



# Immersive Learning Research Network

## ILRN 2017 CONFERENCE PROGRAMME

 Immersive Learning Research Network Conference - iLRN 2017

AbERTA UNIVERSITY OF BERTHOLM  
INESCTEC TECHNOLOGY & INNOVATION LABORATORY  
UNIVERSIDADE DE COIMBRA  
TU Graz  
University of Essex

June 26th - 29th, 2017  
Coimbra, Portugal  
#iLRN  
[www.immersivelrn.org](http://www.immersivelrn.org)

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**#iLRN2017**

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Sponsors:



**Sunday June 25<sup>th</sup> , 2017**

10:00- 22:30	<b><i>Social Sunday Tour (Please visit website for more information)</i></b>
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**Monday June 26<sup>th</sup> Afternoon**

11:00	<b>Registration at Faculty of Psychology and Education Sciences (FPCE)</b>			
13:00	<b>Welcome from ILRN Organisers and Opening Plenary (Sacadura Botte, Room 1)</b> iLRN Chair/Director: <b>Dr. Jonathon Richter</b> and iLRN Local Co-chair: <b>Dr. Leonel Morgado</b>			
	<b><i>Keynote Speaker:</i></b> <b>Jonathon Richter</b> <u>Chair: Leonel Morgado</u>	<b>Immersive Learning Research: a proposed design for an open networked global community effort</b>		
14:15	<b>ILRN 2017 Workshops</b> Open to all registered attendees. Visit website for more information			
	<a href="#"><u>IMAGINE 2017 workshop and #iLRN17 SFP competition</u></a> * <u>Chair: Michael Gardner</u> Sacadura Botte, Room: 2.6	<b>Augmented Reality Trends in Education</b> <u>Chair: Maria-Blanca Ibanez</u> Sacadura Botte, Room: 1	<b>Gamification and Mixed Reality</b> <u>Chair: Laura Lenz</u> Sacadura Botte, Room: 1.1	
15:30	<b><i>Break</i></b>			
16:00	<a href="#"><u>IMAGINE 2017 workshop and #iLRN17 SFP competition</u></a> * <u>Chair: Michael Gardner</u> Sacadura Botte, Room: 2.6	<b>Augmented Reality Trends in Education</b> <u>Chair: Maria-Blanca Ibanez</u> Sacadura Botte, Room: 1	<b>Gamification and Mixed Reality</b> <u>Chair: Laura Lenz</u> Sacadura Botte, Room: 1.1	
17:30	<b><i>Finish Day 1</i></b>			
18:00 onwards	<b><i>Guided Tour of University of Coimbra (World Heritage), dinner and social evening</i></b> <i>Various locations, more details at the end of this programme</i>			

\* In partnership with the [Creative Science Foundation](#). More details about the [#iLRN17\\_SFP competition](#) at the end of this programme.

