



## Programme Committee

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- Hungary** Zsombor Jékely, Museum of Applied Arts Budapest
- Israel** Dr. Susan Hazan, Israel Museum Jerusalem
- Italy** Prof. Dr. Vito Cappellini, Florence University
- Korea** Youngjin Lee, ACC Gwangju
- Mongolia** Prof. Bizya Dugerjav, National University of Mongolia
- Myanmar** Khin Hnin Oo, Daw Khin Kyi Foundation Library
- Namibia** Prof. Dr. Hippolyte N. Muyingi, NUST  
Prof. Dr. Heike Winschiers-Theophilus, NUST
- Netherlands** Prof. Dr. Christian Stracke, Open University of the Netherlands
- Poland** Prof. Dr. Jerzy Malinowski, Institute of World Art Studies, Warsaw
- Russia** Prof. Dr. Nikolay Borisov, ITMO University Sankt Petersburg  
Dr. Artem Smolin, ITMO University Sankt Petersburg
- Singapore** Rosemarie Somaiah, partner with Asian Storytelling Network
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Francesca Guerrera, Art Wonder Ltd  
Dr. James Hemsley, EVA Conferences International
- United States** Dr. Martin Klein, University of California Los Angeles  
Prof. Ph. D. Mojtaba Navvab, University of Michigan Ann Arbor

## About the Conference

The 15th edition of the "Culture and Computer Science" conference series focuses on best practice examples, challenges and future trends of mixed reality as a strategy to bring the world of data and information and the world of objects and things into even closer contact. Combining digital and analogue techniques of modelling, collecting, mediating, exhibiting, and teaching is one of the most challenging tasks of today's cultural and creative industries. The conference targets cultural policy makers, communication and media scientists, cultural and artistic actors as well as computer scientists and engineers, who conduct research and development in the fields of mixed reality, 3D technology, media integration, modelling, visualisation and interaction.

The international programme committee selected 23 papers and grouped the contributions, together with the four keynotes, into the areas:

- Mixed Museum;
- Mixed and Augmented Reality Technology;
- Mixed and Augmented Reality Applications;
- Creating and Presenting Content;
- Mixed Reality and Interaction; and a
- Pecha Kucha session.

## Contact

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## Conference Venue

Bode-Museum  
Am Kupfergraben  
10117 Berlin, Germany  
Gobelin Room



# XV. Culture and Computer Science MIXED REALITY May 18<sup>th</sup> – 19<sup>th</sup>, 2017



# Programme

## DAY 1 – MAY 18TH 2017

- 10:00** Registration
- 10:30** Opening  
*Carsten Busch, HTW Berlin*  
*Christian Kassung, Humboldt-University of Berlin*  
*Jürgen Sieck, HTW Berlin & NUST Namibia*
- SESSION 1: CREATING NEW CONTENT WITH TECHNOLOGY**  
**Chair:** Jürgen Sieck, HTW Berlin & NUST Namibia
- 10:45** **KEYNOTE**  
**Co-Creating Taxonomies with Indigenous Knowledge Holders in the Digital Zone**  
*Tariq Zaman, Universiti Malaysia Sarawak (UNIMAS) (Malaysia)*
- 11:25** **A Contemporary Cultural Expression of Marginalised Namibian Youth through Re-appropriated Technologies**  
*Heike Winschiers-Theophilus, Michael Chamunorwa, Shilumbe Chivuno-Kuria, Rosetha Kays, Daniel G. Cabrero & Hedvig Mendonca, NUST Namibia (Namibia)*  
*Susanna Immonen & Hanna Stenhammar, Aalto University (Finland)*
- 11:45** **Movable Books As Animated Machines**  
*Marius Hug & Christian Mathieu, Staatsbibliothek zu Berlin*
- 12:05** Lunch break (75')
- SESSION 2: MIXED REALITY TECHNOLOGY**  
**Chair:** Carsten Busch, HTW Berlin
- 13:30** **KEYNOTE**  
**Using the Power of the Web in Mixed Reality**  
*Claudia Müller-Birn, Freie Universität Berlin*
- 14:10** **ColourMirror – Visitors Identifying with Museum Exhibits in a Playful Way**  
*Zsófia Ruttkay, Moholy-Nagy University of Art and Design Budapest (Hungary)*
- 14:30** **Using the Holograms for Mixed Reality Exhibition Design**  
*Robert Meyer & Martin Steinicke, HTW Berlin*
- 14:50** Coffee break (30')

