WE DON’T NEED NO EDUCATION?

NEW IDEAS FOR HIGHER EDUCATION

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About The Wilberforce Society

The Wilberforce Society was founded in 2009 by students at the University of Cambridge. It is the University’s student-run think tank, and aims to provide a forum for dialogue between students and leading policymakers.

This core aim is achieved by three key functions: the promotion of public policy debate amongst the wider student body, the publishing of students’ policy research to a professional audience, and reaching out to policymakers across the UK to work with students on the formulation of new policy.

For further information on the society, its events and the possibility of commissioning policy research, please visit www.thewilberforcesociety.co.uk or email chairman@wilberforcesociety.co.uk.

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Chapter 1

Introduction

What threat could a sprightly new contender pose to the age-old value of the traditional? Could something that has been around for centuries possibly be at risk of being phased out in a matter of years? The answer is yes, this is a real possibility. Hop on the tube any morning and you will see half a dozen people reading a novel but with no books in sight. The traditional book is becoming an endangered species due to competition from e-readers such as the Kindle. Some people now worry that the traditional university model could face the same fall from grace. The submissions contained in this section seek to consider whether we can actually embrace rather than fear the possibility of such a seismic change.

In fourteen short reports, this compilation explores the idea that a new way of teaching and learning could replace the traditional on-campus, set-syllabus university model. The focus of the first twelve reports is on e-learning. This body of research and analysis evaluates almost every aspect of e-learning, including (but not limited to): an exploration of the application of online learning methods; implications of e-learning for access; implications for the national curriculum; whether current courses can be taught wholly online; potential financial models for MOOCs (Massive Open Online Courses); and how universities in Britain and abroad can approach e-learning.

The final two reports explore different alternative education models that, given a blank state, one might want to adopt. One considers self-set syllabi, something that could take off in conjunction with the rise of e-learning as it becomes more feasible for students to construct and tailor the content of their education. The other is a report authored by two ex-Cambridge students who now run Action Tutoring, a self-started social initiative seeking to provide free tuition to underprivileged children through working with volunteers. This special report explores the theory and practice of applying a private tutoring model on a voluntary basis and the implications it has for our existing educational framework.
PART I

E-LEARNING
Chapter 2

Access Implications of E-Learning

Christie Rolley

Outline

▶ Firstly, there needs to be a cultural acceptance of online degree programs as equally valid in terms of merit as traditional practices, something which will hopefully be changed by the inclusion of highly regarded institutions into e-learning practice.

▶ Secondly, practical issues of how such widespread practice will be implemented need to be considered. International students utilizing UK university resources is an obvious positive step toward access across economic and geographical barriers but practical technological issues may restrict the universality of this.

▶ Lastly students of all kinds, including those with special educational needs need to be accommodated for and included in the e-learning experience and this is something which would need to be evaluated before any official system were put in place.

2.1 Access Implications of E-Learning

With the ever growing popularity of e-learning and MOOCs in higher education, it is perhaps unsurprising that questions of access to these services arise. Often used as a positive reason for the expansion of higher education onto the internet, examples of wide participation across geographical and economic boundaries are simple to find.

Jules Horne, an Oxford educated, Open University tutor cites the benefits of distance learning as being numerous. Examples such as Susanne Lockie, full time mother to three and carer to her two elderly parents who cites the mental stimulation an Open University degree provides as ‘lifesaving,’ are easy to find. It is irrefutable that distance learning in forms such as the Open University has for years found ways of enabling those who might have otherwise been unable to, to access a level of higher education. However the OU, the British emblem for accessible distance learning is, itself, changing. Horne states that ‘many courses still have face-to-face tutorials but more and more tuition is moving online’ citing examples of ‘essays being marked online and online tutorial groups replacing the infamous summer schools.’ Such
Access Implications of E-Learning

Christie Rolley

Access to higher education is a basic human right. However, many people, even by the Open University’s previously impressive standards, are not reached by higher education. However such a transition does not necessarily eliminate the previous problems of the Open University. The ‘lazy’, ‘not a real degree comments’ and tired stereotypes of ‘talk and chalk TV’ pervade into the internet revolution and many people may still view Open University or similar online degree courses as inferior to ‘actual university.’ In order to move towards a position of actual equality of higher education and increased access to it, a change of attitude is necessary. True access can only be achieved when online and distance learning is viewed as of equal merit to contact degree programs. This is something which cannot be achieved instantly but rather will occur gradually as more and more degree programs are conducted partially if not wholly online. ¹

A growing acceptance of e-learning as a legitimate form of higher education may be closer than may have been expected. The announcement in December 2012 that eleven top UK universities are launching free online courses to keep up with the ever growing US MOOCs will go some way to securing a new and prestigious reputation for online learning. With universities such as King’s College London, Birmingham, Bristol, Exeter, St Andrews and Warwick, who possess the academic reputation and gravitas that e-learning had perhaps previously been lacking, e-learning has taken a great step forward in cultural acceptability. While the courses are not meant to rival traditional degrees, Prof Bean hopes the partnership will help democratise education. "This is also about unlocking institutions to citizens in the UK as well as abroad. There will be people who want to use it for employment outcomes, and we contemplate users will be able to do a formal invigilated exam if they want to show they were tested to a higher standard of rigour.”²

Across the world e-learning and technology have been used to increase access to resources. Half of schools in sub-Saharan Africa have few or no textbooks, according to Sacmeq, a body that monitors educational quality in southern and eastern Africa. The cost of buying and transporting books means they often have to be shared between students in a classroom, hindering learning and slowing development. Yet e-readers have the potential to change this. Intimigom nursery and primary school in the rural Maasai province of Kilgoris, south-west Kenya, is attempting to overcome textbook shortages by using donated e-readers. The e-readers come loaded with hundreds of Kenyan textbooks in English and Kiswahili, as well as stories for primary school children. When electricity shortages occur, they can be charged using small solar power packs and generators. Sporadic internet connectivity in the area means only a small number of books can be downloaded at a time; for downloads to all the devices, the e-readers are taken to Nairobi, where high-speed internet is more readily available.³ This raises an issue that ultimately access to HE internationally is dependent on technological factors such as internet access and the ability to charge devices. This may ultimately limit the extent to which this education may be universally accessible. Such high expectations as some have for e-learning and access are perhaps too ambitious for a system which is effectively in its infancy. A report regarding Canadian e-learning highlights similar problems with the spread of e-learning stating that ‘We observe several barriers to accessibility to underrepresented and underprepared populations: (lack of) specifically designed courses and student supports, lack

¹http://www.guardian.co.uk/commentisfree/2010/jun/18/open-university-learning-joy
²http://www.guardian.co.uk/education/2012/dec/14/top-uk-universities-launch-free-online-courses
³http://www.uktp.net/index.php?option=com_newsfeeds&view=newsfeed&id=27&Itemid=40
of funding for equipment, and lack of clear information to students.’⁴ In particular examples of students not having access to the right sort of equipment are widely publicized by critics of the system and such financial/economic barriers to access to HE would need to be considered by a British e-learning taskforce. As such it can be seen that practical barriers to e-learning access are a very real problem especially in countries where e-learning is a more established practice. Strategic planning and appropriate consideration of these barriers both domestically and internationally would be necessary before a particular system is developed in the UK.

However, there are further issues of access to e-learning which might not be present in traditional education practice. A consideration of students with Special Educational Needs is necessary before making grand proclamations about the access potential of e-learning. In the Chronicle of Higher Education in 2010, Parry draws visually impaired students’ difficulties with e-learning into the debate stating that ‘Colleges that wouldn’t dare put up a new building without wheelchair access now routinely roll out digital services that, for blind people, are the Internet equivalent of impassable stairs.’ The article goes on to suggest that for many visually impaired students e-learning is a lot less accessible than traditional face to face practice. ‘Online learning is often heralded as a way to make college an option for people who would not otherwise have the money or mobility to access it. But for blind students, online learning can present more obstacles than opportunities — especially as e-learning materials become more technologically sophisticated.’⁵ The report cites examples of new technologies which are proving to be increasingly challenging to visually impaired users. “Dynamic” e-learning content — e.g., graphics that change as a user rolls over or clicks on different parts — could present huge challenges to blind students, says Chris Danielsen, a spokesman for the National Federation for the Blind, or NFB. Figuring out how to translate static tables and diagrams for blind students was trouble enough, he says; it is not yet clear how to deal with newer, more interactive e-learning objects that may soon pervade online education. However, there are certain technologies which can aid these issues though they are not universal. ‘The NFB last week gave Blackboard — the e-learning industry leader whose learning-management platform is used by many online programs — a pat on the back for seeing a new standard for accessibility with the latest version of its online learning portal. Moodle, the open-source learning-management platform that has been making modest gains against Blackboard for several years, allows individual campuses to customize their portals such that they are accessible to blind students. The accessibility of learning-management systems is especially germane to the accessibility of online courses, since in online learning the learning-management platform is not just a supplement to the classroom — it is the classroom.’⁶

As such it can be seen that whilst HE e-learning will reach a great number more students than traditional practices thereby inevitably increasing access, a number of currently standing issues will temper this increase. I recommend that, firstly, there needs to be a cultural acceptance of online degree programs as equally valid in terms of merit as traditional practices, something which will hopefully be changed by the inclusion of highly regarded institutions into e-learning practice. Furthermore, practical issues of how such widespread practice will be

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implemented need to be considered. International students utilizing UK university resources is an obvious positive step toward access across economic and geographical barriers but practical technological issues may restrict the universality of this. Lastly students of all kinds, including those with special educational needs need to be accommodated for and included in the e-learning experience and this is something which would need to be evaluated before any official system were put in place.
Chapter 3

Can E-learning Provide a Social Education?

Clare Williamson

Outline

► In terms of employability, a social education at university is just as valuable as an academic education
► E-learning has several problems in providing this social education:
  ▶ There may be a peculiar problem for e-learning being unable to offer students the opportunity to practice non-verbal communication.
  ▶ Studies seem to show that students struggle to cope socially with some of the innovations of e-learning.
  ▶ E-learning as it stands does not match the traditional university in terms of providing clubs and societies.
  ▶ The model of campus-central higher education can provide a unique benefit to the local society that e-learning cannot replicate.
► However traditional on-campus learning also has its negative points: there appears to be a lack of evidence to support the common view that the traditional university offers students the opportunity to develop greater social skills.

Recommendations

► Research should include in its scope the social impact of e-learning and how best to offer a social as well as an academic education online.
► While e-learning does have some problems concerning the social aspect of learning, the traditional university model is not perfect either. Educators should cast off the rose-tinted spectacles which it is all too easy to find oneself wearing when looking at the traditional and the known. Evaluations of e-learning against campus learning should be made with all the facts at hand.
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3.1 Social Education and Employability

It is widely acknowledged that a student’s higher education experience is more than just about academic development and the obtaining of a degree. In the heavily saturated employment market of today it has become increasingly important for students to not only achieve academically but also socially in creating working relationships with others. The past decade has seen significant expansion in higher education with a 28 per cent increase in student numbers and so it has become even more vital for students to make the most of the various opportunities provided by universities in order to stand out as favourable candidates for employment. The traditional university system ensures that students have many opportunities to engage and develop socially. Lectures and tutorials encourage social interaction between both students and their peers and academics who are experts in their field. Furthermore, clubs and societies cover a wide range of interests allowing students to develop in an informal setting. When considering the viability of e-learning and its possible benefits in higher education one cannot ignore its social implications. Can students really benefit from the “university experience” in a system driven by technology? In order to answer this question we must explore how the traditional higher education system can be adapted to accommodate the use of ICT and e-learning whilst ensuring that standards of student satisfaction socially are maintained.