**Tuesday June 27<sup>th</sup> Morning**

	<b>Plenary (Faculty of Psychology and Education Sciences (FPCE) , Auditorium)</b>	
<b>9:00</b>	<b>Conference Opening</b>	
	Rector of the University of Coimbra - <b>Prof. Dr. João Gabriel Silva</b> , Rector of the University Aberta - <b>Prof. Dr. Paulo Dias</b> , Vice-Dean of the Faculty (FPCEUC) - <b>Prof. Dr. Maria Paula Paixão</b> , iLRN General Chair: <b>Dr. Michael Gardner</b> , and iLRN Local Co-chairs: <b>Prof. Dr. Ana Amélia Carvalho, Dr. João Caetano</b>	
	<b>Plenary (FPCE, Auditorium)</b>	
<b>9:15</b>	<b>Keynote Speaker:</b> <b>Curt Bonk</b> <u>Chair: Jonathon Richter</u>	<b>The Fourth Industrial Revolution Meets the Fourth E-Learning Revolution</b>
<b>10:15</b>	<b>Papers Session SP1</b> , Room: 4.5 (1st floor - cloister) <u>Chair: Christian Guetl</u>	<b>Papers Session SP2</b> , Auditorium <u>Chair: Dennis Beck</u>
	<b>P85</b> The integration of Augmented Reality and the concept of Sticker Album Collection for Informal Learning in Museums	<b>P48</b> A Prototype Immersive, Multi-user 3D Virtual Learning Environment for Individuals with Autism to Learn Social and Life Skills: A Virtuoso DBR Update
	<b>P92</b> A Digital Museum Infrastructure for Preserving Community Collections from Climate Change	<b>P90</b> Adopting Game Technology for Heritage Information Modelling
	<b>P39</b> Cultural Heritage Reconstruction Based on Virtual Reality Technology: A Pilot Study of Taiwanese Historical Site	<b>P28</b> Using Multiplayer Digital Games to Support Collaboration in Health Education
<b>11:00</b>	<b>Break</b>	
<b>11:30</b>	<b>Papers Session LP3</b> , Room: 4.5(1st floor - cloister) <u>Chair: Michael Gardner</u>	<b>Papers Session LP4</b> , Auditorium <u>Chair: Leonel Morgado</u>
	<b>P63</b> Effects of natural user interfaces on user experience, activation and task performance in immersive virtual learning environments	<b>P21</b> Enhancing foreign language learning in 3D immersive worlds – a study report
	<b>P60</b> Towards Observing and Assessing Collaborative Learning Activities in Immersive Environments	<b>P75</b> Demystifying ageing bias through learning: Co-designing an online course about 'Ageing well'
	<b>P80</b> Integrating Wearable Technologies and Sport Analytics for Personalized Immersive Training and Learning	<b>P73</b> Improving Reading Literacy with an Immersive Learning App
<b>12:30</b>	<b>Lunch</b>	
<b>13:00</b>	<b>Demos (Room:4.8) &amp; Posters 13, 23, 25, 45, 54 (Corridor- ground floor )</b>	

**Tuesday June 27<sup>th</sup> Afternoon**
**Plenary (FPCE, Auditorium)**

13:45	<b>Keynote Speaker:</b> <b>Alan Miller</b> Chair: <u>Patrick O'Shea</u>		<b>Immersive Installations for Virtual Time Travel, Virtual Museums and Community Engagement</b>
14:45	<b>Special Track 7, Auditorium</b> <b>Serious Games using Immersive and Assistive Technologies</b> Chair: <u>Markos Mentzelopoulos</u>		<b>Special Track 6, Room: 4.5 (1st floor)</b> <b>Wearable Technology Enhanced Learning</b> Chair: <u>István Koren</u>
	<b>P34</b> Training teachers to employ a digital art history curriculum: An evaluation of the Crystal Bridges mixed distributed and virtual reality professional development <b>P66</b> Evaluating the Lifelog: Assessment of Recall using Galvanic Skin Response		<b>P42</b> The use of sensors in virtual worlds for obesity control <b>P69</b> Relaxation Simulator with Biofeedback: Discussion of Wearability
15:30	<b>Break</b>		
16:00	<b>ST7 continued, Auditorium</b> Chair: <u>Markos Mentzelopoulos</u>		<b>ST6 continued, Room: 4.5 (1st floor)</b> Chair: <u>István Koren</u>
	<b>P46</b> 360-degree interactive video application for Cultural Heritage Education <b>P93</b> Drinking Games: Simulating Alcoholic Behaviour Patterns in the "Pubcrawler" Video Game <b>P47</b> Learning Languages and Complex Subjects with Memory Palaces <b>P83</b> DISCOVERing beyond OpenSim; design and implementation of scenario based learning for carers of the elderly in the VR/AR era		<b>P29</b> Technology Acceptance of Augmented Reality and Wearable Technologies <b>P86</b> Community Learning Analytics with Industry 4.0 and Wearable Sensor Data
17:30	<b>Finish Day 2</b>		
18:00 onwards	<b>Walking tour of downtown Coimbra, dinner and social evening.</b> Various locations, more details at the end of this programme		

