



5th International AR VR Conference

Changing Realities in a Dynamic World

13-14th June 2019

An International Conference

at Universität der Bundeswehr München (UniBw)

#ARVRMUC

www.arvrconference.com



WELCOME

to the 5th International AR VR Conference!

Multiple predictions indicate that the evolution of media and technology will further blur the boundaries of the real and the virtual world. To better understand how these new realities impact a variety of business and management practices, we welcome you as part of the growing and interdisciplinary XR community at the 5th International AR VR Conference. After four inspiring years in Manchester (UK), it is an honor to host this year's conference at the Bundeswehr University Munich to showcase the most recent advancements in this field.

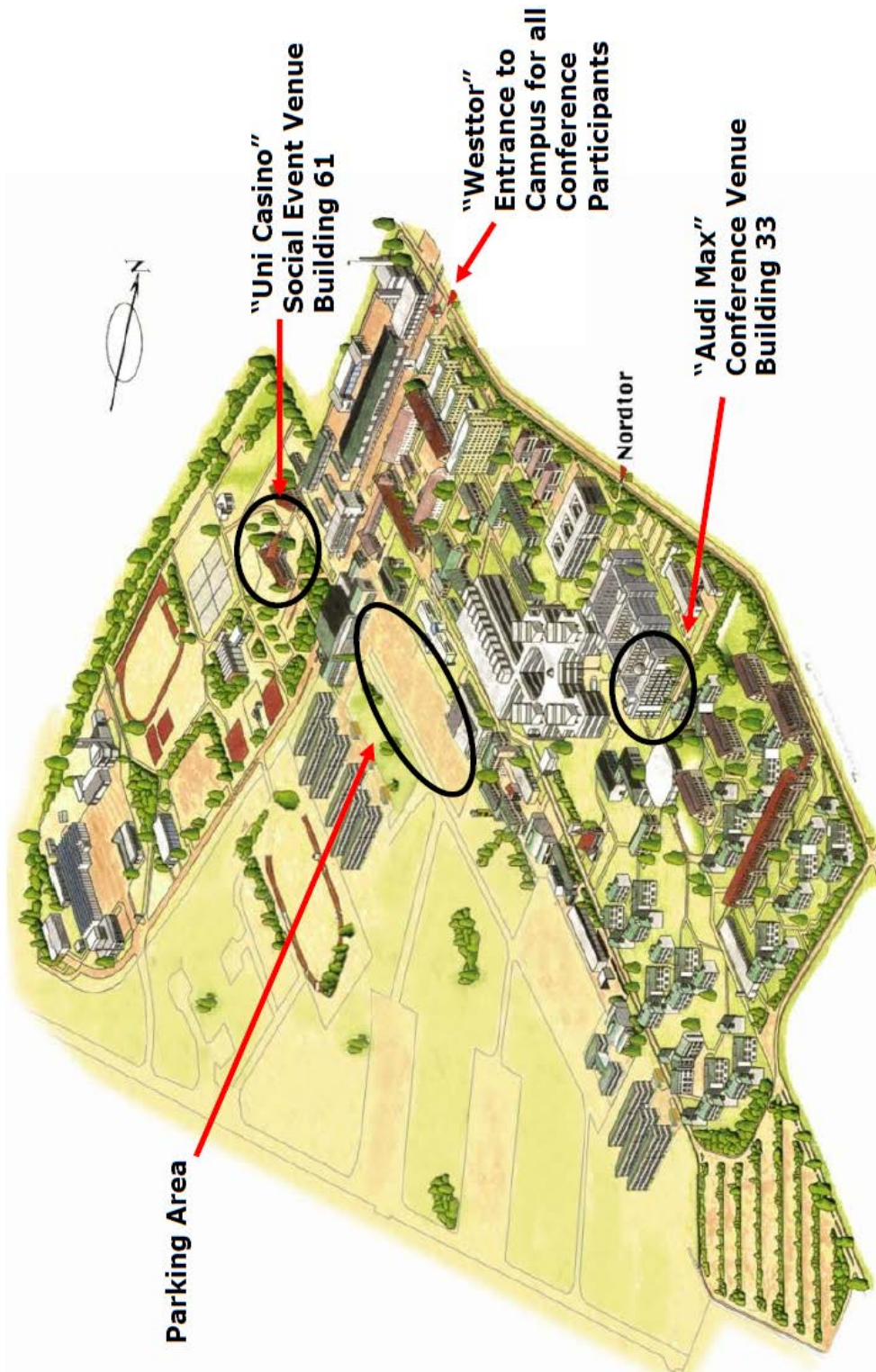
Munich is the unofficial XR capital in Europe home to leading XR companies. We are happy to have built valuable relationships with those businesses, our students, and the XR industry. As educators, it is our goal to fuel our highly motivated students with enthusiasm for the diverse and relevant questions of digital marketing and XR. To make our classes business-oriented, we regularly organize guest lectures and project-based learning activities during which our students apply their methodological and theoretical knowledge into real-world applications. As researchers, it is our goal to produce projects and answer questions of managerial relevance with a sound scientific standing – with our partners from the industry and academia from all over the world.

