Mobile Learning with Micro-Credentials for International Students

Tom Worthington

For EduTECH, Sydney, 4pm 6 June 2019.

Tom Worthington MEd FHEA FACS CP

Honorary Lecturer in Computer Science at the Australian National University

Past President, Honorary Life Member and Fellow of the Australian Computer Society

Member of the ACS Professional Education Governance & Blockchain committees

Blogs as the Higher Education Whisperer

Steps For Australian Higher Education

1. Design courses to be mobile ready, while campus compatible

2. Micro-credentials delivered off-shore

3. Blockchain for degree credit onshore

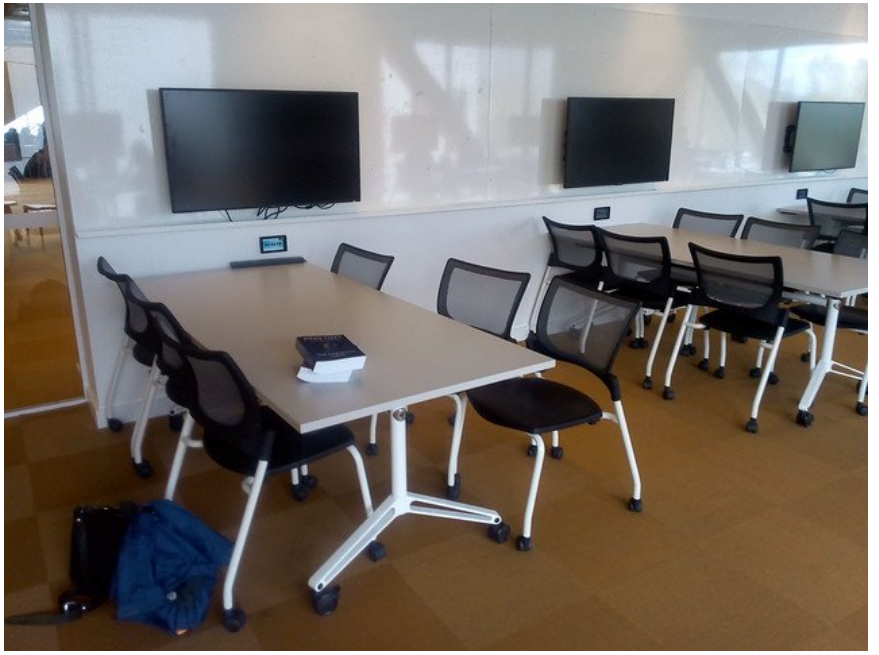
1. Mobile ready, campus compatible

ANU Marie Reay Teaching Centre

Learning to Reflect

Flipped module for teaching international masters students to write a job application

1. Online notes
2. Videos
3. Quizzes
4. Peer assessed online forums
5. Peer assessed assignments
6. Classroom discussion in flat floor room



Wall mounted LCD screens & desks on wheels, ANU Marie Reay Teaching Centre

2. Micro-credentials delivered off-shore

NZQA micro-credentials: 1 to 8 weeks study
AQF Review: considering micro-credentials
Attractive for international and STEM students.
3 x 1 week study modules = 1 semester course?

NZQA
NEW ZEALAND QUALIFICATIONS AUTHORITY
MANA TOHU MĀTAURANGA O AOTEAROA

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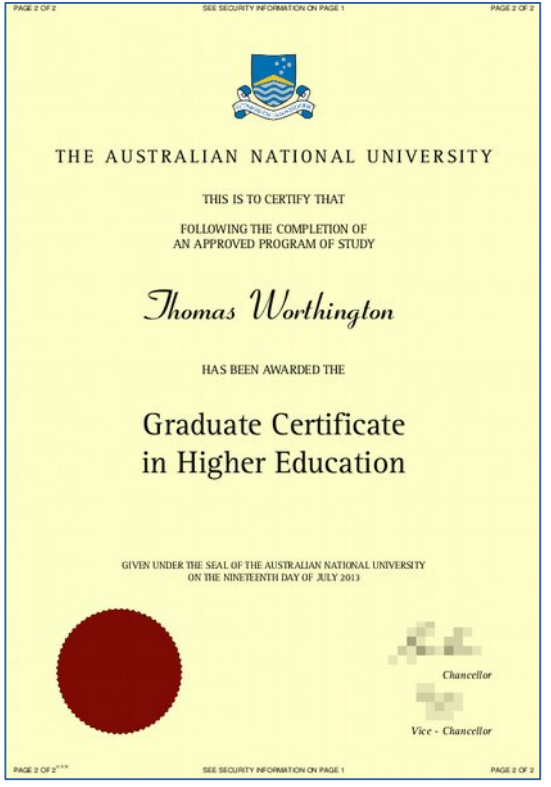

Why worry about this?