**Wednesday June 28<sup>th</sup> Morning**

Plenary (FPCE, Auditorium)		
9:00	<p style="text-align: center;"><b>Keynote Speaker:</b> <b>Carsten Ullrich</b> <u>Chair: Christian Guetl</u></p> <p style="text-align: center;"><b>Workplace-based Learning in the Industry 4.0: Multi-perspective approaches and solutions for the shop floor</b></p>	
10:00	<p style="text-align: center;"><b>Papers Session SP5</b> , Room: 4.5 (1st floor - cloister) <u>Chair: Patrick O'Shea</u></p>	<p style="text-align: center;"><b>Papers Session SP6</b> , Auditorium <u>Chair: Dennis Beck</u></p>
	<i>P38</i> Applying Mobile EEG to Measure Attention and Reading Time for Picture Books	<i>P79</i> How to gamify classroom? A proposal for training teachers
	<i>P33</i> Assessment for Learning and Gamification - Can Two Walk Together, Except They be Agreed?	<i>P84</i> Immersive Learning about Biomolecules
10:30	<b>Break</b>	
11:00	<p style="text-align: center;"><b>Papers Session LP7</b>, Room: 4.5 (1st floor - cloister) <u>Chair: Jonathon Richter</u></p>	<p style="text-align: center;"><b>Papers Session LP8</b> , Auditorium <u>Chair: Patrick O'Shea</u></p>
	<i>P58</i> A Virtual Museum Installation for Time Travel	<i>P61</i> The Development of Transactive Memory Systems in Collaborative Educational Virtual Worlds
	<i>P57</i> Do you know what your nonverbal behaviour communicates? – Studying a self-reflection module for the Presentation Trainer	<i>P89</i> Immersive Learning as an opportunity to upgrade learning outcomes and improving skills in political and social sciences
	<i>P81</i> Screenwriting framework for an interactive Virtual Reality film	<i>P31</i> Extended field trials of a mixed-reality teaching environment: practical issues beyond the technology
	<i>P30</i> Enhancing strategies for cultural and natural heritage through the ALForLab Geographical Information System ( <b>Remote presentation</b> )	<i>P59</i> Games & Gamification In The Pedagogy Degree: an alternative to Distance Education models ( <b>Remote presentation</b> )
12:30	<b>Lunch</b>	
13:00	<b>Demos</b> (Room:4.8) & <b>Posters</b> 13, 23, 25, 45, 54 (Corridor- ground floor )	

**Wednesday June 28<sup>th</sup> Afternoon**

Plenary (FPCE, Auditorium)			
13:45	<b>Keynote Speaker:</b> <b>Nelson Vilhena</b> Chair: <u>Leonel Morgado</u>	<b>Real World Steps from Legacy Siloed Systems into Computer Mediated Reality</b>	
14:45	<b>Special Track 3, Auditorium</b> <b>Digital Heritage and the Immersive City</b> Chairs: <u>Alexandra Câmara, Helena Murteira</u>	<b>Special Track 5, Room: 4.5 (1st floor)</b> <b>Immersive and Engaging Educational Experiences</b> Chair: <u>Johanna Pirker</u>	<b>Special Track 2, Room: 4.8 (1st floor)</b> <b>Personalisation in Immersive and Game-Based Learning Environments</b> Chair: <u>Alexander Nussbaumer</u>
	<i>Intro</i>	<i>Intro</i>	<i>Intro</i>
	<b>P55</b> Once upon a time in Pergamon: Reality and Representation in the Hellenistic City	<b>P51</b> Towards a Transmedia Learning Approach in ESL context	<b>P32</b> Analysing and adapting communication scenarios in virtual learning environments for one-to-one communication skills training
	<b>P18</b> Phygital Heritage: an Approach for Heritage Communication	<b>P52</b> Travel through the oceans: augmented reality to enhance learning in early childhood education	<b>P37</b> Interaction of Learning Management Systems and Gaming Platforms in the Context of Competence Based Learning
15:30	<b>Break</b>		
16:00	<b>ST3 continued, Auditorium</b> Chairs: <u>Alexandra Câmara, Helena Murteira</u>	<b>ST5 continued, Room: 4.5 (1st floor)</b> Chair: <u>Johanna Pirker</u>	<b>ST2 continued, Room: 4.8 (1st floor)</b> Chair: <u>Alexander Nussbaumer</u>
	<b>P53</b> Immersive Indiana: Constructing an augmented reality in Columbus	<b>P24</b> Development of cross-curricular key skills using a 3D immersive learning environment in schools	<b>P71</b> Efficient Software Assets for Fostering Learning in Applied Games
16:30	<b>Finish Day 3</b>		
17:00	<b>Visit to: <u>CRITICAL Software</u> OR <u>IPN Institute &amp; Take the Wind</u>, More details at the end of this programme</b>		
20:00	<b>Awards dinner at D. Dinis Cultural Centre (Best costume, Best student paper, Best paper, Best hands-on demo, Best poster, Best Micro Futures scenario, people's choice award) , More details at the end of this programme</b>		

