

## Beyond Pokémon Go: Mobile AR & VR in Education

**Thomas Cochrane**

Centre for Learning and Teaching  
Auckland University of Technology

**Sarah Jones**

Media & Performing Arts  
Coventry University

**Matthew Kearney**

Education  
UTS

**Helen Farley**

Australian Digital Futures Institute  
USQ

**Vickle Narayan**

Centre for Learning and Teaching  
Auckland University of  
Technology

The new wave of mobile VR and AR are anticipated to become a multi-billion dollar industries in the near future (F. Cook, 2016) – how will this impact higher education? This Symposium will gather the collective experience and expertise of members of the newly established Ascilite Mobile Learning Special Interest Group (Ascilitemlsig) to explore and discuss the potential and issues surrounding the rapidly developing fields of mobile Augmented Reality and mobile Virtual Reality. The SIG seeks to draw develop an international community of mobile learning researchers in the context of mobile VR and AR. Building upon the global popularity of the Pokémon Go app, Google Cardboard, and the Samsung Gear VR, there is now widespread interest in these technologies, but still little expertise in integrating these within authentic educational experiences beyond another form of interactive content delivery. Members of the Ascilitemlsig will discuss the potential of mobile AR and VR for user generated content and contexts, share their recent practice-based research, and invite interaction from the wider Ascilite conference attendees.

Keywords: Mobile Learning, Augmented Reality, Virtual Reality, Authentic and contextual learning

### Goal of the Symposium

The Symposium will highlight and create discussion and awareness around the aim of the Ascilitemlsig: “To explore the intersection of mobile learning, new pedagogies, SOTEL, DBR, and authentic learning”. In response to Traxler’s (2016) lament that the mobile learning dream has ended with the LMS on students’ smartphones, the SIG seeks to explore the unique affordances of mobile devices (Bannan, Cook, & Pachler, 2015; J. Cook & Santos, 2016) for student-generated content and experiences via such technologies as collaborative media production and sharing, VR, AR, geolocate and contextual sensors, drones and wearable technologies. The Symposium will highlight the resources being established by the ML SIG, including curated research outputs on the SIG Wordpress site, and the Google Plus discussion forum. Participants will be invited to join the SIG as it establishes an international community of mobile learning researchers interested in VR and AR in education, and to contribute relevant examples of practice based research.

### Format

The Symposium will take the form of a discussion panel made up of members of the Ascilite ML SIG and remote participation (either pre-recorded or live via G+ Hangout) from Sarah Jones of Coventry University (UK). Each panel member will describe a mobile AR or VR project in which they have been involved, outlining the impact and challenges of each project implementation. Project contexts will include: Paramedicine education, Journalism education, Design education, teacher education, and others.






### Strategies

Strategies that will be used to engage the audience will include face-to-face discussion, an invitation to participate in the AsciliteMLSIG Google Plus Community, and a moderated back-channel using a second screen for a Today’smeet discussion and Twitter streams using the #ascilitemlsig hashtag. Attendees will be encouraged to BYOD for back channel interaction, and exploring examples of mobile AR and VR. The panel will also demonstrate the creation and sharing of mobile AR and VR content live during the Symposium, using tools such as Aurasma, Google Streetview, and YouTube 360.

## Audience

The Symposium will be relevant to anyone interested in finding out about the rapidly emerging field of mobile AR (FitzGerald et al., 2013; Kidd & Crompton, 2016) and VR (Cochrane, 2016; Hussein & Natterdal, 2015) in education.

## Biographies of Panel Members

 Thomas Cochrane	Academic advisor and senior lecturer in educational technology, the Centre for Learning And Teaching, Auckland University of Technology, New Zealand. Thomas is the coordinator of the Ascilite mobile learning special interest group, and a mobile learning researcher/practitioner. <a href="http://orcid.org/0000-0002-0192-6118">http://orcid.org/0000-0002-0192-6118</a>
 Sarah Jones	Deputy Head of School of Media & Performing Arts at Coventry University, UK. Sarah is an Apple Distinguished Educator (Class of 2015), with expertise in mobile AR and VR production. Her approach is based on mobile global collaborative learning. <a href="https://www.linkedin.com/in/sarah-jones-830b818">https://www.linkedin.com/in/sarah-jones-830b818</a>
 Matthew Kearney	Associate Professor in education at UTS, Australia. Matthew is widely published in emerging learning technologies with 45 journal articles, a book chapter, and a book. He is a core member of the Ascilite Mobile Learning SIG. <a href="http://orcid.org/0000-0002-6396-0418">http://orcid.org/0000-0002-6396-0418</a>
 Helen Farley	Associate Professor (Digital Futures), Australian Digital Futures Institute, University of Southern Queensland. Helen is currently leading the USQ-led Collaborative Research Network (CRN) project with ANU and UniSA to develop a Mobile Learning Evaluation Framework, and a core member of the Ascilite Mobile Learning SIG. <a href="http://orcid.org/0000-0002-9511-4910">http://orcid.org/0000-0002-9511-4910</a>
 Vickel Narayan	Teaching consultant at the Centre for Learning and Teaching (CfLAT) at AUT University. He has a keen interest in Mobile Web 2.0 technologies and its potential to engage students and teachers in the teaching and learning process. The latter forming the basis for Vickel's PhD study from Murdoch University in Perth. <a href="http://orcid.org/0000-0002-6833-706X">http://orcid.org/0000-0002-6833-706X</a>

## References

- Bannan, B., Cook, J., & Pachler, N. (2015). Reconceptualizing design research in the age of mobile learning. *Interactive Learning Environments*, 1-16. doi:10.1080/10494820.2015.1018911
- Cochrane, T. (2016). Mobile VR in Education: From the Fringe to the Mainstream. *International Journal of Mobile and Blended Learning (IJMBL)*, 8(4), 45-61. doi:10.4018/IJMBL.2016100104
- Cook, F. (2016, Friday April 29). Global tech leaders to convene in Auckland. *NZ Herald*. Retrieved from [http://www.nzherald.co.nz/business/news/article.cfm?c\\_id=3&objectid=11630474](http://www.nzherald.co.nz/business/news/article.cfm?c_id=3&objectid=11630474)
- Cook, J., & Santos, P. (2016). Three Phases of Mobile Learning State of the Art and Case of Mobile Help Seeking Tool for the Health Care Sector. In D. Churchill, J. Lu, T. K. F. Chiu, & B. Fox (Eds.), *Mobile Learning Design* (pp. 315-333): Springer Singapore.
- FitzGerald, E., Ferguson, R., Adams, A., Gaved, M., Mor, Y., & Thomas, R. (2013). Augmented reality and mobile learning: the state of the art. *International Journal of Mobile and Blended Learning*, 5(4), 43-58. doi:10.4018/ijmbL.2013100103
- Hussein, M., & Natterdal, C. (2015). *The benefits of virtual reality in education: A comparison study*. (Bachelor of Science Thesis in Software Engineering and Management Student essay), Chalmers University of Technology, University of Gothenburg, Göteborg, Sweden. Retrieved from <http://hdl.handle.net/2077/39977>
- Kidd, S. H., & Crompton, H. (2016). Augmented Learning with Augmented Reality. In D. Churchill, J. Lu, K. F. T. Chiu, & B. Fox (Eds.), *Mobile Learning Design: Theories and Application* (pp. 97-108). Singapore: Springer Singapore.
- Traxler, J. (2016). What killed the mobile learning dream? *Jisc Inform*. Retrieved from <https://www.jisc.ac.uk/inform-feature/what-killed-the-mobile-learning-dream-26-feb-2016?>