China's Belt & Road Education Plan

1. Two-Way Student Exchange
2. Co-Operation in Running Educational Institutions
3. Teacher Training
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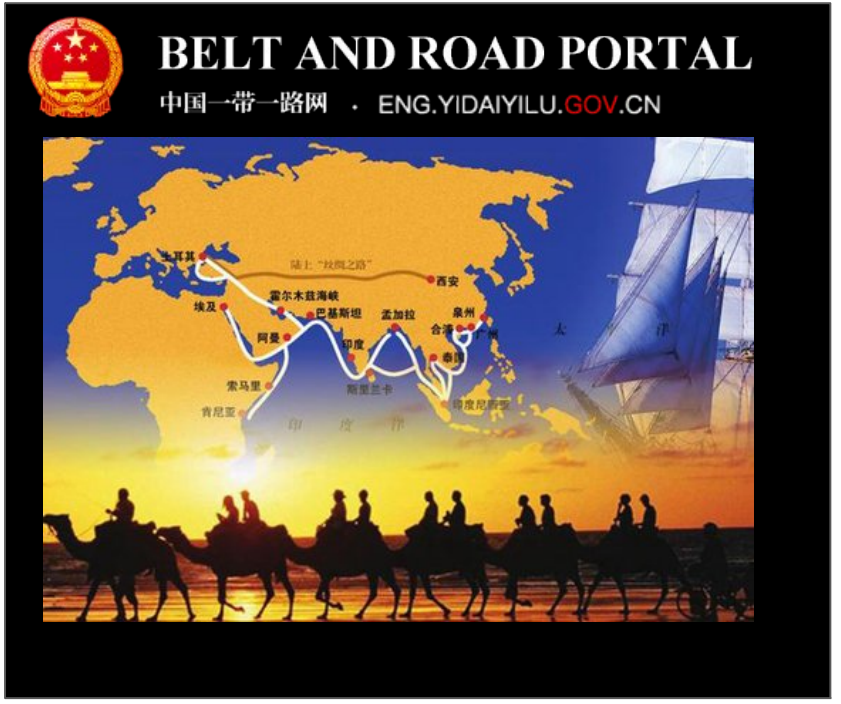

China Ministry of Education. Education Action Plan for the Belt and Road Initiative, 2016.
URL https://eng.yidaiyilu.gov.cn/zchj/qwfb/30277.htm

More Information

- **Roundtables:** 3 discussions, from 11 am, Friday
- **Author:** https://www.linkedin.com/in/tomworthington/
- **Overview of reflective learning module:** https://blog.highereducationwhisperer.com/search/label/Reflective%20Portfolio%20Course
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- **Published paper:**
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Mobile Learning with Micro-Credentials for International Students

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For EduTECH, Sydney, 4pm 6 June 2019.

"Mobile Learning with Micro-Credentials for International Students", at EduTECH in Sydney, 4pm 6 June 2019. The next day I am chairing a round-table on the same topic.

> "Mobile Learning with Micro-Credentials for International Students
> 4pm, 6 June 2019
>
> > Design courses to be mobile ready, while campus compatible
> > Micro-credentials delivered off-shore
> > Blockchain for degree credit onshore
>
> Roundtable: Is it time for Micro-Credentials and Mobile Learning for International Students?
> 11 am, 7 June 2019
>
> Join Tom Worthington at this roundtable to discuss the importance of connecting with international students through effective and classroom compatible courses."

Discussion:
https://blog.highereducationwhisperer.com/search/label/EduTech%202019

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About the Speaker: Tom Worthington is an independent computer professional, educational designer and an Honorary Senior Lecturer in the Research School of Computer Science at the Australian National University.

A Certified Professional member of the Australian Computer Society, in 2015 Tom received a national gold Digital Disruptors Award for "ICT Education" and in 2010 was Canberra ICT Educator of the Year. Tom previously worked on IT policy for the Australian Government, and in 1999 he was elected a Fellow of the Australian Computer Society for his contribution to the development of public Internet policy. He is a Past President, Honorary Life Member, Certified Professional and a Certified Computer Professional of the society as well as a voting member of the Association for Computing Machinery and a member of the Institute of Electrical and Electronics Engineers.

Tom has a Masters in Education (specializing in Distance Education) from Athabasca University, a Graduate Certificate in Higher Education from the Australian National University and a Certificate IV in Training and Assessment from the Canberra Institute of Technology. He blogs as the HigherEducationWhisperer.com.
While an Honorary Senior Lecturer in Computer Science at the Australian National University, a member of the Blockchain Technical Committee and the Professional Education Governance Committee of the Australian Computer Society, his views here do not necessarily reflect those of either organization.

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1. Mobile ready, campus compatible

ANU Marie Reay Teaching Centre

First design your course for online delivery. Use course software, with a responsive web interface, such as Moodle. This will then work on a mobile device, a conventional computer, oreven on paper. **Add campus based activities** for students, where appropriate. Keep the campus activities flexible. This is flipped, blended learning. It helps to have a purpose designed building, like the ANU Marie Reay Teaching Centre opened March 2019, by Architects BVN. The Centre has only flat floor classrooms, for 30, 60, or 120 students. The flexibility here is provided by retractable walls, furniture on wheels, and electronic screens on multiple walls.

