computing

*Enrico Bertini, Silvia Gabrielli, Stephen Kimani, Tiziana Catarci, Giuseppe Santucci* (University of Rome "La Sapienza", Italy)

Mobility Agents: Guiding and Tracking Public Transportation Users

*Alexander Repenning, Andri Ioannidou* (AgentSheets, USA)

Supporting End-User Debugging: What Do Users Want to Know?

*Cory Kissinger, Margaret Burnett, Simone Stumpf, Neeraja Subrahmanyan, Laura Beckwith* (Oregon State University, USA), *Sherry Yang* (Oregon Institute of Technology, USA), *Mary Beth Rosson* (Pennsylvania State University, USA)

Supporting Interaction and Co-evolution of Users and Systems

*Maria Francesca Costabile, Antonio Piccinno* (Università di Bari, Italy), *Daniela Fogli* (Università di Brescia, Italy), *Andrea Marcante* (CNR-ITC, Italy)

*Coffee break*

16:40–18:25 Advanced Interface Design (I)

Aula Magna

*Chair: Mark Minas* (Universität der Bundeswehr Munchen, Germany)

Bubble Radar: Efficient Pen-Based Interaction

*Dzmitry Aliakseyeu* (Eindhoven University of Technology, The Netherlands), *Miguel A. Nacenta, Sriram Subramanian, Carl Gutwin* (University of Saskatchewan, Canada)

Improving Interfaces for Managing Applications in Multiple-Device Environments

*Jacob T. Biehl, Brian P. Bailey* (University of Illinois, USA)

Splitting Rules for Graceful Degradation of User Interfaces

*Murielle Florins, Jean Vanderdonckt, Benjamin Michotte* (Université catholique de Louvain, Belgium), *Francisco Montero Simarro* (Universidad de Castilla-La Mancha, Spain)

Flow Selection: A Time-Based Selection and Operation Technique for Sketching Tools (short paper)

*Gabe Johnson, Mark D Gross* (Carnegie Mellon University, USA), *Ellen Yi-Luen Do* (Georgia Institute of Technology, USA)

On the Visualization of Large-sized Ontologies (short paper)

*Yannis Tzitzikas* (University of Crete and FORTH-ICS, Greece), *Jean-Luc Hainaut* (University of Namur, Belgium)

16:40–18:25 Evaluating Interaction (I)

Room Vivaldi

*Chair: Nadia Berthouze* (University of Aizu, Japan)

An Evaluation of Depth Perception on Volumetric Displays

*Tovi Grossman, Ravin Balakrishnan* (University of Toronto, Canada)

Exploring Visual Feedback of Change Conflict in a Distributed 3D Environment

*Mark S. Hancock* (Intel, USA & University of Calgary, Canada), *John David Miller* (Intel, USA), *Saul Greenberg, Sheelagh Carpendale* (University of Calgary, Canada)

Investigating User Tolerance for Errors in Vision-enabled, Gesture-based Interaction

*Maria Karam, M.C. Schraefel* (University of Southampton, UK)

Can Spatial Mnemonics Accelerate the Learning of Text Input Chords?

*Frode Eika Sandnes* (Oslo University College, Norway)

Globalisation vs. Localisation in E-commerce: Cultural-Aware Interaction Design

*Antonella De Angeli, Leantros Kryiakoullis* (University of Manchester, UK)

18:30–20:30 Visit of the Arsenale of Venice and welcome cocktail

## Thursday, May 25th

9:00–10:00 Invited talk

Aula Magna

*Chair: Piero Mussio* (Università di Milano, Italy)

Distributed Intelligence: Extending the Power of the Unaided, Individual Human Mind  
*Gerhard Fischer* (Center for LifeLong Learning and Design, University of Colorado, USA)

