

E-Learning and the National Broadband Network

[Simon Moorhead](#) [1]

Ericsson Australia and New Zealand

JTDE - Vol 7, No 3 - September 2019 [2]

[3]

☆ 18 [4]

Abstract

A recent paper from February 2013 foreshadowing the dynamic changes in e-Learning from Australia's roll-out of the National Broadband Network.

Introduction

This historic paper is only six years old and was selected to complement the other articles in this issue covering the future of the National Broadband Network (NBN). The NBN roll-out commenced around ten years ago and is well on the way to providing high-speed broadband access to most Australians across the continent. High-speed broadband provides many potential benefits, such as learning via electronic media (e-Learning), but also facilitates disruption, as we have seen with streaming services and social media, threatening some traditional information providers.

The paper ([Barber, 2013](#) [5]) was written by James Barber of the University of New England and argues that the NBN will accelerate dramatic changes in education and teaching: in particular, the move away from bricks-and-mortar campuses towards global networks and the rise of mobile learning (m-Learning). When combined with Massive Open Online Courses, m-Learning will result in access to education becoming a universal human right.

Most readers would be aware of the proliferation of devices in the home which are enabled for e-Learning, such as smart TVs, smart mobile telephones and intelligent appliances. Combine this with the seemingly unlimited resources available to consumers on the internet, and you can appreciate the unprecedented learning opportunities, which the NBN will facilitate.

The historic paper concludes with the observations that "until the invention of the Internet, universities did not have to be innovative because they have effectively had a monopoly" (p. 12.5) and "[l]et us hope that Australian universities embrace the opportunity that the NBN provides before it becomes a threat to them" (p. 12.6).

The disruption to traditional learning will continue as the technical capabilities of appliances expand and the NBN facilitates more diverse access to e-Learning resources.

References

[Barber, J. G. \(2013\)](#). E-Learning: Supplementary or disruptive?, *Telecommunications Journal of Australia*. 63(1),

The Historic Paper

Page 1 of historical paper

[6]

[7]

transport options, etc., etc. so that you are in a position instantly to augment your lived experience with new knowledge and perceptions.

In short, advances in virtual reality are further undermining the notion that students need to assemble in one place at one time in order to be informed, engaged or even entertained. As a consequence, the question for universities could soon become: What is the role of bricks and mortar in a world where students can now live and move and have their being in a network cloud? Soon there will be no compelling reason to think of universities as *places* at all, but if they do persist in that form, it will not be because they provide the best or most efficient means of educating people.

The worldwide proliferation of mobile devices and applications also has major implications for education. Consider some of the latest dizzying statistics:

- There are now 3 billion more smartphones in the world than there are people;
- On current estimates, 1 billion smartphones will be sold in 2014 alone, which is twice the number of PCs that will be sold in that year;
- By 2016 there will be around 10 billion mobile Internet devices globally, with 50 times the amount of smartphone traffic in that year than there is today.
- Ericsson estimates that by 2015, 80% of people accessing the Internet will be doing so from mobile devices. (In Japan today, over 75% of Internet users already use a mobile device to connect, and in the U.S., 2/3 of Americans connect to the web via a smartphone, tablet or other portable device.)
- Users are now downloading 1 billion Android apps every month and over 18 billion apps have so far been downloaded in the Apple marketplace. A recent study by Distimo predicts that by 2016, every person in the world will have an average of 7 mobile apps each.
- Ambient Insight has forecast the compound annual growth rate for worldwide mobile learning products and services at 26.3% for the period 2011-2016, with revenues rising from \$US212.38 million in 2011 to \$US682.13 million by 2016.

[8]

It may be, then, that the migration from campus to desktop that is currently occurring may merely be a wayside station on the road to m-learning. If so, the big winners will be what we euphemistically call 'non-traditional' students: the poor, the isolated, those with disabilities and people from developing countries. This is because the cost of mobile Internet-enabled devices is in rapid decline and their power needs are minimal, which is giving even people off the grid access to the Internet.