3.2 Troubles for an Online Social Education

3.2.1 Learning non-verbal communication skills

Social skills are learned and therefore can be taught. Higher education must play a role in their teaching to prepare students for working and independent life. However, there may be a peculiar problem for e-learning as it could be unable to offer students the opportunity to practice non-verbal communication, since most communication would not be in a face-to-face environment. This is problematic because social skills, relationship skills and self-esteem are inextricably linked and are conveyed both in verbal (conversational skills) and non-verbal (the way we talk and our body language) behaviour\(^8\) and without skilful non-verbal communication the likelihood of succeeding at job interviews decreases. Nonverbal communication is any way a person expresses thoughts, feelings, or emotions without speaking. The human body is extremely susceptible to this type of communication, as 80% of the messages we send and receive are done so without ever saying a word. Nonverbal communication skills are another vital part of everyday life. At university, students should be prepared for the working world where they must be aware of their appearance when they are interacting verbally with others. Nonverbal communication serves to drive conversation in a particular direction. For example, knowing the powerful reaction that one’s body language, words, and tone of voice can be a particularly useful tool in business communications. Indeed nonverbal behaviour is the basis upon which other skills are built and its importance cannot be overrated not only in expressing oneself but also in being listened to and taken seriously. Everyone uses their nonverbal communication skills.\(^8\)

\(7\)In Focus Universities UK, Patterns and Trends in UK Higher Education 2011 at http://www.universitiesuk.ac.uk/Publications/Documents/PatternsAndTrendsinUKHigherEducation.pdf

\(8\)Alex Kelly, http://www.livingandlearningtogether.org/downloads/Alex%20Kelly%20Presentation%20Notes.pdf
behaviour consciously as well as unconsciously to communicate individuality, confidence or feelings.³

3.2.2 Can students cope with e-learning socially?

A study carried out by Oxford Brooks University on the student experience of e-learning in higher education has found that when students are questioned about their satisfaction with their courses, they place emphasis on the social impact. Where e-learning programmes do little to change the traditional pedagogy, reports from students highlight benefits to their wider university experience. However, interestingly, where e-learning courses move away from the traditional model in a radical way, adopting new or unusual pedagogies, learners report an "intensely emotional experience and a major concern with time management. It is here that some of the individual differences emerge, particularly in how successfully students are able to adapt to these new learning environments."¹⁰

The lack of face-to-face social interaction presents new challenges to students and teachers are often concerned about students who feel isolated and alienated. Weblogs with teacher education students attempt to reduce this, however, it appears that being an e-learner is an emotionally charged experience. When asked specifically about working online, students are more likely to refer to feelings of frustration. Satisfaction surveys find that frustration is the result of many things including trying to find a work/life balance, trying to navigate online resources, rambling online discussions or materials being outdated.¹¹ Students also report uneasiness at the extent to which they are asked to publicly expose their views. Social and psychological barriers are still paramount despite existing ICT skills. When posting comments online, students feel pressured and fear inadequacy as they are no longer able to blend into the background.

3.2.3 Providing clubs and societies

In terms of informal social activity, the majority of university clubs and societies use social networks such as Facebook and Twitter to acquire members, send out notices and arrange meet-ups and so ICT certainly has a positive impact. However, when e-learning is part of a distance learning programme, there are obvious limitations. The great benefit of e-learning — that it defies the constraints of time and space — could also be seen as its greatest downfall when one keeps its social impact in view. The Open University has attempted to overcome this by creating a student support system — "Platform: The OU Community Online" — and by providing clubs and societies.¹² However, these societies are small in number — a mere sixteen affiliated societies listed on its website are to serve more than 250,000 students.¹⁴


¹²http://www.open.ac.uk/about/main/the-ou-explained/teaching-and-learning-the-ou

¹³http://www.open.ac.uk/ousa/societies.php

¹⁴http://www.open.ac.uk/about/main/the-ou-explained/facts-and-figures
3.2.4 Social impact on communities

Universities play a major role in society and can have great positive influence in local communities. They are an important contributor to the economy both as employers and purchasers of goods. Furthermore, universities have a significant social and cultural influence which is felt through their provision of art galleries, museums and exhibitions, cinemas and theatres, employment for the local community, free lectures and debates, skilled graduates and sport opportunities and facilities. Indeed, the expansion of higher education has increased the facilities available to the communities in which they are situated.¹⁵ Universities UK have stated that “One of the core aims of UK higher education is to meet the needs of the wider community.” Higher education institutions (HEIs) generate £59 billion to the economy a year making them larger than either the pharmaceutical or advertising industries.¹⁶

Student volunteers through students’ unions make a substantial commitment to local communities. Every year 67,000 students volunteer with a charity and the most common reason given is to help in their local community. Students actively contribute to local life by participating in volunteering schemes covering a range of interests from conservation work to helping the young and the elderly. By working together, students’ unions and universities increase how effective their work is as they share expertise resources and contacts.¹⁷

Furthermore, universities also play an important role in access and social mobility. UK higher education institutions aim to widen participation and ensure that all those who have the ability to benefit from university education are able to access it. Access initiatives and projects to widen participation include schemes which actively engage with local primary and post-primary schools and colleges to help raise aspirations and encourage those with ability and aptitude to apply to university. Campus visits, conferences, summer schools and taster days are all a vital part played by the traditional higher education system to improve social mobility.

3.3 Traditional On-Campus Learning

3.3.1 Improving social skills

There is some evidence that attendance at a traditional university increases student’s work-readiness in terms of improving their social skills. New research has shown that successful navigation of the college environment provides social benefits to students as they move into the workforce. A study carried out by Finnish psychologists spanning 18 years and involving a sample of 292 students at the University of Helsinki found that the social skills and behaviour of university students in social situations contributed to their success in the transition to work. It is clear from their findings that university studies encourage students to adopt social strategies that also have an impact on their work commitment and their ability to cope with the challenges of working life. Dr Katariina Salmela-Aro, the principal investigator of the project

¹⁵http://www.universitiesuk.ac.uk/Publications/Documents/EngagingLocalCommunities.pdf
¹⁷http://www.universitiesuk.ac.uk/Publications/Documents/EngagingLocalCommunities.pdf
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Clare Williamson

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Freya Rowland (Ed)

remarked that “The higher the initial level of social optimism and the bigger the increase during university studies, the greater the level of early-career work engagement, dedication and career-related commitment”. The results of the project also suggest that social withdrawal and avoidance during university studies are indicative of a distant attitude towards work and an increased likelihood of exhaustion and burnout after the transition to working life. According to Salmela-Aro, the ways in which people deal with social situations may have far-reaching implications for future life success — “Good interpersonal skills, an active social approach and a sense of community and involvement can equip students with the personal resources necessary in making the transition to everyday work and the competitive world of career-making”.

3.3.2 Failure to provide an adequate social education

Conflicting research suggests that many students continue to leave university without having learnt these vital skills. In the traditional higher education system students are given many opportunities to develop essential social skills. Courses require varying amounts of “contact” hours per week including lectures, tutorials and, in some cases, one-on-one teaching time with academics. Through carrying out these tasks students are encouraged to work both individually and in groups and so therefore should naturally develop the necessary social skills for later life. However, research suggests that many students continue to leave university without these vital skills for employment and some higher education institutions have been forced to introduce special classes for this particular purpose. In 2006 it was estimated that almost one half of Britain’s leading firms expected to have difficulty filling their job vacancies. Indeed Michael Hunting, head of graduate recruitment at Eversheds, the big city law firm, remarked at the time “We are unable to fill all 80 of our graduate vacancies each year out of the 4,000 applications we receive... Two thirds of the people we see really are unprepared.” The Association for Graduate Recruiters remarked that this was because young people coming out of university lack the essential skills needed for jobs that involve dealing with clients. They fall short when it comes to team-working, leadership and communication skills. In interviews they can speak too loudly, too softly or in a monotone. Sometimes they dress inappropriately — in jeans and a T-shirt, for example, when they should be wearing a suit. They find it difficult to look their interviewer in the eye, to think of things to say, sometimes even to say their name clearly.

In an attempt to find a solution to these problems, universities have begun to invite students to attend courses aimed at improving their necessary social skills. Courses directly tackling the apparent social shortcomings of today’s students cover how to sit, stand, walk and make small talk as well as letter writing skills and how to dress. The traditional university system is therefore attempting to override the influences of contemporary youth culture which appears to emphasise informality. Students are being encouraged to write letters where appropriate in place of more modern forms of communication such as a telephone call, e-mail or text message.

If universities need to supplement their students’ social education with special extra courses, then it could be argued that they are not so far superior to online education providers in this respect. Furthermore, online education providers could offer special social classes for their students also. This would result in a blended system of learning.

http://www.independent.co.uk/news/education/higher/students-get-a-lesson-in-social-skills-468183.html
3.4 Conclusion

It is clear that further research is required in order to establish the extent of social issues of e-learning in higher education. As e-learning is in its infancy in universities, the majority of studies are geared towards the educational impact. This is understandable as academic achievement and obtaining a degree are key to the student experience. The social needs of students are important, however, and e-learning strategies must be adapted so that students do not miss out. The traditional university system appears to more adequately fulfil the social needs of students and reduce feelings of frustration and isolation. The social opportunities provided to students and the local community by higher education institutions are unparalleled in the world of e-learning. At present there is little solid evidence to "prove" that e-learning produces as good an education experience as traditional methods when the latter are well applied.\textsuperscript{19} It is important to ensure that the unique and core values of higher education, of what it means to become a university graduate are not unwittingly lost.

\textsuperscript{19}Coimbra Group of Universities, European Union Policies and Strategic Change for e-learning in Universities, Report of the Project "Higher Education Consultation in Technologies of Information and Communication" (HECTIC) (Brussels, 2002)
Chapter 4

Attitudes Towards E-learning: Britain within Europe or Britain against Europe?

Edd Bankes

Outline

► Britain is the single biggest European contributor to online-learning, yet in the context of universities, there is clear concern increased online provision would radically change the structure of higher education, and potentially threaten the current status of universities.

► University provision for higher education in Britain reflects this concern as online resources are generally tied to specific institutions, with little open access material. This attitude is overly cautious, since despite advances in online learning, the preference across all sectors that use online technology remains blended learning, and thus the retention of traditional models.

► Since resources are still largely tied to the university that creates them, Universities must ensure their resources prioritise pedagogical benefit in their development and use, not just cost-benefit or innovation for the sake of appearing innovative.

► Britain would do well to adopt the attitude of European education providers to e-learning, where systematic investigation in underway to develop new forms of, and strategies for, online learning. Here, participation will be key: if Universities wish to remain competitive, they must remember that increase in online learning will only extend the options for British students, particularly as education in the Netherlands and Scandinavia is increasingly conducted in English. Unwillingness to participate in research endeavours now could well see British universities locked out.

British universities don’t have much to fear from e-learning going online itself; but they should be afraid of e-learning provided by European universities, and should stand themselves within Europe on this if they wish to have a future. It is a case of collaboration or bust for British universities and e-learning.
4.1 E-learning is no longer the preserve of corporations: British universities are starting to catch on

Though very much in its early stages, E-learning is already big business and looks set to grow, with more than 400 private corporate companies operating in the UK. On the 14th December 2012, an online platform was launched between 12 UK universities to provide higher education courses to the public along the model of American massive open online courses (MOOCs).\(^{20}\)

This collaboration is unprecedented, as this is the first time a large of number entirely online courses will be provided by academic institutions rather than corporate e-learning providers with their own systems of accreditation. For the most part, further education and higher education providers have focused on the provision and resources for their own students. There is a move towards a transition from baseline provision, where resources are static, to enhanced provision, where resources are interactive, allowing participatory and collaborative forms of learning. Enhanced types of e-learning would potentially redefine the classroom dynamic and relationship between teacher and learner, which perhaps explains why progress has thus far been tentative, with a very strong sense of the need to assess pedagogical benefits, and limitations.

4.2 Neutralising the threat posed by online education

Rather than allow open-access education platforms, British universities are seeking to neutralise the perceived threat of e-learning by branding their own versions of online education, thereby retaining ownership and control of education courses and thus hopefully still making money by having something to sell. The UCL online learning strategy for 2012-15 provides a case study.\(^{21}\) UCL recognises the switch from baseline to enhanced online provision as a way of competing in an international, digital, global environment. While the primary focus on increasing innovation in online teaching will be beneficial to education, there appears to be the sense that appearing innovative is itself desirable; UCL notes that ‘public-facing’ courses, i.e. those more accessible to non-UCL members, will provide a window-shop for the work of the University, and act as advertising for UCL specifically. UCL is not alone, as most universities, weary of the changes that will occur should investment in online technologies across the HE sector increase, are attempting to maintain control over their resources and retain a sense of brand identity as an institution.

\(^{20}\)http://www.guardian.co.uk/education/2012/dec/14/top-uk-universities-launch-free-online-courses

\(^{21}\)http://www.ucl.ac.uk/teaching-learning/strategic_priorities/e-learning-strategy
4.3 Europe’s positive attitude reflects a fair assessment of independent e-learning

Current e-learning provision in Europe is similar to Britain, with a focus on universities changing their student provision, rather than a move to open-access learning; online courses are only free when all higher education fees are entirely funded by the state, as is the case in Scandinavia. However, access depends on affiliation to an accredited HE institution. Depending on individual university provision, students can take modules freely online, but are not guaranteed degree progression, as only a small number of degree courses are currently offered entirely online. This blended model for e-learning, where e-learning needs to be associated with universities in order to be credible, shows that there should be little worry of independent e-learning undermining the value of a university education. The success of online courses depends on their relationship with universities in other ways too. Resources such as British History Online are, given the cost of subscription, usually available only to those able to access through an Institution login. More broadly, a report compiled by the Oxford Internet Institute between February and May 2011 suggested that the success of online resources will be judged by their use in academia: being frequently cited in academic work, or providing information otherwise unavailable.²² Their success, and therefore their viability, depends on their maintaining an intimate relationship with current university practice.

