Editorial

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Biographical notes: A.L. Brooks is the national/international award-winning Director of the SensoramaLab (virtual reality, human computer interactivity and behaviour analysis) Complex. He is a European Expert Reviewer/Evaluator, and UNESCO IFIP Denmark Representative. His credits include approximately 170 publications; numerous global keynote speaker talks; published patents, marketed product and own consultation/training company (SME). Societal impact across ages and abilities is targeted in his research that has pioneered the use of sensor-based natural/perceptual user interfaces (PUIs), authoring/mapping software tools and interactive multimedia content systems, which together empower creative expression, learning, and play/fun experiences via inter-subjective/intra-subjective closure of the human afferent-efferent neural feedback loop. His outcome models include contemporary and adaptive intervention/evaluation strategies supporting traditional intervention in healthcare (re)habilitation/well-being/quality of life. Having a goal of participant/patient microdevelopment and transfer to active daily living, the research has resulted in the books *Technologies of Inclusive Well-Being: Serious Games, Alternative Realities, and Play Therapy* and *ICT Advancing Healthcare, Wellbeing & Quality-of-Life*.

Diego Bernini is an External Assistant Lecturer at University of Milano-Bicocca, where he obtained his PhD in Informatics in 2012. His research activities fall at the intersection of software architecture, pervasive computing and ambient intelligence. He is particularly interested in smart environments, from Domotics (the so-called smart homes), to interactive architecture, design and art, where the focus is on enhancing the user experience according to aesthetics concerns.

Giorgio De Michelis teaches informatics for organisations and interaction design at the University of Milano-Bicocca. His research focuses on models of concurrent systems (Petri nets), computer supported cooperative work, community-ware, knowledge management and interaction design.

Andrea Bene is a User Experience Manager for Vodafone Italy. He has been working as Interaction Designer for the University of Milano-Bicocca focusing in end-user language research in artistic context.

Francesco Tisato is a Full Professor of Computer Science at the University of Milano-Bicocca where he directs the Software Architecture Lab. His current research activity deals with software design methodologies and software architectures for real-time adaptive systems (video-based surveillance, traffic control, sensor networks, responsive environments, domotics, and interactive arts). In particular, he is focusing on the definition of architectural abstractions aimed at capturing the concepts of time, space and reflection. He has worked in several EC projects (Escort, OMI/CORE. OMI/MODES, MAIN-E, SMART, TOISE, and PROACTIVE) and in other projects funded by the Italian Ministry of Research (MAIS, InSyEme, and SMELLER). His teaching activity includes courses on computer architecture, operating systems, programming, design methodologies and software architectures. He is the Coordinator of the courses in Informatics at the University of Milano-Bicocca.

Welcome to this special issue of the *International Journal Art and Technology*. It is a pleasure to write the editorial for this special volume as it includes developed papers that originated from the third ArtsIT event held at the Department of Informatics, Systems and Communication (DISCo), University of Milano-Bicocca, Milan, Italy, in March 2013.

The ArtsIT event in Milan, Italy was sponsored by the European Alliance for Innovation (EAI), The Institute for Computer Sciences, Social Informatics and Telecommunications Engineering (ICST), and CREATE-NET. The following text introduces the contributions by authors situated globally and across disciplines.

The volume opens with 'The challenge of preserving interactive sound art: a multi-level approach'. The article addresses the topic of preserving interactive multimedia installations, showing the lacks of the current practice for preservation and proposing an approach for overcome the current limitations.

Then the paper 'On the detection of the level of attention in an orchestra through head movements' reports results from a study of non-verbal activities in an orchestra. Music is chosen as an example of interactive and social activity, where non-verbal communication plays a fundamental role. The paper highlights how a reduced set of simple head movements can be used to measure the levels of attention of the musicians with respect to the conductor.

The third paper 'Defining digital-Foley for live performance' reconsiders the role of the 'Foley artist' using a series of reflective case-studies, alongside technological advancements in both digital sound-manipulation and physical computing. The paper proposes design considerations and key principles that can enhance the connectivity between the sound-artist and the sonic-landscapes they create.

'Media in performance – the *Subway* project' is the fourth paper in this volume. It presents the collaborative media-art project *Subway* where a dance performance is combined with interactive digital technology toward a new performative feedback loop.

Finally, the volume includes a set of short papers describing selected works that have been presented at the ArtsIT 2013 conference.

'Heliotropika: interfacing between humans and cyanobacteria' describes an hybrid installation that creates an interface between people and cyanobacteria. The project

integrates the photosynthetic activity of these cells, the dynamics of environmental light and the bioelectrical activity of the participants.

'Interactive light and sound installation using artificial intelligence' outlines the installation 'Which is your brass voice?' where artificial intelligence techniques are exploited create multi-sensory experience for the audience. The artwork analyses the individual nuances of peoples voices and creates a new music composition in real time.

'*Le Voyage dans la Lune*' is a B/W film inspired by the homonymous George Méliès's movie. The animation is composed by 26 images that have been sent through the Earth-Moon-Earth communication (also known as 'moon bounce'), a radio communication technique which relies on the Moon. The original signals loose some data on the way, thus giving the transmitted images a very unique appearance.

'Visions Project K.1: DIY 3-D interactive videohologram device' presents an interactive video installation that uses the digital hologram technique to create 3D portraits. The portraits are processed in real time and are displayed in a volume of three-dimensional points.

'Media, database, and narrative: navigating digital public space' discusses the nature of computational narrative, suggesting ways of structuring navigation experiences conducive to the production of social meaning.

'Mixing the library – information interaction and the disc jockey' is the last short paper of this volume. It provides a conceptual framework for working with large digital music collections.

Acknowledgements