CHAPTER 10

Boosting Higher Education in Africa through Shared Massive Open Online Courses (MOOCs)

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Abstract

Massive open online courses (MOOCs) have taken the world of higher education by storm. Ubiquitous use of tablets and smartphones, rapid increase of broadband penetration, and the coming-of-college-age of the ‘digital native’ generation have led many top universities to offer some of their courses to a wider audience online, free of charge. Millions of students are actively engaging. We present lessons learned after two years of experience with these new educational platforms and explore the opportunities and challenges of delivering MOOCs to students in Africa (and other developing regions) through a North-South partnership involving universities and teaching staff.

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1 Introduction

Higher education in its present form is falling short of worldwide demand, currently estimated at 100 million potential students annually, primarily from emerging economies (Laurillard, 2014). By 2020 the population aged between 18 and 22 is expected to number 474 million (Lawton et al., 2013), with India and China accounting for 210 million of this cohort. Over the next decade, significant growth in enrolment in tertiary education is forecast,
notably in China (37m), India (28m), the USA (20m), Brazil (9m), but also
in Nigeria (1.4m), Turkey (0.7m) and Ethiopia (0.6m) (British Council, 2012).
Given that only about 2 per cent of students in higher education globally
study in countries other than their own (Lawton et al., 2014), current levels
of student mobility across borders are not expected to meet the growing
demand. Furthermore, building brick-and-mortar universities to satisfy
demand is also likely to pose a major challenge for many countries. For
instance, between 2009 and 2011 alone, China had to build 426 new higher
education institutions, for a total of 2,049 universities. Access to higher edu-
cation for all—in the words of former UK Prime Minister, Gordon Brown,
‘the global ladder of opportunity for education’—is threatened by a huge
increase in demand for higher education.

Globalisation of the education sector is being driven by the rapid spread
of Internet access. As of 2013, 77 per cent of the industrialised world and
31 per cent of the global South had Internet access. The growth of mobile con-
nectivity, particularly in the developing world, has brought online content and
interaction to a global audience (UNESCO, 2013). By January 2014, the global
population had risen to just over 7 billion, of whom 2.5 billion (35 per cent)
were Internet users, and 1.9 billion were active social network users (26 per
cent penetration). Across the world, current mobile subscription penetration
is 93 per cent (with 6.6 billion mobile subscriptions) (We Are Social, 2014).
Africa has an Internet penetration of 18 per cent, and a social network penetra-
tion of 7 per cent. However, mobile phone penetration is currently an impres-
sive 67 per cent. The most important regional differences today are found in
levels of broadband penetration: 55 per cent in Europe, 7 per cent in Africa
(primarily mobile ‘smartphone’ broadband subscriptions), and 4 per cent in
India (We Are Social, 2014).

Online education is driven by both student demographics and Internet
penetration. Although ‘distance learning’ has been a feature of higher educa-
tion since the 1960s (starting with the Open University in the UK), the path
of online education is littered with corpses (Lawton and Katsomitros, 2012).
For instance, investments of tens of millions of dollars were unable to pre-
vent the collapse of NYOnline (New York University platform for continuing
education) in 2001. Similarly, Fathom, a 2003 joint for-profit e-learning portal
of Columbia University, the London School of Economics and others failed
to survive, as did AllLearn, a not-for-profit collaboration between Yale, Oxford
and Stanford, in 2006 (Haggard et al., 2013). Yet, despite these successive fail-
ures, MOOCs emerged.