4.4 Using e-learning in a non-threatening way

A further reason why British universities may have less to fear from e-learning than they may think is that current use of e-learning focuses on offering complementary rather than rival courses to university courses. The potential for online learning to serve as a preparatory tool for university education has been recognized, and is a topic of current research. A collaborative paper between Mannheim and Plymouth Universities has shown that high drop-out rates for Engineering students in Mannheim is a consequence of student holding unrealistic expectations when starting the course.²³ Through online maths assessment prior to beginning university, students are able to recognize areas where their knowledge is lacking, and fill in knowledge gaps through specially prepared tutorials. At a university level the current focus of e-learning, aside from courses explicitly concerned with information technology, are modules related to professional development and language acquisition, which are often ancillary to the main curricula of European undergraduate degrees, and not thought to require direct face-to-face tuition.

In addition, the traditional learning environment is still perceived to offer some unique benefits over e-learning which the latter has yet to successfully match or replicate. In business training, the use of e-learning is rising year on year; however, its use is still restricted to contexts in which the economic benefit of e-learning — the reduction of training costs per learner — does not impede the quality of training. As such e-learning is currently most often used for fact and competency training such as Health and Safety training and desktop skills.²⁴ The majority

²²http://www.oii.ox.ac.uk/research/projects/?id=86
²⁴http://www.trainingzone.co.uk/topic/learning-technologies/insight-how-elearning-used-across-europe-today/170466
of employers (76%) still prefer blended learning and favour retaining face-to-face training in certain situations over cost optimisation, even where the technology is available.25 Currently, the EMOTE project, an EU funded collaboration between 6 European universities based at the University of Birmingham, is aiming to design artificial tutors with human capabilities.26 The project has identified a weakness in pre-existing online tutor programs which lack the ability to engage and motivate students or respond empathetically, and suggests that certain types of training are currently unsuited to online learning. The pastoral responsibility of educators has thus been identified as a prerogative for good practice and can be expected to play a large role in determining suitability of e-learning in the future.

4.5 Joining Europe in its positive attitude and action

European universities are engaging in a large amount of research into e-learning and how it can be of use to them; if e-learning is indeed the future, exploring its possibilities now can only be beneficial for British universities. Findings are being shared through EU funded projects, and more adhoc forums such the European Journal of Open, Distance and E-Learning, or the European Conference on E-Learning.27,28 Two overarching aims for the development of e-learning have emerged through these collaborations: the education be holistic, and that online technology be translatable across Europe. Projects like HOTEL (Holistic Approach to Technology Enhanced Learning) aims to promote innovation so as to create holistic education frameworks that make use of e-learning most effectively, and not just for the sake of innovation.29

The second target of translatability reflects both the ideals of the European project and a more pragmatic acknowledgement that successful pan-European online learning projects will have to account for variation in education budgets and access to technology. The Bologna process, launched in 1999, aims to create the European Higher Education Area (EHEA), where all universities have comparable standards, through international cooperation and academic exchange.30 In this respect, creating technologies that can be used and shared across Europe is highly desirable, and fits Bologna’s key aims of mobility, preparation for future careers, and democratisation of education.

Research from Klagenfurt University for example has shown that the best method for online assessment on a European level would be a secure online learning environment where students use their own computers, with temporary restricted access that would balance the need for fairness in examining and cost-optimisation.31 The focus remains balancing the use of technology against the broader aim of effect, holistic education.

25http://www.trainingzone.co.uk/topic/learning-technologies/insight-how-elearning-used-across-europe-today/170466
26http://www.emote-project.eu
27“http://academic-conferences.org/ece12012/ece12-home.htm
28www.ejel.org
29http://hotel-project.eu
30http://www.ond.vlaanderen.be/hogeronderwijs/bologna/about/
4.6 Conclusion: collaboration or bust?

British universities should get involved with European research and initiatives about e-learning; otherwise it is in danger of competition from e-learning — that of e-learning provided by European universities. Despite Britain’s large investment in online technology, within Europe, its contribution is notable under-representative, and there is a clear possibility that lack of contribution will lead to British higher education being left out. British nationals can of course apply to study in any EU university, and if online provision in Europe is better, students may well prefer to study through European universities where online learning is being successfully integrated into formal university degrees. Current research is aiming to allow for variation in university practice across Europe, and without direct involvement, the specificities of British education — already notable in its unwillingness to align to the Bologna process — might be ignored, and the British system left incompatible. The extent to which British education cooperates with Europe, beyond individual links between Universities and University networks, will be key in the future of British e-learning, and where Britain wants to align itself must be decided.
Distance learning is plagued with a reputation for being inferior. "There is a perceptual disparity …that distance education is second best" (Giannoni & Teone, 2003, 3). Society and employers need to see that online courses are accredited by established institutions of education in order to hold them in higher esteem. Research into how distance learning is perceived in the labour market showed that only 6% of health profession employers indicated a willingness to hire an applicant with an online degree and only fifteen per cent would accept an applicant with half of his or her courses earned online (Adams, DeFleur & Heald, 2007). It is important that future policies address this and aim to create a more accepted qualification.

However, using this policy of accreditation from traditional institutes to alleviate one issue could raise another issue, that of worsening an already mis-matched labour force. In the OECD there are on average one in four over-qualified workers — i.e. they possess higher qualifications than those required by their job — and just over one in five are under-qualified (OECD, 2011). Education should prepare an individual for work and the system should create a labour force with qualifications that are desired in the workplace.
5.1 The Problem: e-learning qualifications are perceived by employers as second-rate

Despite an increase in demand for online degrees over the past decade, it remains questioned whether distant learning carries the same prestige as its traditional counterpart. The biggest issue has been guaranteeing accreditation of the qualifications. Adams and DeFleur (2005) highlight this issue: despite the high number of courses available online (678) “only a handful are fully accredited or taught from recognised institutions”. In both the academic world and the labour market the idea exists that “there is a perceptual disparity …that distance education is second best” (Giannoni & Teone, 2003, 3).

In the United States, studies have shown that the overwhelming majority of employers view academic credits earned online as inferior to those earned in the course of a traditional residential program. Adams and DeFleur investigated the attitudes of employers towards four types of job application where the applicant relied on online credits: using credits earned online as a credential when applying to a university graduate program (DeFleur & Adams 2004), applying for a job in a business hiring situation with a bachelor’s degree earned wholly or partially online (Adams & DeFleur, 2006), seeking employment in a university faculty position (Adams & DeFleur, 2005), and seeking employment in the health professions (Adams, DeFleur, & Heald, 2007). In each of these studies employers were asked to choose between candidates whose qualifications differed only in terms of whether they earned their credits online or in a traditional residential program. Only 6% of health profession employers indicated a willingness to hire an applicant with an online degree and only fifteen per cent would accept an applicant with half of his or her courses earned online (Adams, DeFleur & Heald, 2007). There is clearly a negative perception of the value of an online qualification. Many comments in the surveys indicated that the underlying cause of the judgement is often due to the “newness” or lack of previous research attributed to the awarding institution.

5.2 The Solution: for established academic institutions to accredit online courses

Reputation and prestige is based on accumulated experiences and success over time and unfortunately distance learning has yet to earn such regard. Qualifications are undoubtedly not only a reflection of the academic excellence but on the standing of the awarding body. The failure of distance learning to deliver the latter aspect is cited as one of the biggest barriers to the labour market for those holding online qualifications. In this respect, the announcement by a number of well regarded British institutions, in December 2012: that they will be embarking on a joint venture with the Open University, will certainly help to make Open University degrees more widely accepted.
5.3 Bringing together the labour market and the education sector will be crucial for success

One of the greatest concerns about the ‘education for all’ approach that the Open University embraces is that it will undermine the value of a degree and create an over saturated and over qualified job market. If more universities add credence to online courses and increase their value there is the potential for this to happen. It is not a problem in itself though, it will just mean that a greater distinction will be required between the quality of the degree obtained and of the awarding institution so that the labour market remains differentiated and employers can find those most suited to the vacancy. The labour market and in turn the economy is reliant on having a labour force whose skills and qualifications match those required for the job. In the OECD there are on average one in four over-qualified workers — i.e. they possess higher qualifications than those required by their job — and just over one in five are under-qualified (OECD, 2011). This suggests that there is a disparity between the labour market and educational provision. With policies that focus on encouraging online qualifications to correct this situation, rather than have the predicted over saturated and over-qualified workforce, there can be a more efficient allocation of qualifications. This requires investigating and establishing which sectors are subject to the greatest imbalances.

5.4 Resources


Adams, J., & DeFleur, M. H. (2005). The acceptability of a doctoral degree earned online as a credential for obtaining a faculty position. The American Journal of Distance Education.


Michael R. Simonson, Sharon E. Smaldino, Michael Albright Teaching and Learning at a Distance: Foundations of Distance Education,; Allyn & Bacon/Pearson, 2009

OECD Social, Employment and Migration Working Papers No. 120 Right for the Job: Over-Qualified or Under-Skilled? Glenda Quintini
Chapter 6

E-Learning in Secondary Education

FRANCES PICKWORTH

Outline

This paper proposes that learning in secondary schools should be increasingly digitalised. This is to be achieved principally through better teacher training, both in basic digital skills and pedagogical methods. This will ensure children are prepared for the possibility of digitalised higher education and ultimately for the level of digital literacy that future careers will involve.

6.1 Supporting Research: Why digitalise?

Increasing the use of digital technology in secondary education has many arguments in its favour, even regardless of the impact of evolving higher education systems. Access to educational technology has already been shown to be beneficial to children’s rate of progress in education; two of the largest UK studies looking at the influence of technology on pupil attainment, the ImpaCT study (2002) and the Test Bed project (2002-2006), found significant statistical evidence to show correlation between increased use of technology and better exam results in UK schools across Key Stages. A 2011 study estimated that technology use in school could increase the average pupil’s level of attainment by the equivalent of up to four months’ extra learning time, whilst another study for the US Department of Education found that lessons including online learning tended to result in a higher level of student attainment than those relying solely on face-to-face instruction.

The internet is becoming more and more accessible and easily adaptable to the aims of education; through its portals, including specially-designed websites, apps and learning platforms, it grants access to a vast array of resources for students on the cutting-edge of educational theory.

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³³“Multi-touch tables and the relationship with collaborative classroom pedagogies: A synthetic review” — Higgins et al., 2011

³⁴“Evaluation of evidence-based practices in online learning: A meta-analysis and review of online learning studies” — Means et al., 2010 pp. 51
E-Learning in Secondary Education

and practice. An example of the quality and intelligence of some of these online resources is the Khan Academy, a US based non-profit organisation with the aim of providing free, world-class education to anyone who wants it, the world over. Their extensive site offers, amongst other things, over 3600 step-by-step videos teaching various topics, an adaptive self-paced learning environment with regular opportunities for practice, and an interactive assessment tool offering immediate feedback and the chance to record and track personal progress. Though most topics covered so far by the site are science and maths-based, courses are beginning to be offered in the humanities, for example history and finance. Other online learning materials of a world-class standard are already available from sources such as iTunesU and Academic Earth.

Digital technology also offers the possibility of more pupil-oriented and individualised learning. Educational computer programmes and sites, like those mentioned above, are available that grant pupils the ability to progress at an appropriate rate without the constraints of the traditional classroom environment that may mean faster learners are held back whilst slower learners are pushed too fast and left behind. Using certain educational technology means learners can choose where to begin in the topic, and then read explanatory material, watch videos and animated diagrams, listen to podcasts etc. to assimilate the information, in whatever way and at whatever pace best suits them. They can then progress through interactive tests, with immediate feedback, and move on to new topics as quickly or as slowly as they like. They develop the ability to structure their own learning; supervised and encouraged, of course, by a classroom teacher who can keep an eye on their progress in the form of diagrams or charts of the results of the digital assessments, delivered straight to their own computer. The interactive aspect of learning, as opposed to the passive "spoon-feeding" approach to imparting knowledge, has been shown to be vital to students' understanding of and engagement with new information; digital technology is an obvious and appropriate choice to ensure provision of this facet of education. This approach would also help reduce inequality of teaching between schools; as long as they were provided with the necessary technology, every child in every school would have access to the same resources, including assessment tools and video-lectures given by highly-rated teachers. Pupils and teachers from schools could share ideas and advice on how to teach and learn, using online forums, blogs and wikis.

