Editorial

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Biographical notes: Olli Sotamaa is a Senior Researcher in the Department of Information studies and Interactive Media, University of Tampere. He holds a PhD in Media Studies and has published journal articles and conference papers on various topics including computer game modding, machinima, game reward systems, mobile games, digital distribution, player-centred game design and user study methodologies. His current research interests include coproduction, design cultures and creative labour.

Heljä Franssila is a Project Manager and Researcher in the Department of Information Studies and Interactive Media, University of Tampere. Her central multidisciplinary research interest and motivation are finding efficient and human-centred ways to couple the new information technologies and interaction styles with work practices and business processes in diverse media ecosystems. She works in close cooperation with several commercial enterprises. At the moment, her research is focused on examining the media practices of diverse kinds of communities operating in working life contexts and on understanding the role shared situation awareness plays in the daily

operation of enterprises. As a sustainable goal for her is to explore and design feasible and affordable solutions to support and energise diverse social entities in working life with social media and web 2.0 technologies.

Artur Lugmayr is a Professor of Entertainment and Media Production Management at the Department of Business Information Management and Logistics at the Tampere University of Technology. He describes himself as a creative thinker and his scientific work is situated between art and science. He is the Founder of the New Ambient Multimedia (NAMU) research group at the Tampere University of Technology which is part of the Finnish Academy Centre of Excellence of Signal Processing from 2006 to 2011. He holds a Dr-Techn degree from the Tampere University of Technology, and is currently engaged in Dr-Arts studies at the School of Motion Pictures, TV and Production Design (UIAH, Helsinki).

Pertti Näränen is a Senior Lecturer in Media Studies in the School of Art and Media at Tampere University of Applied Sciences. His Doctoral Thesis title was 'Digital television: analyses on early history, challenges to media policy, and transformation of television' (2006, University of Tampere, Department of Journalism and Mass Communication). Previously, he has worked as Researcher, Lecturer and Journalist in print and radio media. He also has background in cinema studies and various new media projects.

Jukka Vanhala is a Professor in the Department of Electronics at Tampere University of Technology and the Director of the Kankaanpää Research Unit of Wearable Technology. He received his MSc at the Software Engineering Laboratory in 1985, Licenciate of Technology at the Microelectronics Laboratory in 1990 and Doctor of Technology at the Electronics Laboratory in 1998, all at TUT. He has been appointed to the Professorship of Electronics at TUT in 1997 and to the Docentship of Interactive Technology at the University of Tampere at 2005. His career also includes six years of work in the industry both in Finland (Tele Finland (Sonera), SoftPlan (Nokia), Instrumentation) and in USA (IBM). His expertise is in ambient intelligence, embedded systems and wearable technology.

Welcome to this Special Issue of the *Int. J. Arts and Technology*. This issue celebrates Academic MindTrek conference held in Tampere, Finland in October 2009. This annual gathering was organised in association with the 13th Mindtrek, the leading Nordic digital media and business conference. Altogether MindTrek is a unique set of events comprised of world famous keynote speakers, plenary sessions, workshops, competitions and media festivals. It is a meeting place, where experts and thinkers present results from their latest work regarding the development of internet, interactive media and the information society. MindTrek brings together researchers and practitioners from diverse disciplines that are involved in the development of media in various fields, ranging from humanities and social sciences to economics and technology.

The academic side of MindTrek has been developed in collaboration between the local academic institutions. The members of the organising committee (and thereby the Special Issue editorial board) represent the three local universities, namely University of Tampere, Tampere University of Technology and Tampere University of Applied Sciences. In 2009, the conference was organised in cooperation with ACM SIGMM and ACM SIGCHI. Altogether, Academic MindTrek brings together a cross-disciplinary crowd of people in order to investigate current and emerging topics within media in the

ubiquitous era. In 2009, the conference was organised around three thematic tracks: social media, ambient and ubiquitous media and digital games.

The focus of the social media track was in mapping how social media applications and web 2.0 are applied in ever more diverse practices both in private and public communities. The papers investigated how the new social platforms provide basis for novel interactive and collaborative practices and new business models based on these practices. The questions related to self-expression, identity, motivation and values were further highlighted. Ambient and ubiquitous media track had a highly cross-disciplinary programme. The focus was in the new forms of media in between technology, art and content. The track introduced a variety of applications and services utilising ubiquitous and pervasive technologies. An important focus was in analysing and evaluating user experiences defined by multimodality and next generation user interfaces. The third track focused on the currently undergoing transformations in the field of digital games and game studies. The central focus was in analysing playful experiences in and around games. These experiences are significantly affected by the truly connected gaming devices and mobile usage contexts. Many papers further accentuated the importance of social interaction and collaboration for the player experience. For their part, the design research papers highlighted the wide range and applicability of different game design approaches.

