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Asia's mobile learning tsunami

Regional educators and policymakers must respond strategically to the revolutionary changes the phenomenon entails

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AS THE number of mobile device users owning a smartphone is rapidly increasing across Asia, more learners are making use of their devices (cellphones, MP3 players, laptops and tablets) in and outside classrooms to source for new knowledge – for example, by downloading YouTube videos to better appreciate abstract concepts taught in class (by instructors who may or may not appreciate their students' "subversive" behaviour).

New trends such as ubiquitous (omnipresent) computing and the hassle-free availability of wireless, mobile and networked technologies in combination with smart search engines point to revolutionary changes in business and society to which both Asian educators and policymakers need to respond strategically.

The term "mobile learning" refers to the use of ubiquitous handheld hardware, wireless networking and mobile telephony to facilitate, support, enhance and extend the reach of teaching and learning. Both the mobility of the learner and the context generated by a learner or learners with the help of mobile devices are important because communications in social spaces and/or reflections "on the move" (with the help of others or in interaction with multimedia resources) can create new "food for thought".

Answers to context-based queries in turn often give rise to valuable new insights, enabling learning processes in solitude, with an instructor, through conversations with one's peers or within a large online community. To support lifelong learning, mobile technologies must be portable (so that users can learn wherever they are), unobtrusive (without the technology obtruding on the particular learning situation), needs-based, and easy to use.

For lots more than just chatting: *Asean and other Asian nations which are latecomers in the knowledge race and mobile learning must bear in mind the need to align educational strategies with national development goals based on good knowledge governance through a supportive national information and communication policy, and expanding broadband connectivity.* PHOTO: AFP

There are numerous good practice examples such as: iHUB in Kenya, which promotes software literacy; MAMA (Mobile Alliance for Maternal Action), which uses short text messages (SMS) to enable mothers to expand their knowledge about pregnancy and childbirth; and the MIND (Mobile Technology Initiative for Non-Formal Distance Education) project, a joint initiative of the Philippines-based Molave Development Foundation and the Health Sciences University of Mongolia in Ulaanbaatar to develop SMS learning packs for delivering non-formal distance learning to different social groups. These suggest that mobile learning can support knowledge-based development processes if it is deployed wisely.

To make this work in developing Asia with its internal knowledge gaps, both leaders and common educators have first to accept the fact that mobile learning is indeed revolutionising regional educational landscapes due to its continuous character, technological leapfrogging potential and its ability to empower special demographic segments such as disaffected learners who face difficulties in succeeding in the education system.

Within Asean, Singapore continues to roll out higher-end mobile learning innovations based on the policy guideline to "enable students to learn anywhere". Examples include Singapore Management University's (SMU) Twitter-enabled, interactive in-class feedback loop which allows students to deliver instant feedback to classmates and lecturer; the Centre for Educational Research and Application (Cera) established by a local primary school; the National Institute of Education's (NIE) effort to develop useful pedagogical methods for handheld devices; and the MyCLOUD (My Chinese Language ubiquitOUs learning Days) project.

This last one is a collaboration between Microsoft Singapore and several educational institutions to enhance the teaching and learning of the Chinese language via a multi-faceted interactive platform.

The Singapore case contains an important lesson for latecomers in the knowledge race: the need to align educational strategies with national development goals based on good knowledge governance through a supportive national information and communication policy, and expanding broadband connectivity.

Research evidence suggests that mobile learning engages learners and that it can play an important catalysing role in the process of economic development with a strategic focus on English proficiency, vocational training, education for specific target groups such as young girls and STEM (science, technology, engineering and mathematics) in general.

Philippines Open University offers regular formal SMS-based mobile courses in English, mathematics and the sciences, providing new development opportunities for rural youth in poor and remote areas.

While mobile STEM learning approaches can help to motivate students' interest in STEM subjects and to increase their proficiency, more needs to be done at policy level to implement rigorous K-12 mathematics and science standards, to provide more qualified teaching staff, and to ensure a solid alignment between STEM job demands and the structure of national post-secondary STEM systems.

Other issues which need to be tackled in order to fully leverage on mobile learning include insufficient awareness among (educational) leaders, shortage of competent support staff and lack of funds for the development of mobile learning solutions.

Essential ingredients for an effective governance system aimed at leveraging on mobile learning approaches for development at national level include senior political sponsorship at the highest levels; broad national engagement involving government, industry, academia and civil society; continuous education and talent development; as well as telecommunications affordability and maximum bandwidth.

While there is evidence that mobile data connectivity creates significant knowledge and other benefits, many Asean countries have yet to acknowledge mobile learning opportunities for development (ML4D) in their strategy documents and to implement concrete strategic mobile learning measures through handheld devices in order to realise Asean's 2015 connectivity vision.

The European Union experience in mobile learning offers useful insights in this respect, which needs to be analysed to ascertain its transferability to Asia such as institutionalised exchange (mobility) programmes for students and faculty or the set-up and systematic funding of special European research interest groups on mobile learning under the Leonardo Da Vinci Programme. Germany's Federal Institute for Vocational Education & Training (BIBB) continues to conduct applied research projects to document and develop useful (blended) mobile learning systems in support of vocational qualification processes within the retail or electrical trades.

The "smart" competency development of skilled craftsmen is crucial for development and can be greatly enhanced through (blended) mobile learning suites and customised applications. While there is a bit of hype about mobile learning (for example, the promotion of SMS-management coaching by consulting firms), research suggests that it is indeed a new mega trend which will continue to change the nature of learning and learning delivery in Asia.

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