In general terms, increasing digitalisation in schools makes sense. In an age of digital revolution, young people need to be digitally literate enough to engage with new developments in their world and to understand them. It is increasingly the case that higher-earning, skilled jobs in Western economies require a high level of technological competence, and children need to be made comfortable with new technology at an early age in order to be able to compete for employment later in life. Experts, amongst them Microsoft's Director of Education, Steve Beswick, have exposed the worrying potential for a skills-gap in the economy, as young people

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³⁵https://www.khanacademy.org/about
http://www.academicearth.org/
³⁷Year 8-9 pupils surveyed in one school, for example, claimed that use of interactive whiteboards (IW Bs) made lessons "less boring": “Connecting digital literacy between home and school” — Lyndsay Grant (Senior Researcher, Futurelab), Dec 2012 http://www.academia.edu/1439259/Connecting_digital_literacy_between_home_and_school pp. 14; cf. also “Digital literacy across the curriculum” — Cassie Hague, Sarah Fayton, 08/04/11 http://www.curriculum.edu.au/leader/default.asp?id=33211&issueID=12380
make use of popular websites, social networks and computer programmes without understanding how they work; the future will require active makers and developers of technology, not just passive consumers of it.\textsuperscript{39} In order for the UK’s economy to thrive, the country’s youth must be capable of creating and filling roles in the expanding digital market.\textsuperscript{40}

Closely linked with global digital evolution is the growing trend for online higher education. If the universities of the future go digital, children will need to have been trained in the relevant skills early on in order to be able to get the most out of online courses. Were higher educational institutions to become purely digital tomorrow without any reformation of secondary education, obvious difficulties would arise. A major factor would be that of self-motivation. School pupils are currently accustomed to a strictly timetabled day, where the subject and content of each lesson is determined by a teacher and specific work is set with definite deadlines. The record of students’ progress over the year is for the most part determined by a few short, intense exams over a couple of weeks in the summer. Current “physical” universities already pose a problem to students used to this way of working; but a timetable of lectures and deadlines for essays, along with exams at the end of the year, do impose an overarching structure within which students must operate that has similarities with the school system. Online universities, however, would be quite different; self-driven learning, involving watching recorded lectures and completing tasks and assessments whenever convenient, with no time limit imposed for completion of a course, would mean setting one’s own timetable and plotting one’s own progress over the course of one’s learning. It seems unlikely that a student unused to this way of working would have the self-motivation or the organisational skills to make the most of their chosen online course.

Another problem is the sheer amount of information available on the web. Pupils at school are often “spoon-fed” relevant information by textbooks, teachers or specially written online resources to be found on school intranets. Though online courses will often have available specific e-resources with all necessary information included in them, for students needing to do their own research for a course or project the ability to critically assess the mass of accessible data may be lacking. Schoolteachers currently complain of pupils’ “copy-and-paste” mentality; they read and use online information without questioning its reliability or relevance to the task at hand.\textsuperscript{41} Often, children will assume that the site with the most “hits” on a search engine will be the most useful and trustworthy, without taking into account other underlying factors that may skew search results. Schools need to give children more of a chance to explore and use the internet as part of their studies, whilst acting as a guide for them in developing the skills necessary to making the most of what the web has to offer.

\textsuperscript{39}“Tech-friendly teens overtaking schools, says Microsoft” — Sean Coughlan, BBC 14/01/11 http://www.bbc.co.uk/news/education-12192047
\textsuperscript{40}“End of empire for Western universities?” — Sean Coughlan, BBC 11/07/12 http://www.bbc.co.uk/news/business-18646423; “Connecting digital literacy between home and school” — Lyndsay Grant, Dec. 2012 pp. 4
\textsuperscript{41}“Connecting digital literacy between home and school” — Lyndsay Grant, Dec 2012 pp. 10
6.2 Why hasn’t digitalisation in schools already happened?

One of the main stumbling blocks for school digitalisation projects is the lack of appropriate and sufficient training for teachers; not only in how to use digital tools properly, but also in the best ways to introduce them into the classroom. Many schools have used grants or their own budget to buy large amounts of digital technology, only to find that it seems to have little or no effect on pupils’ academic attainment, or even that the technology isn’t being used; research from 2010 suggests that there are around 365,000 "ineffective" computers in schools. The main reason for this, as evidenced both by external assessors and teachers themselves, is that teachers often feel uncomfortable with new technology and lack the confidence to use it in lessons, often finding it difficult to work out how to integrate it with existing pedagogical methods. Though some schools claim regular and productive use of technology in lessons, many admit that they seldom use ICT, and that when they do it will be part of a rare "session" in the ICT suite. Computers, IWBs and other educational technologies end up being physically separate from normal classrooms and "tacked-on" to the existing curriculum, rather than properly integrated with it, with the result that using technology comes to seem something out of the ordinary and not a natural part of lessons.

What is needed, therefore, is a reform of the current system of pre — and in-service training for teachers: PGCEs and other courses resulting in QTS should involve technology as an integral part of teachers’ own learning, as a way of demonstrating its pedagogical function, and this initial training should be supplemented with regular, brief courses, preferably able to be completed online, to keep qualified teachers in the loop and up to speed with the latest updates in technology and its incorporation into education.

Of course, one of the reasons this transformation in teacher training has yet to occur is the question of money. The cost of reforming and providing both initial and in-service teacher training, along with the digital equipment needed for their study, could be substantial; Sam Carlson, Executive Director of World Links, an e-learning charity, estimates that at least 80 extra hours of training would be needed to ensure each teacher had the skills to properly integrate technology into their lessons, and for every expenditure made on technological equipment in schools an added 40% should go towards teacher training. Add to that the cost of technological equipment (computers or laptops, IWBs, high-speed broadband) for the schools themselves, along with maintenance and the replacements that will be necessary sooner or later, and an extremely hefty bill becomes increasingly likely. The Department of Education currently spends around £64 per pupil on ICT equipment and resources; an extra 40% for training would bring

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42"Costly hi-tech kit lies unused in schools, says study" — Judith Burns, BBC 16/11/12 http://www.bbc.co.uk/news/education-20348322
43"Tech-friendly teens overtaking schools, says Microsoft" — Sean Coughlan, BBC 14/01/11
47http://www.education.gov.uk/cgi-bin/schools/performance/group.pl?qtype=NAT&superview=sec&view=cfr&set=G&sort=&ord=&tab=26&no=999&pg=1
the total per pupil to nearly £90. At the moment, many schools have funded projects to introduce more technology into classrooms through a combination of seeking government grants, help from charities, and contributions from parents; Copland Community School in Greater London, for example, managed to implement a scheme to provide all current and future Year 7 pupils with an iPod Touch for learning purposes, despite the very varied financial backgrounds of its pupils.\(^4\) However, due to cuts in education spending of 5.7\% (including inflation) in the past year,\(^5\) it seems likely that the government will have less to spend on grants for such projects, whilst increasing numbers of schools applying for help with funding will increase the pressure on charities that may not be able to deliver. Though some schools may be able to raise enough money through parental donations, currently the most popular method of financing a technology scheme according to the charity The E-Learning Foundation,\(^6\) due to the vast variation in the socio-economic backgrounds of pupils it is very likely that some schools in less wealthy areas may struggle to raise the necessary cash in this way. There is thus the worrying potential for a technology drive to further increase the gap in attainment between better and worse-performing schools.

Another issue, perhaps not currently a barrier to school digitalisation but certainly something that would need careful consideration for a future of online universities, is that of assessment. If technology in schools is designed to enable more self-driven, individualised learning, is the traditional exam system the best way to measure progress? If a subject is taught with the intention that children will simply push themselves to do the best they can do, with no expectation of a particular level of understanding being reached on which they can be tested, what good would it do for all pupils to sit the same exams at the end of the year? A pupil’s academic level could simply be ascertained by referring to the record of the assessments they’d completed so far during the course of the year. Yet some would argue that summer exams have intrinsic value as a learning method in themselves: an annual recap of the year’s work would ensure revision and consolidation of what had been learned. Could online assessment offer the same opportunity for knitting together the different areas of a subject so that, at the end of a course, topics dealt with earlier in the year were as fresh in the mind as those learned more recently? It is also worth considering the fact that many school exams are designed as a way for higher learning establishments to ascertain whether a pupil will be academically suited to their courses. Online courses, however, don’t (yet) require a certain level of academic achievement for enrolment; GCSEs and A levels, then, would be little use to those wishing to embark on an online course after school. Yet surely there would need to be some kind of standard level of academic achievement set as a target for those leaving school? GCSEs and A levels now allow pupils, teachers and legislators to keep an eye on the quality of educational provision and progress; if those exams were to be abolished, a new system would need to be set up to ensure maintenance and observation of academic standards for school leavers.

\(^5\)http://www.guardian.co.uk/news/datablog/2012/dec/04/government-spending-department-2011-12
\(^6\)http://www.e-learningfoundation.com/sustainability
6.3 Digitalisation as a solution

As has been pointed out, there would be a significant cost involved in adapting teachers’ training and providing equipment for them to work with. But after this initial expenditure, there would be the potential for cutting spending in other areas. Better teacher training would allow schools to get more out of their existing equipment, in terms of its cost-effectiveness as an aid to learning. In-service teacher training itself could be made much more time-efficient and accessible if it was delivered in the form of short, regular online courses, which could be completed whenever convenient, after school or at weekends, and thus would not detract from actual teaching time in school. They would also be much cheaper to organise, as no venue, food or travel costs would be incurred; speakers would not need to be booked or costly equipment set up, and teachers could complete a short online assessment for each course to monitor their own progress. Regular online updates also seem to promise a much better general system of training; one-off training days (especially for development of technological skills) have been shown to be ineffective,¹ with teachers feeling they are left with an insufficient grasp of what has been taught and that they have had no chance to practise and develop new skills in a supportive learning environment afterwards. A continuous system of short courses, with support maintained even after the end of the course through online forums and help websites, offers the chance to transform this training system for the benefit of students and teachers alike. Teachers would also benefit personally from a greater affinity with the digital world, which would provide more access to emotional and professional support from peers, experts and curriculum advisors via online education forums and specially designed *chat* programmes.²

The question of cost often arises in discussions of school digitalisation, and spending on technology would certainly have to be gradual and very carefully thought-out. Its use in schools would, however, eventually prove more economical in other ways. School textbooks are incredibly expensive, with the added disadvantage that they can become out-of-date just weeks after they are printed. Schools will often be found using textbooks more than 10 years old, simply because replacing them would be too costly. Online resources, however, are easily updated, and often completely free; some programmes require a charge for use, but these are inevitably still cheap compared to books. They also provide access to world-class teaching, resources and materials for a very low price; much more than the average physical textbook can offer. The prospect of more student-driven learning also brings the need for extra teachers into question; if students have access to specially-designed resources and methods of measuring their own progress online, along with forums and chat-rooms in which they can pose and answer questions, teachers should eventually evolve into facilitators and mediators of pupils’ exploration of the internet’s multi-faceted environment and opportunities for peer learning,³ rather than, as they have been thus far, actual sources of knowledge in themselves. One expert has described this potential change in the role of teachers as a shift from being “the sage on the stage to the guide on the side”;⁴ they will still be an indispensable part of the classroom, but able to focus on monitoring and helping individual pupils rather than attempting to push a class of up to 30 students of differing abilities along a strictly defined path of learning at

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¹“*The missing link in educational technology: trained teachers*” — Sam Carlson, Oct — Dec 2002 pp. 7-8
²“Educational networking: the important role Web 2.0 will play in education” — Steve Hargadon, 12/16/09 pp. 5-6
³“Decoding learning: the proof, promise and potential of digital education” — Luckin et al., Nov. 2012 pp. 20
⁴“The missing link in educational technology: trained teachers” — Sam Carlson, Oct — Dec 2002 pp. 8
the same rate. This change may one day result in the need for fewer teaching assistants in classrooms, as children have more access to online help and to learning that will progress at a level suitable to their individual needs.

It is also likely that the model of pupil-driven assessment offered by many online resource providers would prove much more useful than the current exam system. Continuous mini-assessments and revisions would surely be a better gauge of student progress, taking into account a child’s understanding of a topic immediately after it is tackled and their ability to constantly push themselves to progress, rather than just the ability to cram information at the last minute or to keep calm under pressure. Some teachers with an eye on the future are already questioning the need for pupils to internalise vast quantities of information when, if digitally literate, they would have the skills to find the necessary data quickly and accurately online. Using technology, a reliable record of a pupil’s progression through various topics and levels of understanding could be produced, backed up by online tests at the end of each sub-section of a course and regular revision tests later in the year. Programmes have already been developed, such as that of the Khan Academy, that would use this data to effortlessly track individual pupils’ year-on-year progress in different subjects, and could combine pupils’ data to create a similar record of a class’ or school’s achievements to be monitored by teachers. A pupil could, in such a system, be the judge of their own abilities with regard to enrolment on online courses, which could give a guideline for the expected standard of potential participants in a given subject, so that pupils can choose a course appropriate to their own needs. It would be in the student’s own interest to gauge their abilities reliably, and so be able to work their way through the course at their own pace.