We wish you an inspiring conference – enjoy the talks and discussions, use the time to explore the campus, expand your network, try out new technologies, and share your experience on Social Media using #ARVRMUC!

We hope to stay in touch,



Philipp Rauschnabel & Team



THURSDAY MORNING

	ROOM AUDIMAX	ROOM 1	ROOM 2	ROOM 3
08:00 - 08:45	REGISTRATION TEA & COFFEE		REGISTRATION TEA & COFFEE	
08:45 - 09:20	WELCOME Prof. Dr. Eva-Maria Kern (Vice President UniBW) Dr. Timothy Jung (Global Conference Chair) <i>The Future of Immersive Technology</i> Prof. Dr. Philipp Rauschnabel (Chair 2019) <i>Ready, Steady, Go! How XR will change the world</i>			
09:20 - 09:55	KEYNOTE Michael Zawrel (MICROSOFT) <i>Welcome to Mixed Reality</i>			
09:55 - 10:30	KEYNOTE Stefan Hohenadl (AUDI BUSINESS INNOVATION) <i>Managing immersive Experiences at Audi</i>			
10.30 - 11:00	COFFE BREAK & EXHIBITORS POSTER PRESENTATIONS		COFFE BREAK & EXHIBITORS POSTER PRESENTATIONS	
11:00 - 11:35	PANEL DISCUSSION How XR reshapes Business Moderator: Prof. Dr. Philipp Rauschnabel (UNIVERSITÄT DER BUNDESWEHR)			
11:45 - 12:45	XR Enterprise Use Cases Session Chair: Dr. Timothy Jung Dr. Rolf Illenberger (VRDIRECT) <i>Virtual Reality Use Cases at Enterprises – energy and automotive Industry</i> Andreas Zeitler (VUFRAME) <i>VR and AR Business: How to discover and leverage immersive data you already own</i> Daniel Seidl (INNOACTIVE) <i>You've rolled-out a VR Training. Now what? A VR scalability story inspired by the VW Group and Innoactive.</i>	Marketing / Branding Session Chair: Annika Sehl J. Barhorst, G. McLean, E. Shah & R. Mack <i>Exploring the Antecedents and Consequences of Augmented Reality on Brand Experiences - A Longitudinal Perspective</i> Z. M. C. van Berlo, E. van Reijmersdal, E. Smit & N. van der Laan <i>Inside advertising: The role of presence in the processing and consolidation of branded VR content</i> A. Ahuvia <i>How human-computer biological interfaces will change consumer brand relationships</i> P. Rauschnabel, R. Felix & C. Hinsch <i>How Inspirational AR Experiences drive Consumer Behaviour: Empirical Evidence</i>	Smart Living and Smart Realities Session Chair: Michael Kraus P. Sidjanin, J. Plavsic & S. Milijic <i>VR as an Opportunity for the building Investment with the Possibility of the Risk Analysis of the atypical Locations</i> J. Prohaska, U. Schweinitzer, W. Gaisbauer & H. Hlavacs <i>Endless City Driver: Procedural Generation of Realistic Populated Virtual 3D City Environment</i> W. Covanich, V. Vimolmongkolporn, A. Dowrueng et al. <i>Substation Operation Simulator (SOS) – the first gaming step to XR-Industrie 4.0</i> M. Kraus, T. Braml & M Breitenberger <i>Augmented Reality for the Construction of Structural Concrete Components</i>	Tourism Session Chair: Ella Cranmer T. Griffin, D. Guttentag, S. Hwan Mark Lee, J. Giberson & F. Dimanche <i>The Effectiveness of Virtual Reality as a Destination Marketing Medium</i> S. Hwan Mark Lee, K. Sergueeva, M. Kandaurova, T. Griffin, F. Dimanche, D. Guttentag, E. Baek, J. Hogue & J. Giberson <i>Virtual Reality Experiences Enhance the Comprehension and Memory of Travel Destinations</i> C. Pantelidis, M. C. tom Dieck, T. Jung & A. Miller <i>Exploring Place Attachment in VR of a Rural Destination</i> M. C. Tom Dieck, E. Cranmer & P. Fountoulaki <i>An Exploratory Study on the Value of Augmented Reality for Tourism Suppliers</i>
12:45 - 13:30	LUNCH		LUNCH	

