MTech Network: Overview

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1. Background

The MTech Network is an international network of teacher educators who are interested in the use of mobile technologies for innovative teaching. Derived from the MTech Project first established in 2016, it was transformed into the MTech Network in 2017.

Around the world, digital technologies are playing an increasing role in everyday life, in education, and in the workplace. Amongst these technologies, mobile devices are proliferating at an exceptional rate. From an educational perspective, mobile devices can offer support for innovative teaching involving active, student-centred, situated pedagogical approaches, as well as promoting digital literacies; and they can also offer support for a variety of inclusive teaching strategies in line with a social justice agenda.

To capitalise on the potential benefits of mobile devices, particularly for supporting innovative and inclusive forms of teaching, it is important that teachers and lecturers develop an understanding of the educational uses of these devices, a point increasingly recognised by governments and ministries of education within the context of a shift towards digital forms of education.

Given the global proliferation of mobile devices, linked to increasing teacher and student mobility, it is important to develop a cross-cultural perspective on how mobile devices are presently employed, and could be employed in future, in teacher education and lecturer development.

2. Aims

This MTech Network was established to research how mobile technologies are being integrated into teacher education courses at school level and lecturer development initiatives at tertiary level, with a particular focus on innovative teaching (involving new pedagogies and new literacies) as well as inclusive teaching (involving new strategies for inclusivity on a number of levels), across a variety of institutions in a variety of regions of the globe. Some basic definitions and parameters are as follows:

- **Mobile technologies:** these primarily encompass handheld technologies (e.g., smartphones, tablets) and wearable technologies (e.g., smartwatches, AR glasses), though where relevant mention may be made of portable devices such as notebooks, netbooks and laptops;
- **Teacher education:** this encompasses both initial and continuing teacher education courses;
- **Lecturer development:** this encompasses all lecturer development initiatives, from one-off training events to full graduate certificate or diploma programmes;
- **School level:** this encompasses early childhood, primary and secondary levels;
- **Tertiary level:** this encompasses university and other higher education courses.

The aims of the MTech Network are:

(1) *To investigate current mobile teacher education/lecturer development practices and intended future practices*;
(2) *To establish a community of learning composed of teacher educators and staff developers, and to develop a common language for discussing mobile teacher education & staff development practices in a culturally responsive way in a range of cultural contexts*;
(3) *To develop a framework to guide best practices in mobile education for teachers and lecturers, with scope for culturally responsive variations in a range of cultural contexts, with a particular focus on:*
> a. *Shifts towards active, student-centred, situated pedagogical approaches;*
> b. *Shifts towards the promotion of digital literacies (including code/ programming literacy);*
> c. *Shifts towards more inclusive educational approaches (with regard to socioeconomic status, gender, minority/heritage/revival languages, and a range of other factors to be identified);*
(4) *To investigate collaborative possibilities between teacher education courses & lecturer development programmes across the world*.

3. MTech Network Steering Committee

Australia	UWA (The University of Western Australia)	**Mark Pegrum** **Grace Oakley**	mark.pegrum@uwa.edu.au grace.oakley@uwa.edu.au
	UQ (University of Queensland)	**Pedro Isaías**	pedro.isaias@uq.edu.au
China	GXNU (Guangxi Normal University)	**Sun Jie Yuan** **Xiong Xi Bei (Bella)**	xbxiong@mailbox.gxnu.edu.cn sunjieyuan@263.net
Hong Kong	HKU (Hong Kong University)	**Daniel Churchill**	dchurch@hku.hk
Taiwan	NTNU (National Taiwan Normal University)	**Chun-Yen Chang**	changcy@ntnu.edu.tw
UK	University of Hull	**Kevin Burden**	edskjb@googlemail.com

4. MTech Network Partner Institutions & Lead Researchers

Country or Region	Institution	Lead Researcher(s)
Australia	UNSW	**Bob Fox**
	UTS	**Matthew Kearney**
	UWA	**Mark Pegrum** **Grace Oakley**
Canada	U of Ontario	**Rob Power**
China	GXNU	**Sun Jie Yuan** **Xiong Xi Bei (Bella)**
	ECNU	**Yan Hanbing**
	CCNU	**Wu Di**
Cyprus	Cyprus U of Technology	**Salomi Papadima- Sophocleous** Antoni Parmaxi
Hong Kong	EdUHK	**Cher Ping Lim**
	CUHK	**Morris Jong**
	HKBU	**Eva Wong** Theresa Kwong Sandy Li Lisa Deng
	HKU	**Daniel Churchill**