10:00–11:05 Interaction for Art, Cultural Heritage and Tourism

Aula Magna

*Chair: TBA*

CHAMBRE: Integrating Multimedia and Virtual Tools

*Paolo Bottoni, Stefano Faralli, Anna Labella, Alessio Malizia, Claudio Scozzafava* (University of Rome “La Sapienza”, Italy)

CHEF: a User Centered Perspective for Cultural Heritage Enterprise Frameworks

*Franca Garzotto, Luca Megale* (Politecnico di Milano, Italy)

History Unwired: Mobile Narrative in Historic Cities (short paper)

*Michael Epstein* (MIT, USA), *Silvia Vergani* (Venice International University, Italy)

*Coffee break*

11:20–13:00 System papers & Demos (I)

Room Palladio

*Chairs: Emanuele Panizzi* (Università “La Sapienza” di Roma, Italy)

*Fabio Pittarello* (Università Ca’ Foscari Venezia, Italy)

A Visual Tool to Support Technical Analysis of Stock Market Data

*Andre Suslik Spritzer, Carla M.D.S. Freitas* (Universidade Federal do Rio Grande do Sul, Brazil)

Coordinating Views in the InfoVis Toolkit

*Raquel M. Pillat, Carla M.D.S. Freitas* (Universidade Federal do Rio Grande do Sul, Brazil)

NAVRNA: Visualization - Exploration - Editing of RNA

*Gilles Bailly, Laurence Nigay* (CLIPS-IMAG, University of Grenoble 1, France), *David Auber* (LaBRI, University of Bordeaux 1, France)

Visual Editing of Animated Algorithms: The Leonardo Web Builder

*Vincenzo Bonifaci* (Università di Roma “La Sapienza”, Italy & Technical University of Eindhoven, The Netherlands), *Camil Demetrescu, Irene Finocchi, Luigi Laura* (Università di Roma “La Sapienza”, Italy)

A System for Enhanced Exploration And Querying

*Markku Rontu, Ari Korhonen, Lauri Malmi* (Helsinki University of Technology, Finland)

11:20–13:00 Poster Session (I)

Cloister

*Chairs: Marilena De Marsico* (Università “La Sapienza” di Roma, Italy)

*Daniela Fogli* (Università di Brescia, Italy)

The list of short papers presented as posters is on page 14

*Lunch*

14:30–16:00 Evaluating Interaction (II)

Aula Magna

*Chair: Maria Francesca Costabile* (Università di Bari, Italy)

An Integrated Task-Based Framework for Design and Evaluation of Visualizations to Support Preferential Choice

*Jeanette Bautista, Giuseppe Carenini* (University of British Columbia, Canada)

Design and Evaluation of a Shoulder-Surfing Resistant Graphical Password Scheme

*Susan Wiedenbeck, Jim Waters* (Drexel University, USA), *Leonardo Sobrado, Jean-Camille Birget* (Rutgers University at Camden, USA)

Exploring the Design Space for Adaptive Graphical User Interfaces  
*Krzysztof Z. Gajos* (Microsoft Research, USA & University of Washington, USA), *Mary Czerwinski*,  
*Desney S. Tan* (Microsoft Research, USA), *Daniel S. Weld* (University of Washington, USA)

Preserving the Mental Map in Interactive Graph Interfaces (short paper)  
*Manuel Freire*, *Pilar Rodríguez* (EPS-Universidad Autónoma de Madrid, Spain)

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14:30–16:00 Visualization (II)

Room Vivaldi

*Chair: Catherine Plaisant* (University of Maryland, USA)

Contrasting Portraits of Email Practices: Visual Approaches to Reflection and Analysis  
*Adam Perer* (University of Maryland, USA), *Marc A. Smith* (Microsoft Research, USA)

Improving List Revisitation With ListMaps  
*Carl Gutwin* (University of Saskatchewan, Canada), *Andy Cockburn* (University of Canterbury, New Zealand)