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Chapter 7

Student Support Services & Student Well-Being

Megan McPherson

Outline

With the increasing prevalence of e-learning it is important to look into how an online model of higher education could continue to offer its students a wide range of support services which seek to cater for students’ emotional and physical well-being. Comparing the sort of services on offer at campus universities such as the University of Cambridge, the University of Glasgow and the University of Edinburgh to those which the Open University and the University of Edinburgh’s MOOCs provide, I suggest that:

▶ Student support services ARE compatible with online courses, since many forms of advice and support are available online as well.

▶ It is still necessary to provide drop-in centres where students can experience face-to-face advice, discussions etc as for certain issues this is necessary but also some students may feel more comforted with this experience.

▶ Online courses may actually reduce some students’ need for support services, as the online model is effectively a solution to certain issues in itself. For disabled students and students who wish to pursue a course at a university away from home but do not want to leave home, it appears that the online course could provide a better university experience.

▶ The issue of how to maintain the social aspects of university via online learning is one that needs to be addressed, as student based support networks are often what students find is the best support. Social networking sites and forums, such as The Student Room, show that this is possible within an online model.
7.1 How do support services currently work and how far can they be adapted?

University is not just about academic learning and employability but also about student experience. Perhaps one of the biggest challenges an online university model faces is how to deal with the social and emotional aspect of the student experience. There are two aspects to this: sociability (meeting new people, joining societies, life skills etc…) and emotional and physical wellbeing. This report will focus on the latter.

Student support services are an integral part of Britain’s universities. The main question, with regards to the future of e-learning, is how these services can continue to be provided to students at the same standard, or higher, within an online framework. It is important to consider the following:

▶ How important is face-to-face contact?
▶ To what extent are these services necessary because of the problems of moving away from home for university?
▶ Which services are already provided in the local community?

7.2 Study advice

Advice on how to organise work/revision, how to cope with stress and how to deal with difficult lecturers, tutors. Though some students may prefer face-to-face contact, this sort of advice is easily provided on the internet or via remote modes of communication. This advice could be obtained the following ways, those in bold are the services which are easily provided online/ from remote access:

▶ Website with advice, especially with contributions from current students
▶ Email/Phone/Skype tutors/supervisors with queries
▶ Older students’ advice
▶ Drop in centres to speak to trained advisors
▶ Forums between students to discuss problems and share solutions e.g, The Student Room
7.3 Sexual Health

This aspect of student support includes both advisory services on sexual health and practice, but also health services such as providing contraception and STI tests. This is a highly important area of student support, particularly for younger undergraduates for whom university often marks the beginning of sexual activity. Though this advice is easily provided online, face-to-face contact is also very important due to the highly personal nature of the issues. However, working with local sexual health clinics and GP surgeries could be a way to provide such services.

- Website with advice
- Forums
- Drop in centres
- Speaking to friends and family
- Clinics and GP surgeries

7.4 Health and disabled services

It is of the utmost importance that students’ wellbeing is the first priority at any university. Disabled students and students who fall ill may face difficulties with completing their studies at a campus university, which requires them to attend lectures and classes, and stay in accommodation if it is far from the student’s home. While campus universities have support systems in place for these students, online learning may be a better option. Online learning is more flexible and can be done from home, or wherever one chooses to do it, therefore some students who require particular help may find that staying at home with the family, carers, or equipment which makes them most comfortable is the best option. For students with learning difficulties online courses may also be the better option as there is more scope to control the pace of your learning.

7.5 Everyday issues and personal issues

These are the most unpredictable of the issues a student faces and therefore the services have to be open and flexible. Trained counsellors are necessary as are a range of mental health professionals. While anonymity via the internet is exactly what some students in difficult positions want, others feel more reassured and comforted by face-to-face contact, and both of these options should be available to all students. However, while some personal issues are unavoidable, for some students it is the stress of moving away from home, starting a new chapter in their life and the variety of new experiences university brings which are the source of their unhappiness. In these cases, online learning would suit those who wish to access courses at a university far from their home but do not want to leave behind their preferred support networks. The services provided to combat this area of student wellbeing could be:
7.6 Financial Support

One key benefit of online universities is the reduced cost of learning. Not only are the fees much less than campus universities but their flexibility means that students can undergo part time degrees alongside work. In this respect the financial issues which burden many students are greatly reduced by the very nature of online learning. However, currently, there is still a cost. The purpose of this report is not to consider the financial structure of future higher education, therefore its assessment of student support will be based on current models of online learning. The Open University provides many flexible payment methods, including:

- OU Gift vouchers
- Monthly instalments
- Delayed payment until after course
- Student loans/ government grants and bursaries

7.7 Support for religious and ethnic minorities, LGBT+ and women’s services

These support services provide much needed support to alienated student groups. However, some of these students may feel less isolated among their home networks and therefore online courses allow them to pursue studies without having to sacrifice these. Yet others enjoy the support they find at university, in contrast to the lack of support at home. In this case the following services could be provided:

- Websites with advice and helplines
- Advice from older students
- Forums and social networking
- Societies (can be conducted online but important to facilitate face-to-face meetings)
Chapter 8

How Compatible Are These New Ideas for Science Degrees?

Patrick Kirkham

Outline

▶ Both official bodies which accredit University degrees and also companies who employ science graduates have publicly expressed their support for practical work in science degrees.
▶ Although some practical work could be replaced by online software, much is not even hypothetically possible remotely, such as work which requires expensive equipment, the making of models, fieldwork or the use of senses such as touch and smell which require the student to be physically present.
▶ The Open University solve this problem with residential schools. However, the residential courses offered are not long enough to satisfy most accreditors criteria and they cannot feasibly be offered for free in the fashion that most MOOC courses are.
▶ We must therefore conclude that MOOCs and online courses may supplement the traditional science degree but cannot replace it.

8.1 Introduction: Differences between teaching of science and arts degrees.

Generally speaking those degree subjects branded as science courses — including but not limited to physics, chemistry, biology, geology, engineering, computer science, medicine and all branches, offshoots and subdivisions of those subjects — have many more contact hours per week than arts subjects such as English, History, Philosophy etc. This is largely due to the inclusion of practical or laboratory work in these courses.

Such work brings with it greater complications than other teaching methods in the inclusion of new ideas such as MOOCs. Compared to lectures — which can be recorded and played online — or supervisions, tutorials and seminars which can be done via video conferencing, practicals do not have such a direct online equivalent. At first sight practicals will therefore be harder to implement in online and distance based courses, such as MOOCs. We must therefore discuss how this could be done, and how it is being done in institutions such as the Open University, and whether MOOCs or distance learning could ever really successfully replace traditional courses for science degrees.
8.2 Importance of Practical Work

The Research Councils UK (RCUK) say that "practical work is one of the defining features of scientific observations and enquiry." This view is echoed elsewhere. Academics such as Professor Ken Grattan at City University and Dr Donald Palmer at the RVC have argued that practical skills are important for employability. Similarly employers such as LGC, a forensics institute, have condemned those degrees which do not offer a high enough level of practical work as producing students that lack the "right fundamental technical skill set for employment in our laboratories."

Many institutions which accredit degrees also list minimum requirements of practical work that must be undertaken for accreditation to be awarded. This implies that the experts leading these bodies attach considerable importance to practical skills and, whatever else, it is important that degrees contain practical work if they wish to be accredited, presuming the institutions do not change their criteria.

The Geological Society, for example, publishes a list of degree accreditation criterion which requires up to 60 days of field work across a four year course. The Royal Society of Chemistry (RSC) requires 300 hours over a three year degree whilst the Society of Biology has issued a statement declaring the importance of practical work, although it does not publish a full list of criterion for accreditation.

It is possible to publish four main aims of practical work, as set out by an RSC publication. This publication was specific to chemistry but we can easily extend this logic to other sciences:

1) skills relating to learning chemistry, illustration
2) Practical skills — opportunity to handle equipment and chemicals, to learn safety procedures and to master specific techniques and to measure accurately and observe carefully
3) Scientific skills — learning observation, deduction and interpretation
4) Team working, time management, reporting, presentation, discussion

In spite of the above, some commentators have questioned the effectiveness of practicals as an educational instrument. Reid and Shah, in the same RSC document, ask why the place of practicals in education is taken for granted, especially when a one hour practical costs 15 times more than a one hour lecture. They quote work by Hawkes (2004) saying most of the evidence does not support the use of lab work in furthering the goals of a chemistry degree. A University
of York document\(^6^3\) says that practical work only has a limited role to play in education and is often of little educational value.

However, the general consensus seems to support the use of practicals, field and lab work and this part of education comes in such a variety of guises that probably not possible or helpful to generalise too much; there are bound to be university courses with useless practical courses and others with much more helpful ones.

### 8.3 Can New Ideas and Science Education Go Together?

The main existing MOOCs such as edX, Udacity, Coursera, and the Maringal Evolution University do not offer anything other than introductory courses in science courses, with the notable exception of Computer Science. This may imply the logistical problems of implementing practical courses but could also be related to price; most MOOCs are free and it could be the higher cost of science courses which limits the their introduction.

Several open universities around the world offer science courses via distance learning. Most of these conduct laboratory work in residential courses during the degree. The British based Open University, for example, \(^6^4\) offers science students an optional three day residential period roughly midway through their course. IGNOU\(^6^5\), the largest university in the world, extends this period to two weeks. This is obviously still much less practical time than at most universities, and less than required for accreditation by most bodies. Furthermore the cost of this is not included in tuition fees and it seems unlikely that such residential courses could ever be free, as existing MOOCs are.

Curiously some courses seem completely absent from the list of programmes offered by such Open Universities. One, for no obvious reason, is geology; this may be due to the amount of field work required for such a degree. The second is medicine which is an obvious special case; the need for hospital based training has so far precluded the inclusion of medical degrees in distance learning institutions.

Some courses, such as chemistry degrees, have computer work as a partial replacement of traditional lab work. For example, chemistry courses may use wolfram mathematica or matlab projects and the RSC permits an unspecified number of hours of such work to make up the 300 hours needed for accreditation. Many University physics courses, too, may use programming instead of lab work. Such work lends itself much more easily to distance learning, analogous to the teaching of computer science by established MOOCs.

Nonetheless practical sessions in a more traditional sense, as noted earlier, remain ubiquitous in higher education. In theory some data collecting practicals, in physics for example, could be achieved by distance learning or, at the least, interactive videos of an academic undertaking the experiment as a demonstration could become more prevalent. This could, in part, achieve some of the goals usually achieved by traditional practical work.

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\(^6^3\)http://www.york.ac.uk/media/educationalstudies/documents/research/Analysing%20practical%20activities.pdf  
\(^6^4\) http://www3.open.ac.uk/study/undergraduate/qualification/science/index.htm  
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Some work, however, can not even in theory be conducted completely by e-learning. In geology, for example, one must rely on touch, smell and even taste in practicals for rock identification, something which cannot be done with current or even imaginable technology. The building of scale models and designs in engineering, too, requires expensive equipment and so this subject too is not entirely amenable to education in the MOOC style. Similar problems are encountered in some branches of physics, chemistry and biology; if one accepts that the practical work included in most science degrees is important then it must be acknowledged that distance learning and MOOCs are not fully compatible with science higher education.
Chapter 9

Financial Models: MOOCs cannot remain free if they are to be respected

PATTY WYLLIE

Outline

▶ Despite claims that MOOCs are the 'beginning of the end' for higher education, at present their completed courses are not accepted by employers or academics in lieu of a degree. The major faults in MOOC structure that prevent it from being taken seriously are:

▶ The lack of proctored examinations that can prevent cheating

▶ A bias towards courses that can be assessed by multiple choice tests, rather than essay-based subjects that need a human assessor

▶ A lack of student support by tutors within forums, discussion groups or marking assignments.

