Electronic Visualisation and the Arts (EVA 2014)

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Editors

Dr. Kia Ng

Prof. Jonathan P. Bowen

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Abstract

The Electronic Visualisation and the Arts London 2014 conference (EVA London 2014) is co-sponsored by the Computer Arts Society (CAS) and British Computer Society (BCS) - the Chartered Institute for IT, of which the CAS is a specialist group. 2014 marks the 25th Anniversary of EVA London. Over the last two decades, the EVA conference has established itself as one of London's most innovative and interdisciplinary conferences in the field of digital visualisation. The papers in this volume touch on music, performance, electronic art, imaging technology, medical visualisation, museums and their collections, virtual communities, landscape visualisation, augmented reality, 3D imaging, interfaces, and enhanced reality, as well as other areas. The latest research by established scholars, early career researchers, practitioners, and students can be found here.

For more information about EVA 2014, visit www.eva-london.org or search on Twitter for EVALondonConf.

Full Synopsis

2014 marks the 25th Anniversary of EVA London! Over the last two decades, the EVA London conference on Electronic Visualisation and the Arts has established itself as one of the United Kingdom's most innovative and interdisciplinary conferences. It brings together a wide range of research domains to celebrate a diverse range of interests with a specialised focus on visualisation.

The EVA London 2014 conference presents a wide spectrum of papers, presentations, demonstrations, a research workshop and a special pre-conference event: "V&A Digital Futures meets EVA London". It is a forum where the sciences, arts, humanities, and performance, are equally at home. EVA London 2014 presents 76 papers and abstracts from 24 countries, by researchers inside and outside academia, from graduate artists, PhD students, seasoned industry professionals, established scholars, and senior researchers, who value EVA London for its interdisciplinary community. This year, the conference features three keynote speakers: Prof. Sally-Jane Norman from the Attenborough Centre for the Creative Arts, University of Sussex; Dr Lizzie Jackson from Ravensbourne; and Tom Wickham-Jones from Wolfram Research.

The proceedings has resulted from a highly selective peer review process, fitting as many excellent submissions as possible into the limited timetable of the conference. The papers in this volume touch on music, performance, electronic art, imaging technology, medical visualisation, museums and their collections, virtual communities, landscape visualisation, augmented reality, 3D imaging, interfaces, and enhanced reality, as well as other interdisciplinary areas.

EVA London is part of a larger network of EVA international conferences. In the past twenty years, EVA events have been held in Athens, Beijing, Berlin, Brussels, California, Cambridge (both UK and USA), Dallas, Delhi, Edinburgh, Florence, Gifu (Japan), Glasgow, Harvard, Jerusalem, Kiev, Laval, London, Madrid, Montreal, Moscow, New York, Paris, Prague, Thessaloniki, and Warsaw. Further venues for EVA conferences are very much encouraged by the EVA community.

Editors

This conference was edited by:

Dr. Kia Ng, PhD, FBCS, FRSA, FIoD, CEng, CSci, is Director of the Interdisciplinary Centre for Scientific Research in Music (ICSRiM) at the University of Leeds. Kia is involved in several research domains including gestural interfaces, interactive multimedia, computer vision, document imaging and computer music, in collaboration with many European and international organisations and individuals in the field. Large-scale projects include i-Maestro on technology-enhanced learning (coordinator), CASPAR on digital preservation and AXMEDIS on cross-media with over 20M Euro research funding. Kia has over 200 publications and presented keynotes and invited lectures in over 33 countries. www.kcng.org

Prof. Jonathan P. Bowen, MA Oxon, FBCS, FRSA, is Professor of Computer Science at Birmingham City University, Chair of Museophile Limited, a museum and IT consultancy company that he founded in 2002, and Emeritus Professor of Computing at London South Bank University. In recent years, he has been a visiting professor at East China Normal University (Shanghai, China), the Pratt Institute (New York, USA) where he taught a masters course on museum informatics, the University of Waikato (New Zealand), the University of Westminster, and King's College London. Previously he has held posts at the University of Reading, the Oxford University Computing Laboratory and Imperial College, London. He contributes to Wikipedia on cultural and computing-related topics. www.jpbowen.com

Dr. Sarah McDaid, PhD, MBCS, is a freelance Usability Consultant and Sessional Lecturer at London South Bank University. She has taught at a variety of educational establishments both in the UK and Europe. Her teaching areas include systems analysis and design, business programming, human-computer interaction, usability, interactive multimedia and, personal and professional development. As a consultant she has worked for a number of museums and art centres including the British Museum and the Nerve Centre, Northern Ireland. Her research interests include interactive television, mobile usability and human-computer interaction in a social context. www.linkedin.com/in/sarahmcdaid

