

**W**<sub>HEN</sub> **M**<sub>EDIA</sub> **E**<sub>NVIRONMENTS</sub> **B**<sub>ECOME</sub> **R**<sub>EAL</sub>

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## Book of Abstracts

FEBRUARY 4-6, 2008

When Media Environments Become Real  
February 4 to 6, 2008, Bern, Switzerland

Conference Organizers: Rudolf Groner, David Weibel and  
Bartholomäus Wissmath

University of Bern  
Department of Psychology  
Muesmattstrasse 45  
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Switzerland

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# When Media Environments Become Real

Book of Abstracts

**Editors:**

Rudolf Groner, David Weibel, Bartholomäus Wissmath, &  
Felix Schmitz

# Preface

This book contains the abstracts selected for presentation at the conference “When Media Environments Become Real” which was held in the Division of Media Psychology at the University of Bern, Switzerland, February 4 to 6.

The purpose of this conference was to explore the phenomenon of being immersed into media environments. Which processes are going on when media users are shifted into a secondary reality and which influence does this shift have on the reality? To analyse these topics, several concepts such as Presence, Transportation, Flow or Media Entertainment have been proposed in recent years. Though these constructs are all reflecting the question to what extent media reality can become “real” for media users, they mostly describe and explain immersive experiences independently from each other. Collaborations between the different approaches bear great potential which has not been realised so far. In the course of this international conference we therefore aimed at comprehensively analysing and debating the issue of immersion, confronting the different concepts and try to advance an integrative and interdisciplinary perception.

We are happy to express our deep gratitude to the main sponsors of our conference and to all the people who help to keep it going. The Swiss Academy of Humanities and Social Sciences (SAGW) as well as the Swiss National Science Foundation (SNF) generously funded the invited speakers. The public panel discussion was sponsored by the Max and Elsa Beer-Brawand Foundation. Telecontrol and Radiocontrol kindly sponsored various expenses. Last but not least, we obtained enormous support from Felix Schmitz, Eva Siegenthaler, Stefan Waldmeier, Regina Channi, Daniel Stricker, Simon Schwab, Matthias Hartman, and Marina Groner who acted as staff before and during the conference.

Rudolf Groner, David Weibel, and Bartholomäus Wissmath



University of Bern, Switzerland

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*Lunch Break*

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# Invited Lectures

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## *Invited Lecture I - Monday, February 4th*

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### **Reality Switch - Paradigm Shift in Communication Research**

Matthias Steinmann<sup>1-2</sup>, Tanja Hackenbruch<sup>1-2</sup>

<sup>1</sup> University of Bern, Switzerland

<sup>2</sup> Telecontrol AG, Switzerland

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The background of the current conference is the theory of reality switch. This theory – initially developed by Matthias Steinmann and continued by his former Assistant, Tanja Hackenbruch – led to a productive cooperation between Steinmann and Rudolf Groner from the Department of Psychology of the University of Berne. This cooperation focused on the aspect to integrate communication research and psychology in the newly developed theory and the current conference aims at integrating the two subjects even further. The theory of reality switch is a comprehensive theory and explains the switch of the recipient into a secondary, media-constructed reality during the exposure to media – based on media- and communication research. The reader “Sophies zweite Welt” firstly presented the new theory. The second volume “Exkursionen in Sophies zweiter Welt” expanded the theory in respect of the involved psychological processes. By presenting the history of the theory of reality switch, Steinmann and Hackenbruch try to display the incorporated shift in paradigm.

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## *Invited Lecture II - Monday, February 4th*

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### **Real Actions in Virtual Environments**

Mel Slater<sup>1-2</sup>

<sup>1</sup> ICREA-Universitat Politècnica de Catalunya, Spain

<sup>2</sup> London's Global University, UK

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This talk will focus on three examples of real actions in virtual environments, a concept that we call 'rave'. First is body ownership of a virtual limb where it is shown that under the appropriate conditions, a virtual arm can be incorporated into a person's body schema. The second example continues the theme of the relationship of a person's body to events within a virtual environment, where we show the importance to rave of body centred feedback within immersive virtual environments. Finally, we describe an experiment where participants interact with virtual characters, again exhibiting realistic responses in a situation that they know is unreal. The talk will conclude with some observations on the future of presence research.

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## *Invited Lecture III - Tuesday, February 4th*

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### **Ubiquitous Entertainment**

Louis Bosshart

University of Fribourg, Switzerland  
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Entertainment can be described and experienced as a reception phenomenon. Experiencing it means pleasure, relaxation, diversion, fun, joy, and stimulation. Entertainment is pleasant, restful and exciting. The opposite of entertainment is boredom. The main goal of entertainment is to provide pleasure. In his book "Amusing ourselves to death" (1986) Neil Postman diagnosed a trend to present "all subject matter as entertaining". (p.87) He did it without empirical proof. A good decade later M.J. Wolf created the term "entertainmentization" and came to the conclusion that entertainment was at that time the fastest growing industry: "I see an endless appetite for entertainment content: something to connect us emotionally with products, something to provide us with information in a stimulating way. ... Entertainment has become the unifying force of modern commerce, as pervasive as currency." (p.72) The main goal of this article is to show that new fields of entertainment are not limited to products or services. "Consumption lies at the heart of Disneyization" (Bryman, 2004, p.157) Contemporary "entertainmentization" goes further. It penetrates and pervades nearly all areas of our everyday lives. Keywords are: politainment, edutainment, sportainment, evangelitainment, digitainment, branded entertainment, militainment, and so on! The lines between information and entertainment, between facts and fiction, between reality and utopia, between seriousness and amusement, between emotions and cognition are blurring. Entertainment is now an omnipresent phenomenon.

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## *Invited Lecture IV - Tuesday, February 4th*

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### **The Reality of New Media Environments**

Peter Vorderer<sup>1</sup>, Stacey Spiegel<sup>2</sup>

<sup>1</sup> Free University of Amsterdam, Netherlands

<sup>2</sup> Parallel Worlds Labs Inc, Canada

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This presentation challenges the question of whether new media really have “become real”. We’ll start by suggesting that fictional media content has always been “real” in the sense that it usually creates a reality in the minds of media users, and only there. The question, however, remains whether new, i.e., interactive technologies have changed this situation significantly. Three arguments will be entertained: 1. The situation is different today as such new media environments (provided, e.g., by video games) are not only construed but constructed by users. 2. The immersive quality has significantly improved and is now capable of making users believe that they are not only exposed to but “in” the fictional and/or virtual environment. 3. Some of the more advanced on-line virtual environments now provide a social context for users. The question is whether these features provide a more convincing reality than had been previously available.

