International AR and VRConference 2018



The Power of AR and VR for Business

21-22nd June 2018 at MMU Business School, Manchester



PROGRAMME

#ARVRMCR ManchesterMetropolitanUniversity









Thursday 21st June

08:30-09.15	Registration and tea/coffee		Business School Atrium
09:15-09:30	Welcome Mary Robinson MP TBC Nahm-Kook Sun, Charge d'affaires, Embassy of the Republic of Korea Professor Richard Greene, Pro Vice Chancellor Research & Knowledge Exchange		Room G.27
09.30-09.40	Dr Timothy Jung, Director of Creative AR & VR Hub, MMU, Conference Chair The Power of AR & VR for Business		Room G.27
09:40-09.55	Keynote Nigel Jones, Sector Specialist, Digital & Creative, Department for International Trade, Northern Powerhouse The International Reality of Immersive Tech across the Northern Powerhouse		Room G.27
09.55–10.20	Keynote Seung-Jong Kim, Chairman of the Board, Gyeonggi Content Agency Global Economic Cooperation to Vitalize the VRAR Market and Erang Yim, Manager, Gyeonggi Content Agency NRP Worldwide Programme & Global Collaboration Project		Room G.27
10.20-11.05	Coffee break & Exhibitors *Poster presentations		Business School Atrium
11.05-11.40	Panel Discussion – Collaborative Partnership Opportunities between UK & Korea Chair: Dr Timothy Jung, Creative AR & VR Hub, MMU Panellists: Matt Sansam, Innovate UK Nigel Jones, DIT, Northern Powerhouse Paul Billington, The Landing Stella Park, Future Planet Capital Yunsik Choi, Gyeonggi Content Agency		Room G.27
	Industry Speakers – Room G.27 Moderator: Pasi Tuominen	Industry Speakers – Room G.36 Moderator: Xander Lub	
11.50-12.35	Jeremy Dalton, PwC UK Virtual reality for professional services: immersing clients in the future	Steve Bowden, EON Reality	
	Pete Daukintis/Mike Taulty, Microsoft Microsoft - Windows Mixed Reality Update	Rachel Rawlings, Bureau Veritas and Steven Picken, Smart DS Real World Training using Holographic Assets	
	Andy Gower, BT Delivering Live Immersive Sports Experiences	Linda Wade, Spinview Beyond storytelling: how VR can make a difference in business	
12.35-13.35	Networking lunch		

	Experience Design through AR	Education	Potail 9	Customer
	and VR	Room G.35		erience
	Room G.34	Chair: Mandy tom Dieck		m G.36
	Chair: Xander Lub	onan manay tom 2.com		ary Warnaby
	P. Tuominen	J. Lacko		t & S. Barnes
	Immersive Mixed Reality in Tourist	Cultural Heritage Objects	0	rce in Retail:
	Attraction: Design and Deployment	in Education by Virtual and		and Impact
	The delicate Decign and Deproyment	Augmented Reality	7441470	and impaot
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	D. Han, J. Weber, M. Bastiaansen, O. Mitas & X. Lub	Frydenberg		L. Quinn & P.
	Virtual and Augmented Reality	Creating Virtual Reality in		Perry
	Technologies to Enhance the	a Business and	_	Reality in Real
	Visitor Experience in Cultural	Technology Educational	•	pirical Evidence
İ	Tourism	Context		mers' Interaction
			WITH AR IN 8	a Retail Format
	E. Cranmer	P. Hodgson, V. Wy Lee,	L. Xue, C	. Parker & H.
	Designing valuable Augmented	C.S. Chan, A. Fong, C.	McC	Cormick
	Reality tourism applications	Tang, L. Chan & C. Wong	A Virtual	Reality and
13.35-14.35		Immersive Virtual Reality	Retailing Lite	erature Review:
		(VR) in Higher Education:		cus, Underlying
		Development and Implementation	Themes	and Future
		пприетиенцация	Dire	ections
	M van Ciahargan M Kayasa F			
	M. van Gisbergen, M. Kovacs, F. Campos, M. van der Heest & V.			
	Vuqts			
	What We Don't Know. The Effect			
	of Realism in Virtual Reality on			
	Experience and Behaviour			
	Industria Considerate Design C 07	la disatas Oscaliana Da	0 00	
	Industry Speakers – Room G.27 Moderator: Damyon Garrity	27 Industry Speakers – Room G.36 Moderator: Xin Shi		
1	Phil Trease, Immerse	Farhan Amin, Joanne New		
	8 things you should consider to	Sarah McCall, Concept	,	Business
	ensure your VR project is a	VR in Healthcare - Suc		Matchmaking
	success	Implementation? (Sponsored		(Sponsored
14.45-15.30	Pippa Halliday, Igloo Vision	Dibrido Hoj, manoricotor Cristorolly Hillo		by Business
1-1-0-10:00	Seeing past the headset	Foundation Trust Growth Hi		Growth Hub)
	How else can you engage with VR	Evaluation of Virtual Reality In		
	and 360° content?	Orthopaedic Training – A Pioneering		
	And why does it matter?	Pilot Study Room BS3.0		Room BS3.01
	Neil Johnston, Vector Suite	Günter Dahm, Virta	alis	
	The Future of Concept Design with	Industrial Applications of Vi		
	LIVE Demo	ak & Evhibitora		
	Coffee break & Exhibitors *Poster presentations			
	i ostei	procentations		Business
15.30-16.10				School
				Atrium