Papers:

Seeing music and performance

Alexander Deweppe, Nuno Diniz, Pieter Coussement and Marc Leman Engaging Audiences through a Participatory Design Approach with the Interactive Music Installation 'SoundField'

<http://dx.doi.org/10.14236/ewic/EVA2014.1>

Anna Shvets and Charles de Paiva Santana Modelling Arvo Pärt's Music with OpenMusic

<http://dx.doi.org/10.14236/ewic/EVA2014.2>

Kia Ng, Joanne Armitage and Alex McLean The Colour of Music: Real-time Music Visualisation with Synaesthetic Sound-colour Mapping

<http://dx.doi.org/10.14236/ewic/EVA2014.3>

Keynote

Sally Jane Norman Live Engagement with Data

<http://dx.doi.org/10.14236/ewic/EVA2014.4>

Electronic art

João dos Santos Moving Drawings. A Digital Mediation for the Linear Drawing Metaphor: the Line as the Trace Left by a Moving Point (Rawson)

<http://dx.doi.org/10.14236/ewic/EVA2014.5>

Iris Asaf The Poetic and the Thoughtful: The Creative Poiesis of Algorithmic Art and Design

<http://dx.doi.org/10.14236/ewic/EVA2014.6>

Michael Lesk and Annamarie Klose Summarising Pictures

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Eunice Goncalves Duarte X Stories of a Technology Breakdown: How Digital Tools Influence Aesthetic and Artistic Options

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Imaging technology for culture

David Lyons and David R. Flatla Eye For An Eye <http://dx.doi.org/10.14236/ewic/EVA2014.9>

Francesca Uccheddu, Anna Pelagotti, Vito Cappellini and Emanuela Massa 3D Technologies for Measurement of Painting Surface Deformations: A Case Study
<http://dx.doi.org/10.14236/ewic/EVA2014.10>

Clare Brennan and Lynn Parker Animating Dance and Dancing with Animation: A Retrospective of Forever Falling Nowhere <http://dx.doi.org/10.14236/ewic/EVA2014.11>

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Lee Wagstaff Transforming Photographs into Sculptures
<http://dx.doi.org/10.14236/ewic/EVA2014.12>

Visualising the body

Xin Tong, Diane Gromala, Chris Shaw and Patrick Clarke Transformation between Electronic Arts and Chronic Pain: Long-term Body Activity Data Visualisation and Pain Animation Expression
<http://dx.doi.org/10.14236/ewic/EVA2014.13>

Jiann Hughes BB got your Beat: Visualising Heartbeats within a Biosensing Artwork
<http://dx.doi.org/10.14236/ewic/EVA2014.14>

Angela Chang, Selene Mota and Henry Lieberman GestureNet: A Common Sense Approach to Physical Activity Similarity <http://dx.doi.org/10.14236/ewic/EVA2014.15>

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Licia Calvi, Hans Bouwknecht, Moniek Hover, Frank Ouwens, Juriaan van Waalwijk and Albert van Schendel Experiencing Van Gogh's Heritage: A Case Study
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Laura Carletti, Dominic Price, Gabriella Giannachi, Rebecca Sinker, Derek McAuley and John Stack

Art Maps - Putting the Tate Collection on the Map
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Elena Gaevskaya and Tayanana Laska Ways of Access to Virtual Cultural Heritage
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Elke Reinhuber Counterfactuals in Media Arts <http://dx.doi.org/10.14236/ewic/EVA2014.19>

Lorna Moore In[bodi]mental: Body Swapping - A Choreography of Shared Selves using Real-time Video <http://dx.doi.org/10.14236/ewic/EVA2014.20>

Beth Woodward Alvarez and Ramon Palau The Performance Effects of Online Video Tutorials on Secondary School String Orchestra Students <http://dx.doi.org/10.14236/ewic/EVA2014.21>

Rehan Zia Tonemapping Multi-shot Digital Photographs of Real World Environments
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Hannah L. Jacobs Visualising the New Woman <http://dx.doi.org/10.14236/ewic/EVA2014.23>

Beatrice Bretherton and Roger Watt Music and Motion
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James Rosindell Big Data Visualisation with Fractal Geometry
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Anna Nazarova How can Typography be Represented in an Alter-modernity Context?
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Clare Plumley Brain in Pain: Body Mapping, Pain Visualisation and Mapping the Invisible
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Leonie Dunlop Beasts and Bodies: Visualising the Landscape through Place-names
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Dion Rezki Socio-digital-visualisations as Positive-reinforcement Mechanisms for Encouraging Pro-social and Constructive Behaviours <http://dx.doi.org/10.14236/ewic/EVA2014.29>

Museums and collections

Suzanne Keene Museums and the Digital: The View from the Micro Gallery

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Alison Taubman Cybraphon: Collecting the Physical or the Digital at National Museums Scotland?