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## *Invited Lecture V - Tuesday, February 4th*

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### **Transportation into Narrative Worlds**

Melanie C. Green

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"Transportation into a narrative world" is the experience of becoming completely immersed into the world of a story. Transportation is defined as an integrative melding of attention, imagery, and feelings, focused on story events. This state can occur regardless of the medium of the narrative (written, audio, visual). Similarly, individuals can be transported into both factual and fictional narratives. Transportation is a key mechanism of narrative persuasion. Transportation may aid in belief change in at least three ways: it reduces counterarguing about the issues raised in the story, it makes events seem more like personal experience, and it creates the kinds of attachment to characters (identification, liking) that may play a critical role in narrative-based belief change. This talk will describe transportation theory and empirical work on transportation, as well as discussing the relationship between transportation and other theories of media involvement.

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## *Invited Lecture VI - Wednesday, February 4th*

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### **Presence and Telepresence Scholarship: Challenges Ahead**

Matthew Lombard<sup>1-2</sup>

<sup>1</sup> Temple University Philadelphia, USA

<sup>2</sup> International Society for Presence Research  
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The experience of mediated environments as `real` has been explored in detail by a growing group of scholars interested in the concepts and phenomena of presence and telepresence. This talk will be a comprehensive, at times personal, review (and hopefully then discussion) of challenges facing the community of scholars working in this area. Challenges discussed will include refining and standardizing (tele)presence definitions and terminology; developing corresponding standard, flexible, valid and reliable measures; constructing comprehensive, cohesive, testable theories of (tele)presence that can be applied in the world; developing, adopting and following an ethics of `illusion`; building and taking advantage of a diverse scholarly community; developing alliances with the commercial sector while protecting academic integrity; and identifying and pursuing grand and mid-range (tele)presence challenges.

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## *Invited Lecture VII - Wednesday, February 4th*

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### **Touch, Tools and Telepresence: The Role of Embodiment in Mediated Environments**

Wijnand Ijsselsteijn

Technische Universiteit Eindhoven, Netherlands  
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We tend to think of our body image as fixed. However, human brains appear to support highly negotiable body images. As a result, our brains show a remarkable flexibility in incorporating non-biological elements (tools and technologies) into the body image, provided reliable, real-time intersensory correlations can be established, and the artefact can be plausibly mapped onto an already existing body image representation. A particularly interesting and relevant phenomenon in this respect is a recently reported crossmodal perceptual illusion known as the rubber-hand illusion (RHI). When a person is watching a fake hand being stroked and tapped in precise synchrony with his or her own unseen hand, the person will, within a few minutes of stimulation, start experiencing the fake hand as an actual part of his or her own body. In this paper, we will review recent work on the RHI and argue that such experimental transformation of the intimate ties between body morphology, proprioception and self-perception enhances our fundamental understanding of the phenomenal experience of self and will enable us to significantly improve the design of interactive media, including the design of avatars in virtual environments and digital games, as well as a range of human-like telerobotic devices.

# Workshops

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## Workshop I - Monday, February 4th

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### **Pervasive Gaming**

Chair: Ivo Flammer

XiLabs Paris, France  
{ivo.flammer@xilabs.fr}

#### **Presenters:**

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## *Workshop I - Monday, February 4th*

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### **"Das Unheimliche" of Ubiquitous Games for Museum Visitors**

Annie Gentes<sup>1</sup>, Eric Gressier-Soudan<sup>2</sup>, Isabelle Réchiniac-Astic<sup>2</sup>

<sup>1</sup> GET-ENST, France

<sup>2</sup> CNAM-CEDRIC, France

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PLUG is a research project with the National Museum of Arts and Crafts in Paris. Its aim is to study pervasive game design and platforms and to evaluate their social impact. Mobiles, body sensors, RFID, wireless and mobile networks are key features of the research. Ubiquitous games allow deeper personal involvement and a feeling of co-presence as they enforce relationships between gamers and their immediate context. The challenge lies in finding the right dynamics and rhythm for these ins and outs of reality and virtuality and to play with the mimetic qualities and the disruptive effects of crossing borders. Can gamers be victims of "Das Unheimliche", the feeling of the uncanny defined by Freud? How do we renew our relationship to the museum while being unsettled by a mixed narrative? This paper will present experiments that test this dual relationship to real and imaginary worlds within museums.

**Keywords:** ubiquitous games, virtuality, museum

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## *Workshop I - Monday, February 4th*

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### **The Hybrid Self**

Wolf Ka, Ivo Flammer

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In conventional video games the aim is to replace the "real world" by a completely mediated "game world". In pervasive games the "real world" remains crucial: it is the basic layer on top of which the game layer is placed. On one hand, the presence of the "real world" forbids creation of arbitrary, fully controlled, mediated game. On the other hand, pervasive games become richer and more implicated due to the "real world's" social and physical elaboration and its relevance to the player. In a successful pervasive game, the player's physical and social self becomes the avatar of the game and presence is felt in the fused environment of "real world" and game world. The presence by identification with the avatar is broken and substituted by a permanent negotiation between the physical self and its virtual representation. In this contribution we discuss design strategies of this hybrid self and its social and personal consequences.

**Keywords:** pervasive games, urban games, presence, immersion

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## *Workshop I - Monday, February 4th*

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### **Exploring the Spatial Experience of Pervasive Gaming**

Nicolas Nova<sup>1</sup>, Fabien Girardin<sup>2</sup>

<sup>1</sup> École Polytechnique Fédérale de Lausanne, Switzerland

<sup>2</sup> Universitat Pompeu Fabra, Spain

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The design of pervasive systems often assumes uniformity and homogeneity of the environment. Our experience from the CatchBob! game experiment showed the contrary as it highlighted how the spatial environment had certain affordances and roles. We explored this issue through a field study, using our pervasive game. Our results showed how certain roles of space detailed in environmental psychology still hold in this kind of context in which a digital layer is added on the physical environment. These findings reinforce earlier research showing the importance of spatial features as a navigation and orientation tool or as a way to produce mutual intelligibility. Additionally, we highlighted how the instability of space caused by technologies or environmental issues (light, weather) can be of importance. These results suggest some lessons that can inform the design of future ubiquitous computing applications and how spatiality is an important aspect in pervasive gaming.

**Keywords:** location-awareness, ubiquitous computing, spatial affordance, pervasive gaming

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## *Workshop I - Monday, February 4th*

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### **Flow despite Media Discontinuity**

Matthias Sala, Julio Perez, Philipp Winteler

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Gbanga is a pervasive game with narrative interactive gameplay based on intentional changes of the media. Tasks are embedded in stories within a persistent virtual world that is well connected to the real world. Quests demand not only virtual activities, but also physical engagement. Different channels need to be combined to retrieve the necessary information to solve quests. Yet, the players are so intensively engaged in the underlying story that they will experience a flow despite media discontinuity. Furthermore, any media, not necessarily interactive and new, is used to communicate with the player. Printed newspapers and horoscopes are incorporated into the game play and shape the physical and mental state of non-player characters. The aim of the presentation is to present interesting scenarios and investigate the paradoxical phenomenon of immersion despite the change of medium.

