

## **IMMERSIVE EDUCATION STREAM**

**John E. Lester, Stream Editor – On Leave**

**By John Bourne, Editor-In-Chief**

John Lester has been the Stream Editor for the Immersive Education Stream during the 2015 startup period for the journal. He is on a six-month leave and will return in 2016. I will introduce him to you here and comment on what the stream will cover.

### **Abstract**

Introduction to “Immersive Education Stream”

**KEY WORDS:** Immersive Education

**John E. Lester** has a background in neuroscience research and enhancing educational experiences through immersive education. After an education at Massachusetts Institute of Technology, Université de Fribourg, and Boston University, he spent 12 years at Massachusetts General Hospital and Harvard. He then moved to become the Community Manager and Boston Operations Director for Education and Health Care at Linden Labs (a pioneer in 3D worlds). He was then Chief Learning Officer at Reaction Grid, Inc. He is currently Lead Technology Evangelist for Wiggle Planet, a company that creates a new kind of emotionally intelligent animated characters.

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### **Papers in this Stream**

One paper appearing in this issue is “Researching Declarative, Procedural, and Meta-Cognitive Knowledge through Active Learning in Disaster-Themed 3D Virtual Worlds,” by Michael Vallance, Future University, Hokkaido, Japan.

**Here’s the abstract:** This paper summarizes an educational researcher’s approach to determining the impact of active learning in disaster-themed 3D virtual worlds. The goal of the project is to advance students’ declarative, procedural, and meta-cognitive knowledge by implementing measurable robot-mediated interaction activities in 3D virtual worlds. Through the design and iterative development of unique active learning activities for authentic international collaboration, the participants are able to synergize engineering and science academic content with the learning processes. In addition, by actively participating in international 3D virtual tele-collaboration challenges, which include controlling basic robots within a simulated disaster zone, quantitative metrics of students’ programming skills and psychometric assessment of declarative, procedural, and meta-cognitive knowledge can be measured. This will enable educators to quantify the impact of active learning.

## Prospects for the Future

Immersive education encompasses many ways of providing students with immersive experiences in their learning activities, ranging from virtual worlds that provide alternate realities for learning to augmented realities that add new dimensions to the students' actual learning space. For online education, in particular, virtual reality experiences often provide ways of student learning about something that they cannot obtain in the real world. A clear example of this is the active learning experience activities discussed in the Vallance paper. We intend to secure papers about the use of virtual worlds and their use in online education in the continuing stream.

Other topics will include augmented realities, technologies for increasing student access to immersive education, and examination of implementations in various disciplines (an example of an implementation in nursing/community health is provided in this issue in the Nursing Stream). From a practical viewpoint, we hope to be able to consider various products as well as cost and accessibility concerns, with a major focus on improvements in learning effectiveness through the use of immersion.

We would be interested in hearing from you if you have innovations that we should know about. Contact [John.R.Bourne@gmail.com](mailto:John.R.Bourne@gmail.com) or [dspicer@usmd.edu](mailto:dspicer@usmd.edu) if you would like to discuss what you are doing in this area.