**Thursday June 29<sup>th</sup> Morning**

	<b>Plenary (FPCE, Auditorium)</b>	
9:00	<b>Keynote Speaker:</b> <b>Minjuan Wang</b> Chair: <u>Jonathon Richter</u>	<b>Augmented Reality: the Emerging Trend in Education</b>
	<b>Papers Session LP9</b> , Room: 4.5 (1st floor - cloister) Chair: <u>Dennis Beck</u>	<b>Papers Session LP10</b> , Auditorium Chair: <u>Michael Gardner</u>
10:00	<b>P68</b> Investigating Social Presence and Communication with Embodied Avatars in Room-Scale Virtual Reality	<b>P49</b> Impact of non-verbal communication on collaboration in 3D virtual worlds: case study research in learning of aircraft maintenance practices
	<b>P64</b> Towards Online Immersive Collaborative Innovation Spaces	<b>P27</b> Learning Principles of Electricity through Experiencing in Virtual Worlds
	<b>P65</b> MythHunter: Gamification in an Educational Location-based Scavenger Hunt	<b>P19</b> Fieldscapes – Creating and Evaluating a 3D Virtual Fieldtrip System
11:00	<b>Break</b>	
	<b>Closing Plenary: Panel Session (Auditorium)</b>	
11:30	<b>iLRN - The Way Forward</b> Community discussion lead by iLRN board members an opportunity for the entire iLRN community to raise and discuss topics of interest: e.g <i>future conference venues and formats, forming consortia to bid for funding, developing the iLRN research agenda, .....</i>	
13:00	<b>End of ILRN 2017</b>	

Please share your experience at iLRN 2017 in social media using:

**#iLRN2017    #iLRN**

## Social Activities

### Sunday, June 25<sup>th</sup>

10:00 -22:30 **Social Sunday Tour**, full details available at: <https://immersivelrn.org/ilrn2017/social-sunday-tour/>

### Monday, June 26<sup>th</sup>

18:00 **Guided Tour of University of Coimbra (World Heritage)**

Places of the schools tour: Royal Palace, Chapel of St. Michael, Baroque Library, Academic Prison.

20:00 **Dinner (Optional)**

Suggested restaurants (near the social evening location):

- Petisqueira Navegadores - <https://goo.gl/maps/b2VLDDoG49J2>
- Churrasqueira do Calhabé - <https://goo.gl/maps/rtuY44uK6zu>
- Dom Pitéu - <https://goo.gl/maps/3k2CJXHUCtx>
- Mr. Sakana (Japanese) - <https://goo.gl/maps/wwaXdQm2ApF2>
- Munich II Beer house and Sea food - <https://goo.gl/maps/FerWC8S9kDK2>
- Alma Shopping food parlour - <http://www.almashopping.pt/pt/coimbra/>

22:00 **Social evening (Optional)**

Billiards, drinks, snacks at Students' Association Billiards Section at the city stadium (Secção de Bilhar da AAC) - <https://www.facebook.com/seccaodebilharaac/>

### Tuesday, June 27<sup>th</sup>

18:00 **Walking tour of downtown Coimbra**

Sleeve garden, Church of the Holy Cross (resting place of Portugal's first kings), Downtown Streets and Almedina Archway, City Park, River Footbridge

20:00 **Dinner (Optional)**

Suggested restaurant buffet & drinks (16€/person conference price) at the end of the walking tour (Tertúlia d'Eventos)- <https://www.tertuliadeventos.com/>

22:00 **Social evening (Optional)**

Fado singers at àCapella cultural centre & bar - <http://www.acapella.com.pt/>

### Wednesday, June 28<sup>th</sup>

17:00 **Visit to CRITICAL Software** (limit: 20 people) – <https://www.criticalsoftware.com/>

OR **Visit to IPN Institute & Take the Wind** – <https://www.ipn.pt/> <http://www.takethewind.com/>