The paper proposals submitted to the conference formed an interesting cross-section of the current state in the interactive media studies. The geographical reach was impressively global. The submissions were received from Europe, North and South America, Asia, Africa and New Zealand. Out of the, approx., 60 submissions the programme committee accepted altogether 33 papers in long and short paper categories. The papers covered a wide variety of topics and the Special Issue nicely reflects this delightful range of approaches.

It is our privilege to present the legacy of the MindTrek 2009 conference in the Special Issue of the *Int. J. Arts and Technology*. The selected eight papers highlight the broad range and the high quality of the conference. All the papers were first given as papers during the conference. During the past year, they have been heavily reworked and updated to match the standards of the journal. The first part of this Special Issue consists of prototype-driven projects that highlight the different potentials of current media applications.

The issue starts with Anders Sundnes Løvlie's paper on locative literature. He introduces a project called *textopia*, a locative media design experiment set up to explore the relationship between places and literary texts. The system, both, allows the users to experience existing place-bound literature in relation to the very places and to write and share their own texts. Based on the findings, the paper develops the idea of 'poetically augmented reality' and further outlines particular categories of locative literature.

It is widely recognised that mobile media applications need to balance user and group goals, attentional constraints and limited screen real estate. Perttula, Carter and Denoue describe the iterative development and testing of an application that explores these common trade-offs. The paper presents and evaluates prototypes of a retrospective, time-based system as well as a prospective, space-based system. The findings are applied to another prototype in order to further examine the potentials of prospective systems. Based on the results the authors argue that the design of mobile media applications should put more attention to the user's attentional demands. As a consequence, mobile

media should be hands-free and provide as much information as possible peripherally or through non-visual means.

Oksman, Tammela, Mäkelä and Mitchell present findings from a peer-to-peer television experiment. Multifaceted empirical data are collected and analysed to provide understanding of the salient factors that shape social TV experience. The research data are used in the design of *NextShare TV*, a peer-to-peer social media service which is developed by a consortium of 20 partners across Europe. The paper has an important methodological contribution as it introduces and evaluates different data collection methods ranging from scenario surveys and focus groups to media diaries.

The fourth paper provides an overview of an exergame project called *UbiBall*. The *UbiBall* project is developed around a ball outfitted with a microcontroller that emits sound and light in accordance with the ways it is interacted with. The data-logs provided by the application can be used to bring together a screen-based game and a physical mode of play. After shortly surveying the emerging field of exergaming. Easterly and Blachnitzky move on to discuss the design goals and processes of *UbiBall*. The results from the user tests are used to demonstrate how physical activity-promoting design can be powerful for promoting cooperation, and non-aggressive play behaviour.

Part two of this issue concentrates on the current state of digital game studies. Most of the digital games are based on spatial, virtual environments within which the players operate and through which they experience the games. At the same time, user-behaviour analysis has, only recently, been adapted to the context of the virtual world domain. Drachen and Canossa present an approach based on automated data collection and spatial analysis methods. Case studies involving data from thousands of players are used to exemplify the application of instrumentation data to the analysis of spatial patterns of user behaviour. The paper further discusses the benefits of spatial behaviour analyses for both game research and design.

Marko Siitonen takes a look at leadership communication in the context of multiplayer computer games and the groups that operate within them. The paper explores the player experiences towards leadership by examining a turn-based online strategy game. The analysis of themed player interviews proposes three central dimensions: the leader as primus motor, the need for authority and the discourse of leadership as work. The findings are used to outline directions for future research in this under-researched area.

In their contribution, Tinwell, Grimshaw and Williams propose that increasing technological sophistication in the creation of realism for human-like, virtual characters are matched by increasing technological discernment on the part of the viewer. Traditionally, one of the goals for achieving a realism i.e. believable for virtual characters has been to overcome the Uncanny Valley where perceived strangeness or familiarity is rated against perceived human-likeness. Through an empirical approach, the authors come into conclusion that the perceived familiarity is dependent upon a wide range of variables and, therefore, the concept of Uncanny Valley may be better replaced with that of an Uncanny Wall.

The final paper turns the focus to the many faces of sociability and social play in games. Due to the popularity of social media networks and the games played on those platforms the subject is highly topical. Stenros, Paavilainen and Mäyrä discuss current social games in the context of general social aspects of game play. They argue that by approaching game play as an activity it is possible to distinguish between the sociability players engage in around the game and the social play contained and mediated by

the game. Furthermore, by charting the social space of playing, the paper reveals both the inherent social aspects of single player games and the solitary aspects of social games.

If there is a central lesson that emerges from the studies involved in this Special Issue, it is that we should move beyond both determinist views of technology and essentialist views of designers and users. Media content and experiences are increasingly made and circulated in collaboration between producers and consumers. These *cocreative* relationships and value-generating activities force us to rethink the identities and forms of agency available for the related parties (Banks and Deuze, 2009). At the same time, we need to closely examine the related technological developments as technologies and their users are always profoundly *coconstructed* (Oudshoorn and Pinch, 2003).

Acknowledgements

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