▶ These features will require a regular stream of revenue. All the major MOOCs are presently considering how they will charge for their services, and the millions already invested by venture capitalists and others suggest that they, too, expect MOOCs will soon provide sizeable returns. The main options being considered are:

▶ Charging for accreditation services, such as for the proctored exam or the actual final certificate

▶ Charging for the accoutrements of a traditional degree (where the MOOCs fall short) such as tutoring of library resources

▶ Charging for headhunting, taking a finder’s fee for matching the best students with the best jobs

▶ None of the options currently being considered for bringing in revenue are without faults, but devising a system of payment is the start in making the MOOCs a realistic alternative or supplement to traditional degrees.
9.1 MOOCs Cannot Remain Free if they are to be Respected

This paper proposes that the directors of Massive Online Open Courses must develop business plans that require payment for the use of their resources.

Massive Online Open Courses, or MOOCs, have been hailed by their supporters as the end of higher education as we know it. They draw attention to the capacity these free courses have to attract huge numbers of students: over 1.5 million so far have registered for courses from Coursera, Udacity and EdX. They claim that the availability of free MOOCs will make it impossible for current middle and lower-tier universities to attract students, who could instead learn online from the best lecturers at the best universities in the world.

Unfortunately, the MOOCs in their current, free format cannot challenge the higher education system. At present, those running the new companies say that their needs are minimal: according to Daphne Koller, co-founder of Coursera, the cost of streaming lectures is their biggest operational expense, compared to the salaries universities are required to pay their lecturers. Agarwal of MIT says that a circuit design class he used to teach to 400 students with the help of three assistants now manages 10,000 online — and can accommodate far more. But at present, the courses the students undertake give them little or no advantage in the job market. An employer asking for the standard 2:1 degree is not going to be satisfied by a few 10 week courses taken online, guaranteed only by a certificate and a mark from an unproctored exam.

At the moment, Coursera’s largest subgroup is not made up of those looking to bolster their career prospects (a mere 18% of registrants) but those who are motivated by simple curiosity and a desire for knowledge. This won’t change until MOOCs can offer a more academically rigorous method of examining. Tests for some components of some courses can be reduced to simple multiple choice questionnaires, but the ability to write a cohesive and convincing answer should not be neglected. Multiple choices cannot be used in essay-based subjects such as English, History or Philosophy, and even if it could, it would still be necessary to have a method to reduce cheating. EdX recently announced that students would get a chance to take their invigilated finals at Pearson VUE’s test centres around the world, while Coursera plans to charge for an offline, proctored exam, or for an online exam process proctored by a video camera. But the cost of setting up and organising testing centres will be significant, and even if an online test via video camera is explored, staff will still be needed to watch the monitors.

The lack of student support is another area which MOOCs must improve, and which will cost money. A relatively small amount of lecturers are needed to produce the actual course lectures, and these are generally the experts from elite universities. But answering thousands of student questions and marking thousands of assignments cannot be handled by just this tiny handful of experts. Recent innovations have been the use of student forums, where they can offer peer support, discussion and even meet in person. Coursera, for example, has 1,669 groups worldwide where students can schedule meeting for discussion and social interaction. The Open University is adopting many of the online features of MOOCs: their forums on SocialLearn are free and allow contributors to gather credibility by being graded by their peers on the quality of...
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their answers. This is meant to create a supporting network of informal experts. But the Open University does not use this as part of a MOOC but as a contributing part to online learning with support from a large number of tutors. Although this type of interplay between students and contributors is innovative and useful for creating the type of “intellectual community” that opponents of MOOCs claim the courses cannot have\(^{70}\), it still does not solve the problems of grading assignments from essay subjects. Other, salaried tutors are needed online to mark and grade assignments and to monitor the student forums: although informal expertise is useful, contributions from qualified professors and lecturers should be added into the mix to provide balance.

The main obstacles standing in the way of MOOC qualification being taken seriously is their lack of accreditation, their inability to prevent cheating, and their deficiency in student support. To be able to function as an alternative, recognised qualification they need a system of payment by students or others to enable them to provide these services. The money pouring into MOOCs suggests that investors and supporters expect that at some point, the companies will start to make a return. Udacity alone has raised $15 million of funding from Andreessen Horowitz, Charles River Ventures and others. Members of MOOCs have already raised ideas about how they will structure their business models. The primary idea appears to be to charge for the examinations and accreditation certificates. Coursera will soon be charging a fee (between $30 and $80 depending on the course\(^{71}\)) for certificates branded by the university contributing the course, such as a Stanford computer science class, and plans to charge for the offline, proctored exam. Oxford Brookes is thinking of accrediting one of the MOOC companies, and charging for assessment next year. MIT and Harvard say they will likely charge a “modest fee” for the opportunity to earn an edX certificate. The problem with this approach is that such a small proportion (around 10 to 20 percent) of those who register ever make it to the final exam. Only a small amount of those who can use the course resource would contribute to its running costs. Daphne Koller of Coursera claims, however, that the size of the courses, and their relative cheapness to run (in the current format with little tutor support of students) means that this should be sustainable: “Those who drop out early do not add substantially to the cost of delivering the course. The most expensive students are the ones who stick around long enough to take the final, and those are the ones most likely to pay for a certificate.”\(^{72}\) Rajiv Rao in the Business Standard estimates that “even a nominal fee of $5 per product could generate revenue of $250,000 for an eight-week course of 100,000 students if you expect at least half the class to pay for their course diploma.”\(^{73}\) This approach may be sustainable, even if it does risk driving away the largest group of current MOOC users: the ones who are learning not for a professional qualification but for the love of learning, who may be deterred by the prospect of having to pay for their hobby.

Other options being explored include charging for the usual accoutrements of a university degree. Library resources or personal tuition through video link could be provided for a fee. This raises questions of whether free component of the courses would be created deliberately second-rate to force students to undertake the extras. Could the final certificate then carry as much weight for a student who had struggled through the deficient course without a clear

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\(^{71}\)Steve Kolowich, ‘How will MOOCs make money?’, Inside HigherEd June 2012

\(^{72}\)Steve Kolowich, ‘How will MOOCs make money?’, Inside HigherEd June 2012

\(^{73}\)Rajiv Rao, ‘Can MOOCS be a substitute for campus education?’ Business Standard, New Delhi, November 2012
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understanding of the details, compared to one who had been assisted and tutored and knew the subject in depth? In this case, it raises the question of what the free, deficient course would be for. Ian Bogost in the article *MOOCs are Marketing* suggests that the benefit of these is to increase the prestige of elite institutions and individual teachers. The smaller, free part of the course would mean that individual experts could reach huge audiences, with a video of a good lecture receiving up to 100,000 hits a week. A lecturer could become widely known in a matter of years or even months, with universities able to market the expertise of their staff. Ian Bogost argues that Caltech and university of Pennsylvania, "who have together invested some $3.7 million in Coursera" are buying a long-term version of advertising, in the same way the MIT and Harvard use edX.⁷⁴ This could change the way that universities operate their methods of attracting new students: instead of open days and visits, they could simply sample a lecture for free.

The third option being pursued by the MOOCs is that of charging for its services as a head-hunter, or as a student job finder. Coursera’s Ng says that "Many of the companies whose products you’ve probably used in the last 24 hours have approached us to hire our top students, especially in software engineering.... We’re running a pilot program to try and make this happen."⁷⁵ The demand for the best students is clearly high. Udacity has suggested that it could act as a head-hunter, matching students with companies that employ Udacity’s services, taking a commission for each match. But again, this provides revenue on only a small proportion of users: even less than charging for accreditation, since the companies would only be interested in the very best out of the 10 to 20 percent actually reaching the exam. David Stavens, the chief operating officer at Udacity, has argued that even a relatively small proportion of successful matchmaking efforts should generate enough money to support the MOOC, since the top companies in Silicon Valley can pay head-hunters as much as 20 percent of a software engineer’s starting salary as a finder’s fee. ⁷⁶ It is another alternative which would allow the rest of the course to remain free to users, although in a competitive job market, the revenue provided by matching a very few students with high level jobs could be far smaller than other options, such as charging for accreditation.

There is no doubt that online learning will benefit from the effect of the MOOCs, with more good quality information being released in varied formats to the internet. The UNESCO Paris OER declaration earlier in 2012 has also committed countries to increasing the quantity and quality of open source information online, freely available to use and alter. Online learning is being further incorporated into existing methods of teaching within the universities: David Brooks envisages that the free resources of Coursera and the like mean that "a local professor could select not only the reading material, but do so from an array of different lecturers, who would provide different perspectives from around the world."⁷⁷ The professor would be able to focus more on discussion and student support. Blended online courses supported by student forums in SocialLearn and a large number of tutors monitoring and marking students have been extremely successful for the Open University. These types of courses, similar to the MOOC except in size and cost, create "a course delivery program/support model highly useful to liberal arts colleges for outreach and engagement."⁷⁸ It is possible in this way to extend the

⁷⁴Ian Bogost, ‘MOOCs are Marketing’, www.bogost.com
⁷⁵Rajiv Rao, ‘Can MOOCS be a substitute for campus education?’, Business Standard, New Delhi, November 2012
⁷⁶Steve Kolowich, ‘How will MOOCs make money?’, Inside HigherEd June 2012
⁷⁸W. Joseph King and Michael Nanfito ‘To MOOC or Not to MOOC?’ Inside HigherEd November 29, 2012
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The scope of online courses beyond the science and computer studies they are currently dominated by. Courses for a fee provided from accreditation, headhunting or charging for tutoring services, supporting full-time staff in the model of existing online courses but extended to huge audiences, could be the future of the MOOC.

The details of how to charge for undertaking a MOOC are still undecided by the company owners, but it appears that all are considering the issue. They have to: until a system of payment is devised, it will be difficult to provide proctored examinations to prevent cheating and student support by tutors, the major faults in MOOC structure preventing them being taken seriously as qualifications in the academic world and job market. It is only once this has been undertaken that MOOCs can even consider being able to directly challenge the higher education system.
Chapter 10

Higher Education’s “Napster moment”? The UK’s Open University, & US-led E-learning

SARAH LAYZELL HARDSTAFF

“Napster moment”, from Professor Martin Bean, vice-chancellor of the Open University, in Fazackerley, A., (2012).

Outline

➤ The US HE model is better suited to e-learning than the British model. While the Open University is best placed to offer a UK alternative to Coursera et al, the best model for OU degree programmes remains in blended learning. US MOOC platforms and the OU should consider carefully what has caused e-learning initiatives to fail in the past.

➤ If we assume that open-access free content will soon be the norm, with revenue to be made in personalisation and content evaluation, then the OU and US universities must look at ways to offer a more personalised and interactive service within their own degree programs. A more flexible HE model is needed, one that allows students to create a portfolio of educational experiences whilst benefitting from different ways of learning and different pricing structures. As a starting point for the OU, this might involve more course variety in its degree pathways, or offering credits for OpenLearn and FutureLearn courses.

➤ The OU and US providers must address their values. If online learning offers an equivalent experience, as some claim, then how can campus universities and particularly distance learning universities like the OU, justify fee increases? If online learning doesn’t offer an equivalent experience, then are we reinforcing a two tier system? US universities (both campus and virtual) and the OU must define how they intend to provide value for money while MOOCs remain free.

➤ US and UK MOOC platforms seem to be based on the assumption that education can occur in a social and cultural vacuum, and that knowledge is context-neutral. More research and investment is needed into non-Western e-learning initiatives and cross-cultural collaborations (such as the African Virtual University and the OpenCourseWare Consortium), which have been ignored in the current debate.
10.1 Introduction

After nearly two decades of US-led innovation in online learning, culminating in the rise of the massive open online course, we are witnessing a potentially radical shift in the way higher education is designed and delivered. With 40 years of distance learning experience and its own significant innovations in e-learning, the UK’s Open University seems uniquely placed to offer a UK-based MOOC platform, and indeed has recently announced the launch of FutureLearn, which will start offering courses from a number of UK universities in 2013.

E-learning is now seen as more cost-effective than traditional higher education, better value for students, and also potentially highly profitable, particularly in the US, where there has been a significant increase in venture capital investments in the Edtech sector (Ferreira, 2012; Doran, 2012).

10.2 E-learning at the Open University

The use of communications technology to enhance and transform education is not a new idea. The Open University has been offering degrees since 1971 and is now widely acknowledged as a world leader in blended distance learning. Its courses use e-learning extensively: for instance, a number of its introductory courses now use moderated forums instead of individual tutorials, and many of these courses assess students using a blend of computer-marked assignments and tutor-marked assignments.

The OU describes itself as “founded on the belief that communications technology could bring high quality degree-level learning to people who had not had the opportunity to attend traditional campus universities” and as such calls itself “the first institution to break the insidious link between exclusivity and excellence” (“History of the OU”, n.d.).

