

DREAMS REALITY

MELTING THE BOUNDARIES

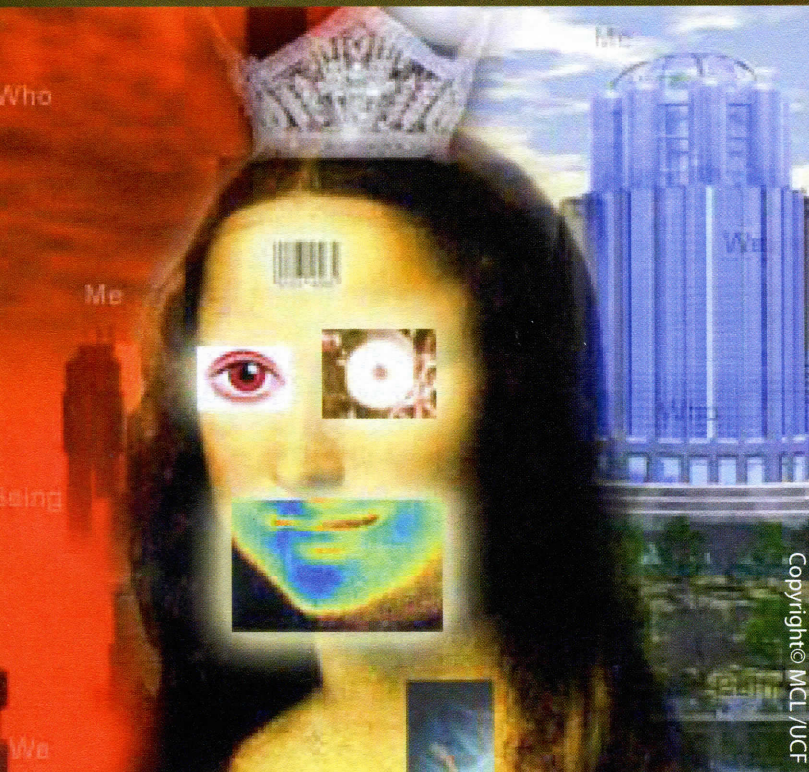
ISMAR International Symposium on Mixed and Augmented Reality

ISMAR Symposium & Expo 2009
October 19-22 • Orlando, Florida, USA



SPONSORED BY IEEE COMPUTER SOCIETY VISUALIZATION AND GRAPHICS TECHNICAL COMMITTEE

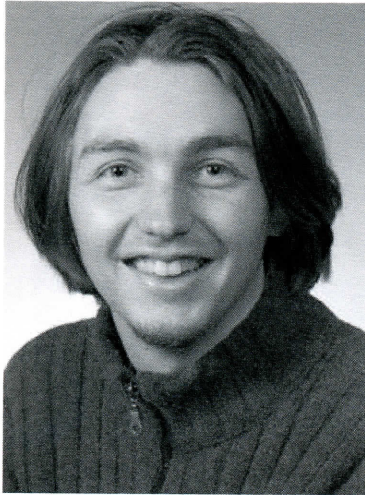
Arts, Media & Humanities





Arts, Media & Humanities

Message from the General Program Chair



Raphaël Grasset
HIT Lab NZ, University of Canterbury,
New Zealand

Over the last year Mixed and Augmented Reality has reached a growing audience, going far beyond the interests of the technical scholar community. The emergence of more accessible software tools, and simple hardware solutions have made it easy for artists, designers, media companies and others to develop augmented reality applications for the masses.

This transformation has been noticeable not only in the range of novel applications produced, but also by the innovative way the art and design community operates. More engaged, experimental, and concerned by the social aspects or aesthetic value of Mixed and Augmented reality these new developers all offer a new way to think about, design and create AR applications.