Tumble! Splat! Helping Users Access and Manipulate Occluded Content in 2D Drawings  
*Gonzalo Ramos* (University of Toronto, Canada), *George Robertson*, *Mary Czerwinski*, *Desney Tan*,  
*Patrick Baudisch*, *Ken Hinckley* (Microsoft research, USA), *Maneesh Agrawala* (Univ. of California Berkeley, USA)

A Wearable Interface for Visualizing Coauthor Networks toward Building a Sustainable Research Community (short paper)  
*Susumu Kuriyama*, *Masao Ohira*, *Hiroshi Igaki*, *Ken-ichi Matsumoto* (Nara Institute of Science and Technology, Japan)

*Coffee break*

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16:15–17:45 System papers & Demos (II)

Room Palladio

*Chairs: Emanuele Panizzi* (Università “La Sapienza” di Roma, Italy)  
*Fabio Pittarello* (Università Ca’ Foscari Venezia, Italy)

A Tool to Support Usability Inspection  
*Carmelo Ardito*, *Rosa Lanzilotti*, *Paolo Buono*, *Antonio Piccinno* (Università di Bari, Italy)

MADCOW: a Visual Interface for Annotating Web Pages  
*Paolo Bottoni*, *Anna Labella*, *Stefano Levialdi*, *Emanuele Panizzi*, *Rosa Trinchese* (University of Rome “La Sapienza”, Italy), *Laura Gigli* (Soprintendenza per i Beni Architettonici e il Paesaggio per il Comune di Roma, Italy)

DentroTrento - A Virtual Walk Across History  
*Giuseppe Conti*, *Stefano Piffer*, *Gabrio Girardi*, *Raffaele De Amicis*, *Giuliana Ucelli* (Graphitech, Italy)

Fluid DTMouse: Better Mouse Support for Touch-Based Interactions  
*Alan Esenther*, *Kathy Ryall* (MERL, USA)

Navigator - A Flexible Graphical User Interface to Data Sources  
*Mariusz Trzaska* (Polish-Japanese Institute of IT, Poland), *Kazimierz Subieta* (Institute of Computer Science PAS, Poland)

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16:15–17:45 Poster Session (II)

Cloister

*Chairs: Marilena De Marsico* (Università “La Sapienza” di Roma, Italy)  
*Daniela Fogli* (Università di Brescia, Italy)

The list of short papers presented as posters is on page 14

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17:15–18:00 Meeting of SIGCHI-Italy, the Italian Chapter of ACM SIGCHI

Room Vivaldi

*Chair: Luca Chittaro* (Università di Udine, Italy)

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18:00 Sightseeing tour in the Venice lagoon & conference dinner

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## Friday, May 26th

9:00–10:00 Invited talk Aula Magna

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*Chair: Stefano Levialdi* (Università “La Sapienza di Roma”)

From Mainframes to Picture Frames: Charting the rapid evolution of visual interfaces  
*Elizabeth Mynatt* (GVU Center, Georgia Institute of Technology, USA)

10:00–11:05 Evaluating Interaction (III) Aula Magna

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*Chair: Margaret Burnett* (Oregon State University, USA)

Evaluating the Semantic Memory of Web Interactions in the xMem Project  
*Francesca Rizzo, Florian Daniel, Maristella Matera, Anna Niboli* (Politecnico di Milano, Italy), *Sharon Albertario* (Università della Svizzera Italiana, Switzerland)

Usability of Overview-Supported Zooming on Small Screens with Regard to Individual Differences in Spatial Ability

*Thorsten Buring, Jens Gerken, Harald Reiterer* (University of Konstanz, Germany)

Hypothesis Oriented Cluster Analysis in Data Mining by Visualization (short paper)  
*Ke-Bing Zhang, Mehmet A. Orgun, Yihao Zhang* (Macquarie University, Australia), *Kang Zhang* (The University of Texas at Dallas, USA)

*Coffee break*

11:30–13:10 Multimodal Interaction Aula Magna

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*Chair: Masahito Hirakawa* (Shimane University, Japan)