THURSDAY AFTERNOON

	ROOM AUDIMAX	ROOM 1	ROOM 2	ROOM 3
13:30 - 14:45	Disruptive Power of XR Session Chair: Prof. Dr. Aaron Ahuvia Thomas Knauer-Arnold (VISCOPIK) <i>Empowering people to make use of 3D & AR in a scalable way</i> Tom Neubert (SCHENKER TECHNOLOGIES) <i>Standalone vs. High-End PC VR – Quo Vadis?</i> Dr. Anuja Hariharan (CAS SOFTWARE AG) <i>What you see is what you get - Enhancing Sales Experiences with XR</i> Christian Grohganz (WELTFERN INTERACTIVE) <i>VR & AR Use Cases for B2B</i>	Marketing / Branding / Retail Session Chair: Natasha Moorhouse A. Napalkova <i>Perceived benefits and drivers of augmented reality trust among young consumers</i> I. Amorim, J. Guerreiro, S. Eloy & S. M. C. Loureiro <i>How Augmented Reality influences Brand Engagement and Willingness to Buy - A study in a real-world Retail Environment</i> M. Teles Roxo & P. Quelhas Brito <i>"I see myself, therefore I purchase": Factors influencing consumers' attitudes towards m-commerce AR apps</i> C. Eunyoung Sung <i>Brand Experience Optimization through AR Holiday App Marketing</i> M. Dehghani, A. Mashatan & S. Hwan Mark Lee <i>Is Mixed-Reality Setup to Revolutionize Services Retailing? Examining Customer Experience and Satisfaction in Retail Banking</i>	Medicine / Society Session Chair: Eduard Wolf P. Dewick, T. Jung, N. Moorhouse & E. Stanmore <i>Fostering engagement with digital health interventions: AR/VR in falls prevention among older adults</i> R. Mackinnon & T. Jung <i>Global mapping of the evolution of VR and AR to enhance cardiopulmonary resuscitation (CPR)</i> E. Wolf & K. Morisse <i>Impact of virtual embodiment on the perception of virtual heights</i>	Tourism / UX Session Chair: M. Claudia tom Dieck Y.S Kim, H.G Song, M. C. Tom Dieck, T. Jung & P. Rauschnabel <i>Virtual Reality in Theme Parks: How does it affect visitor experience with rollercoasters?</i> V. Martínez-Molés, C. Pérez-Cabañero & A. Cervera-Taulet <i>Considering telepresence in cruise tourism pre-purchase behaviour</i> S. Bae, T. Hyungsoo Jung & O. Kwon <i>Impact of Sense of Presence, Conceptual Understanding, and Spatial Ability on Purchase Intention of Location-based AR System: An Experience Economy Perspective</i> M. Trunfio, S. Campana & A. Magnelli <i>Measuring the Impact of the MR on Visitors' Experience in the Museum. 'The Ara As It Was' Project in Rome</i> P. Tuominen <i>Exploring the role of sensory stimuli, immersion, and extended reality environments in tourism value creation</i>
14:55 - 15:25	KEYNOTE Jan Heitger (RE'FLEKT) <i>UX for Industrial Augmented Reality</i>			
15:25 - 16:00	COFFE BREAK & EXHIBITORS POSTER PRESENTATIONS		COFFE BREAK & EXHIBITORS POSTER PRESENTATIONS	
16:00 - 17:00	Designing innovative UX Session Chair: Prof. Dr. Nina Krey Prof. Dr. Christian Geiger (HS DÜSSELDORF) <i>Designing innovative user experiences employing immersive technologies (WDR Case)</i> Dr. Dai-In Danny Han (BREDA UNIVERSITY OF APPLIED SCIENCES) <i>Designing emotionally engaging mobile AR (MAR) experiences through digital storytelling</i> Nico Kreusel (NOUS) <i>Locomotion - Core element of immersive experience</i>	Education Session Chair: Volker Eisenlauer A. Makhkamova, J. Exner, T. Greff & D. Werth <i>Towards a taxonomy of virtual reality usage in education: a systematic review</i> A. Swenson, M. C. Tom-Dieck, T. Jung & K. Macleod <i>Moot Court VR</i> S. Jagdeep <i>Virtual Reality Principles for an Experiential and Immersive User Experience</i> V. Eisenlauer <i>Empowering digital literacies in VR learning contexts</i>	Manufacturing / Industry 4.0 Session Chair: Katrin Brunner M. Kühn-Kauffeldt & J. Böttcher <i>Open source augmented reality applications for small manufacturing businesses</i> E. Landmann, J. Stolz-Römmermann & T. Günther <i>Customer Integration through Virtual Reality Implementation: A SWOT Analysis in the Area of Production Systems</i> S. Hobert & F. Nienstedt <i>Supporting Maintenance Tasks Using Smart Glasses – Exemplary Integrating of a SG Application into an Enterprise's IT Architecture</i> P. Rauschnabel & K. Brunner <i>Barriers to the Adoption of AR Technologies in Manufacturing: A Multi-Method Approach</i>	Tourism Session Chair: Stefanie Rudel J. Jeong, S. Jung & H. Hur <i>A Classification of Virtual Reality Technology and Suitability of Different Devices and Methods for Research in Tourism and Events</i> C. Flavian, S. Ibáñez-Sánchez & C. Orús <i>Consumers' pre-experiences with hotels using Virtual Reality and Augmented Reality: the influence of the type of content and device</i> S. Nistor <i>VR and AR in Digital Humanities-Tourism: Outlook and Perspectives</i> S. Pranz, S. Nestler & K. Neuburg <i>Digital Topographies – Using AR to Represent Archival Material in Urban Space</i>
17:10 - 17:45	PANEL DISCUSSION Human Functionalism – Trends and ethical Issues in the human-technology Interplay Moderator: Dr. Marc Herz (KLEINUNDPLÄCKING)			
17:45 - 18:00	CONFERENCE CLOSING DAY 1			
18:15 - open end	SOCIAL EVENT: BavARian Night at the UniBw Casino (on Campus) 19:00 „O'zapft is“ – traditional „Bierfassanstich“ by Dean Prof. Dr. Rennhak followed by Bavarian Food, Drinks, Best Paper Awards & Live DJ		SOCIAL EVENT: BavARian Night at the UniBw Casino (on Campus) 19:00 „O'zapft is“ – traditional „Bierfassanstich“ by Dean Prof. Dr. Rennhak followed by Bavarian Food, Drinks, Best Paper Awards & Live DJ	