Ireland	NUI Galway	**Seán Ó Grádaigh**
		Tony Hall
		Brendan Mac Mahon
		Sinéad Ní Ghuidhir
Japan	Aoyama Gakuin U	**Hiroyuki Obari**
	Nagoya Women's U	**Douglas Jarrell**
	Shimane U	**Shudong Wang**
	Waseda U	**Glenn Stockwell**
Macau	U of Macau	**Spencer Benson**
Mexico	Tecnológico de Monterrey	**Víctor Robledo Rella**
New Zealand	Auckland U of Technology	**Thom Cochrane**
		Vickel Narayan
	Unitec	**Hayo Reinders**
	U of Auckland	**Sophie Tauwehe Tamati**
		Cathy Gunn
Oman	Sultan Qaboos U	**James Scully**
Russia	Tambov State U	**Katerina Dvoretskaya**
Singapore	NIE	**Chai Sing Sing**
		Wong Lung Hsiang
	NTU	**Kumaran Rajaram**
	Singapore Polytechnic	**Kwa Lay Ping**
		Mark Nivan Singh
South Africa	UCT	**Sumarie Roodt**
South Korea	Ewha Womans U	**Hyo-Jeong So**
Taiwan	NTNU	**Chun-Yen Chang**
Turkey	Akdeniz U	**Arda Arıkan**
	Koç U	**Ozan Varlı**
	Özyeğin U	Beyza Yılmaz
	Yıldız Technical U	**Işıl Boy**
UAE	Zayed U	**Christina Gitsaki**
UK	U of Hull	**Kevin Burden**
	U of London / GSMA	**Ronda Zelezny-Green**
	U of Manchester	**Gary Motteram**
	Open U	**Agnes Kukulska-Hulme**
	U of Wolverhampton / IAmLearn	**John Traxler**
USA	Old Dominion U	**Helen Crompton**
International	IADIS	**Pedro Isaías**
		Paula Miranda
		Sara Pifano

5. MTech Network Achievements to Date

June 2016	Establishment of initial MTech Steering Committee, consisting of Mark Pegrum (UWA), Kevin Burden (Hull), Bella Xiong (GXNU), Grace Oakley (UWA) & Sophie Tauwehe Tamati (Auckland)
Jun-Dec 2016	Design of MTech Mobile Learning Survey for Teacher Educators
Jan-May 2017	Launch of MTech Survey on 22 January (first round of data collection) with 96 responses
June 2017	Inaugural MTech Conference hosted by GXNU, Guilin, China from 28-29 June, with 24 presenters, over 250 face-to-face attendees, and more than 1,000 webcast viewers.
Jun-Dec 2017	Relaunch of MTech Survey on 28 June (second round of data collection)
June 2017	Expansion of MTech Steering Committee on 29 June to include Chun-Yen Chang (NTNU) & Daniel Churchill (HKU)
August 2017	Incorporation of the MTech Project into the MTech Network

6. MTech Network Future Plans

Discussion is underway on the possibility of publishing a special journal issue or issues as a follow-up to the Inaugural MTech Conference.

It is tentatively planned to hold the Second MTech Conference in late 2018, focused on multimedia case studies by individual and institutional presenters, based on new data collected and viewed in relation to baseline data from the MTech Survey. Although the working language of the project is English, data collection (e.g., surveys, interviews, focus groups) may take place in any language, with the results being translated and reported in English and/or Chinese. Below are some recommendations for data collection which could underpin case studies:

Course documentation:
➢ Course outlines relevant to the introduction of mobile technologies into teacher education courses/lecturer development programmes could be examined, with a particular focus on new pedagogies, new literacies, and new strategies for inclusivity; key learning outcomes; key mobile technologies; and key assessment strategies.

Staff experiences, practices & views:
➢ In light of the MTech Survey, a representative sample of staff (in the form of a purposive sample encompassing positive, neutral and negative attitudes) could be invited to do more detailed in-person interviews.

- One or two staff members could be invited to video-record exemplary lessons involving mobile technologies, with the recordings being analysed to determine successful practices.

Present & past student experiences, practices & views:
- Pre-service and in-service teachers involved in present & past teacher education courses, and lecturers involved in staff development programmes, could be surveyed.
- In light of this survey, these teachers and lecturers could be asked about which, if any, mobile technologies they have put into practice in their teaching practicums or any other teaching experiences.
- A representative sample of these teachers (in the form of a purposive sample encompassing positive, neutral and negative attitudes) could be invited to participate in more detailed in-person focus groups.

7. Joining the MTech Network

New members of the MTech Network are very welcome. Teacher educators interested in joining the network may contact any of the members of the MTech Steering Committee for further details (see Section 3 above).

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