**Keywords:** media discontinuity, flow, narrative gameplay, pervasive gaming

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## Workshop II - Monday, February 4th

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### **Immersive Commerce – Use of Multimedia and Virtuality in E-Commerce**

Chair: Thomas Myrach

University of Bern, Switzerland  
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#### **Presenters:**

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## *Workshop II - Monday, February 4th*

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### **Digital Asset Management for Virtual Worlds**

Michael Dittenbach, Helmut Berger

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We are developing azure CMS, a content management system for virtual worlds, targeted at architecture, the building industry and the real estate business. Using virtual worlds as an online presentation medium for architectural visualization is a novel and innovative solution that goes far beyond drawings, rendered 3D images or even films. Especially the interactivity and the communication mechanisms of virtual worlds bear enormous potential for all parties involved. Property developers or real estate agents can use azure CMS to bring their products onto a virtual world based online platform and manage them without particular expert knowledge. On the other hand, persons interested in a house or an apartment can easily explore (and configure) their potential dream home in an immersive 3D environment by simply using their every-day Web browser running a client application instead of studying and trying to interpret floor plans. With the multi-user functionality of virtual words, potential customers can even meet their estate agent and discuss, e.g., desired changes. Hence, azure CMS strengthens the communication and information flow between client and property developer as well as between property developer and architect by providing a virtual, collaboratively accessible and interactive 3D simulation of the property on the Web.

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## *Workshop II - Monday, February 4th*

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### **Virtual Customer Integration in New Product Development**

Guido Lang<sup>1</sup>, Marc Fetscherin<sup>2</sup>, Christoph Lattemann<sup>3</sup>

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<sup>2</sup> Rollins College, USA

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Virtual Worlds, such as Second Life, recently encountered widespread public attention and rapid user growth. As of October 2007, Second Life's user population had grown from 1 to 10 million within one year, while hundreds of companies established virtual presences to interact with existing and potential customers. Research suggests that the integration of customers in the new product development process can provide a competitive advantage and long-term survival strategy for companies. However, little is known as to if and how companies make use of Virtual Worlds for customer integration in new product development. This paper highlights the results of an explorative-qualitative study analyzing public announcements of 130 companies regarding their intended use of Second Life. The qualitative content analysis is applied to a literature-based framework, revealing that only 17 percent of the companies use Virtual Worlds for new product development purposes. Mostly, the concept and design of non-core products is jointly developed with customers, while companies developing core products focus on idea generation, product testing, and market launch activities. Despite the use of contests to encourage customer contributions, companies plan their Virtual World efforts as an ongoing interaction process. Our results suggest that currently only few companies explore the opportunities of Virtual Worlds to integrate customers in the new product development process, as this technology is still emerging and at an early stage of user adoption.

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## Workshop II - Monday, February 4th

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### **Preconditions of Avatar-Based Innovation: Creating a Compelling Experience**

Thomas Kohler<sup>1</sup>, Johann Füller<sup>2</sup>, Kurt Matzler<sup>1</sup>

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This article explores the preconditions of successfully using virtual worlds for real world innovations. By collaborating with users of virtual worlds companies aim to use customers' innovative potential. However, the few pathfinding companies experimenting with avatar-based innovation are challenged by relatively low attention among residents of virtual worlds and consequently face limited participation. In this paper we argue that one central precondition for an interactive virtual world-based product development process is to create a compelling experience for the participating users. Only if users enjoy the process of co-innovation they are willing to engage with companies and to contribute their ideas and knowledge. This paper offers a conceptualization of a compelling virtual experience during co-innovation and characterizes what constitutes its central dimensions. A series of focus groups with experienced Second Life residents were conducted to explore their perception of a compelling experience. The results highlight the meaning of interactivity in the virtual world context, the importance of usability and media richness, as well as the critical role of playfulness. Implications reveal that in order to engage and motivate users to participate in corporate innovation tasks, companies have to consider the peculiarities of virtual worlds and aim towards creating a compelling co-innovation experience.

**Keywords:** avatar-based innovation, second life, open innovation, interactivity

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## *Workshop II - Monday, February 4th*

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### **Implicit and Explicit Memory of High Definition Video Game Advertisements**

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Video games have recently entered the HD era, promising to immerse players in highly realistic worlds. This study examines the impact of brand names placed in HD video games on memory. Past research on in-game advertising has revealed a positive association between game exposure and brand recall, particularly through implicit memory. It has also demonstrated that presence experience and watching a game (vs. playing) is associated with greater persuasive impact. The current between-subjects experiment exposed participants (N = 100) to either a HD or standard definition (SD) version of a sports video game containing brand placement. They were assigned to either play or watch the game. They then completed measures of presence and implicit and explicit memory. Data has been collected and is currently being analyzed. It is expected that HD and observing a game will positively affect ad recall, with the most memory occurring in the HD observation condition.

**Keywords:** presence, video games, HDTV advertising

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## Workshop III - Monday, February 4th

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### Flow Experience in E-Gaming

Chair: Alexander Voiskounsky

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## Workshop III - Monday, February 4th

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### **A Cross-cultural Study of Russian and Chinese MUD Gamers: Flow Experience and Interaction**

Alexander E. Voiskounsky, Olga V. Mitina, Anastasiya A. Avetisova

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Self-rewarding optimal experience, or flow should be labeled as intrinsically motivated. Its characteristics are as follows: clear and distinct objectives; temporary loss of self-consciousness; distorted sense of time; actions merge with awareness; immediate feedback; high concentration on the task; high level of control over it; balance (precise matching) between the available skills and the task challenges; experiences bring full satisfaction and are worth doing for their own sake, i.e. can be labeled *autotelic* (self + goal) – the only goal of doing something is just doing it. Scholars often add presence. The balance/matching between the task challenges and the skills is a key parameter, the easiest to check. The ESM (Experience Sampling method) is the main method, Chen (2006) reports of a web version. It is tempting to investigate optimal experience in IT environments, accompanying behaviors mediated by diverse Internet & WWW services. The 1<sup>st</sup> studies (1992-1995) were targeted at: 'human-computer interaction', 'computer-mediated communication', 'computerized exploratory behavior' or 'online marketing.' Nowadays, the field of research and practice is split into optimal experience traced in such IT-related environments as: (1) online consumer and marketing applications; (2) educational applications; (3) computer/video/online gaming; (4) interactions & web media; (5) illicit IT use; (6) web usability; (7) psychological rehabilitation. Contrary to a popular view, flow experience is opposite to addiction, though both cause repetitive behavior. Cross-cultural studies are innumerable and thus welcomed. Russian (N = 347) and Chinese (N=133) online role-playing players took part in research. Flow experience and patterns of interactive behavior were investigated in an online survey. The following methods were used to gain comparative results: demographics, path analysis, explorative and confirmatory factor analyses. The following hypotheses were investigated: (1) both Russian and Chinese MUD players experience flow; (2) flow is positively correlated with interaction patterns for both Russian and Chinese samples of MUD players; (3) patterns of flow experience and interaction patterns characteristic for the Russian and the Chinese samples of MUD players differ. The paper presents the full results of the study and justification of the hypotheses.