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08:15 - 08:55	REGISTRATION TEA & COFFEE		REGISTRATION TEA & COFFEE		
08:55 - 09:00	WELCOME Prof. Dr. Philipp Rauschnabel				
09:00 - 09:25	KEYNOTE Dr. Jae Grant Maloney (KLM) <i>XR in the Travel and Airline Industry - the Day after Tomorrow</i>				
09:30 - 10:10	XR in Museum Collection Session Chair: Dr. Timothy Jung Ronald Haynes (UNIVERSITY OF CAMBRIDGE) <i>Wonders to Vehold: Emerging AR Interoperability in Museum Collections</i> Andrea Geipel (DEUTSCHES MUSEUM) <i>Implementing Augmented and Virtual Reality in Museum Settings</i>			Media and Theatre Session Chair: Alasdair Swenson Prof. Michael Schwertel (COLOGNE BUSINESS SCHOOL) <i>Animation in Augmented Reality</i> James Simpson (3D VISUALISATION) <i>Humanising AR in Design Introducing Digital and Physical Performers into an AR Design Visualisation Process for Theatre.</i>	
10:15 - 11:00	Training with XR Session Chair: Katrin Brunner Pascal Ziegler (AWS INSTITUT) <i>Immersive Virtual Reality for Job Training in Skilled Crafts</i> Julie Jackson (KARSTA MIDDLE EAST) <i>A proposal to establish the value of immersive VR training for hotels room attendants</i> Prof. Dr. Jens Grubert (COBURG UNIVERSITY) <i>The Office of the Future: Opportunities and Challenges of Mixed Reality for Information Work</i>	Marketing / Fashion / Luxury Session Chair: Ana Javornik K. Cowan, A. Kostyk & S. Ketron <i>The Impact of Integrating Sensory Modalities in Virtual Reality on Brand Luxuriousness</i> L. Xue, C. J. Parker & C. A. Hart <i>How To Engage Fashion Retail With VR: A Consumer Perspective</i> A. Watson, B. Alexander & L. Salavati <i>The impact of experiential augmented reality applications on fashion purchase intention</i> A. Javornik, K. Duffy, K. Nobbs, A. Motala, A. Goldenberg & J. Scholz <i>Towards a strategic framework for AR experiences in the luxury segment</i>	Across Industries / Robotics Session Chair: Min-Jeong Suh Sujatha Jagdeep (APass EducationalGroup) <i>Augmented Reality and Virtual Reality can enrich Robotics across industries</i> Varun Mehta (DASSAULT SYSTEMS) <i>Methods and the Values of VR Experiences produced based on Industry 4.0 "Digital Twin" on the 3D Experience Platform</i> Richard Hagl & Aidan Duane (WIT) <i>Exploring how AR and VR Technologies Impact Business Model Innovation in Technology Companies in Germany</i> Shachar Weis (PACKET39) <i>AR in the reactor core</i>	Media and Storytelling Session Chair: Sonja Kretzschmar Junchul Lim <i>A case introduction of 'New Content Center' incubating system for new media contents startups managed by Korea Creative Content Agency</i> A. de Regt, S. J. Barnes & K. Plangger <i>Virtual Reality Experience-Based Story-Doing: Routes to Advocacy</i> I. Tribusean <i>The use of Virtual Reality in Journalism</i>	
11:00 - 11:30	COFFE BREAK & EXHIBITORS POSTER PRESENTATIONS		MANAGEMENT & MEDIA TOUR: Explore our professional Medienzentrum facilities and see how our students become expertised in managing and creating media projects - Prof. Dr. Sonja Kretzschmar & Achim Schäfer		
11:30 - 12:05	PANEL DISCUSSION Technological Challenges Moderator: Dr. Dai-In Danny Han (BREDA UNIVERSITY OF APPLIED SCIENCES)			Teaching Session - Chances and challenges of VR/AR-based learning approaches Session Chair: Heinrich Söbke	
12:15 - 13:00	Designing Tomorrow's HMI Session Chair: Prof. Dr. Nina Krey Sebastian Stadler (TUMCREATE) <i>Designing Tomorrow's Human-Machine Interfaces in Autonomous Vehicles: An Exploratory Study in Virtual Reality</i> Carlos Arias & Andoni Arregi (GTD) <i>Simplifying Electronic Testing Environment with SLAM based Handheld Augmented Reality System</i> Shachar Weis (PACKET39) <i>Hardhat not required - VR in Nuclear Power</i>	Marketing / UX Session Chair: Anne Roos Smink P. Kowalczyk, C. Scheiben & J. Adler <i>The Interplay of Cognitive, Affective, and Behavioral Consumer Responses to AR in e-Commerce: A Comparative Study</i> K. Willems, M. Brengman & L. De Gauquier <i>Customer engagement in multi-sensory VR advertising: The Boursin Sensorium Experience</i> M. van Gisbergen, I. Sensagir, M. Doicaru & A. Martinisi <i>How real do you see yourself in VR? The effect of user-avatar resemblance on virtual reality experiences and behavior</i> A. Roos Smink, B. Trude, L. Hahn & S. J. Ahn <i>Embodied Interaction in Augmented Reality Games: Does Embodied Congruence Enhance the User Experience?</i>	HR Management Session Chair: Natasha Moorhouse Heller, J., Chylinski, M., de Ruyter, K., Mahr, D., & Keeling, D. I. <i>Augment your Forces, Enlighten your Customers: Augmented reality at the organisational frontline</i> Oleg Strelenko (CEO VR Office) <i>How VR can change the entire remote work industry</i> P. Carroll, N. Mwasambili & M. Charles <i>Can VR improve mood and reduce stress levels at work? An exploratory study.</i> R. Kraus, M. Euler & T. Kreitenweis <i>Adoption and Disruptive Change Potential of AR and VR Technologies in Human Resources Management - Research in Progress</i>	S. Habig <i>Augmented Reality Chemistry (ARC)</i> N. Reining, B. Thiede, F. Höwing, C. Herrmann & S. Kauffeld <i>Introducing AR in factory-related engineering education in the project ILehLe</i> N. Osmer, O. Blunk & M. Prilla <i>Usage of AR&VR for learning and training in German-speaking companies: Results of an interview study</i> Q. Guo & B. Zinn <i>The Application of Virtual Reality in Physics Education: Virtual Physical Sensor Laboratory (VPSL)</i> E. Naroska, M. Weberskirch, F. Ellinghaus & F. Bendig <i>ARSuL - A VR/AR-based system to support education for craftsman</i>	VR eSports Academy Case in Korea Changhee Oh (GYEONGGI CONTENT AGENCY) Seungyong Han (STILL 8) Timothy Jung (MMU)