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Derek J. Smith Trench Gothic: The Computer Visualisation of a Disturbing Great War Artwork

<http://dx.doi.org/10.14236/ewic/EVA2014.32>

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Lizzie Jackson 'Findability': A Central Issue for Quality Media in a Networked World

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Communities and the digital

Camille C. Baker ICT&ART Connect: Connecting ICT & Art Communities - Early Outcomes

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Angela Chang, Lidet Tilahun and Cynthia Breazeal Visualisations of Data from the Literacy Tablet Reading Project in Rural Ethiopia

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Moshe Caine, Eyal Tagar and Idit Ben Or Unfolding Communities: Imaging the Past, Envisioning the Future

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Joanna Moll Surveillance through Social Networks along the US-Mexico Board

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Lampros Stergioulas, Munir Abbasi and Carl Smith Technology Futures for the Creative Industries: Presenting the Cr-eAM Roadmaps

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Visualising landscapes

Kieran Baxter Grounding the Aerial: The Observer's View in Digital Visualisation for Built Heritage
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Daniel Buzzo Time Travel: Time Dilation <http://dx.doi.org/10.14236/ewic/EVA2014.40>

Stuart Dunn Crowd-Sourced Cartography to Visualise the Forgotten: Mapping Britain's Corpse Roads
<http://dx.doi.org/10.14236/ewic/EVA2014.41>

Tessa Morrison and Mark Rubin Using Visualisation to Test Historical Utopian Cities on a Modern Audience
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Cameron Beckfield and J C Diaz Tulsa's Art Deco Cross-Platform Mobile Tour App
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Amy Robinson The Zandra Rhodes Digital Study Collection Project at the University for the Creative Arts
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Toby Gifford, Simon Linke and Leah Barclay Listening to the Thames
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Helena Bisby, Adam Cooper, Stephen James, Alec Robertson and Kia Ng A Tactile Audio Visual Instrument using Sound Source Localisation
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Damian Keller, Nuno Otero, Victor Lazzarini, Marcelo Soares Pimenta, Maria Helena de Lima, Marcelo Johann and Leandro Costalonga Relational Properties in Interaction Aesthetics: The Ubiquitous

Music Turn <http://dx.doi.org/10.14236/ewic/EVA2014.49>

Kia Ng, Alex McLean and Alan Marsden Big Data Optical Music Recognition with Multi Images and Multi Recognisers <http://dx.doi.org/10.14236/ewic/EVA2014.50>

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Chiara Passa The Widget Art Gallery <http://dx.doi.org/10.14236/ewic/EVA2014.51>

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Terry Trickett Visual Music <http://dx.doi.org/10.14236/ewic/EVA2014.53>

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Roma Patel and Deborah Tuck Narrative Approaches to Design Multi-screen Augmented Reality Experiences <http://dx.doi.org/10.14236/ewic/EVA2014.57>

Carl H. Smith Context Engineering Hybrid Spaces for Perceptual Augmentation

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Hartmut Schwandt and Joachim Weinhold 3D Technologies for Museums in Berlin
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Bernd Breuckmann 25 Years of High Definition 3D Scanning: History, Start of the Art, outlook
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Martin Doerr, Ioannis Chrysakis, Anastasia Axaridou, Maria Theodoridou, Christos Georgis and Emmanuel Maravelakis A Framework for Maintaining Provenance Information of Cultural Heritage 3D-models
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Renick Bell Data Visualisation Tools for Enhancing Live Coding Usability and Audience Experience
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David Bouchard Data Materiality <http://dx.doi.org/10.14236/ewic/EVA2014.65>

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Jeremy C. Creasey Creating Pictures in Quick Response Codes
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Ajay Kumar Tiwari Visualisation Strategies in Abstract Animation
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Gretchen Andrus Andrew Wearable Technology and Electronic Visualisation of Artistic Process:
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Jonathan P. Bowen and Tula Giannini Digitalism: The New Realism?

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