**Keywords:** online gaming, group role-play, flow, interaction

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## Workshop III - Monday, February 4th

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### Gaming Experience – From Adaptation to Flow

Jari Takatalo<sup>1</sup>, Jukka Häkkinen<sup>2</sup>, Jyrki Kaistinen<sup>1</sup>, Göte Nyman<sup>1</sup>

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Games provide rich interactive media environments, both audio-visually and socially. This makes them ideal for studying dynamical and multidimensional media experiences. However, the field of game studies lacks an empirically validated framework that integrates different aspects of the gaming experience. This paper presents such a framework. Based on a multivariate data analysis of over 300 games (n=2182) and with the aim of revealing the dimensionality and process of the gaming experience. The framework is theoretically grounded in basic psychology, previous gaming studies in the field of human computer interaction as well as studies on the sense of presence, involvement and Csikszentmihalyi's theory of flow. The framework provides a tool for analyzing complex experiential phenomena across different games and technologies. In addition to benefiting game development and design, current framework provide information on the psychological dynamics underlying any media experience.

**Keywords:** games, presence, involvement, flow

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## *Workshop III - Monday, February 4th*

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### **What Makes Players to Get Experienced Enjoyment during the Playing of Online Games?**

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As people increasingly play online games, numerous new features have been proposed to increase players' log-on time at online gaming sites. However, few studies have investigated why people continue to play certain online games or which design features are most closely related to the amount of time spent by players at particular online gaming sites. This study conducted a related study in order to explore an issue: what enjoyment is in online games. This study results indicate that customers would show a higher level of loyalty if they had an optimal experience with the games. This study proposed a theoretical model using the concepts of customer loyalty, flow, cognitive performance, self-esteem, self-efficacy, equity of objective performance and reputation to explain what optimal experience as enjoyment is in online games. The state of flow was felt when players were aware of opportunities for personal interaction and social interaction; at the same time, they were aware also high self-efficacy that is perceived skills. The personal interaction could be motivated either to achieve the high cognitive performance or by providing the equity of distribution of the objective performance in order to examine players' cognitive performance; the social interaction can be motivated either to enhance a high level of self-esteem of player or to achieve the positive reputation in order to evaluate their self-esteem. And the self-efficacy would lead to high cognitive performance and high self-esteem. On the other, positive feedback, equity or reputation enabled players to enhance their self-efficacy. The research has both academic and practical implications. First, this research verifies that enjoyment experience could be explained by my conceptual framework. This finding can answer the questions of what enjoyment experience is and why players are repeatedly playing specific online games.

**Keywords:** flow, game, self-efficacy, self-esteem

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## *Workshop III - Monday, February 4th*

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### **Computer Supported Measuring of Flow to Improve Game Based Learning Environments**

Urs Hugentobler

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Flow is a mental state of operation in which a person is fully immersed in his present doing. It is a feeling of energized focus and full involvement. People in Flow are completely absorbed in their present activity. While learning with computers, people achieve better results if they are in the state of flow. Therefore it is very important to foster flow. There are already methods to measure flow. However, existing methods have the disadvantage that they either require extensive apparatuses (like MRT or CRT) or they interrupt the feeling of flow by directly putting people out of it, asking them questions. The goal of this research project is to develop a method for measurement of flow with the computer while the person is in a learning sequence. Avoiding extensive apparatuses and asking questions, the mental state of flow will not be interrupted and elearning can be improved.

**Keywords:** flow, measurement, e-Learning, game based learning

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## Workshop IV - Tuesday, February 5th

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### Media Environments and Reality Switch – Focused by Media Sciences

Chair: Tanja Hackenbruch <sup>1-2</sup>

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#### Workshop Abstract

In this workshop it is our aim to consider the subject of the current conference from the viewpoint of media- and communication research. Accordingly, studies covering mostly tv- and film-content are presented: Ursula Ganz-Blättler from the University of Lugano presents her study “Television series and fandom: Sophisticated readership as co-authorship”. Daniel Beck from the University of Fribourg presents his study “Mediated Sports Realities: Topics of Sports Coverage and Mediatization of Sports Events”. Patrick Hofer investigates in his study “Media Realities among Teenagers: Broadband Killed the TV Star”, how digital media changes media consumption. Finally, Susanne Eichner will present parts of the study “Involvement and Receptionstrategies in Lord of the Rings”.

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## Workshop IV - Tuesday, February 5th

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### **Television Series and Fandom: Sophisticated Readership as Co-authorship**

Ursula Ganz-Blättler

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On *Emergency Room* the surgeon Luca Kovac was introduced in 1999 as a Croatian immigrant who suffered from a tragic, wartime-related back-story. One and a half year later Luca's tragedy became a major issue within an episode that had many Croatian immigrants in the US debating his experiences "back home" on Usenet bulletins such as *soc.culture.croatia*. In 2002, the same painful memories served as a background for a more general discussion within the fictional universe of *E.R.* on the war in Iraq. As before, long-term fans of the series joined in the debate while just as many authors of so-called "fan fiction" went on developing scenarios that allowed Luca to overcome his personal trauma and become a husband and devoted father (again). The ongoing „rewriting“ of Luca's story – not just by the series' authors but also by the series' devoted fans – is a typical example of how successful television narratives are "co-told" rather than told from an auctorial perspective alone. Recent audience theories defend what has been termed the spectacle / performance paradigm (Abercrombie / Longhurst 1998): Audiences of popular culture are increasingly seen as active participants in ongoing and collaborative processes of "meaning-making", with the status of "fan" equaling that of "ex-pert". Because such sophisticated readers do not only know where to find additional narrative information – they also know how to tell the story, be it as co-authors or "counter-authors".

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## *Workshop IV - Tuesday, February 5th*

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### **Mediated Sports Realities: Topics of Sports Coverage and Mediatization of Sports Events**

Daniel Beck

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Sports journalists cover actual sports events. However, the reality of sports is not just represented by the media; the media rather exert important influence on the coverage and even on the organization of sporting events. For instance, global sports events would hardly be possible without media coverage. There is close interdependence between the core actors of sports coverage – organizers of sporting events, media, and sponsors – whose relationship is often characterized in literature as a “magic triangle”. All these actors have their specific interests how the sports reality should be described in the media. Based on these considerations it will be analyzed which aspects of sports reality are particularly important for the media. The analysis will focus on the predominance of major “media sports”, the ratio between event coverage and background information and the importance of “soft news” and entertaining elements. Finally, there will be a focus on the “mediatization” of sports: Which strategies are followed by the organizers of sporting events in order to increase their presence in the media?