16.10-16.40	Academic Speakers Room G.27 Moderator: Ella Cranmer Ronald Haynes, University of Cambridge To Have and Vehold: Marrying Museum Objects and Virtual Collections via AR Sarah Jones, Birmingham City University This isn't film: cinematic VR, embracing new technologies to define a medium	Academic Speakers Room G.36 Moderator: Natasha Moorhouse Wanggen Wan, Shanghai University VR Technology based Virtual Teaching and Training System Mark Mon-Williams, University of Leeds How Immersive Technologies are going to Improve the Health, Education and Economy of a City	Business Matchmaking (Sponsored by Business Growth Hub) Room BS3.01
16.50 - 17.00	Conference Day 1 Closing Timothy Jung, Conference Chair		Room G.27
18:00 – 20:00	Business Networking Event Sponsored by Gyeonggi Content Agency		The Landing, Blue Tower, MediaCityUK, Salford M50 2ST Buses will leave from MMU at 17.15

Friday 22nd June

08:30 - 09.00	Registration and tea/coffee		Business School Atrium	
09:00 - 09:05	Welcome Dr. Julie Hardman, Head of Department of Oper Events and Hospitality Managemer	Room G.27		
09:05 - 09.20	Keynote Adrian Woolard, BBC R&D Developing new user experiences in immersive media		Room G.27	
09:25 - 10:10	Industry Speakers – Room G.27 Moderator: Timothy Jung	David Taylor, Fujitsu AR in the real world of business James Simpson, Royal Opera House		
	Kyu Heon Kim, Kyunghee University Immersive media technologies and services over Integrated Broadcasting and Broadband infrastructure			
	Paul Billington, The Landing Access UK – Opening up the European Market			
	Jaehyun Nam, Looxid Labs Looxid Emotion AI System: Discovering user's unspoken emotion within immersive VR experience			
10:15-10:35	Keynote Margot James, Minister for Digital and Cre	Keynote Room G.27 es, Minister for Digital and Creative Industries		
10.35 – 11.15	Coffee break & Exhibitors *Poster presentations		Business School Atrium	
	Industry Speakers – Room G.27 Moderator: Xin Shi		Industry Speakers – Room G.36 Moderator: Alasdair Swenson	
11.15 – 11.45	Seungjong Lee, SKonec Entertainment Status and Future in VR industry	Dan Riley, Spearhead Interactive Immersive and Interactive Technology for Enterprise; Sector Maturity and Applications		
	Youngil Song, Thirteenth Floor Corp Cinematic 360 VR in 5G	Simon Barratt, Cooperative Innovations Social VR – multi-user is the multiplier!		
11.50 – 12.20	Panel Discussion How AR and VR are changing the art of telling stories Chair: David Jackson, Manchester Metropolitan University Panellists: Mark Ashmore, Founder, Future Artists and VR Arts Sarah Coward, The Forever Project Keith Myers, Firehouse Immersive Experience Damyon Garrity, Creative AR & VR Hub Peter Woodbridge, Immersive Storylab, Immersive Liverpool		Room G.27	