20:00 **Awards Dinner at D. Dinis Cultural Centre – Best student paper, Best paper, Best costume, Best Hands-on Demo, Best Poster, Best Micro Futures Scenario (1st / 2nd), and People's Choice Award.**

Location: <https://www.facebook.com/DDCoimbra/>

Local costume shop: <http://www.mascariha.pt/textos.php?id=2>, +351 23 909 01 48



## MicroSFP Twitter Competition

You are invited to write an individual  $\mu$ SFP describing how you foresee immersive learning technologies and pedagogies changing the nature of future immersive education. The top 3  $\mu$ SFPs (as voted by attendees) will receive a prize.

### How to enter the competition?

1. Tweet your  $\mu$ SFP using the hashtag **#iLRN17\_SFP** no later than midnight on **TUESDAY 27th June 2017** (you have 129 characters for the  $\mu$ SFP as the hashtag uses 11 of the 140 characters allowed).
2. All  $\mu$ SFPs will be retweeted on our official **Twitter account @CSciFoundation**. Once we have retweeted your story, you are officially in the competition!

### Voting

- To vote for your favourite story, you need to 'like' it on Twitter. Voting is live on **WEDNESDAY 28th June 2017** and the deadline for voting is midnight on that day.
- Results will be announced, and prizes awarded, during the closing session on **THURSDAY 29th June 2017**

-A useful guidance form for writing  $\mu$ SFPs is available at [http://www.creative-science.org/wp-content/uploads/2017/06/iLRN17\\_SFP\\_CompetitionForm.pdf](http://www.creative-science.org/wp-content/uploads/2017/06/iLRN17_SFP_CompetitionForm.pdf)

-More information is available from: [http://www.creative-science.org/activities/ilrn17\\_sfp/](http://www.creative-science.org/activities/ilrn17_sfp/)



# MICRO SCIENCE FICTION PROTOTYPING COMPETITION

<b>1</b> Write a micro SFP using 130 characters only	<b>2</b> Tweet your story using the hashtag #iLRN17_SFP
<b>3</b> Your story will be retweeted in our official Twitter account @CSciFoundation	<b>4</b> Deadline for tweeting your story is 27th June 2017 (midnight).
<b>5</b> Review the stories and 'like' those you think are the best	<b>6</b> The 3 stories with the most 'likes' will receive a prize.
<b>7</b> You have until 28th June 2017 (midnight) to vote for your favourite story!	<b>8</b> The winners will be announced at iLRN 2017 closing session on 29th June 2017.

## List of papers, posters, authors, special tracks and paper sessions

13	Sergio Ordoñez, Jesus Adolfo Melendez and Leticia Neira. Proposed Model security best practices using Immersive Virtual Reality in Social Engineering.	Main	poster	
18	Eslam Nofal, Rabee M. Reffat and Andrew Vande Moere. Phygital Heritage: an Approach for Heritage Communication	ST3	long	
19	David Burden, Shailey Minocha, Tom Argles, James Rock, Steve Tilling and Philip Wheeler. Fieldscapes – Creating and Evaluating a 3D Virtual Fieldtrip System	Main	long	LP10
21	Paweł Topol. Enhancing foreign language learning in 3D immersive worlds – a study report	Main	long	LP4
23	Katerina Economides and Charlotte Holland. Transmedia Story-weaving: Designing immersive transmedia experiences for higher education	Main	poster	
24	Daisy Abbott, Stuart Jeffrey, Anastasia Gouseti, Kevin Burden and Mhairi Maxwell. Development of cross-curricular key skills using a 3D immersive learning environment in schools	ST5	long	
25	Anne-Dominique Salamin and Christophe Hadorn. V-Label : an experiment on how Augmented Reality impacts memorization	Main	poster	
27	Fabrcio Herpich, Liane Margarida Rockenbach Tarouco, Tito Armando Rossi Filho, Leandro Rosniak Tibola and Valter Antonio Ferreira. Learning Principles of Electricity through Experiencing in Virtual Worlds	Main	long	LP10
28	Anna Janssen, Tim Shaw, Peter Goodyear and B. Price Kerfoot. Using Multiplayer Digital Games to Support Collaboration in Health Education	Main	short	SP2
29	Fridolin Wild, Roland Klemke, Paul Lefrere, Mikhail Fominykh and Timo Kuula. Technology Acceptance of Augmented Reality and Wearable Technologies	ST6	long	
30	Manuela De Ruggiero, Roberta Falcone, Lorella Gabriele, Sara Maria Serafini, Giuseppe Ali, Paola Cannavò, Pierfrancesco Celani, Erminia D'Alessandro, Giovanni Mazzuca, Sara Parlato, Francesca Salvo and Massimo Zupi. Enhancing strategies for cultural and natural heritage through the ALForLab Geographical Information System	Main	short	LP7
31	Warren Sheaffer and Michael Gardner. Extended field trials of a mixed-reality teaching environment: practical issues beyond the technology	Main	long	LP8
32	Raja Lala, Johan Jeuring and Timo Overbeek. Analysing and adapting communication scenarios in virtual learning environments for one-to-one communication skills training	ST2	short	
33	Menucha Birenbaum and Hanan Gazit. Assessment for Learning and Gamification - Can Two Walk Together, Except They be Agreed?	Main	short	SP5
34	Dennis Beck and Scott Warren. Training teachers to employ a digital art history curriculum: An evaluation of the Crystal Bridges mixed distributed and virtual reality professional development	ST7	long	

