

## #NPF14LMD

# Learners and Mobile Devices Distance and distributed learning at Massey University

Project Team: Claudio Aguayo, Wendy Holley-Boen, Anuradha Mathrani, Mandia Mentis, Monika Merriman, David Parsons, Daniel Thomas

In addressing the main research questions in our project around innovation, inclusion and transformation, we are seeing how learning tasks can be designed to take place beyond the view of the instructor, in the learners' own spaces. This poster outlines three discipline areas where we are exploring these themes; inclusive education, information technology and biology/zoology.

### AIMS AND APPROACH

The Massey University community of practice has a particular interest in the role of learner devices in the context of distance or distributed learning. We are exploring new institutional practices in supporting distance learning. We ask in particular how these devices may be used not just beyond the classroom but also beyond the campus.

In another initiative, TodaysMeet rooms are used as a shared space for online tutorials, where students, both internal and external, can engage asynchronously in real time discussions, but also access that archived discussion at a later date. The simple access (no login is required) and basic interface make this tool very easy to use on a mobile device.



#### **RELATED WORK**

The concept of BYOD in a distance learning context has so far been explored only in limited ways. Some examples include providing learning materials for distance students in ebook format (Handheld Learning 2013) or through mobile apps (Khaddage, & Latteman, 2013; Economides, 2013.) Others have created mobile web content, mobile flashcards and audio podcasts (Mockus et al., 2011), or enabled distance learners to make presentations over the Internet and discuss topics with peers through social media (ICS, 2014.) We are exploring further more innovative ways of integrating learners' own devices into the distance learning experience.



#### **PROJECT AREAS**

#### INCLUSIVE EDUCATION - THE LEARNING4ALL PROJECT

The focus for this project is to investigate how mobile devices can facilitate a Community of Practice within the field of Inclusive Education. The project design is an online space where teaching professionals can collectively engage poststudy with evidence-based resources to support their ongoing professional learning, development and practice. As students move from formal study into ongoing practice the site affords opportunities to critically appraise, add, discuss resources relating to assessments and intervention. The concepts of 'mobile' and 'life-long learning' are explored as

#### BIOLOGY/ZOOLOGY

In this subject area we are exploring different forms of both formative and summative assessment using mobile devices. For zoology students we have provided short 'post-lecture' quizzes through Socrative (an iOS, Android and browseraccessible app). Learners also use their devices in the teaching laboratory sessions to share content with each other through a Google+ Community. Students routinely add photos captured with mobile devices as new learning resources, allowing them to be shared across campuses.



ways of supporting practitioners within interprofessional inclusive education contexts.

#### INFORMATION TECHNOLOGY

In many courses, internal students engage both synchronously in traditional classrooms and asynchronously through e-learning tools, while distance students can only engage in asynchronous mode. To enhance the online learning experience for distance students, we are using Google Hangout sessions for weekly tutorials. The screen sharing tools within Hangouts assist the students to share each other's program code, and interact directly in online discussions. Further, the students engage in Hangout sessions among themselves.

For summative assessment in Biology, an online quiz and lab report were designed to be submitted using mobile devices. Students were also encouraged to take pictures of their handwritten material and upload it as an attached image file, allowing them the freedom to submit their reports from anywhere. A major benefit that resulted from this was that it saved a substantial amount of time typically spent marking and provided flexibility to mark from anywhere using a mobile device.

#### REFERENCES

Economides, T. (2013). The State of the Art in Educational Technology. Proceedings Global Humanitarian Technology Conference (GHTC) 2013 (pp. 285-287)

Handheld Learning. (2013). Providing ebook learning materials for distance learners to use on any handheld device. Retrieved from http://uolhhl.blogspot.co.nz/2013/04/providing-ebook-learning-materials-for.html

ICS. (2014). BYOD enhances distance learning and virtual conferences. Retrieved from http://ics.uwex.edu/blog/byod/

Khaddage, F. & Latteman, C. (2013). iTeach we learn via mobile apps : "a case study in a business course", in SITE 2013
Proceedings of Society for Information Technology & Teacher Education international conference, Association for the Advancement of Computing in Education (AACE), Chesapeake, Va., pp. 3225-3233.
Mockus, L., Dawson, H., Edel-Malizia, S., Shaffer, D., An, J., & Swaggerty, A. (2011). The Impact of Mobile Access on

Motivation: Distance Education Student Perceptions, Penn State University. http://www.learningdesign.psu.edu/ research/MLRTWhitePaper.pdf