12.20 – 13.20	Networking lunch		
	Tourism & Hospitality Room G.34 Moderator: Yen-Soon Kim	VR Applications Room G.35 Moderator: Dario tom Dieck	Immersive Designs Room G.36 Moderator: Alasdair Swenson
13.20 – 14.05 Academic Session	M. Armingeon, P. Komani, T. Zanwar, S. Korkut & R. Dornberger A Case Study: Assessing Effectiveness of the Augmented Reality Application in Augusta Raurica	S. Stadler, H. Cornet, T.N. Theoto & F. Frenkler A Tool, Not a Toy: Using Virtual Reality to Evaluate the Communication Between Autonomous Vehicles and Pedestrians	D. Bernhauer & T. Skopal Recommender System as the Support for Binaural Audio
	N. Moorhouse & T. Jung Tourism Marketers Perspectives on Enriching the Visitors City Experience with Augmented Reality: An Exploratory Study	R. Hammady & M. Ma Designing Spatial UI as a Solution of the Narrow FOV of Microsoft HoloLens: Prototype of Virtual Museum Guide	S.H. Park, A. Frescura, P.J. Lee, A. Swenson & T. Jung Psycho-physiological Effects of Rural Soundscape
	G. Frey, A. Jurkschat, S. Korkut, J. Lutz & R. Dornberger Intuitive Hand Gestures for the Interaction with Information Visualizations in Virtual Reality	L.B. Hen Exploring Surgeon's Acceptance of Virtual Reality Headset for Training	V. Krishnan R & P. Onkar Virtual Reality References in Design Thinking: Towards an Understanding of Affect-Cognition Interaction in Conceptual Design
14.10-14.25	Stella Park, Senior Advisor, Future Planet Capital New kid on the Block, The Rise of University Venturing		Room G.27
14.25-15.00	Coffee break & Exhibitors *Poster presentations		Business School Atrium
15.00-17.00	Start-ups Pitching Session Panel: Jeremy Dalton, PwC UK Fiona KilKelly, Immerse UK Stella Park, Future Planet Capital Matt Sansam, Innovate UK Dr Timothy Jung, Creative AR & VR Hub, MMU Paul Billington, The Landing		Room G.27
17:00-17.15	Fiona KilKelly, Immerse UK The UK's Immersive Economy - the shape of the UKs immersive tech sector		Room G.27
17.15-17.30	Conference Closing Dr Timothy Jung, Conference Chair		Room G.27
17.30 – 19:00	Networking Event (Sponsored by Innovate UK & ImmerseUK) & Exhibitors		North Atrium

Poster presentations

- Saleem Mastan, Ronnie Davies, Natasha Moorhouse, Timothy Jung, and Bibhas Roy: Virtual Reality Medical Training
- Carlos Flavián, Sergio Ibáñez-Sánchez, and Carlos Orús: The Influence of Technological Embodiment on Customer Experience
- · Ebtehal Qugandi and Mike Joy: Mobile Augmented Reality in Educational Environments
- · Elena Marchiori, Safak Korkut and Lorenzo Cantoni: Investigating the effects of headset-based Virtual Reality against 2D video and 360 video experience in a longterm comparative study
- Emmy Yeung: The Issues of Authenticity: An Application of Virtual/Augmented Reality in Tourism
- Gulnar Nussipova: A review of studies in Augmented reality: drivers, application and outcome
- Helen Southall, Maeve Marmion, and Andrew Davies: Adapting Jake Knapp's Design Sprint Approach for AR/VR Applications in Digital Heritage
- Liangchao Xue, Chris Parker, and Helen McCormick: The Problem with Virtual Reality and the High Street: Key issues revealed in the literature
- · Natasha Moorhouse, Timothy Jung, Xin Shi, Joanne Newsham, Sarah McCall and Farhan Amin: Pulmonary Rehabilitation in Virtual Reality for Patients with Chronic Obstructive Pulmonary Disease (COPD)
- Nikolaos Tsioumas, Gerasimos Chatzidamianos, Panoraia Andriopoulou, and Timothy Jung: A Virtual Reality Environment for testing Psychological Preparedness' effect on the individual when facing a Traumatic Event
- · Ruofei Chen, Helen McCormick, and Rosy Boardman: Analysing How Retailers Are Using Augmented Reality to Influence Consumer Behaviour across Retail Channels: Offline and Online Perspectives
- Nemeh Rihani: The Potential of AR/VR to Create New Types of Virtual Experiences in a Cultural Heritage Context