37	Matthias Then, Iván Martínez-Ortiz, Antonio Calvo-Morata, Benjamin Wallenborn, Baltasar Fernández-Manjón and Matthias Hemmje. Interaction of Learning Management Systems and Gaming Platforms in the Context of Competence Based Learning	ST2	short	
38	Chun-Chun Wei and Yang-Cheng Lin. Applying Mobile EEG to Measure Attention and Reading Time for Picture Books	Main	short	SP5
39	Fanfan Chen, Yang-Cheng Lin and Chun-Chun Wei. Cultural Heritage Reconstruction Based on Virtual Reality Technology: A Pilot Study of Taiwanese Historical Site	Main	short	SP1
42	Fabiana Santiago Sgobbi, Liane Margarida Rockenbach Tarouco and Eliseo Reategui. The use of sensors in virtual worlds for obesity control	ST6	long	
45	Ana Paula Mauro. Immersion strategies in nonfiction digital narratives: A short History of the Highrise, a case study	Main	poster	
46	Lemonia Argyriou and Daphne Economou. 360-degree interactive video application for Cultural Heritage Education	ST7	short	
47	Aaron Ralby, Markos Mentzelopoulos and Harriet Cook. Learning Languages and Complex Subjects with Memory Palaces	ST7	long	
48	Matthew Schmidt, Dennis Beck, Noah Glaser and Carla Schmidt. A Prototype Immersive, Multi-user 3D Virtual Learning Environment for Individuals with Autism to Learn Social and Life Skills: A Virtuoso DBR Update	Main	short	SP2
49	Gustavo Silva, Leonel Morgado and Armando Cruz. Impact of non-verbal communication on collaboration in 3D virtual worlds: case study research in learning of aircraft maintenance practices	Main	long	LP10
51	Patricia Rodrigues and José Bidarra. Towards a Transmedia Learning Approach in ESL context	ST5	short	
52	Vitor Ribeiro and Vânia Sousa. Travel through the oceans: augmented reality to enhance learning in early childhood education	ST5	short	
53	Kristin Barry and Carol Street. Immersive Indiana: Constructing an augmented reality in Columbus	ST3	long	
54	Louis Nisiotis, Styliani Kleanthous Loizou, Martin Beer and Elizabeth Uruchurtu. The use of a Cyber Campus to Support Teaching and Collaboration: An Observation Approach	Main	poster	
55	Ufuk Soyoz. Once upon a time in Pergamon: Reality and Representation in the Hellenistic City	ST3	short	
57	Jan Schneider, Dirk Börner, Peter Van Rosmalen and Marcus Specht. Do you know what your nonverbal behavior communicates? – Studying a self-reflection module for the Presentation Trainer.	Main	long	LP7
58	Adeola Fabola, Alan Miller and Catherine Cassidy. A Virtual Museum Installation for Time Travel	Main	long	LP4
59	Eliane Schlemmer, Wagner Dos Santos Chagas and Claudio Cleveson De Lima. GAMES & GAMIFICATION IN THE PEDAGOGY DEGREE: an alternative to Distance Education models	Main	long	LP3
60	Samah Felemban, Michael Gardner, Victor Callaghan and Anasol Pena-Rios. Towards Observing and Assessing Collaborative Learning Activities in Immersive Environments	Main (ST1)	long	LP3