Authoring Interfaces with Combined Use of Graphics and Voice for both Stationary and Mobile Devices

*Fabio Paternò, Federico Giammarino* (ISTI-CNR, Italy)

Enabling Interaction with Single User Applications through Speech and Gestures on a Multi-User Tabletop

*Edward Tse* (MERL, USA & University of Calgary, Canada), *Chia Shen, Clifton Forlines* (MERL, USA), *Saul Greenberg* (University of Calgary, Canada)

MAGE-AniM: A System for Visual Modeling of Embodied Agent Animations and Their Replay on Mobile Devices

*Luca Chittaro, Fabio Buttussi, Daniele Nadalutti* (University of Udine, Italy)

The Prospects for Unrestricted Speech Input for TV Content Search  
*Kent Wittenburg, Tom Lanning, Derek Schwenke, Anthony Vetro* (MERL, USA), *Hal Shubin* (Interaction Design, USA)

*Lunch*

14:30–15:00 System Papers & Demo (III) Room Vivaldi

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*Chair: Fabio Pittarello* (Università Ca' Foscari Venezia, Italy)

Playing Music: an Installation Based on Xenakis' Musical Games  
*Marco Liuni* (Conservatorio di Musica “B. Marcello”, Italy), *Davide Morelli* (Università di Pisa, Italy)

15:00–16:55 Advanced Interaction Design (II) Aula Magna

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*Chair: TBA*

A Taxonomy of Ambient Information Systems: Four Patterns of Design  
*Zachary Pousman, John Stasko* (Georgia Institute of Technology, USA)

Evaluating the Effects of Fluid Interface Components on Tabletop Collaboration  
*Uta Hinrichs* (University of Magdeburg, Germany), *Sheelagh Carpendale* (University of Calgary, Canada), *Stacey D. Scott* (MIT, USA)

Mixed Reality: A Model of Mixed Interaction

*Céline Coutrix, Laurence Nigay* (CLIPS-IMAG, University of Grenoble, France)

Programming Rich Interactions Using the Hierarchical State Machine Toolkit

*Renaud Blanch, Michel Beaudouin-Lafon* (LRI & INRIA Futurs, Université Paris-Sud, France)

Video Editing Based on Objects Movement and Camera Motion

*Yang Wang* (Beijing Forestry University, China), *Masahito Hirakawa* (Shimane University, Japan)

17:00 Concluding remarks

Aula Magna

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## Short papers presented as posters

The posters will be placed in the main cloister of the conference venue and will stay there throughout the three days of the conference, in a very tranquil and relaxing environment that will allow participants to study the contents at their leisure and stimulate subsequent discussion, perhaps even during breaks and free time.

Even though posters will stand throughout the conference, two poster sessions are scheduled on Thursday, May 25th, the first in the morning and the second in the afternoon. Authors are required to be present at least during one of the two sessions. The final schedule will be available at the conference.

To make the poster categories quickly identifiable in the poster area, the poster boards will be decorated with stripes of different colors and acronyms corresponding to the conference sessions, according to this scheme:

Acronym	Color	Topics
AID	light green	Advanced Interface Design
DEU	light blue	Designing for the End User
EVI	light brown	Evaluating Interaction
ART	yellow	Interaction for Art and Cultural Heritage
MMI	dark blue	Multimodal Interaction
VIS	red	Visualization

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### Advanced Interaction Design

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#### An Approach to Remote Direct Pointing Using Gray-code

*Makio Ishihara* (Tokyo University of Science, Japan), *Yukio Ishihara* (Ube, Japan)

#### Catenaccio: Interactive Information Retrieval System Through Drawing

*Hiroaki Tobita* (Sony CSL, Japan)

#### iLayer: MLD in an Operating System Interface

*Linn Gustavsson Christiernin*, *Rickard Bäckman*, *Mikael Gidmark*, *Ann Persson* (University West, Sweden)