Scientific committee

- Patrick Allen (University of Bradford)
- Mario Ascencao (Haaga-Helia AUS)
- Alexander Brem (Friedrich-Alexander-Universität Erlangen-Nürnberg)
- Namho Chung (Kyung Hee University)
- Peter Eachus (University of Salford)
- Alex Gibson (Dublin Institute of Technology)
- Dai-In Han (NHTV Breda University of Applied Sciences)
- Ana Javornik (Newcastle University)
- Sarah Jones (Birmingham City University)
- Timothy Jung (Manchester Metropolitan University)
- Si Jung Kim (University of Nevada, Las Vegas)
- Yen-Soon Kim (University of Nevada, Las Vegas)
- · Richard Koeck (University of Liverpool)
- Nina Krey (Rowan University)
- Slimane Larabi (USTHB University)
- Cynthia Mejia (University of Central Florida)
- Andy Miah (University of Salford)
- Eleni Michopoulou (University of Derby)
- Hossein Olya (Oxford Brookes University)
- Mary O'Rawe (Dublin Institute of Technology)
- B. Joseph Pine II (Columbia University)
- Lee Quinn (University of Manchester)
- Philipp Rauschnabel (Darmstadt University)
- Alexander Rossmann (Reutlingen University)
- Caroline Scarles (University of Surrey)
- Michael Schwertel (Cologne Business School)
- Dario Tom Dieck (Manchester Metropolitan University)
- Mandy Tom Dieck (Manchester Metropolitan University)
- Pasi Tuominen (Haaga-Helia University of Applied Sciences)
- Gary Warnaby (Manchester Metropolitan University)

WIFi: BTWi-fi ManMet

Exhibitors

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Keynote speakers



MARGOT JAMES was appointed Minister of State for the Department for Digital, Culture, Media and Sport in January 2018. Margot was previously Parliamentary Under Secretary of State at the Department for Business, Energy and Industrial Strategy from July 2016 to January 2018. She was elected Conservative MP for Stourbridge in May 2010.



NIGEL JONES Over 15 years international business experience working with some of the world's largest multinationals through to owner managed SMEs and entrepreneurial start-ups, Nigel has worked with and led multi-disciplinary teams that have secured inward investment projects on time and within budget across the UK.



SEUNG-JONG, KIM is a chairman of the board of Gyeonggi Content Agency. He majored in Church Music at Yonsei University in Seoul, Korea and also earned master's degree in Journalism & Broadcasting at the Graduate School of Journalism & Mass Communication at the same university.



ADRIAN WOOLARD is Head of BBC's Research & Development North Lab located in MediaCityUK, Salford. He is responsible for the Future Experience Technologies research group which focuses on changing relationships between content production, audience experience and consumer technologies in the emerging multi-genre and multi-platform environment.



FIONA KILKELLY leads on Creative Industries at the Knowledge Transfer Network, the Innovation network established to maximise business growth and to drive innovation, supported by Innovate UK-Immerse UK.



NAHM-KOOK SUN

Minister, Korean Embassy in the UK (Aug 2017) Deputy Spokesman, Ministry of Foreign Affairs (Aug 2015)

Minister-Counsellor, Korean Embassy, Indonesia (Dec 2013)

Counsellor, Korean Embassy in Germany (Jan 2011)



Andy Gower BT "Delivering Live Immersive Sports Experiences"

Bibhas Roy

Dan Riley



NHS "Evaluation of Virtual Reality In Orthopaedic Training - A Pioneering Pilot Study"



Spearhead Interactive "Immersive and Interactive Technology for Enterprise; Sector Maturity and Applications"



David Taylor Fujitsu "AR in the real world of business"



Virtalis "Industrial applications of Virtual Reality"

Günter Dahm

Jaehyun Nam



Looxid Labs "Looxid Emotion AI System: Discovering user's unspoken emotion within immersive VR experience"



James Dean ESL Gaming "Harnessing AR and VR in esports"



James Simpson Royal Opera House "Hybrid Realities in Theatre Production Design"