61	Louis Nisiotis, Styliani Kleanthous Loizou, Martin Beer and Elizabeth Uruchurtu. The Development of Transactive Memory Systems in Collaborative Educational Virtual Worlds	Main	long	LP8
63	Daniela Janssen, Valerie Stehling, Anja Richert and Ingrid Isenhardt. Effects of natural user interfaces on user experience, activation and task performance in immersive virtual learning environments	Main	long	LP3
64	Oluwatimilehin Salako, Michael Gardner and Vic Callaghan. Towards Online Immersive Collaborative Innovation Spaces	Main	long	LP9
65	Armin Hutzler, Rudolf Wagner, Johanna Pirker and Christian Gütl. MythHunter: Gamification in an Educational Location-based Scavenger Hunt	Main	long	LP9
66	William Burns, Paul McCullagh, Chris Nugent and Huiru Zheng. Evaluating the Lifelog: Assessment of Recall using Galvanic Skin Response	ST7	long	
68	Scott W. Greenwald, Zhangyuan Wang, Markus Funk and Pattie Maes. Investigating Social Presence and Communication with Embodied Avatars in Room-Scale Virtual Reality	Main	long	LP9
69	Mikhail Fominykh, Ekaterina Prasolova-Førland, Tore C. Stiles, Mattias Linde, Petter Chr. Borchgrevink and Anne Berit Krogh. Relaxation Simulator with Biofeedback: Discussion of Wearability	ST6	long	
71	Matthias Maurer and Alexander Nussbaumer. Efficient Software Assets for Fostering Learning in Applied Games	ST2	long	
73	Célio Gonçalo Marques, Ana A. Carvalho, Ana Paula Faria Ferreira, Antonio Manso and Felisbela Morgado. Improving Reading Literacy with an Immersive Learning App	Main	long	LP4
75	Liliana Vale Costa and Ana Isabel Veloso. Demystifying ageing bias through learning: Co-designing an online course about 'Ageing well'	Main (ST9)	long	LP4
79	Inês Araújo. How to gamify classroom? A proposal for training teachers	Main	short	SP6
80	Konstantinos Lazaris and Miltiadis Lytras. Integrating Wearable Technologies and Sport Analytics for Personalized Immersive Training and Learning	Main	short	SP5
81	María Cecilia Reyes. Screenwriting framework for an interactive Virtual Reality film	Main	long	LP7
83	Panagiotis Antoniou, Efstathios Sidiropoulos and Panagiotis Bamidis. DISCOVER-ing beyond OpenSim; design and implementation of scenario based learning for carers of the elderly in the VR/AR era.	ST7	long	
84	Yiyu Cai, Wouter van Joolingen, Sui Lin Goei, Seok Hwee Sandra Tan, Ban Hoe Chow, Zhong Chen, Zachary Walker and Teresa Dias Pedro Gomes. Imemrsive Learning of Biomolecules	Main	short	SP6
85	Antonio Coelho and Luis Costa. The integration of Augmented Reality and the concept of Sticker Album Collection for Informal Learning in Museums	Main	short	SP1
86	István Koren and Ralf Klamma. Community Learning Analytics with Industry 4.0 and Wearable Sensor Data	ST6	long	

89	João Relvão Caetano and Marc Jacquinet. Immersive Learning as an opportunity to upgrade learning outcomes and improving skills in political and social sciences	Main (ST4)	long	LP8
90	Calum Sinclair, Brian Loranger and Daniel Livingstone. Adopting Game Technology for Heritage Information Modelling	Main	short	SP2
92	Catherine Cassidy, Adeola Fabola and Alan Miller. A Digital Museum Infrastructure for Preserving Community Collections from Climate Change	Main	short	SP1
93	Jeff Ferguson and Chiara Tolentino. Drinking Games: Simulating Alcoholic Behaviour Patterns in the "Pubcrawler" Video Game	ST7	short	