Ten years ago, the fastest growing market for mobile phones was India, which grew from 10 million phones in 2000 to 850 million in the decade following. But India has since been displaced by the African continent as the world's fastest growing market for mobiles, which are also the most common method of connecting to the Internet in Africa. The democratisation of education will happen not just through technological advances, of course, but the veritable flood of free courseware that is now finding its way onto the Internet virtually guarantees it.

The idea of open courseware got going in 2001 when MIT started uploading its course materials to the net. Within 12 months MIT had 50 of its courses freely available and since then it has distributed around two-and-a-half thousand of its courses and is receiving close to 20 million site visits every year. MIT estimates that in the 10 or so years since it opened up its courseware, it has reached around 125 million people worldwide. This combination of Internet-enabled mobile devices and open courseware quite literally places higher education into the hands of people who would previously have been too poor, marginalised, or remote to participate.

There are numerous other sources of free educational resources, of course, including iTunes U, which amassed more than 350,000 downloadable files in its first five years of operation. And then there is Wikipedia, which was launched in the same year as MIT's open courseware

[9]

[10]

[11]

[12]

Article PDF:

 [201-article_text-2244-1-11-20191001.pdf](#) [13]

Copyright notice:

Copyright is held by the Authors subject to the [Journal Copyright notice](#). [14]

Cite this article as:

Simon Moorhead. 2019. *E-Learning and the National Broadband Network* JTDE, Vol 7, No 3, Article 201. <http://doi.org/10.18080/JTDE.v7n3.201> [15]. Published by Telecommunications Association Inc. ABN 34 732 327 053. <https://telsoc.org> [16]

[History of Australian telecommunications](#) [17]

[Telecommunications](#) [18]

[History](#) [19]

[National Broadband Network](#) [20]

[Education](#) [21]

Source URL: <https://telsoc.org/journal/jtde-v7-n3/a201>

Links

- [1] <https://telsoc.org/journal/author/simon-moorhead>
- [2] <https://telsoc.org/journal/jtde-v7-n3>
- [3] <https://www.addtoany.com/share?url=https%3A%2F%2Ftelsoc.org%2Fjournal%2Fjtde-v7-n3%2Fa201&title=E-Learning%20and%20the%20National%20Broadband%20Network>
- [4] https://telsoc.org/printpdf/2561?rate=M5XHzsRdjjW9r7h1rFDG_x06WBdXsPyA-EUOJzR9SYQ
- [5] https://telsoc.org/journal/jtde-v7-n3/a201#Barber_2013
- [6] https://telsoc.org/sites/default/files/images/tja/201-other-2074-1-6-20190823_1.jpg
- [7] https://telsoc.org/sites/default/files/filefield_paths/201-pg2.jpg
- [8] https://telsoc.org/sites/default/files/filefield_paths/201-pg3.jpg
- [9] https://telsoc.org/sites/default/files/filefield_paths/201-pg4.jpg
- [10] https://telsoc.org/sites/default/files/filefield_paths/201-pg5.jpg
- [11] https://telsoc.org/sites/default/files/filefield_paths/201-pg6.jpg
- [12] https://telsoc.org/sites/default/files/filefield_paths/201-pg7.jpg
- [13] https://telsoc.org/sites/default/files/tja/pdf/201-article_text-2244-1-11-20191001.pdf
- [14] <https://telsoc.org/copyright>
- [15] <http://doi.org/10.18080/ajtde.v7n3.201>
- [16] <https://telsoc.org>
- [17] <https://telsoc.org/topics/history-australian-telecommunications>
- [18] <https://telsoc.org/topics/telecommunications>
- [19] <https://telsoc.org/topics/history>
- [20] <https://telsoc.org/topics/national-broadband-network>
- [21] <https://telsoc.org/topics/education>