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## *Workshop IV - Tuesday, February 5th*

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### **Media Realities among Teenagers: Broadband Killed the TV Star**

Patrick Hofer

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Recent studies show that the media consumption and habits of are changing dramatically. Traditional media like newspaper, radio and TV are losing ground in favor for digital media. The modern teens no longer spend their time passively with mass media, but prefer to communicate in social networking sites, up- und download videoclips in online video platforms, to play games in massively multiplayer online role playing games and have their 'media snacks' ready, wherever they are on their mobile phone or multimedia player. What does this trend mean for media providers and advertisers? How can they reach a highly fragmented audience in a future beyond mass media? This session will give you an insight into latest research results; point out key trends and outline best practice examples on the digital media habits of the future media users.

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## *Workshop IV - Tuesday, February 5th*

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### **Involvement and Reception Strategies in Lord of the Rings**

Susanne Eichner

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The film trilogy *The Lord of the Rings* became one of the greatest hits in cinema, reaching an enormous audience, and indeed a great number of different audiences. As a form of the contemporary blockbuster, the trilogy follows the pattern of communicating a multitude of possible meanings and pleasures. The special kind of film narrative anticipates different patterns of reception, organizes them in a complex aesthetic form, and thus permits spectator involvement on a variety of levels. The indications stem from an analysis of narrative and aesthetic structures, and also from a reception study. The levels of involvement identified are mainly characters, narration and action/SFX. The levels dominant in the reception depend heavily on the context knowledge of the recipients. For example, viewers who have read the books share a different set of knowledge than viewers who haven't read the books and thus different levels of involvement are at work, as the paper will show.

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## Workshop V - Tuesday, February 5th

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### **Gaming: Real, Virtual, Pervasive, Serious. An Overview of Contemporary Tendencies**

Chair: Ulrich Götz

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#### **Workshop Abstract**

A remarkable development is the blurring of edges between the real and the virtual. Video games aspire in presentation and content towards the ‚real‘. At the same time ‚real life‘ aspires towards the use of virtual experiences to solve contemporary problems, as in the so-called serious and therapeutic games. This crossover leads to an inextractable tangle between real and virtual worlds that gives rise to new technologies such as pervasive games. This workshop, led by Ulrich Götz, head of the Game Design Program, Zurich University of the Arts (ZHdK), accompanied by Veronika Brezinka, Departement of Child and Adolescent Psychiatry of Zurich University, and René Bauer, specialist in game engine programming (also ZHdK), will consider the significance of these developments for ‚reality‘ and the usage of immersion in video games in therapeutic contexts. They will draw on their joint publication ‚Serious Game Design for Psychotherapy‘, Zürich 2007.

#### **Presenters:**

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## Workshop V - Tuesday, February 5th

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### **A Thin Line between Reality and Virtuality or: Realities from the Digital Subconscious**

René Bauer<sup>1-2</sup>

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McLuhan described the possibilities of man to expand the world by means of media: Parts of the human body may be amputated and replaced with extensions like wheels, cameras or permanent clothing. The most radical extensions so far are games which manage to work practically self-sufficiently. But what is it we neglect to see or displace in those media systems? How can we make those magic borders visible which surround each game and medium, how can we capture their rules and make them even playable? Some artists develop GameArt along this thin line between reality and virtuality: In „Nybble-Engine“ Jahrman/Moswitzer feed real-time data of a game back into the same game. In „Inneum/gamescape“ AND-OR transform the act of playing (player's movements) into 3D-cities and add a new level of perception. And in „sniff\_jazzbox“ and „wardive“ AND-OR transpose the surrounding wireless-environment into music or enemy territory. These works realize inverse game and media design and push the digital subconscious up to the surface of reality.

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## *Workshop V - Tuesday, February 5th*

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### **Development of Serious Games for Child Psychotherapy**

Veronika Brezinka

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Computers and video games are a normal part of life for millions of children. Unfortunately, most scientific reports centre upon negative consequences of excessive gaming, and little research has been carried out with regard to the innovative potentials of video games. Psychotherapy of children and adolescents is an area in which the development of innovative therapeutic video games may enhance child compliance and offer new ways of treatment. Four prototypes of therapeutic games will be shown that have been developed by psychology- and game-design students, integrating either interpersonal cognitive problem solving or social information processing theory. None of these games is meant to substitute the therapist; instead, they offer attractive electronic homework assignments to rehearse psychoeducational concepts learnt during therapy sessions. Hopefully, psychotherapeutic computer games will become a useful tool in the treatment of children and adolescents; however, unrealistic expectations with regard to therapeutic games should be discussed.

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## *Workshop V - Tuesday, February 5th*

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### **Video Games and Immersion**

Ulrich Götz

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The decisive factor in the success or failure of computer game productions is the finely balanced degree of immersion that embeds the gamer in the virtual environment. Since the advent of computer games in the wider entertainment world, most productions have assumed that the deeper the immersive game experience is, the better the game itself must be. At the same time, there is general agreement on what best supports this immersion: that is, a relatively naturalistic presentation of the game in its visual, acoustic, and even tactile dimension. But do the mechanisms for an immersive game experience only lie in those forms of presentation of a game? Do they not lie deeper, for example in the abstract rules of game? Is the conclusion, that equates immersion with game quality, true for all game genres, or could immersion perhaps even destroy the effects of particular types of games?

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## Workshop VI - Wednesday, February 6th

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### Presence for Experiential Assessment and Rehabilitation

Chair: Francesca Morganti <sup>1-2</sup>

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<sup>2</sup> Applied Technology for Neuro-Psychology Lab, Italy  
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#### Workshop Abstract

The workshop aims in introduce new challenges of using Virtual Reality (VR) tools in two specific application areas: experiential assessment and advanced rehabilitation. Recently clinical research have greatly shown that VR-based treatment differs from conventional therapy in provide the patient with a sense of presence or immersion derived from the active and meaningful interaction with daily-like contexts. VR provides, in fact, an enactive human-computer interaction paradigm in which users are no longer simply external observers of images on a computer screen but are active participants within a computer-generated three-dimensional synthetic environment. In this environment the patient has the opportunity of experiencing and learning to manage a challenging situation. That is VR offers a high level of control of the experience enabling the therapist to present a wide variety of controlled stimuli, such as different levels of anxiety within a fear-generating situation, and to measure and monitor a wide variety of physiological and behavioural responses made by the user. This flexibility can be used to provide systematic restorative training that optimizes the degree of transfer of training or generalization of learning to a patient's real world environment. According to this vision the workshop will introduce the most recent and innovative research about virtual experience and VR application in clinical contexts.

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## *Workshop VI - Wednesday, February 6th*

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### **From Technology to Health: The Role of Ambient Intelligence**

Giuseppe Riva

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Ambient Intelligence (Aml) is a new paradigm in information technology, in which people are empowered through a digital environment that is aware of their presence and context.. The most ambitious expression of Aml is Intelligent Mixed Reality (IMR), an evolution of traditional virtual reality environments. Using IMR, it is possible to integrate computer interfaces into the real environment, so that the user can interact with other individuals and with the environment itself in the most natural and intuitive way. How does the emergence of the Aml paradigm influence the future of health care? Using a scenario-based approach, this presentation outlines the possible role of Aml in health care by focusing on both its technological and relational nature.