Jeremy Dalton PWC UK "Virtual reality for professional services: immersing clients in the future"



Kyu-Heon Kim Kyunhee University

"Immersive media technologies and services over Integrated Broadcasting and Broadband infrastructure"



Seung-Jong Lee SKonec Entertainment

"Status and Future in VR industry"



Linda Wade Spinview

"Beyond storytelling: how VR can make a difference in business"



University of Leeds "How immersive technologies are going to Improve the Health, education and Economy of a City"

Mark Mon-Williams



Innovate UK "Panel Discussion - Collaborative Partnership Opportunities between UK & Korea"



Mike Taulty Microsoft "Microsoft - Windows Mixed Reality Update"



Neil Johnston Vector Suite "The Future of Concept Design with LIVE Demo"



Pasi Tuominen Haaga-Helia University of Applied Sciences "Immersive Mixed Reality in Tourist

Attractions: Design and Deployment"



Yoon-Sik Choi Gyeonggi Content Agency

"Gyeonggi Provincial Start-Up Promotion Program (G-START) and industrial cluster promotion"



Paul Billington The Landing "Access UK – Opening up the European Market"



Pete Daukintis Microsoft UK "Microsoft - Windows Mixed Reality Update"



Immerse "8 things you should consider to ensure your VR project is a success"

Phil Trease



Pippa Halliday Igloo Vision "Seeing past the headset How else can you engage with VR and 360° content? And why does it matter?"



Rachel Rawlings Bureau Veritas UK Ltd "Real World Training using Holographic Assets"



Richard Greene Manchester Metropolitan University "Welcome address"



Ronald Haynes University of Cambridge "To Have and Vehold: Marrying Museum Objects and Virtual Collections via AR"



Birmingham School of Media "This isn't film: cinematic VR, embracing new technologies to define a medium"



Farhan Amin Concept Health "VR in Healthcare -Successful Implementation?"



Stella Park **Future Planet Capital** "New kid on the Block, The Rise of University Venturing"



Steve Bowden EON Reality



Timothy Jung Manchester Metropolitan University Conference Chair "The Power of AR & VR for Business"



Wanggen Wan Shanghai University "VR Technology based Virtual Teaching and Training System"



Young-il Song Thirteenth Floor "Cinematic 360 VR in 5G"

About us



Dr. Timothy Jung (Conference Chair) is Founder and Director of the Creative AR & VR Hub (www2.mmu.ac.uk/ creativear) at Manchester Metropolitan University, UK. He has been involved in a number of funded AR VR research projects at national and international level and currently, he is managing various Augmented Reality and Virtual Reality Projects in the Tourism and Creative Industry. He is an advisor of BirdHIVE VR & Drone project led by Lake District National Park. He is renowned for his work in Augmented Reality and Virtual Reality and his research work has been covered by Manchester Evening News. Independent and Huffington Post and he is a regular invited speaker in major international conferences. He is the Conference Chair of International AR and VR Conference 2017/18 in Manchester.

Dr. M. Claudia tom Dieck (Program Chair) is specialised in tourism and hospitality management with a strong focus on digital tourism including social media and augmented reality. Coming from a hospitality background, with an education from a leading Swiss hotel management school. she worked in hotels in Malaysia and Germany. Her academic career continued at Manchester Metropolitan University, completing her Master in digital tourism and her PhD with a focus on social media and customer relationship management. She has published in a number of journal including Tourism Management, Current Issues in Tourism and International Journal of Contemporary Hospitality Management. She is a reviewer for Tourism Management and publishes in the areas of AR, VR, technology acceptance, social media and marketing.



Thank you for everyone involved in planning and running the event. Special thanks go to:

Jeremy Dalton (Industry chair) Natasha Moorhouse (Programme co-ordinator) Alasdair Swenson (Technical administrator) Dr Ella Cranmer (Media co-ordinator) Damyon Garrity (Marketing and design) **Dharma Nurse** (Business and networking co-ordinator) Shahrokh Nael (Film and marketing) Bongsoo Kang (International liaison) Emily Gilhooley (Conference and events) Elaine Babic, Andy Taylor and Rachel Altringham (Gateway team) Daniel Cottam, Gary Shaw, Chris Taylor (Marketing) Mark Fernandes (Website)

Notes

Notes



Our Partners













Innovate UK