FRIDAY AFTERNOON

	ROOM AUDIMAX	ROOM 1	ROOM 2	ROOM 3	ROOM 4
13:00 - 14:00	LUNCH		LUNCH		
14:00 - 14:30	KEYNOTE Lui Hofmann (WIKITUDE) Thomas Layer-Wagner (POLYCULAR) <i>How AR can support Onboarding in HR</i>				
14:40 - 15:40	XR Applications in the Healthcare Sector Session Chair: Dr. Timothy Jung Bas Beukers (HORUS VR) <i>VRiend reunites hospitalised patients with their daily lives and beloved ones outside the hospital</i> David Choi & Minjeong Suh (TECHVILLAGE) <i>RehabWare: A fully-immersive VR rehabilitation contents for restoring the sports ability of patients with brain diseases</i> Natasha Moorhouse, Timothy Jung (MMU), Farhan Amin (CONCEPT HEALTH TECHNOLOGIES) & Thomas Poulter (LANCASHIRE CARE FOUNDATION TRUST) <i>Virtual Reality Exposure Therapy for the Treatment of Mental Health Disorders</i>	Marketing / User Behaviour Session Chair: Anna Wos D. Zimmermann <i>Are we Forever Chasing Rainbows? – Measuring the Impact of Telepresence and Complexity of VR on Hedonic Adaptation in Service Experiences</i> L. Sun <i>The effect of augmented reality on consumer behavior from personalized co-creation experience perspective</i> D. Zimmermann <i>Curse or Blessing – The Influence of Prior Service Experience in Virtual Reality on Service Quality Evaluation</i> A. Shankar, E. Gadalla & A. Wos <i>Engaged or disengaged: the use of augmented reality Apps as a marketing tool</i>	LEGO Serious Play Workshop: Connecting through XR Dr. Jessika Weber & Dr. Dai-In Danny Han (Breda University of Applied Sciences) <i>LEGO Serious Play is a facilitation methodology created by The Lego Group and since 2010 and available under an open source community-based model. The method was created to facilitate creative thinking and group cohesion. Within the workshop we explore the development state of XR within different industries, elaborate on differences and similarities to learn from each other's experiences, to exchange with each other through stories.</i> Duration: 90min	Escaping the comfort zone: Games & Destinations Session Chair: Ella Cranmer J. Jacob-John, S. Singaraju, P. Matheis & N. Veerapa <i>Pokémon in McDonald's? Analysis of Value co-creation in Augmented Reality Gaming</i> N. El Tibi, C. Liu, E. Gadalla & X. Zhao <i>Virtual Reality Gaming: Seeking Identity Quests in Liquid Societies</i> A. Razdorskaya & C. Brunner <i>Does Virtual Reality enhance a destinations attractiveness? An experimental scenario comparing VR and HDTV in making tourists visiting the city Dubrovnik</i> J. Jacob-John, J. M. Ip Soo Ching & N. Veerapa <i>Using Augmented Reality Games to promote to millennials</i>	Serious Games and learning in stressful Situations Thomas Gebhardt, M.Sc. & Mag.phil Cornelia Küsel (Universität der Bundeswehr) <i>VR and AR can help to increase the immersion effects and support a better gaming and learning experience. New approaches like the use of scents can expand the sensory perception. The workshop addresses these new approaches and discusses the possibilities and limits of VR/AR Serious Games.</i> Duration: 90min
15:40 - 16:15	COFFEE BREAK & EXHIBITORS POSTER PRESENTATIONS		COFFEE BREAK & EXHIBITORS POSTER PRESENTATIONS		