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## Workshop VI - Wednesday, February 6th

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### **Collaborative Interfaces for Autism Intervention and Social Action Research**

Patrice L. (Tamar) Weiss<sup>1</sup>, Eynat Gal<sup>1</sup>, Massimo Zancanaro<sup>2</sup>, Oliviero Stock<sup>2</sup>

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Two “enforced collaboration” paradigms were designed to achieve targeted behavioral and social action research goals. We use the MERL DiamondTouch table, an electronic surface that affords simultaneous multi-user, multi-touch events. We used the StoryTable, a shared interface that displays a virtual world where children can move around objects and characters and can interact by recording successive story segments, to study pairs of boys with High Functioning Autism. A structured intervention led to a significant increase in key behavioral and communicative skills. We designed a second application to explore the role of technology in fostering a shift of attitudes of opponents (in this case Jewish and Arab youth) via a narration task. By engaging in simulated conflict escalation and de-escalation, youth experience alternatives in a supportive environment, and begin a process of attitudinal change. The results of two pilot studies will be presented.

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## *Workshop VI - Wednesday, February 6th*

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### **The Potential Use of Multiplayer Online Games in Telehealth**

Andrea Gaggioli

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In this contribution, we discuss the potential role of Multiplayer Online Games (MOGs) in telehealth applications. MOGs are collaborative virtual environments characterized by the simultaneous presence of multiple users within the same simulated space, who communicate using local chat, voice, instant messaging, and in some cases gestures and movements. Compared to conventional telehealth systems, online virtual worlds provide the remote user/patient with an higher feeling of embodiment that has the potential to facilitate the clinical communication process, to positively influence group cohesiveness in group-based therapies, and to create higher levels of interpersonal trust. Further, the therapist can remotely monitor the patient's psychological, physiological and emotional responses using special bio-monitoring systems and to eventually modify the intervention on the basis of the therapeutic needs. Potential caveats related to the use of MOGs in telehealth are also discussed.

**Keyword:** telehealth, virtual reality, multiplayer online games, presence

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## Workshop VI - Wednesday, February 6th

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### **The Butler Project: A New Cognitive and Emotional System for the Elderly**

Cristina Botella<sup>1</sup>, Diana Castilla<sup>1</sup>, Soledad Quero<sup>1</sup>, Mariano Alcañiz<sup>2</sup>, José Antonio Lozano<sup>2</sup>,  
Rosa M. Baños<sup>3</sup>, Juana M. Bretón-López<sup>1</sup>, Azucena García-Palacios<sup>1</sup>

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The Butler Project is a cognitive and emotional tele-assistance system that allows carrying out early diagnosis, intervention, and monitoring of the physical, cognitive, and emotional state of elderly people. From the technological perspective, the system offers the elderly several tools based in telecommunication and Virtual Reality techniques; from e-mail, chat and videoconference applications addressed to increase social relationships, to virtual environments designed to induce positive emotional states and to reduce negative emotional states. The system offers several advantages. For the psychologist allows an early detection of emotional state, diagnosis, easy assessment and therapy tool. For the geriatric hospitals, it can be used like an occupational therapy tool which warns the professionals when it detects a severe emotional state. The aim of this presentation is to describe in detail the Butler system and to offer a demonstration of a real case that shows the first phase of the system validation: usability.

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## Workshop VI - Wednesday, February 6th

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### Virtual Reality for Social Phobia Treatment

Francesca Morganti <sup>1-2</sup>

<sup>1</sup> University of Lugano, Switzerland

<sup>2</sup> Applied Technology for Neuro-Psychology Lab, Italy  
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During a direct exploration of the environment an agent is able to acquire spatial knowledge and to organize it in a cognitive map which can be of the “route” or “survey” type. Moreover several studies in clinical neuropsychology showed how the processing of topographical information may be conducted within an egocentric or allocentric coordinate frame that are mainly comparable to “route” and “survey” knowledge organization. The capability of learning spatial relationships in a large scale environment, and of organising them in “route” or “survey” type, is influenced not so much by a major familiarity with the environment, but by a series of characteristics of the specific environment, capable of assuming a role functional with the activities an agent performs or is going to perform inside it. Inside this theoretical perspective virtual reality, in virtue of its essentially enactive peculiarity, demonstrates to be a new and useful opportunity for investigating many of the aspects directly connected to the situated acquisition of spatial knowledge. The sense of presence virtual environments afford will provide users with a mainfull experience and will allow them to adaptively interact with space within a given activity in order to efficiently acquire spatial knowledge. In this contribution I'll introduce a particular type of virtual reality applications, that supports the possibility to assess spatial cognition allowing patients to interact and navigate in three-dimensional simulated spaces in route and survey way.

**Keywords:** spatial cognition, virtual reality, presence, neuropsychological assessment, route/survey maps

# Thematic Sessions

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## *Special Session - Tuesday, February 5th*

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### **Cognitive Processing of Cinematic Realities**

Chair: Rudolf Groner

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#### **Presenter:**

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## *Special Session - Tuesday, February 5th*

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### **Are Flashbacks in Film Really Enhancing the Assessment of Aesthetic Judgments at no Costs of Mental Resources?**

Géry d'Ydewalle

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Principles of narrative and intellectual film editing were investigated by assessing the semantic, cognitive, and aesthetic consequences of inserting flashbacks. A short narrative film was presented, either with flashbacks or in chronological/linear order. In Experiment 1, the gravity of the acts committed by the two main actors was perceived to be more salient in the linear than in the flashback version (based on Osgood's semantic differential ratings). Aesthetic assessment did not vary as a function of the linearity. In reconstructing the movie segments into the right order, the linear film condition showed a better match with the chronological ordering than the flashback condition. In Experiment 2, pupil size of the viewers, as a measure of mental load, was registered on-line. In the flashback version, mental load was heightened due to the flashbacks disrupting the linear story grammar. Experiment 3 used a recent movie ("Memento") in which an extremely large number of flashbacks were inserted. The various types of flashbacks were confounded in the movie, while the experiment disentangled those various types. The various types of flashbacks all slowed down reaction times in a secondary task, suggesting a heightened mental load. In the discussion about distinctive advantages of intellectual versus narrative editing, intellectual editing lost the case in the present study. Flashbacks did not enhance aesthetic judgments, and linearity emphasized the semantic features of the leading actors with less consumption of mental resources.

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## *Thematic Session I - Tuesday, February 5th*

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### **Identity and VR**

Chair: Bartholomäus Wissmath

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#### **Presenters:**

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## *Thematic Session I - Tuesday, February 5th*

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### **Identification with Video Game Characters**

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Identification with media characters is one theoretical account to experiential transitions of media environments to (perceived) reality. Video games enable strong identification with a character (eg. „Max Payne“) or a certain social role (e.g., a military commander). The presentation introduces a conceptual model of identification with game characters or roles that is based on social psychological theories of the self. Specifically, we explicate identification as temporary alteration of players self-concept. For instance, by identifying with a superhero in a first-person-shooter, players may perceive themselves as more courageous, which would reduce self-discrepancy and thus facilitate game enjoyment. An experiment is reported to test the model with implicit measures of self-concept (N = 55). Findings lend only limited support to our assumptions, but may be compromised by methodological constraints. The presentation will invite the conference participants to discuss alternative methodological options to test the model.

