
Editorial

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Biographical notes: A.L. Brooks (a.k.a. Tony) is Medialogy Lecturer and Director of the SensoramaLab Complex at the Esbjerg Institute of Technology, Aalborg University in Denmark. He is a EU FW6 and 7 Expert Reviewer having approximately 150 publications with numerous credits as keynote speaker around the world. He has awards at international and national level for his research, which has realised published patents, marketed product and a commercial company. He is a steering group member of ArtsIT and general chair of the 2011 and 2013 events.

Min Chen is a Professor in the School of Computer Science and Technology at Huazhong University of Science and Technology. He was an Assistant Professor in School of Computer Science and Engineering at Seoul National University from September 2009 to February 2012. He received the Best Paper Award from IEEE ICC 2012, and Best Paper Runner-up Award from QShine 2008. He is a Guest Editor for IEEE Network, IEEE Wireless Communications, etc. He is a Symposium co-Chair for IEEE ICC 2012 and IEEE ICC 2013. He is a General co-Chair for IEEE CIT 2012. He is an IEEE senior member since 2009.

Welcome to this special issue of the *Int. J. Art and Technology*. It is a pleasure to write the editorial for this special volume as it includes developed papers that originated from the second ArtsIT event held at the Esbjerg Institute of Technology, Aalborg University Esbjerg, Denmark, in December 2011. In addition, the volume includes related work to illustrate the state of the art and the scope of subject matter in the field. The ArtsIT event in Esbjerg, Denmark 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 'Hybrid filter blending to maintain facial expressions in rendered human portraits', an extended article built upon that which was presented at ArtsIT2011. Photorealistic human facial expressions and the challenges associated to the subject's associated natural emotions is core. The presented method sequentially detects main facial segments and features via blending various filtering parameters to

realise a desired effect. Concluding, the authors whilst pointing out achievements in the work also state outstanding challenges.

The next authors question creating coherent animations using an analysis-synthesis approach of video signals. Two novel approaches to generate time coherent animation from video sequences using analysis and synthesis techniques are presented. The point is made that their goal is not to recreate the look of hand painted images and to extend it to video sequences but to explore the narrative possibilities of analysis-synthesis approaches on video signals with temporal coherence. This paper is a revised and expanded version of the paper entitled 'Generating time-coherent animations from video data' presented at the Second International ICST Conference on Arts and Technology, Esbjerg Denmark.

'Experiences with voice to design ceramics' follows where the concept of SoundShaping, a system to create ceramics from the human voice, is presented with examples illustrating the validity of the concept and how digital technology offers new possibilities in ceramic craft. The article is about how experiential knowledge that the craftsmen gains in a direct physical and tactile interaction with a responding material can be transformed and utilised in the use of digital technologies. SoundShaping is based on a generic audio feature extraction system and the principal component analysis to ensure that the pertinent data in the voice is used. Using this information, a representational 3D shape is created using simple geometric rules. The shape is then realised via a 3D printer.

The next paper is titled 'Advancements in violin-related human-computer interaction'. The complexities of performance nuance on the violin are posited from the authors' perspective as musician and researcher. The author's unique digitally enhanced overtone violin is introduced to exemplify the work.

The title of the next paper is 'How still is still? Exploring human standstill for artistic applications'. It reports on observation studies of the three-team members standing still for ten minutes at a time with an aim to understand more about people's ability to stand still and to develop a heightened sensitivity for micro movements and how they might be used in music and dance performances. A motion-tracking marker system was used to determine the quantity of motion.

'*Genius Loci*: digital heritage augmentation for immersive performance' is the next article. In this work, digitalised heritage is used for situated performance that comprises technical alternative reality projections and effects to offer increased opportunity for audience immersion and engagement through enhanced believability and empathy with the performance.

'Aesthetics and quality of numbers using the primety measure' is the seventh paper in this volume. Jensen considers mathematics as an art form from the perspective of using the primety measure, which is a measure of how close to being a prime number n is. This is where the quality of a number sequence can be determined using the primety, which is further generalised to real numbers through the use of real numbered Farey sequences to output ambiguous and interesting results when applied on fractals and number sequences reflected upon visually and auditory.

'Perspectives on gesture from music informatics, performance and aesthetics' is next. This is a co-authored contribution from prime players from the Nordic Network of Music Informatics, Performance and Aesthetics (NNIMIPA). It briefly chronicles the roots of NNIMIPA in previous research networks and milieus with the aim being to show how a cross-disciplinary network functions to output research projects that bridge the gap between the disciplines involved. As examples, three thematically linked projects are presented.

'ICT in the arts: creative industries impact and contribution' is the closing chapter of this special volume. It reflects on the ArtsIT events 2011 (Esbjerg, Denmark) and 2013 (Milan, Italy) and offers insight to the 2014 conference (Istanbul, Turkey).

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