#### Improving Scalability and Awareness in Iconic Interfaces for Multiple-Device Environments

*Jacob T. Biehl*, *Brian P. Bailey* (University of Illinois, USA)

#### Laser Pointer Interaction Techniques Using Peripheral Areas of Screens

*Buntarou Shizuki*, *Takaomi Hisamatsu*, *Shin Takahashi*, *Jiro Tanaka* (University of Tsukuba, Japan)

#### Table-Centric Interactive Spaces for Real-Time Collaboration

*Daniel Wigdor* (MERL, USA & University of Toronto, Canada), *Chia Shen*, *Clifton Forlines* (MERL, USA), *Ravin Balakrishnan* (University of Toronto, Canada)

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### Designing for the End User

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#### Annotation as a Support to User Interaction for Content Enhancement in Digital Libraries

*Maristella Agosti*, *Nicola Ferro* (University of Padua, Italy), *Emanuele Panizzi*, *Rosa Trinchese* (University of Rome "La Sapienza", Italy)

#### iFlip: A Metaphor for In-Vehicle Information Systems

*Verena Broy* (BMW Forschung und Technik, Germany), *Frank Althoff* (BMW Group, Germany), *Gudrun Klinker* (Technical University of Munich, Germany)

#### Interacting with Piles of Artifacts on Digital Tables

*Dzmitry Aliakseyeu*, *Andrés Lucero* (Eindhoven University of Technology, The Netherlands), *Sriram Subramanian*, *Carl Gutwin* (University of Saskatchewan, Canada)

## Stylus Based Text Input Using Expanding CIRRI

*Jared Cechanowicz, Steven Dawson, Matt Victor, Sriram Subramanian* (University of Saskatchewan, Canada)

## Syntax Analysis for Diagram Editors: A Constraint Satisfaction Problem

*Mark Minas* (Universität der Bundeswehr München, Germany)

## VLMigrator: a Tool for Migrating Legacy Video Lectures to Multimedia Learning Objects

*Andrea De Lucia, Rita Francese, Ignazio Passero, Genoveffa Tortora* (University of Salerno, Italy)

## Evaluating Interaction

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### Allowing Camera Tilts for Document Navigation in Standard GUI: A Discussion and an Experiment

*Yves Guiard* (CNRS & Université de la Méditerranée, France), *Olivier Chapuis, Yangzhou Du, Michel Beaudouin-Lafon* (Université Paris-Sud, France)

### Implicit Brushing and Target Snapping: Data Exploration and Sense-making on Large Displays

*Xiaohua Sun* (MIT, USA), *Patrick Chiu, Maribeth Back, Wolf Polak* (FX Palo Alto Laboratory, USA), *Jeffrey Huang* (Harvard University, USA)

### Navigation by zooming in boxes: preliminary evaluation

*Tania Di Mascio, Laura Tarantino* (University of L'Aquila, Italy), *Ivano Salvatore* (S.El.Me.C., Italy)

### The Plot, the Clutter, the Sampling and its Lens: Occlusion Measures for Automatic Clutter Reduction

*Geoffrey Ellis, Alan Dix* (Lancaster University, UK)

### Understanding the Whethers, Hows, and Whys of Divisible Interfaces

*Heather M. Hutchings, Jeffrey S. Pierce* (Georgia Institute of Technology, USA)

## Interaction for Art, Cultural Heritage and Tourism

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### A Semantic Approach to Build Personalized Interfaces in the Cultural Heritage Domain

*S. Valtolina, P. Mazzoleni, S. Franzoni* (University of Milan, Italy), *E. Bertino* (Purdue University, USA)

### Visual Comparison and Exploration of Natural History Collections

*Martin Graham, Jessie Kennedy* (Napier University, United Kingdom), *Laura Downey* (University of New Mexico, USA)

## Multimodal Interaction

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### The ASPICE Project: Inclusive Design for the Motor Disabled