**Keywords:** video games, identification, self-concept, implicit measures

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## *Thematic Session I - Tuesday, February 5th*

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### **The Virtual and the Embodied: Avatars as Engaging Objects in World of Warcraft**

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If the human body is both something we are and something we have, the same is true for avatars. In the first part of this paper, we argue that avatars, as facts of a distributed personhood', can be simultaneously perceived as both subjects and objects. We then turn to the sensory dimensions of avatars in World of Warcraft. In this virtual world, avatars are sometimes distinguished by their particular sounds, actions are signaled aurally, and objects are frequently coded through the noises they make. Indeed, auralness seems to supersede the game as a dominant sensory modality, because of the ways in which it contributes to one's sense of embodiment. Through this case study and our larger investigation into avatars as embodied experiences and cyborgian co-presences, we argue that virtual environments enable different sensory hierarchies and thus intervene in the hegemony of the visual paradigm so central to Western epistemology.

**Keywords:** avatars, presence, auralness, shared virtual environments

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## *Thematic Session I - Tuesday, February 5th*

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### **Gendered Avatars: When Gender Judgments Influence Performance Ratings**

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A chat-based online role-playing environment was used to assess students' social communicative skills. After each role-play, the students had to indicate whether their interaction partner was male or female, and how certain they were regarding their gender judgment. Both, male and female players represented by male avatars were more often considered to be male, while players with female avatars were more often considered to be female. Performance ratings of the students' role-playing behavior were dependent on their avatar's gender. Players who were perceived as male received better ratings from females, whereas the performance of players who were perceived as female was rated poorer by males.

**Keywords:** online role-play, avatar, gender, performance ratings

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## *Thematic Session I - Tuesday, February 5th*

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### **The Presentation of Self in Everyday Second Life: An Attempt to Relate Psychological and Virtual Gender**

Rabindra A. Ratan

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Previous research shows that a significant proportion of people represents themselves dissimilarly online and offline, but there have been few empirical investigations of the mechanisms that influence such self-presentations. The present study examines the relationship between psychological and virtual gender. 54 convenience-sampled users within Second Life (SL) were surveyed about their psychological gender, the gender of their avatars, and the gender of their real life clothing. Most notably, gender of clothing and gender of avatar were strongly related. For participants who own land in SL, the relationship between psychological and virtual gender was found to be marginally significant. Psychological gender was found to predict only a small amount of variance in gender of clothing. Overall, the present findings are inconclusive but imply a strong potential for future research to identify interesting facets of the relationship between psychological and virtual gender.

**Keywords:** gender, self-presentation, self-presence

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## *Thematic Session II - Wednesday, February 6th*

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### **Creating and Measuring Presence**

Chair: David Weibel

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#### **Presenters:**

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## *Thematic Session II - Wednesday, February 6th*

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### **From Reality to Wii-ality: Natural Mapping Effects of the Nintendo Wii**

Paul Skalski<sup>1</sup>, Ron Tamborini<sup>2</sup>, Erika Gress<sup>1</sup>

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This investigation examines the potential for the Nintendo Wii to affect presence-related outcomes of video game exposure, as a function of natural mapping. Interactivity in the form of natural mapping has been advocated as a possible contributor to presence experiences, but few studies to date have investigated this potential, despite the surging popularity of games featuring natural interfaces. The present study builds on work by Skalski, Tamborini, and Lange (2007) on natural mapping types and outcomes by considering how playing the Wii affects mental models for behavior shaping outcomes of game exposure. It reports the results of a between subjects experiment (N = 52) varying the manner in which players interacted with a golf video game (Wiimote or gamepad). Following exposure, participants completed a variety of measures about their experience, including perceived naturalness, spatial presence, and game enjoyment scales. Data is currently being analyzed and results will be reported.

**Keywords:** presence, video games, interactivity

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## *Thematic Session II - Wednesday, February 6th*

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### **How Close Can We Get to our Celebrities? The Role of Form and Social Presence**

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This research examines how individuals experience celebrity news across two mediums, a television show and a web site. Cultural criticisms aside, celebrity news has attracted many fans, and websites like TMZ.com are seeing dramatic increases in their number of hits per day as they are able to penetrate further into stars' personal lives. This study explores how celebrities may become to individuals by exploring effects of the interactivity promised by TMZ.com and the vividness portrayed on TMZ TV. Steuer's (1992) predictors of presence serve as a springboard for aspects of the current research. Using an experimental design, the study attempts to explain how social presence felt in response to the two media forms differs. It also considers the moderating influences of perceived realism and past experience with celebrity news on perceived credibility, enjoyment, and parasocial interaction. Data collection is in progress, and path analysis results will be presented.

**Keywords:** social presence, celebrities, enjoyment, credibility

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## *Thematic Session II - Wednesday, February 6th*

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### **If It Is Real, You Feel (?): Perceived Reality, Presence and Emotions while Watching TV**

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Although emotions are essential parts in human life and hence in media reception as well, models of presence concentrate on cognitive and behavioural aspects. According to the law-of-apparent-reality it can be assumed that emotions during media reception are the stronger the more the presented situation is perceived as real. On the other hand, ethology assumes that supernormal stimuli elicit stronger reactions than realistic stimuli. While media presentation is always a staging of aspects of reality, the question rises what aspects of media intensify presence and emotional experience. In several studies with different TV-Genres (movies, courtroom reality shows, and advertising spots) we examined relationships between perceived reality and emotions. In sum, the results show that perceived reality is connected to the intensity and quality of emotional feelings. Personal characteristics of the viewers as well as formal features of the media presentation seem to influence specific dimensions of presence.

**Keywords:** perceived reality, emotions

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## *Thematic Session II - Wednesday, February 6th*

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### **Can We Observe Presence? A Content Analysis of Video Game Playing**

Cheryl Campanella Bracken, Paul Skalski, Bridget Rubenking, Amanda Zima, Carolyn Kane

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While the number of studies exploring the effects of and audience reactions to video games has increased, there is little examination of the player experience during game play. The current study reports the results of a content analysis of more than 50 hours of participants playing video games. Each participant played either a first person shooter game or a sports game for 10 minutes. The 10 minute playing time was video recorded. The participant playing times were coded for a variety of behaviors, including physical movement, stillness, talking, yelling, verbal aggression, frustration, breaks in presence, and mirth indicators. The coding of these categories will allow the researchers to assess physical, real time displays of player sensations of presence, transportation, flow, and enjoyment.

