SCHOLARSHIP OF TECHNOLOGY ENHANCED LEARNING

SoTEL Symposium 19-20 February 2020

A Model for Developing a SOTEL Research Cluster: MESH360.

Thomas Cochrane
Auckland University of Technology
Thomas.cochrane@aut.ac.nz

Vickel Narayan
The University of Sydney Business School
vickel.narayan@sydney.edu.au

Submission Type: Case Study (20mins + 10minsQ&A)

Keywords: SOTEL, Community of practice, XR enhanced higher education

Abstract:

This case study critically reflects upon the development of a scholarship of technology enhanced learning (SOTEL) research cluster in clinical sciences higher education. The research cluster has grown from an initial community of practice established in 2015 in the context of Paramedicine education (Cochrane, Cook, Aiello, Harrison, & Aguayo, 2016), to a collaborative transdisciplinary research cluster that now encompasses: the School of Clinical Sciences, Journalism, the Centre for Teaching And Learning, the AppLAB, and international research partners (Cochrane, 2019; Cochrane et al., 2018). The MESH360 research cluster (initially standing for the Multiple Environment Simulation VR Hub, but now covering the growing body of immersive reality enhanced learning projects) focuses upon the common domain of the exploration of immersive reality to enhance higher education to develop student creativity, critical thinking, and problem-solving capabilities.

The research cluster is built upon the shared ontology, epistemology, and research methodology of the wider SOTEL research cluster hub (https://sotel.nz/about-the-cluster/). We established an ecology of resources to support the research cluster (Cochrane & Narayan, 2018), and encourage open educational practice via social media, publishing in open access channels, and regular project showcases. Outcomes from the MESH360 research cluster include: innovative curriculum design, journal articles, conference proceedings, 2 Vice Chancellors teaching innovation awards, a Prime Minister's research scholarship, and award of a variety of internal project funding. The activity of the research cluster is curated in a ResearchGate Project at https://www.researchgate.net/project/MESH360 and on social media via the #MESH360 hashtag. While the activity of the MESH360 has been predominantly within the Faculty of Health and Environmental Sciences, we are seeing wider impact into Schools within the other Faculties at the university, and potential national and international collaborations.

The SOTEL model includes the following main elements:

- An online hub - The SOTEL Research Cluster https://sotel.nz/
- An annual Symposium showcasing SOTEL in practice https://sotel.nz
- The Pacific Journal of Educational Technology (PJTEL)
- The CMALT cMOOC and the MOSOMELT cMOOC
- A weekly webinar series
- Brokering international TEL networks such as the ASCILITE Mobile Learning Special Interest Group
- A series of TEL workshops and showcases

The presentation will outline the above elements of the SOTEL Research Cluster. We believe the MESH360 research cluster model can be applied to a wide variety of higher education domains.

References

Cochrane, T. (2019). *How AUT is Designing Authentic Student Learning Experiences with Immersive Reality*. Paper presented at the 2nd New Zealand Digital Campus and Blended Learning Transformation From

K6 to Higher education: Immersive AR/VR, blended learning innovations and next generation learning spaces, Stamford Plaza, Auckland, New Zealand. https://tinyurl.com/SOTELprojects

Cochrane, T., Cook, S., Aiello, S., Harrison, D., & Aguayo, C. (2016, 28-30 November). *Designing Virtual Reality Environments for Paramedic Education: MESH360.* Paper presented at the Show Me The Learning. Proceedings ASCILITE 2016 Adelaide, University of South Australia, Adelaide, Australia.

Cochrane, T., & Narayan, V. (2018, 25-29 June, 2018). *The Scholarship of Technology Enhanced Learning: Reimagining SOTL for the Social Network Age.* Paper presented at the EdMedia: World Conference on Educational Media and Technology 2018, Amsterdam, Netherlands.

Cochrane, T., Stretton, T., Aiello, S., Britnell, S., Cook, S., & Narayan, V. (2018). Authentic Interprofessional Health Education Scenarios using Mobile VR. *Research in Learning Technology, 26*, 2130. doi:http://dx.doi.org/10.25304/rlt.v26.2130