Innovative uses of communications technology at the OU include:

- Partnership with the BBC
- OpenLearn, a website providing free course materials
- The OpenScience Laboratory (a virtual lab)
- Extensive use of YouTube Edu and iTunes U
- A new mobile app which will allow fee-paying students to access course materials, forums and AV materials for all Level 1 and 2 courses from early 2013. In other words, students will be able to access 2/3s of undergraduate material via a smartphone or tablet. However, learning will still be blended, with printed textbooks, tutorials, written examinations and so on still in place (“OU Anywhere”, 2012).
Higher Education’s “Napster moment”? The UK’s Open University, & US-led E-learning

Sarah Layzell Hardstaff

The OU’s OpenLearn was launched in 2006, and had had 18 million visits as of 2011 (The OU Annual Report, 2010-11). At one point 55% of the site’s visitors were based outside the UK (“OpenLearn wins award”, 2010). OpenLearn effectively provides tasters for paid-for courses, and 13,000 registrations for paid-for courses had been made through the site by January 2010 (“10M visits to OU’s OpenLearn site”, 2010). While this is an example of the kind of free-mium business model that MOOCs might adopt, it is also suggestive of Professor Patrick McGhee’s fears that e-learning “will reinforce rather than disrupt a two-tier education system…[with] online learning as a basic offering” (2012) and accredited qualifications as a premium service for those who can afford them.

Ten years ago, Professor Carl Raschke described the OU as “a pioneering venture in the transition to the postmodernist model…[it] seems to have implemented a broad institutional design setup that is congruent with the architecture of global networked communications” (2003, p. 84). He saw this as a direct contrast to the conservatism of the elite universities. However, in the past ten years the OU has raised fees significantly, and thus seems to be moving away from its democratic roots (Cadwalladr, 2012), in stark contrast to the so-called “Coursera effect” (Kamenetz, 2012, p.98).

The OU initially moved cautiously with regards to going online (Baer, 1998, p.7), perhaps because other e-learning ventures failed to live up to expectations. The UK e-University was set up in 2003 with the intention of acting as “an agent for e-degrees, marketing online degrees from British universities and providing a technological platform to make them happen” (Harrison, 2004) but failed less than a year later due to a lack of interest from both universities and students, costing the taxpayer £62 million. A recent Guardian article describes distance learning in the UK as still “a niche concern” and contrasts the enthusiasm of US universities involved in e-learning with the reticence of the UK (Fazackerley, 2012).

Significant differences in US and British education models may be the reason for this reticence. In 2000 the OU opened the United States Open University (Maeroff, 2002, p. 259), which closed after only two years, due to its failure to adapt its curriculum to the needs and preferences of American students (Meyer, 2006). The US OU was reluctant to post course materials online, expecting that students would not wish to print “an estimated 60-80 pages a night” (Maeroff, 2002, p.260), and instead mailed printed materials at great expense. The US model’s use of lighter reading loads — “Almost a third of [US] students these days do not take any courses that involve more than 40 pages of reading over an entire term” (“Not what it used to be”, 2012) — , standardised testing and so on, suggests greater compatibility with e-learning models. Adapting British degree programmes to successful online formats may involve the loss of modes of teaching and learning which have traditionally been used successfully in the British context.

Nevertheless, current trends in e-learning have been welcomed by UK policy makers and commentators. David Willetts, the UK Minister for Universities and Science, who has heavily criticised the perceived lack of value-for-money offered by traditional universities (Curtis, 2009), has said of FutureLearn that it could “revolutionise conventional models of formal education” (FutureLearn announcement, 2012).
10.3 E-learning in the US

US HE providers began using the internet to support existing courses and to deliver purely online courses from the mid-90s. 22% of colleges offering distance learning courses were using online learning as early as 1995, rising to 60% by 1998 (“US colleges move courses online”, 1999). A number of virtual universities were established in the 1990s (Baer, 1998, pp.9-10), and by 2002, commentators were talking about a “national trend” towards online and blended learning (Maeroff, 2002, p. 260). However the impact of these early ventures is less easily observable, with fewer than 10% of US college students studying online courses in 2002, a figure which has now risen to 30% (“Not what it used to be”, 2012).

The US certainly seems to be leading the way in the development of courses solely taught online, including in practical subjects, such as the University of Southern California’s online MA in Teaching, which uses a virtual classroom and synchronous video conferencing to replicate the campus experience (USC MAT, n.d.) (however, this particular course is designed for students who are already experienced teachers). Since 2002, MIT’s OpenCourseWare platform has freely distributed course materials online (“Our History”, n.d.). The internet is now used widely to complement traditional HE in the US; however in some cases its use also reflects more radical change.

What we are seeing with MOOCs is a move away from the passive or campus-replicating e-learning opportunities of the past decade to more interactive experiences. “[N]etwork-based instruction” is thought to pose a serious threat to mainstream HE (Raschke, 2003, p. 18), as it can offer a more personalised service than campus-based instruction at a lower cost (Severance, 2012, p.8). Some commentators predict that future revenue in e-learning will come from developing more personalised services (see Ferreira on Knewton) and evaluating content quality, while free open-access content will soon be the norm (Fidoe, 2012). Some commentators are still dismissive, seeing even this kind of e-learning as merely a form of knowledge transmission which will never be able to replicate the Socratic dialogue-based learning experience of the HE campus (Edmundson, 2012).

What the MOOCs do offer is access to an extraordinary number of students. Coursera registered 1 million students in its first 4 months (Kamenetz, 2012). The demand for high quality open-access content is clear, and far surpasses the capacities of campus-based institutions (Kamenetz, 2012). While a significant number of Coursera students fail to complete their course, it is worth considering that, according to a recent article in The Economist, “the chances of an American student completing a four-year degree within six years stands at only around 57%” (“Not what it used to be”, 2012), with many students taking on debts while failing to complete their courses.

US-led e-learning has also been heralded as a means of improving access to HE globally, with open educational resources described as “social advocates for cultural and ethnic dialogue...[and] the genuine equalizer for social inclusion” (Olcott, 2012, p. 289). However, despite the opportunities for improved access and cross-cultural interaction offered by MOOCs, their very existence suggests a future where learning takes place independent of social and cultural context. Policy makers and other key stakeholders do not seem to have considered...
the implications of a globalised HE model. For instance, the Bill and Melinda Gates Foundation has granted millions to American institutions to develop online courses, with over $3 million specifically to develop and assess MOOCs (Bill and Melinda Gates Foundation, 2012). However, post-secondary education outside the US is not part of the foundation’s global development strategy, despite the existence of online HE networks such as the African Virtual University. With the majority of online content providers and evaluators based in the West, whatever “dialogue” and “inclusion” take place continue to do so within a one-sided power structure.

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Chapter 11

Can E-learning provide a better learning environment than the on-campus model?

Sarah Stopforth

Outline

▶ Studies show that living on a university campus can be academically and socially beneficial for students.
▶ First-generation higher education students currently stand to lose the most from a move to e-learning, since the traditional on-campus university experience offers them a better academic learning environment.
▶ However, with the recent rise in tuition fees the social benefits may have to take a back seat to financial considerations. Employers are increasingly looking for extra qualifications to distinguish candidates from the masses and therefore as earning the degree itself becomes more important, the traditional university experience may need to be reconsidered.

11.1 Introduction

The buzzwords associated with online university courses are "convenience" and "flexibility". Typically reserved for those looking to combine a degree with employment, distance learning or the older student, the idea of e-learning is not associated with the traditional university experience. Most often, it is used as part-time learning to gain supplementary qualifications, for example Liverpool FC player Glen Johnson currently combines a professional football career with studying for an Open University degree in Mathematics. The age-old tradition of attending lectures and seminars has been replaced by computer screens in a minority of degree courses; but could this become a more permanent, standard replacement in the near future?

accessed 18th December 2012
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Much of the readily accessible literature written on online learning, its advantages and downfalls, were written in the early years of the 2000s. It would seem that during the twenty-first century, online learning ceased to be a controversial topic of scholarly or sociological interest, but considered the norm. However, as more and more established universities introduce not only online resources, but online courses to fully replace the traditional ones, the subject of online learning should be reconsidered. Although university is not the path that every eighteen year old embarks on, for those who do it is a valuable rite of passage combining academic progress with the social skills and sense of independence which is crucial for adult life.

11.2 Academic Achievement

In America, the idea of halls of residence is not as customary as in the UK because of the tendency for students to attend their local college. Therefore the decision to live in halls of residence over the parental home is more complicated. As a result, American scholarly research has investigated the impact of living on and off campus on academic achievement and social development. Astin (1973) and Rinn (2003) noted a positive correlation between living in halls of residence and academic progress in terms of grades. Blimling (1989) also found that students living in halls of residence tended to perform better academically than those living at home. However, when academic achievement was the control of his analysis those in halls of residence did not necessarily do better than those living at home, which suggests that the brighter students achieved higher grades regardless of living arrangements. Instead, Chickering (1974) and Astin (1977) found that living in halls of residence and amongst other students increased the completion rates of degree rather than an improvement in academic achievement itself.

Psychological theory states that those who are surrounded by high achievers will strive to match the expectations of those around them. This has been regarded as academically beneficial and provides the basis for the ‘setting’ of pupils into different ability classes in schools across the UK whereby the less able are ‘pulled up’ by the more able. Early studies into the advantages of communal living likened university to the ‘frog pond’ whereby students compared their aspirations and achievements in relative terms to those around them. Therefore a student’s sense of achievement and self-worth was adjusted in relation to the prestige of the institution they attended, and the abilities of their fellow students; for example, if a very able student was at the top of the class at a highly prestigious university, their sense of achievement was greater than an equally able student at a less prestigious institution. The idea that friendship groups influenced students’ sense of aspiration, motivation and achievement is more likely
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Freya Rowland (Ed)

11.3 Impact on First-Generation Higher Education Students

Students spend more time in their home environment than anywhere else whilst at university, and therefore the nature of home is very influential on that student’s work ethic and progress. Richard Hoggart’s study of the ‘scholarship boy’ in the 1950s, albeit focusing on working class boys attending grammar schools, demonstrated how strongly the home environment influenced academic output. He argued that having a quiet space to work away from the disruption of the family was important to academic progress. He also highlighted the problem of parents who did not attend secondary school in a generation when it was not compulsory, as they were less likely to understand the significance or the value of education, and more specifically homework, in place of helping around the house or earning a supplementary income. This can be applied to the average university student living at home. Distance and online learning can accentuate this conflict as there is no definitive boundary between home and student life, or indeed the difference between school and university study, particularly for first generation students where the workload is simply not understood and parental rule can still dictate the student’s home life timetable. Pike and Kuh (2005) found that the impact of living in halls of residence led to higher academic achievement in first generation students because of the nature of the family home where, if neither parent went to university then the value attached to education could be lower. Gaining independence by physically attending a university and moving out of the parental home not only provides designated study spaces for students to work more productively, but also removes the home-study conflict. Living amongst other students with similar lifestyles and forging new socio-cultural norms, emotionally and academically supportive circles is an important feature of the traditional university experience. Furthermore, the physical proximity to university facilities such as libraries, student unions and lecture halls or seminar rooms increases sociability amongst peers and accessibility to educational resources. All of these factors combined can provide impetus to the conclusions made by Chickering (1974) and Astin (1977) that communal living can encourage greater completion rates of degrees.


\[85\] Richard Hoggart, The Uses of Literacy: Aspects of Working Class Life with special reference to publications and entertainments (Chatto and Windus, 1971)

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11.4 The Implications of the Rise of Tuition Fees for this debate between on-campus and distance learning

The three main advantages to online learning are learner-determined location, time and pace of study Evans and Fan (2002). However, academic achievement and social development (or independence) benefit greatly from the controlled, supportive atmosphere of university accommodation and communal living. Courses which are purely online eradicate the need for halls of residence and remove the face-to-face contact of both staff and peers. However, with the recent increase of undergraduate tuition fees to £9000 per year, do these social advantages to the traditional university lifestyle still outweigh the debt? Is the degree itself more valuable than the social skills and life lessons learned whilst at university?

As the top employers are increasingly looking for further qualifications from their applicants, a first degree is no longer a desired asset but the baseline. In part this is the result of degrees being widely accessible and popular. Whether this is down to the appeal of the ‘student lifestyle’ or the genuine commitment to further education would warrant further research. Nevertheless, Masters and other postgraduate degrees are becoming more important than ever as employers attempt to distinguish between the most suitable candidates for jobs in an overcrowded market. Raftery and Hout’s theory of Maximally Maintained Inequality (MMI) on equality of opportunity suggests that elites have become more effective at preserving their advantage and that there is an upward creep in gaining more experience or qualifications until the latest elite demand is also saturated. In this way, as first degrees have become more common, the academic market has become more elitist, as those from wealthier backgrounds can afford to undertake unpaid internships and postgraduate study to gain Masters or even PhDs to boost their academic and work experience credentials. The gap between those who can afford to invest in their future and those who cannot will undeniably widen with the increase of tuition fees.