16:15 - 17:30		Marketing / User Perception Session Chair: Katrin Brunner M. Ealand, T. Jung & M. C. Tom Dieck <i>Consumer adoption of virtual reality for fashion buying</i> M. Dehghani, F. Acikgoz, S. H. Lee & A. Mashatan <i>Identifying Consumer Perceptions towards Virtual Reality Platforms: A Netnographic Investigation</i> R. Carranza, E. Diaz & D. Martín-Consuegra <i>How real do you see yourself in VR? The effect of user-avatar resemblance on virtual reality experiences and behavior</i> D. Tom Dieck, M. C. Tom Dieck & D. I. Han <i>The Issue of Augmented and Virtual Reality Privacy</i> K. Brunner, S. Praxmarer-Carus & P. Rauschnabel <i>Augmented Reality: Scale Development and Validation to measure perceived Augmentation Quality (PAQ)</i>	Environment / TAM Session Chair: Martin Rochi T Joerß, S. Hoffmann, R. Mai & P. Akbar <i>Digitalization as Solution of Environmental Problems?</i> P. Soon, S. Gaur & J. Sze Yin Ho <i>Consumers' emotional response to the use of augmented reality (AR): an exploratory study</i> C. Scheiben, P. Kowalczuk & J. Adler <i>User Acceptance of Mobile Augmented Reality Technologies</i> M. Rochi, T. Braml & P. Rauschnabel <i>Technology Paternalism: Conceptualization, Scale Development and Impact on the Use of Smart Technologies</i>	AR in General Session Chair: M. Claudia tom Dieck S. Kim, J. Pognon, J. Chi, A. Salabert & K. Kim <i>Analysis of Global Activities in Augmented Reality and Virtual Reality</i> D. Beßler, R. Porzel, M. Pomarlan, H. Langer, J. Bateman, R. Malaka & M. Beetz <i>Foundational Models for Manipulation Activity Parsing</i> E. Edifor & E. Cranmer <i>Dependability Analysis of High-Consequence Augmented Reality Systems</i> C.Lee, F. Xiao & Y. Hsu <i>Using Augmented Reality Technology to Construct a Venue Navigation and Spatial Behavior Analysis System</i> Y. Zhuang, J. Wong, W. Wan, M. C. Tom Dieck, T. Jung & T. Qu <i>Using 5G mobile to enable the growing slate of VR and AR applications</i>	Education Session Chair: Lars Brehm R. M. Bäck <i>AR/VR in ArtHistory Education. An interdisciplinary study from Didactical Prototyping to Theory Formation</i> V. Chertopolokhov, M. Mironenko <i>Virtual reality technologies of Lomonosov Moscow State University in education and interdisciplinary research</i> L. Brehm, A. Humpe & M. Rauscher <i>Teaching VR Technologies within Collaborative Projects</i>
17:30 - 17:45	CLOSING CEREMONY Dr. Timothy Jung (Global Conference Chair) Prof. Dr. Philipp Rauschnabel (Chair 2019)				

KEYNOTE SPEAKERS



JAN HEITGER RE'FLEKT

UX for Industrial Augmented Reality

AR has come a long way since its early marker tracking days, but the allure of an augmented reality world often still results in embracing the gimmick of AR instead of solving existing problems. In this keynote, we will look into how to make AR applications truly useful and what it takes to use available AR technologies in a meaningful way. The real-world people and their concerns in productive industrial environments will be considered with a strong focus on how user experience and usability can make or break AR's ability to support them in their daily industrial tasks.