*F. Aloise* (Fondazione Santa Lucia IRCCS & Università della Calabria, Italy), *F. Cincotti, D. Morelli, S. Paolucci, D. Mattia* (Fondazione Santa Lucia IRCCS, Italy), *F. Babiloni* (Fondazione Santa Lucia IRCCS & Università "La Sapienza" di Roma, Italy), *M.G. Marciani* (Fondazione Santa Lucia IRCCS & Università di Tor Vergata, Italy), *G. Oriolo, A. Cherubini* (Università "La Sapienza" di Roma, Italy), *F. Sciarra, F. Mangiola* (U.I. Lotta alla Distrofia Muscolare, Italy), *A. Melpignano, F. Davide* (Telecom Italia Learning Services, Italy)

### Improving Access of Elderly People to Real Environments: A Semantic Based Approach

*Fabio Pittarello, Alessandro De Faveri* (Università Ca' Foscari di Venezia, Italy)

### Oral Messages Improve Visual Search

*Suzanne Kieffer, Noëlle Carbonell* (Henri Poincaré University & LORIA)

### Ubiquitous Graphics: Combining Hand-held and Wall-size Displays to Interact with Large Images

*Johan Sanneblad, Lars Erik Holmquist* (Viktoria Institute, Sweden)

## Visualization

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### Animated Visualization of Time-Varying 2D Flows using Error Diffusion

*Alejo Hausner* (University of New Hampshire, USA)

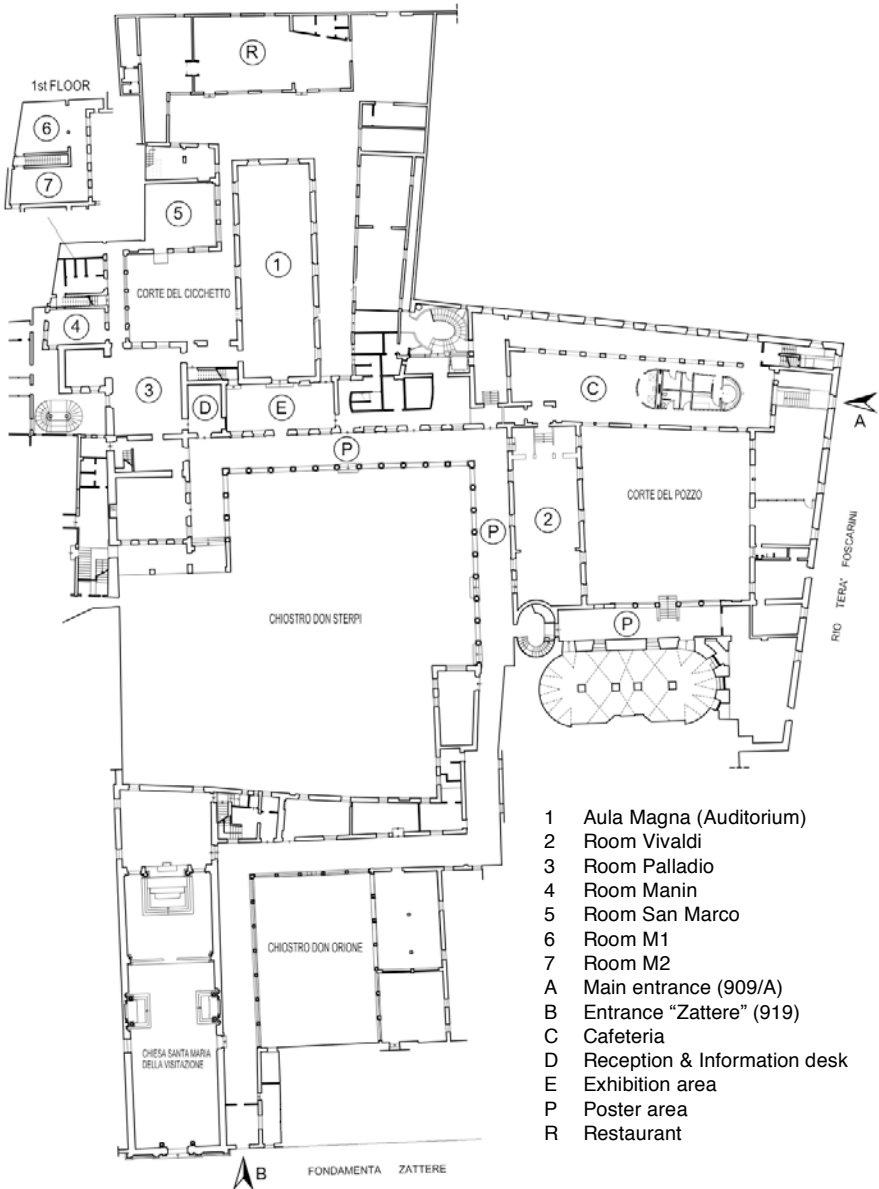
### Browsing Large Collections of Images through Unconventional Visualization Techniques