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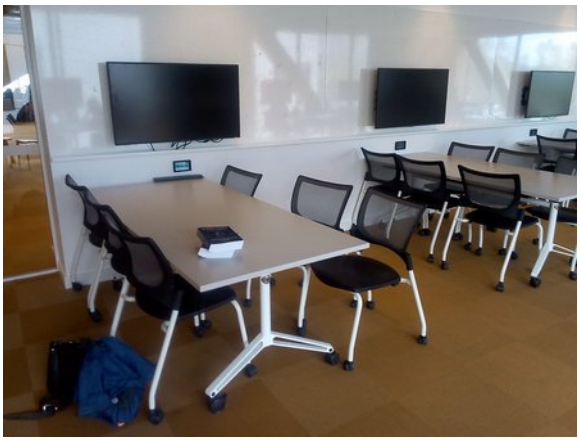

Wall mounted LCD screens & desks on wheels, ANU Marie Reay Teaching Centre

The module is designed to help students to develop capabilities expected of working professionals to identify their development needs, how they will acquire these and to reflect on what they have learned.

An overview of the development of the course:
https://blog.highereducationwhisperer.com/search/label/Reflective%20Portfolio%20Course
An open access version of the course notes are available at:
http://www.tomw.net.au/technology/education/learning_to_reflect/

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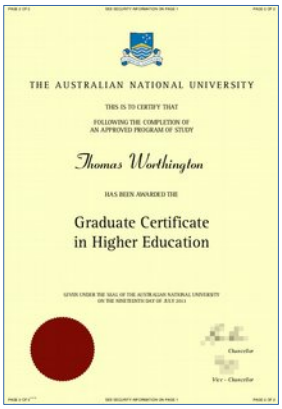
M-learning can be over shorter periods and targeted at specific skills. The New Zealand government is recognizing micro-credentials from tertiary education organizations as of 22 August 2018. The NZ credentials can be the equivalent of 1 to 8 weeks study. The shortest qualification typically issued by Australian universities is a 12 week graduate certificate.
An AQF Review: considering micro-credentials. This could allow much shorter, and more flexible, credentials. These would particularly appeal to international students, and those in STEM areas.
Even in advance of any official recognition of micro-credentials, institutions can create smaller units of instruction, for example, dividing a semester course which is notionally three weeks full time study into three one week units. Students could undertake the three units separately, or as part of a qualificaiton.

3. Blockchain for degree credit onshore



Life long learning and micro-credentials will result in worker having several hundred qualifications. This would be unmanageable with paper certificates and even with web based e-certificates, such as those issued by "My eQuals" in Australia (the image shows my Graduate Certificate in Higher Education, issued by ANU). Employers will want to be able to automatically check qualifications against job requirements, to ensure they are genuine (the other image shows one of the many web advertisements for fake qualifications). One technology which may be used is block-chain. There is an ACS Blockchain technical committee looking at this, as one use for the technology.

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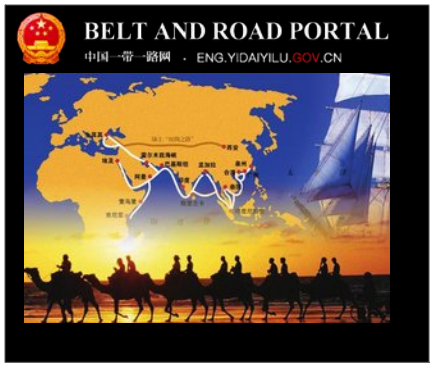

China Ministry of Education. Education Action Plan for the Belt and Road Initiative, 2016. URL https://eng.yidaiyilu.gov.cn/zchj/qwfb/30277.htm

China's Belt and Road Education Plan envisages students from the Indo-Pacific region studying at campuses in China, and also on regional joint venture campuses. Australian institutions will have difficulty competing for international students with these campuses. However, the plan appears to cover only on-campus face-to-face education. This provides the opportunity for Australian institutions to offer online learning using mobile devices, supplemented with on-campus education. This could complement, rather than seek to directly compete with, China's Initiative.

See:

Published paper:

T. Worthington, "Blended Learning for the Indo-Pacific," 2018 IEEE International Conference on Teaching, Assessment, and Learning for Engineering (TALE), Wollongong, Australia, 2018, pp. 861-865. URL https://doi.org/10.1109/TALE.2018.8615183 Pre-print: http://hdl.handle.net/1885/148733

Also:

Australian Department of Education. China's Belt and Road Initiative – Education, 2017. URL https://internationaleducation.gov.au/International- network/china/PolicyUpdates-China/Pages/Chinas-Belt-and-Road- Initiative-.aspx
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