We are really proud for ISMAR 2009 to acknowledge this evolving community by creating the new Arts, Media and Humanities program. This complements the existing science and technology program, and celebrates the achievements and new perspectives of a unique MR/AR community. The Arts perspective explores the use of MR/AR technology as a form of personal expression. The Media perspective explores MR/AR as a tool for engaging communication with new forms of story, games and play. The Humanities perspective leverages new conventions for use in interpreting the human experience.

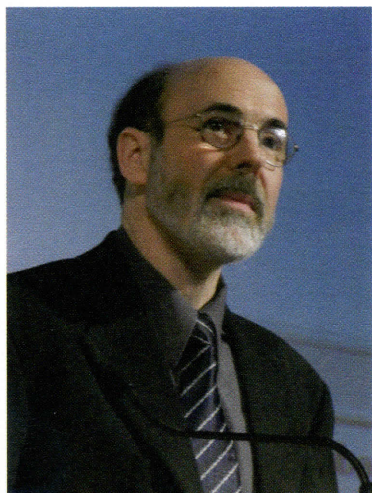
The Arts, Media and Humanities program is also innovative in its format, by adopting the participative and investigational aspect of this novel AR community. High quality paper presentations and outstanding keynote speakers are combined with a large range of discussion panels and creative, participative events and sessions.

We wish to thank all those who have contributed to this inaugural ISMAR program, the authors, the program committee, reviewers and the conference organizers. We welcome you to ISMAR 2009, and the inaugural Arts, Media and Humanities program.



Arts & Humanities

Message from the Program Chairs



Jay Bolter
Georgia Institute of Technology,
USA



Carl DiSalvo
Georgia Institute of Technology,
USA

Mixed and Augmented Reality takes on greater position of prominence in fields of computational media design and in popular culture, the arts and humanities offer opportunities to contextualize this work and to understand AR/MR systems and experiences as distinctive cultural artifacts.

There is a long history of the combination of the arts with science and engineering. What the arts bring to science and engineering in general, and AR/MR specifically, is a mode of aesthetic and critical experimentation. One of the most pressing questions for AR/MR today is: How does AR/MR mediate the world for us, and what do we want this experience of mediation to be? Art can provide novel answers to this question, by taking the possibilities as AR/MR as starting points for imaginative trajectories beyond the immediate concerns of usability and efficiency. The humanities, meanwhile, can add its own perspective, particularly by looking at the history of media and examining the place of AR/MR is fashioning for itself in that history.

With these ambitious goals in mind, we are pleased to present these inaugural Arts & Humanities papers in the Arts, Media and Humanities program. We believe they represent a diverse set of beginnings for discussion and collaboration between artists, humanists, and technologies in shaping the future of Mixed and Augmented Reality.



Media

Message from Media Program Chair



Jarrell Pair
LP33.tv,
USA

In 1998, when the first International Workshop on Augmented Reality was held, AR was a field that could only be pursued within the research lab. AR development required highly specialized computer science and vision knowledge along with access to expensive graphics workstations. These passionate researchers forged ahead despite being bound by frustrating limits in processing speed, graphics rendering, and network connectivity. Now, in 2009, millions own internet connected 3G smart phones and notebook computers that far exceed the capabilities of even the most expensive computing platforms available to AR's pioneers. AR is quickly becoming a tool for mainstream media promotion as seen in a number of recent advertising campaigns for movies and consumer products. Furthermore, AR applications are emerging which leverage the internet's vast social networks, geographic databases, and crowd-sourcing capabilities. These applications will bring forth a true WWW in which internet based information, services, and media are seamlessly integrated into our view of the real world.

For those of us who have been a part of the AR community since its infancy and those who are just entering the field, these are very exciting times. Simultaneously, we are challenged to make sure that augmented reality does not become a victim of its own hype. We must work to manage the expectations of the public and the market. Otherwise, frustrated consumers, investors, and analysts could prematurely dismiss AR as a technological gimmick that did not fulfill its promise. In many ways, we are in a similar position as cinema's pioneers in the early 20th century. Like the Lumière brothers, Cecil B. DeMille, Orson Welles, Louis B. Mayer and too many others to name, we have an unprecedented opportunity to create a new medium. I would like to welcome you to this inaugural program and invite you to participate in defining mixed and augmented reality as an innovative and inspiring domain for human creativity, communication, and commerce.