**Keywords:** video games, presence, content analysis

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## *Thematic Session II - Wednesday, February 6th*

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### **Acoustic Immersion with Wave Field Synthesis – A Study on Sound Source Localization Accuracy**

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One important factor for system immersion is the quality of the audio system. The study presented here was conducted with a wave field synthesis system, which is part of a cave setup. With such a sound system, a number of sound sources can be placed on a plane. The goal of the study was to compare the wave field synthesis system with a four speaker setup, which was also implemented with the wave field synthesis method using four fixed speakers and panning. Ten volunteers participated. Their task was to distinguish if two non-overlapping sounds had the same origin or an angular difference. Results indicate that the wave field synthesis method yields more correct answers than the four speaker panning method. We hypothesize that this has a positive effect on presence.

**Keywords:** audio, wavefield synthesis, sound source localization

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## *Thematic Session III - Wednesday, February 6th*

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### **Positive and Negative Aspects of New Media**

Chairs: Keiichiro Tsuji, Kazuo Koga

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#### **Presenters:**

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## *Thematic Session III - Wednesday, February 6th*

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### **Device Dependent Immersion or Perception Contingent Reality?**

Kazuo Koga

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The progress of new technologies of visual aids for creating more realistic visual worlds has brought along various types of visual virtual environments. Sometimes the available artificial visual information proceeds beyond the human natural environment, in other word the primitive daily-life visual experiences, by transporting us into a hyper-realistic artificial world. For instance FTV (Free viewpoint TV) is one of the future media proposals which enables us to take any personal viewpoint on a HighDefinition-TV screen. Although the FTV system is useful and interesting for expanding the limits of available visual aids, it brings us from our primitive visual perception to another planet by installing extremely artificial visual aids. Therefore it creates additional unsolved problems in our transaction with such virtual environments. I will discuss the discrepancies between the natural visual world and the virtual environment created by FTV. A crucial role in this discrepancies play multi-sensory spatial cognitions.

**Keywords:** visual aid, subjective world, free viewpoint TV

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## *Thematic Session III - Wednesday, February 6th*

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### **A New Type of Apathy Caused by Immersion in Media Environments**

Keiichiro Tsuji

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Since the beginning of the last century people have consumed increasing quantities of stimulation through media in which information is efficiently compressed in a limited time. This situation could cause some subtle but steady effects on the human mind. For example, TV news program has now become a genre of infotainment which covers a variety of contents. A program consists of a quick succession of various scenes. In order to enhance perceptual efficiency, time allocated for each scene can be shortened. However, such a kind of information compression is not appropriate for emotional induction, since the emotional process onsets slowly and offsets with some delay. Also, it differs among individuals. Thus, when information is compressed, emotional processes might become dissociated from perception with the result of a temporal lag or interference with newly arriving contents. This paper points out the changes in the basic psychological processes produced by rapid audiovisual stimulation and discusses the possible effect of apathy symptoms caused by immersion in media environments.

**Keywords:** psychological process, dissociation of emotion from perception, media effect, information compression

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## *Thematic Session III - Wednesday, February 6th*

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### **SF3D: Smaller, Faster, and 3D – Is that what We Want in New Media?**

Marino Menozzi

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New media promise new experiences: total networking, ultra-portability and a changed sense of space and time. The promise is not new if we recall the “Sensorama” in the 50es, Apple’s knowledge navigator or the beginning of cyberspace in the 80es. Many ideas have proven technical feasibility and have spread into the whole world. However, we must question at what price. Cellular phones are so small that they may get lost. Keys can almost not be used by normal sized hands and one single key usually represents several chars. Neither Fitts law nor information theory has been considered. The latter e.g. demonstrates a higher interaction complexity in multiple used keys compared to single used keys. Even the youngest experience effort in reading mini displays. Considering what has been said, we should question whether technical progress brings benefits for the mass or whether benefits are restricted to a small group of enthusiasts.

# Poster Presentations

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## *Poster A - Wednesday, February 6th*

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### **Fictional Formats in Archaeological Television Documentaries and Transportation into Past Periods – A Work in Progress**

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The poster gives an overview of a research project in progress, dealing with fictional presentation formats in archaeological television documentaries and their effects on cognitive aspects and transportation into the depicted period. In a preliminary study we used re-enactment- scenes and virtual-reality-reconstructions as fictional presentation formats. These seem to influence subjective knowledge acquisition, familiarity and dating of the depicted periods. In a first main study, we are going to examine the influence of re-enactment-scenes on credibility of the documentary content, dating, familiarity and transportation into the depicted periods. In a second study, we are going to examine the physiological correlates of transportation to find a more objective measure for this concept. Heart rate, posture, electrodermal activity and EMG are going to be assessed.

**Keywords:** transportation, documentary, re-enactment, physiology

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## *Poster B - Wednesday, February 6th*

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### **English Media vs. Russian Media: The Battle of Sharp Tongues**

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The diplomatic relationships between the UK and Russia are clearly getting complicated. The growing tension is naturally reflected in the national media as well. The core of the research is an analysis of the opinions about the national football teams expressed by Russian and English sport media during and after the Euro 2008 qualification. A representative selection of online news articles was surveyed by the content analysis method. The texts originated from several major sport media in Russia and the UK and covered the period from September 2006 to November 2007. The views of the news providers with respect to the national as well as the opponent team were evaluated either as positive or negative and then summed up in the respective countries. The preliminary results show quite significant differences in the opinions about the team's opponent expressed in the articles of English and Russian media.

**Keywords:** sport media, content analysis

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## *Poster C - Wednesday, February 6th*

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### **Attitude, Flow and Performance in an University E-learning Environment**

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Engeser et al. (2005) have previously described that flow acts as a mediator variable between the attitude to a course in statistics and the performance in the final exam. Here we replicate this finding for an undergraduate course in perception. A total of 73 students from two cohorts completed an online training on perception. The first cohort received online exercises only on the first half, the second cohort only on the second half of the material. Attitude towards perception and computers and flow during the online exercises were measured by a questionnaire. Performance was measured in the final exam, whereas we differentiated between performance on trained and untrained items. A path analysis revealed that flow mediates between attitude towards perception and the performance on the trained items only. Thus, flow producing e-learning environments enhance performance on the trained material if students have a positive attitude towards the topic.

**Keywords:** e-learning, flow, performance, path analysis

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## *Poster D - Wednesday, February 6th*

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### **Measuring Immersion into an Action Movie**

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The aim of this study was to investigate the feeling of being immersed in a movie by means of self-report, observation and physiological parameters. The dependent measures comprised presence (spatial presence and attention allocation), mood, facial expression, recall, and heart rate. In addition, the immersive tendency was measured. Participants (N = 50) watched a sequence of an action movie. Contrary to the expectations, no strong relations between the dependent measures were observed. Only a moderate negative relation between presence and heart rate was found. No influence of immersive tendency on the dependent variables was observed. Structural equation modeling revealed that the prospective model fits the data well. However, the relations between the unobserved endogenous variable immersion and the indicator variables as well as the observed exogenous variable immersive tendency failed to reach significance. These findings suggest the expected relations to be rather small.

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