

## Exploring Mobile Augmented Reality

### Thomas Cochrane

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Thomas Cochrane BE, BD, GDHE, MTS, Mcomp, PHD (Monash), is an Academic Advisor and Senior Lecturer in educational Technology at AUT University's Centre for Learning and Teaching (CfLAT). He was recently awarded as an [Ascilite Fellow](#). His research interests include mobile learning, web 2.0, and communities of practice. Thomas has managed and implemented over 35 mobile learning projects, with a recent focus upon Android and iOS smartphones and the iPad as catalysts to enable student-generated content and student-generated learning contexts, bridging formal and informal learning environments.

### Vickel Narayan

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Vickel Narayan MComp, PGDComp, BSc (Comp Sc & Info Sys), CTT+, is an Academic Advisor (Learning Technologies) at the Centre for Teaching and Learning Innovation: Te Puna Ako, Unitec, New Zealand. He has a keen interest in Web 2.0 technologies and its potential to engage students and teachers in the teaching and learning process. Vickel is particularly interested in exploring mobile Web 2.0 tools for creating, nurturing and maintaining virtual communities, social connectedness, fostering social constructivism, student generated context and context. He is also interested in Virtual Worlds particularly pedagogical implications of their use in education.

### Intended audience and degree of expertise/past experience required

- Educators wanting to explore or engage with mlearning and augmented reality
- Educators interested in ideas for enabling student-generated content and contexts beyond the classroom
- Ability to install and use smartphone/iPad applications.

### Statement of objectives for the workshop

- Participants will gain an understanding of the educational possibilities of mobile augmented reality
- Participants will experience a variety of mobile augmented reality applications on their own devices
- Participants will create points of interest for a mobile augmented reality browser
- Participants will discuss examples of student-generated mobile augmented reality

### Detailed description

Full programme outline available on Google Docs at:

<https://docs.google.com/document/d/1oYHP5g9OIS8nCZUUpkEkaAFSAZP7RQJgWBvkvfbwMw/edit>

The session will include:

- An overview and demonstration of mobile augmented reality
- Examples of the educational use of mobile augmented reality
- A hands-on tutorial on how to create enhanced points of interest and an augmented reality layer for a mobile AR browser (e.g. Wikitude, Layar, and Junaio)

### Organisation of the session

#### AR demo

Poll - what mobile device do participants own? <http://www.pollleverwhere.com>

Establish use of back-channel via Twitter Hashtag for session. **#ascilite12AR**

*AR Overview:*

YouTube Playlist: <http://www.youtube.com/playlist?list=PL91E9CED8BCC4CF76>

*AR Demonstrations:*

- QR Codes
- High tech AR example
- AR mobile browsers (Wikitude, Layar, Junaio) – participants download Wikitude to their own device.
- AR mobile Apps (Nokia Point and Find, Google Goggles, SkyMap, Word Lens, urbanspoon, AR.Freeflight, etc...) – participants download 1-2 example AR apps to their own device.
- ARDrone - QuadraCopter & Christchurch Quake
- CityViewAR
- Google Glasses
- Google Sketchup and AR Media
- 15 AR Apps for iPhone:

Presentations of student mobile AR projects

Links to educational research on mobile AR.

Other useful augmented reality resources

A how-to create POIs and a Wikitude layer

Participants create their own POI and Wikitude layer and upload and share them via Twitter

Overview of Junaio & Stiktu