Arts, Media & Humanities

This year, the International Symposium on Mixed and Augmented Reality (ISMAR) launches its inaugural program featuring the latest developments in the Arts, Media and Humanities (AMH) research and applications. Artists, designers, media producers and futurists will present new frontiers in the power of Mixed and Augmented Reality to express, convey, impact and improve human experience and interpretation in the areas of education, training, entertainment, communications, design and media production.





Arts, Media & Humanities Program Schedule

Monday, October 19

Industry Mixer

- 06:00 – 07:00 pm** **Keynote: Mark Mine, Technical Concept Design, Walt Disney Imagineering
Mixing Reality and Magic at Disney Theme Parks**
- 07:00 – 09:00 pm** **Reception sponsored by Intel, Volkswagen and Partnering/Media Affiliates
Demonstrations**

Tuesday, October 20

- 08:00 – 08:45 am** Continental Breakfast (sponsored by ISMAR Startups)
- 08:45 – 09:00 am** Introduction to ISMAR 2009, General Chair Christopher Stapleton
- 09:00 – 09:10 am** AMH Track Opening Remarks (Raphael Grasset, Jay Bolter, Carl Disalvo, Jarrell Pair)
- 09:10 – 10:30 am** **Session 1: Mixed and Augmented Reality in 2009** (Session Chair: Jarrell Pair)
- 09:10 - 09:40 Invited Presentation: Augmented Reality Today, Ori Inbar (Ogmento)
- 09:40 - 10:10 Reconstruction of Yuangmingyuan, Yetao Huang (Beijing Institute of Technology)
- 10:10 - 10:30 Coupling Digital and Physical Worlds in an AR Magic Show Performance: Lessons Learned, Anna Carreras (Universitat Pompeu Fabra)
- 10:30 – 11:00 am** Morning Coffee Break (sponsored by Optical Research Associates)
- 11:00 – 12:30 pm** **Session 2: Augmented Reality in Sports, Entertainment, and Advertising**
(Session Chair: Jarrell Pair)
Panel: Augmented Reality in Sports, Entertainment, & Advertising, Greg Davis (Total Immersion), Austin Hurwitz (Eyepley), Brian Selzer (Ogmento), Tish Shute (ugotrade.com)
- 12:30 – 01:30 pm** **Lunch Break**
- 01:30 – 03:00 pm** **Session 3: Tools for Mixed and Augmented Reality Development** (Session Chair: Jarrell Pair)
MR/AR Development Tools and Frameworks Panel Presentation and Discussion
- 03:00 – 03:30 pm** **Afternoon Break (sponsored by ART Advanced Real Time Tracking)**
- 03:30 – 05:00 pm** **Session 4: Designing for the MR/AR Experience** (Session Chair: Jarrell Pair)
- Invited Presentation: Games in AR: Types and Technologies, Andrea Phillips (deusexmachinatio.com)
- Invited Presentation: Augmented Reality Roadmap: The Six Elements of the AR Universe, Ori Inbar (Ogmento), Robert Rice (Neogence)
- Paper Presentation: Process and (Mixed) Reality: A Process Philosophy for Interaction in Mixed Reality Environments, Timothy Barker (University of New South Wales)
- 05:00 – 06:00 pm** **Keynote: Natasha Tsakos, Conceptual Director, Idea Generator, Performer, Up Wake**
- 06:00 – 07:00 pm** **Dinner Break / Press Event**
- 07:00 – 09:00 pm** **Posters and Demonstrations**