LUI HOFMANN WIKITUDE

How AR can support Onboarding in HR

More and more companies are trying to find applications for augmented reality apart from marketing gimmicks. Many are currently considering how to simplify the start of new employees. The new employees are put on glasses and then they are sent on an orientation tour through the house. Of course, such an app can also be used for applicants or visitors of a company.



STEFAN HOHENADL AUDI BUSINESS INNOVATION

Managing immersive Experiences at Audi

Success is not automatically created by simply scouting and adopting the latest immersive technologies and integrate them into existing marketing and sales solutions. Steadily delivering modern, cutting-edge experiences requires stable backend processes, deep expertise in 3D data handling and highly automated asset processing conversion. We at Audi Business Innovation GmbH want to give you some insights in our journey in automotive visualization, in our challenges, in our achievements and learnings, and in what's next on our visualization roadmap.



DR. JAE GRANT MALONEY KLM

XR in the Travel and Airline Industry – the Day after Tomorrow

We stand on the brink of a technological revolution that will fundamentally alter the way we live, work and relate to one another in the Airline industry. AI and XR technologies are fundamentally disrupting all services and products and the pace of change is astonishing. It is expected that this change regarding its scale, scope and complexity during the transformation will be unlike anything the Airline industry have experienced before. What could be effects on our products, what do our customers expect and lastly what about our workers? We do not yet know just how it will unfold, but one thing is clear: the response to it must be integrated and comprehensive and must involve all stakeholders within the Airline industry.



MICHAEL ZAWREL MICROSOFT

Welcome to Mixed Reality

What's the difference between AR, VR and MR? Why is it so important to the Industry? What makes the Microsoft HoloLens so special? During this presentation you will learn why so many commercial customers are investing into this type of technology. With the use of an AR Headset, such as the Microsoft HoloLens - a fully self contained, untethered Holographic headset - customers from all kind of industries will benefit. See real use cases on how MR is helping to reduce costs and optimize existing processes.

SPEAKERS



Prof. Dr. Aaron Ahuvia

UNIVERSITY OF MICHIGAN–DEARBORN

How human-computer biological interfaces will change consumer brand relationships



Katrin Brunner

BUNDESWEHR UNIVERSITY MUNICH

Augmented Reality in Manufacturing - Barriers to Adoption



Dr. Dai-In Danny Han

BREDA UNIVERSITY

Designing emotionally engaging mobile AR experiences through digital storytelling



Prof. Dr. Christian Geiger

HS DÜSSELDORF

Designing innovative user experiences employing immersive technologies



Andrea Geipel

DEUTSCHES MUSEUM

Implementing Augmented Reality & Virtual Reality in Museum Settings

Christian Grohganz

WELTFERN INTERACTIVE

Virtual Reality and Augmented Reality Use Cases for B2B



Prof. Dr. Jens Grubert

COBURG UNIVERSITY

The Office of the Future: Opportunities and Challenges of Mixed Reality for Information Work



Dr. Anuja Hariharan

CAS SOFTWARE AG

What you see is what you get - Enhancing Sales Experience with XR



Ronald Haynes

UNIVERSITY OF CAMBRIDGE

Wonders to Behold: Emerging AR Interoperability in Museum Collections



Dr. Marc Herz

KLEINUNDPLÄCKING

Human Functionalism – trends & ethical issues in the human-technology interplay



SPEAKERS



Dr. Rolf Illenberger

VRDIRECT

Virtual Reality Use Cases at Enterprises - energy and automotive Industry



Julie Jackson

KARSTA MIDDLE EAST

A proposal to establish the value of immersive VR training for hotels room attendants



Dr. Timothy Jung

MANCHESTER METROPOLITAN UNIVERSITY

The Future of immersive Technology



Thomas Knauer-Arnold

VISCOPIC

Empowering people to make use of 3D & AR in a scalable way



Nico Kreusel

NOUS

Locomotion – Core element of immersive experiences

Alina Makhkamova

AWS INSTITUT

Towards a taxonomy of virtual reality usage in education: a systematic review



Maxim Mironenko

LOMONOSOV MOSCOW STATE UNIVERSITY

Virtual reality technologies of Lomonosov Moscow State University in education and interdisciplinary research



Tom Neubert

SCHENKER TECHNOLOGIES

Standalone vs. High-End PC Virtual Reality – Quo Vadis?



Prof. Dr. Philipp Rauschnabel

BUNDESWEHR UNIVERSITY MUNICH

Ready, Steady, Go! How XR will change the world



Prof. Michael Schwertel

COLOGNE BUSINESS SCHOOL

Animation in Augmented Reality



SPEAKERS



Daniel Seidl

INNOACTIVE

You've rolled-out a VR Training. Now what?
A VR scalability story inspired by the VW Group and Innoactive.