*Marco Porta* (Università di Pavia, Italy)



- Euclidean Representation of 3D Electronic Institutions: Automatic Generation  
*Anton Bogdanovych* (University of Technology Sydney, Australia), *Sara Drago* (University of Genoa, Italy)
- Exploring Augmented Reality Visualizations  
*Antti Aaltonen, Juha Lehtikoinen* (Nokia Research Center, Finland)
- Navigation in Degree of Interest Trees  
*Raluca Budiu, Peter Pirolli* (Palo Alto Research Center, USA), *Michael Fleetwood* (Rice University, USA)
- Putting Pictures in Context  
*Lars-Erik Janlert* (Umeå University, Sweden)
- TAPRAV: A Tool for Exploring Workload Aligned to Models of Task Execution  
*Brian P. Bailey, Chris W. Busbey* (University of Illinois, USA)
- View Projection Animation for Occlusion Reduction  
*Niklas Elmqvist, Philippas Tsigas* (Chalmers University of Technology, Sweden)
- Visualization of Hand Gestures for Pervasive Computing Environments  
*Sanna Kallio, Juha Kela, Jani Mäntyjärvi, Johan Plomp* (VTT Technical Research Centre, Finland)
- Visualization of Patient Data at Different Temporal Granularities on Mobile Devices  
*Luca Chittaro* (University of Udine, Italy)
- Visualizing a Temporally-Enhanced Ontology  
*Akrivi Katifori, Ilias Daradimos, Constantin Halatsis* (University of Athens, Greece), *Costas Vassilakis, Georgios Lepouras* (University of Peloponnese, Greece)

## Centro Culturale Don Orione Artigianelli



## **General Information**

### **Registration & Information Desk**

The registration and information desk is located near the Aula Magna (Auditorium). It is marked on the map with the letter D.

On Tuesday and Wednesday the desk is open from 8:30 to 13:00 and from 14:00 to 18:30.

On Thursday and Friday the desk is open from 8:45 to 13:00 and from 14:00 to 18:00.

A posterboard will be placed near the information desk for notices. Please check for last-minute changes of schedule and news.

### **Coffee Breaks & Lunches**

Coffee breaks will be served in the cafeteria of the Conference Center, marked on the map with the letter C. Coffee breaks are normally served between 11:00 and 11:30 in the morning, and between 16:00 and 16:30 in the afternoon, but time may vary according to the session schedule of the program.

Buffet lunches will be served from 13:00 to 14:30 in the restaurant "Taverna San Trovaso", marked on the map with the letter R.

### **Internet Access**

Internet free access for AVI 2006 participants is available via wireless connection in Room Palladio and in the cafeteria. Please ask the Information desk for network configuration parameters. A PC station will be available for mail and Web access.