- SESSION 3: PECHA KUCHA**  
**Chair:** Uwe Großmann, FH Dortmund (Dortmund University of Applied Sciences and Arts)
- 15:20** **An Interactive Gameboard for Categorization and Examination of Engraved Gems for the Winckelmann Museum**  
*Stefanie Vogel, Till Oeffler, Karina Sommermeier, Franziska Juraske, Dominik Schumacher & Michael A. Herzog, Magdeburg-Stendal University*
- 15:30** **Researching the Behaviour of Visitors with a Game – the Exhibition Game “game(+ultra)”**  
*Thomas Lilge, Humboldt-University of Berlin*
- 15:40** **Game Co-Design with and for Refugees: An Intercultural Approach**  
*Güven Çatak, Bahcesehir University Game Lab (BUG) (Turkey)*  
*Jesse Himmelstein, Centre for Research & Interdisciplinarity (France)*  
*Carolina Islas Sedano, Ubium (Finland)*  
*Jouni Smed & Erkki Sutinen, University of Turku (Finland)*  
*Daniel K. Schneider & Nicolas Szilas, University of Geneva (Switzerland)*
- 15:50** **Simple Baseline Models for Multimodal Question Answering in the Cultural Heritage Domain**  
*Shurong Sheng & Marie-Francine Moens, KU Leuven (Belgium)*
- 16:00** **Disrupting Screen-Based Interaction – Design Principles of Mixed Reality Displays**  
*Moritz Queisner, Humboldt University of Berlin*
- 16:10** **3D Modelling of Large and Narrow Indoor Spaces Using Stereo Vision Aided Inertial Navigation and Semi-Global Matching**  
*Jürgen Wohlfeil, Denis Griebach, Dirk Baumbach, Eugen Funk, Ines Ernst & Anko Börner, Deutsches Zentrum für Luft- und Raumfahrt e.V. (DLR)*
- 16:20** **Virtualization of the Cultural Heritage of the Solovetsky Monastery**  
*Nikolay Borisov & Artem Smolin, ITMO University (Russia)*  
*Alexander Volkov, Solovetsky National Historic and Architectural Museum and Natural Reserve (Russia)*  
*Valentina Zakharkina & Pavel Shcherbakov, Saint-Petersburg State University (Russia)*
- 16:30** **The Automatic Generation of Movie Trailers As Semantics-based Video Abstracting**  
*Till von Wenzlawowicz & Otthein Herzog, University of Bremen*

- 16:40** **Augmented Reality to Evoke a Site at the Origin of the Information Technology Age: Case Study on the Guglielmo Marconi's Radio Station in Coltano, Pisa**  
*Giorgio Verdiani, Carlo Gira & Andrea Pisani, Florence University (Italia)*
- 17:15** **Guided Museum Tours**
- 19:30** **Conference Dinner**  
*International Club of the Federal Foreign Office*

## DAY 2 – MAY 19TH 2017

- 10:00** Registration
- 10:10** **2nd Conference Day Opening**  
*Carsten Busch, HTW Berlin*  
*Christian Kassung, Humboldt-University of Berlin*  
*Jürgen Sieck, HTW Berlin & NUST Namibia*
- SESSION 4: AUGMENTED REALITY & TECHNOLOGY**  
**Chair:** Jens Reinhardt, HTW Berlin & NUST Namibia
- 10:15** **KEYNOTE**  
**Art++ – Augmenting Art with Technology**  
*Bernd Girod, Stanford University, USA*
- 10:55** **Digital Curation Tool in the Age of Semantic Technology**  
*Jing He & Novina Göhlsdorf, ART+COM*
- 11:15** Coffee break (30')
- SESSION 5: MIXED REALITY**  
**Chair:** Hermann Heßling, HTW Berlin
- 11:45** **Enhancement of Printed Content Using Augmented Reality**  
*Julien Letellier, Jens Reinhardt & Jürgen Sieck, HTW Berlin & NUST Namibia, Michael Thiele-Maas, HTW Berlin*
- 12:05** **Archiving Ephemeral Knowledge – Hong Kong Martial Arts As a Documentation Strategy for Intangible Cultural Heritage**  
*Harald Kraemer & Jeffrey Shaw, City University of Hong Kong*  
*Hing Chao, International Guoshu Association (Hong Kong)*  
*Sarah Kenderdine, National Institute for Experimental Arts, UNSW (Australia)*
- 12:25** **Mixed Reality Sandbox – Toolkit to Involve Users in MR Application Development**  
*Felix Brennecke, TRIAD Berlin Projektgesellschaft mbH*  
*Pablo Dornhege, University of the Arts Berlin*

- 12:45** Lunch break (75')
- SESSION 6: MIXED MUSEUM**  
**Chair:** Christian Kassung, Humboldt-University of Berlin
- 14:00** **KEYNOTE**  
**Multiperspektivität, Gegenwart und Publikum**  
*Viola König, Ethnologisches Museum*
- 14:30** **Should we be the Shortcut on the Homescreen? How to Attract Visitors Digitally for an Authentic (analogue) Museum Experience**  
*Sebastian Ruff, Stadtmuseum Berlin*
- 14:50** **Digital and Analog Distribution of the Records of the Sound Archive of the HU**  
*Jochen Hennig, Humboldt-University of Berlin*
- 15:10** **Henry Fair Augmented: “Hidden Costs” – A Touring Exhibition by the Museum für Naturkunde Berlin and the New York Based Photographer J. Henry Fair**  
*Valentin Henning, Museum für Naturkunde Berlin*  
*Ronald Liebermann, shoutr labs*
- 15:30** Coffee break (30')
- SESSION 7: MIXED REALITY & INTERACTION**  
**Chair:** Johann Habakuk Israel, HTW Berlin
- 16:00** **Virtual Orchestra: An Interactive Solution for a Concert Hall**  
*Mykyta Kovalenko & Svitlana Antoshchuk, Odessa National Polytechnic University (ONPU) (Ukraine)*  
*Jürgen Sieck, HTW Berlin & NUST Namibia*
- 16:20** **Heritage Imaging Solutions for the Real World**  
*Moshe Caine, Hadassah Academic College Jerusalem, Michael Maggen, Israel Museum (Israel)*
- 16:40** **Experiencing Artwork with Augmented Reality – Interactive Perception of Historical Statue “Belvedere Torso”**  
*Victoria Batz, Finn Blümel, Jonas Falkenberg, Elisa Haubert, Dominik Schumacher & Michael A. Herzog, Magdeburg-Stendal University*
- 17:00** **Conclusion**  
*Carsten Busch, HTW Berlin*  
*Christian Kassung, Humboldt-University of Berlin*  
*Jürgen Sieck, HTW Berlin & NUST Namibia*