Arts, Media & Humanities Schedule

Wednesday, October 21

- 08:00 – 09:00 am** Continental Breakfast (sponsored by ISMAR Partnering /Media Affiliations)
- 09:00 – 09:10 am** AMH Chairs Announcements and Preview of Wednesday's Program
- 09:10 – 10:30 am** **Session 1: Location-based Media, Arts and Technology Panel and Discussion: Natasha Tsakos**
(Session Chair: Jay Bolter)
- 10:30 – 10:50 am** Morning Coffee Break (sponsored by VUZIX)
- 10:50 – 12:30 pm** **Session 2: Arts and Humanities Papers** (Session Chair: Jay Bolter)
- 10:50 – 11:20 Paper Presentation: Radiating Centers: Augmented Reality and Human-Centric Designs, Isabel Pedersen (Ryerson University)
- 11:20 – 11:50 Paper Presentation: Augmented Reality (AR) Joiners, A Novel Expanded Cinematic Form, Helen Papagiannis (York University)
- 11:50 – 12:30 Paper Presentation: Project SLARiPS: An Investigation of Mediated Mixed Reality Existence, Julian Staddon (Curtin University of Technology)
- 12:00 – 01:30 pm** **Lunch Break**
- 01:30 – 03:30 pm** **Session 3: Arts and Humanities Papers, Poster Teasers** (Session Chair: Jay Bolter)
- 01:30 – 02:00 Paper Presentation: Situated Simulations. Inventing an Augmented Reality Genre for Learning on the iPhone, Gunnar Liestøl (University of Oslo)
- 02:00 – 02:30 Paper Presentation: Spatialization as Musical Concept, Bijan Zelli
- 02:30 – 03:00 Invited Presentation: Mixed and Augmented Reality Projects at the Digital Worlds Institute, Arturo Sinclair (University of Florida)
- 03:00 – 03:30 Poster Teasers
- Loosely-coupled Mixed Reality: Using the Environment Metaphorically, Gerard Kim (Korea University)
- An Intuitional Interface for Invocation of Chinese Painting, ChunChin Su (National Cheng-Kung University)
- EYEPLY: Baseball Proof of Concept - Mobile Augmentation for Entertainment and Shopping Venues, Alistair Jeffs (Eyeplay)
- 03:30 – 04:00 pm** **Afternoon Break (sponsored by UCF)**
- Symposium Gala sponsored by Qualcomm**
- 04:00 – 05:00 pm** **Keynote: Pattie Maes, MIT Media Lab, SixthSense: Integrating Information in the Real World**
- 05:00 – 06:30 pm** **Poster Party**
- 06:30 – 09:00 pm** **Awards Banquet/ Panel: ISMAR Past, Present, and Future**



Arts, Media & Humanities Schedule

Thursday, October 22

08:00 – 09:00 am	Continental Breakfast (sponsored by Optical Research Associates and Volkswagen)
09:00 – 09:10 am	AMH Chairs Announcements and Preview of Thursday's Program
09:10 – 10:30 am	Session 1: Invited Speaker and Panel (Session Chair: Jay Bolter) How to Do Things with Layers: Artistic Uses of Locative Media, Prof. Rita Raley
10:30 – 11:00 am	Morning Coffee Break (sponsored by Nokia)
11:00 – 12:30 pm	Session 2: (Session Chair: Christopher Stapleton) Imagination: The Third Reality
12:30 – 02:00 pm	Lunch Break
02:00 – 03:30 pm	Session 3: (Session Chair: Christopher Stapleton) Panel: Science Meets Fiction: Imagining the Future of Mixed and Augmented Reality, Joe Tankersley (Disney Imagineering)
03:30 – 05:00 pm	Session 4: (Session Chair: Christopher Stapleton) Real-Time Experiment: Exploration in Interactive Performance on Next Generation Mixed Reality, Jeff Wirth (Interactive Performance Lab)
04:30 – 05:00 pm	Session 5: Open Discussion: Future of ISMAR and Arts, Media and Humanities
05:05 – 5:35 pm	Continuing the Conversation. Building Community: ISMAR–Past, Present, Future
05:35 – 6:00 pm	Closing Remarks and Announcement of Tracking Contest Winner