### **Access for People with Disabilities**

All rooms and important places for participants in the conference are accessible for people with wheelchairs. Please contact the information desk if any special help is needed.

### **Welcome Reception**

The AVI 2006 Welcome Reception is offered by the Arsenale di Venezia, and will take place on Wednesday May 24 in the Arsenal area. A boat will take all participants to a tour in the "Bacino Grande" (main dock) where the Venetians used to build their ships and galleys since the 12th century.

The meeting point is in front of the Zattere entrance, marked with the letter B on the map, at 18:30.

### **Conference Dinner**

The AVI 2006 Conference Dinner will take place on Thursday May 25 at the Restaurant "Da Romano" in the island of Burano, a typical island of the Venice lagoon known for its houses painted with vivid colors and for its familiar atmosphere.

Private launches will take all participants to Burano. The meeting point is in front of the Zattere entrance, marked with the letter B on the map, at 18:00.

## Supporting Institutions and Sponsors

AVI 2006 is organized by the Università Ca' Foscari di Venezia, Dipartimento di Informatica, in cooperation with ACM and two Italian Academic Institutions: Università di Milano, Dipartimento di Informatica e Comunicazione, and Accademia di Belle Arti di Venezia. It has also been supported by:

### **DELOS**

DELOS, the Network of Excellence on Digital Libraries, is an initiative partially funded by the European Commission's Information Society Technologies Programme (IST) in the frame of the Sixth Framework Programme (FP6)  
*<http://www.delos.info>*

### **SIGCHI Italy**

The Italian ACM SIGCHI Chapter, called SIGCHI Italy, has been officially chartered on April 24, 1996. Its aim is to promote an increased knowledge and greater interest in the science, technology, design, development, and application of methods/tools/techniques for HCI. SIGCHI Italy has scientific and educational goals, and aims to provide a mean of communication among people having interest in HCI. It also organizes meetings, conferences, discussion groups and workshops.  
*<http://hclab.uniud.it/sigchi/>*

### **Arsenale di Venezia**

The company has been created in 2003 with the aim to manage the restoration and valorisation of the landmark historical patrimony and estate of Venice Arsenal and to return this area to its original role as productive and cultural pole for Venice and the international community. Its shareholders are the City of Venice and the State Property Agency.  
*<http://www.arsenaledivenezia.it/UK/index.htm>*

### **Consorzio Venezia Ricerche**

The Consorzio Venezia Ricerche is a non-profit research organization that integrates the research capabilities of Venetian Universities, research centres, public institutions and private companies. The Consortium provides scientific-technological problem solving support on demand and, cooperating with various partners, develops applied research projects with the support of both national and international research programmes.  
*<http://www.veneziaricerche.it/eng>*

### **Noldus Information Technology**

Noldus Information Technology provides professional software and instrumentation to enable the collection, analysis, and presentation of behavioral data. We develop products for usability research, such as The Observer and uLog. In addition, we offer accessories to complete the experimental set-up, such as keyboard solutions, eye trackers, and mobile device cameras.  
*<http://www.noldus.com>*

### **Sr Labs**

SR LABS was founded in 2001 as a spin-off of SR Research Ltd., a Canadian leader in the production and distribution of VOG eye-tracking systems. In more than three years of intense collaboration with worldwide leaders in eye-tracking technology, and a vast number of eye-tracker installations carried out in most continents, SR LABS acquired a strong competence in this field and is now distributing the Tobii Eye Tracking system, developing eye controlled applications and offering consultancies focused on eye tracking based user tests.  
*<http://www.srlabs.it>*

### **Venis**

Venis SpA is a Company providing software development and ICT services. Since 20 years it is the technological partner of the Public Administration of Venice for the development of the City information systems. Venis takes care of system planning, building and management, providing also the setting of the net infrastructures.  
*<http://www.venis.it>*

## Notes

## Notes



## Supporting Institutions and Sponsors



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## Conference Secretariat and local arrangement



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