Sebastian Stadler

TUMCREATE

Designing Tomorrow's Human-Machine Interfaces in Autonomous Vehicles: An Exploratory Study in Virtual Reality



Dr. M. Claudia tom Dieck

MANCHESTER METROPOLITAN UNIVERSITY

Augmented Reality in Tourism



Andreas Zeitler

VUFRAME

VR and AR Business: How to discover and leverage immersive data you already own



Pascal Ziegler

AWS INSTITUT

Immersive Virtual Reality for Job Training in Skilled Crafts

POSTER PRESENTATIONS

Alberto Lladó Viader, Daniel Görlich and Jan Maltry

Augmented Reality Tracking Using Real-time Infrared Marking and Optical Flow

Xiaojun Liu, Natalia Yannopoulou and Ana Javornik

A Case Study of How Brand Stories Are Told through AR and VR

Jakub Cichor, Maxim Egorov, David Plecher, Ellen Schmid and Claudia Peus

Everything Starts with a Handshake: Effects of Character Design and Character Interactions on Leadership Development in Virtual Reality

Natasha Moorhouse, Timothy Jung, Mandy Tom Dieck and Gary Warnaby

Visitors Behavioural Response to Virtual Reality Retail Environments

Christos Pantelidis, M. Claudia Tom Dieck, Timothy Jung and Amanda Miller

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Münchner Kaffeerösterei. You want to successfully NETWORK at the AR VR Conference? We have a tip there: get a good coffee for you & your business partner at our barista bar! Why? Researchers of the Yale University found that holding a hot drink in the hands leads to increased sympathy. More on how we connect people in companies, we'd like to tell you personally!



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nous considers itself as a partner and solution provider in the increasingly complex market of immersive media. The focus lies technology- and platform-independently on one-stop-shopping: concept, implementation and service from a single source; regardless of whether it's consulting, expert hardware or software development.



Schenker Technologies is a leading provider of IT hardware and the latest XR technologies. In addition to the freely configurable devices of the two owned brands SCHENKER and XMG, the offer also includes selected third-party solutions as well as additional accessories. The company acts Europe-wide as a special distributor for Augmented and Virtual Reality hardware.



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Tech Village. Rehab Ware - VR rehabilitation solutions provide a very realistic VR environment for patients with impaired motor skills due to a stroke, improving the patient's instinctive will to exercise and restoring lost moving ability and cognitive ability.



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you for everyone else involved in
planning and running the event!**

ABOUT US



Dr. Timothy Jung (Global Conference Chair) is Founder and Director of the Creative AR & VR Hub and Head of MMU AR & VR Research Group at Manchester Metropolitan University, UK. He has been involved in a number of funded AR VR research projects at national and international level and he is committee member of UK-Korea Technology Innovation Task Force. His research focuses on AI, IoT, Big Data and 5G powered immersive technology innovation for well-being and quality of life. He is the Global Conference Chair of the International AR VR Conference which has been hosted in Manchester in previous years.

Dr. M. Claudia tom Dieck (Manchester Metropolitan University, Program Chair) is specialized in tourism and hospitality management with a strong focus on digital tourism including social media and augmented reality. She has published in a number of journals including *Tourism Management*, *Current Issues in Tourism* and *International Journal of Contemporary Hospitality Management*. She publishes in the areas of AR, VR, technology acceptance, social media and marketing.



Prof. Dr. Philipp A. Rauschnabel (Conference Chair 2019) is Professor of Digital Marketing and Media Innovation at Universität der Bundeswehr Munich. Previously, he was a faculty member at University of Michigan-Dearborn, USA, where he began his AR work. Philipp's research deals with current and futuristic research issues in the field of new media, in particular Augmented Reality Marketing. He regularly publishes and consults organizations on these topics and teaches courses on different levels.



Katrin Brunner, M.Sc. (Conference Coordinator 2019) is a research associate and PhD student at the Department of Digital Marketing and Media Innovation at Universität der Bundeswehr München. Katrin is involved in multiple research and teaching projects related to extended realities with a strong focus on Augmented Reality and its influence on consumer behavior.

Martin Rochi, M.Sc. is a research associate and PhD student at Universität der Bundeswehr München. Martin's research addresses contemporary issues in the intersection between AR and construction work. In particular, he applies and extends theories from social psychology to technology acceptance and human-computer interaction research. Martin also teaches business classes at UniBW and other institutions.



Prof. Dr. Barry J. Babin, as of July 1, is the Morris Lewis Professor of Marketing and Chair, Department of Marketing, University of Mississippi. He is a co-author of the standard textbook Hair et al., *Multivariate Data Analysis*. Barry has served as President and is recognized as Distinguished Fellow in both the Society for Marketing Advances and the Academy of Marketing Science. The Association for Collegiate Marketing Educators recognized him recently with the Lou E. Pelton Lifetime Achievement Award.

Prof. Dr. Nina Krey is an Assistant Professor of Marketing at Rowan University. Her research interests include sensation and perception in value-added consumption experiences, contemporary issues in wearable technologies, and multi-method research approaches. Nina has given invited presentations, lectures, and workshops on marketing topics and augmented reality in various countries.