The traditional university degree is not only an investment in academic potential, but also in life-lessons and social skills. The social advantages to the traditional university experience, although not essential, cannot be underestimated and are undoubtedly beneficial in the transitional stage from adolescence to adulthood. However, in the current higher educational climate, online courses seem to be a much more attractive option as first degrees are expected by employers yet becoming less and less financially viable to obtain. As more universities offer postgraduate courses purely online, for example the University of Nottingham, University of Birmingham, and even the University of Oxford, the traditional student experience can be replaced by a balance between study and employment without too much disruption to the working lifestyle. The quality of education received can be judged on the existing reputation of universities as ‘brands’. The flexibility of online courses is especially important in recessions when the investment capital of a degree is not enough to outweigh the short-term debt. These have typically been associated with postgraduate study but may suitably be extended to undergraduate degrees as financial matters increasingly become an obstacle. In this light,
online learning can be viewed as a practical solution to the dual problem initiated by the recent rise in tuition fees: the need to earn a living and the desire to invest in a future career. In this debate, the social impact of traditional universities may have to take a backseat in favour of more financially viable solutions to the degree dilemma.
Chapter 12

Could E-learning Work in Other Parts of the World?

Sophie Luo

Outline

This paper proposes that international e-learning projects must be uniquely adapted to the countries in which they take place, while taking advantage of the global interconnectivity made possible by new technologies and social networks.

E-learning is already becoming a truly international phenomenon, spreading beyond the West.

The author recommends:

▶ Investment by developing countries in digital infrastructure is necessary for them to harness the benefits of e-learning
▶ Educators need to be made more familiar and comfortable with digital technologies before they will embrace them as positive forces
▶ E-learning must be driven forward by a generation of ‘makers’ rather than ‘takers’; while Western models of e-learning may prove to be illuminating templates for educators in Russia or Kenya, there is no one blanket e-learning strategy, so international e-learning must be based on unique community needs rather than a translation of pre-existing models.
Could E-learning Work in Other Parts of the World?

12.1 Could E-learning work in other parts of the world?

One of the most exciting aspects of the technology revolution in the education sector is that it opens up the possibility of truly global learning. E-learning has a potentially limitless reach — it promises to deliver education to individuals no matter their geographic location, as long as they have access to the Internet or some form of mobile network. It has already taken off in the USA, where universities such as Stanford, Princeton, Yale, and Columbia have made courses accessible online, not only through videotaped lectures and podcasts but in actual interactive formats, complete with exams, quizzes, and homework, that mimic the experience of taking a real college class. But what about other parts of the world? Educators and innovators dream of bringing educational opportunities to students in remote villages in China, or to make college a viable option for underserved youth in Chile, but how viable are these visions? The answer is that they are not only viable, but already a reality. Indeed, several dynamic projects are popping up all over the globe, from Brazil to Russia and from China to South Africa. It is clear that e-learning is increasingly becoming a cornerstone of education techniques everywhere, and will only play a bigger role in international education as more infrastructure is developed.

The question, then, is not if e-learning could work in other countries, but how to make it better and more optimally suited to the different communities in which it is taking root. Despite the dynamic steps being taken in many countries to bring e-learning to their citizens, the fact remains that e-learning as a global phenomenon is still in its nascent stages, and there is still a long way to go before the dream of seamless worldwide access to a free and open education is achieved.

The discussion on international e-learning has changed its tone in recent years; it has gone from being about ‘promise and potential’ to more practical concerns, such as the trade-offs that must be made between policy implementation and funding. This is a good sign. Discussions on how to use limited financial resources to implement e-learning platforms may be thornier than rousing speeches about the potential of technology, but they are a sign that real progress is being made. In fact, e-learning is becoming increasingly feasible in developing countries through a number of resources and tools: the presence of online social networks, which facilitate more efficient communication between innovators, students, and teachers; a new generation of changemakers, who are forming a global network and are much more tech-savvy than the generation before; and international connections between Western universities and their global peers, which often give a much-needed boost to new e-learning projects. The combination of these factors results in projects that not only benefit students, but entire communities. A successful e-learning project can drive the shift from a manufacturing economy to one based on knowledge, as well as reduce the gap in distribution of socioeconomic resources.

One project that ties these strands together nicely is PSU Educarchile, which was awarded the WISE Innovation prize in 2012. Billed as ‘the first free, interactive, online college preparation program in Chile,’ it delivers preparatory materials for the PSU, Chile’s major university admissions exam, to students via websites, texts, mobile phones, and social networks. By making use of the country’s existing mobile network and Internet providers, the program has reached 1,200,000 low-income students a year, many of whom live in remote rural areas and were previously unable to attend college preparatory classes in person. Similar projects are taking place.
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in China, where innovation is being driven forward by official support as well as private initiative. The Chinese Ministry of Education recently awarded a bid to Ambow Education Holding to create the first national cloud-based education data platform in China, which would enable students to access learning materials on any device, at any time, without necessarily having to own a computer. The Chinese government has also launched several initiatives that bringing computers and technology to rural areas to benefit students and teachers alike. In fact, there are several teacher training and development courses being made available throughout the country to address the severe teacher shortage, illustrating that e-learning is as much a tool for adults as it is for classroom pupils. These projects, which are being echoed by the dozen in countries around the world, demonstrate e-learning at its best — as a very powerful tool in combating the socioeconomic gaps that hamper societies everywhere.

In spite of this, there remain several challenges to the successful implementation of e-learning in developing countries. First and perhaps most prominently is the lack of adequate infrastructure in communities that would benefit most from the presence of e-learning projects. Several towns in Africa, for instance, lack stable mains electricity, consistent broadband connectivity, software capabilities, technical capacity, and human capacity — all necessary to carry out a high-tech e-learning operation. E-learning is only as good as the technologies that enable it to exist, and if the technologies aren’t present, e-learning remains a distant and inaccessible goal.

There is also the problem of conservative attitudes with regard to technology in schools. In Africa and India, many educators are pushing for BYOD (bring your own device) learning, which allows students to use familiar devices as a central part of their learning experience. BYOD learning also bypasses the lack of broadband connectivity by making use of the ‘comprehensive, energetic, and competitive mobile networks’ present in many communities. As an educational strategy, BYOD (also known as mEducation, for mobile education) has the potential to become a tool that would be a tremendous help to students while also being uniquely tailored to the local technological landscape. Yet, because of widespread rules that prohibit mobile phones in schools, this technology has been prevented from taking off. These rules are based on a long-held belief that mobiles can only distract students from their education rather than enhance their educational experience — a belief that is now quickly becoming outdated. The 2012 Horizon Report echoed this sentiment: ‘Institutions that embrace face-to-face/online hybrid learning models have the potential to leverage the online skills learners have already developed independent of academia.’

Finally, as e-learning moves forward, it is important that changemakers retain local ownership of the projects being put forth. E-learning is successful only when it is adapted to a community’s unique circumstances; there is no one blanket e-learning strategy. Rather, the whole point of e-learning is to disrupt traditional pedagogical methods in the best way possible, making it flexible, adaptable, and better suited to the different situations in which students around the world are placed while trying to learn. Thus, e-learning must be driven forward by a generation of ‘makers’ rather than ‘takers’; while Western models of e-learning may prove to be illuminating templates for educators in Russia or Kenya, international e-learning must be based on unique community needs rather than a translation of pre-existing models.

Excitingly, countries just now hopping on the e-learning bandwagon can tap into a global network of interconnected institutions of education. No one has to start from scratch. Educators
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separated by thousands of miles can learn from each others’ setbacks and inspire each other through their successes. Events like the World Innovation Summit of Education (WISE) and the annual eLearning Africa conference are making the exchange of ideas and best practices easier than ever before. All this gives reason for optimism regarding the global spread of e-learning in the near future. It not only can work in diverse countries, but is already working and delivering remarkable results. As with all technological advances, there will always be skeptics who remain unconvinced; in this case, the evidence to the contrary may leave them with no choice but to change their minds.
Chapter 13

Adventures, Promises & Pitfalls of Scholarly Journals in a Digital Age

Megan D. Walberg & David Woo

13.1 Introduction

The purpose of this paper is to consider the enduring purposes of scholarly journals while surveying trends, emergent features and challenges in developing scholarly journals in a digital age. This paper does this by first establishing the continuity of scholarly journals by linking journals’ past and present purposes and features. Trends in scholarly journal publication are also highlighted. The paper then presents two cases in which new features for scholarly journals are being adopted. The rationale for and challenges of adopting these features in scholarly journals are discussed. Practical knowledge in developing scholarly journals in a digital age is also shared. The paper concludes with thoughts on the future of scholarly journals in view of increasing technological change.

13.2 Background: Continuity and Change in Scholarly Journals

To begin with, it is useful to consider the original purpose behind the creation of academic journals and identify what has changed and remained the same over time. In this survey of historical trends, terminology, such as peer-review and open access, will be introduced and explained. Prior to the late seventeenth century, the sharing and communication of academic information (e.g., theories and research findings) depended on personal contact and meetings held by academic associations, such as the Royal Society (Wells, 1999). As societal memberships expanded, opportunities to present one’s work at meetings became limited (e.g., due to restricted time and the large number of attendees, and/or physical space, which forced many member absences). The solution to this challenge was to include non-presented papers within the meeting proceedings, which were circulated to members and essentially served as the first prototype for the present-day academic journals.
Philosophical Transactions of the Royal Society and Journal de Scavans were the first recorded academic journals published in 1655 (McCutcheon, 1924). These journals used the peer-review method (a dominate procedure employed by many academic journals today), which is a means of ensuring published information was credible and reliable. Specifically, editors seek out reviewers or referees (experts in the relevant field) to review papers and determine whether a paper should be accepted for publication (Guédon & Siemens, 2002; O’Gorman, 2008). The peer-review process is often conducted in a ‘double-blind’ manner where neither reviewer nor author knows each other’s names.

Since the introduction of the first peer-reviewed publications, there has been an exponential growth of scholarly journals, which serve as one of the main mechanisms for the dissemination of knowledge in all academic disciplines (Laakso & Björk, 2012). The development of academic journals has turned into a large commercial enterprise, which has profited from user subscription fees. However, the traditional business model on which scholarly journals have operated is undergoing major changes due to widespread technological change in society.

One major change in academic publishing was the conversion of print to electronic-based formats (Laakso & Björk 2012). The first electronic journal, or ejournal (described further in the case examples below), was developed in 1976, although it was not until the 1990s when ejournals began to grow significantly in number (Hitchcock, Carr, & Hall, 1997) and licensing became common. The feature of open access (OA; via the internet) in scholarly journals has also impacted publishers’ business strategies. OA means that the public is granted unrestricted online access to journal articles. This can be accomplished in several ways, such as open access publishing and open access self-archiving. The former, often referred to as ‘gold OA’, involves the journal publisher making the entire journal or individual articles available, without costs, to internet users. In the latter’s case, which has been termed ‘green OA’, articles that have been published in journals are uploaded to the internet (usually on personal or institutional websites) by the author for public access. To do this, the author often pays a fee to the original publisher (Laakso & Björk 2012). The gold OA trend is expected to continue in the coming years, particularly within the United Kingdom, where an initiative has been created to fund OA projects (Jones, 2012).

To conclude, scholarly journals retain much of their original purpose, that is, to disseminate academic information. However, since the emergence of digital technologies, scholarly journals have assumed electronic formats, which allow for knowledge to be disseminated more quickly and in most cases, more publicly––trends that in many ways appears to mirror the those taking place in online learning and education.

13.3 Two Cases: FERSA eJournal and ITEC eJournal

This section presents two cases of developing scholarly journals in a digital age. Each case describes a student-run initiative within an education faculty. The first case comes from the University of Cambridge and the second from the University of Hong Kong. The reasons for and the promises and pitfalls of developing each journal with its features are discussed. As the students who are developing these journals implicate themselves and their contexts, first person is used in presenting the case data.
13.3.1 Case: New Ways of Sharing in an Old Institution Setting

My interest in writing this paper was to share the initiative I am involved in as a postgraduate student in the Faculty of Education at the University of Cambridge, and to reflect upon how this project fits within the broader changes taking place with (open) online learning. As an undergraduate at the University of Toronto, I was involved in initiating a student-run journal for a new programme (Buddhism, Psychology, and Mental Health). I value the dissemination of students’ work, both in terms of contributing to the progression of knowledge as well as the confidence it builds for early researchers, and wanted to create these opportunities within my Faculty.

As an executive member of the Faculty of Education Research Student Association (FERSA), I have assumed the responsibility of developing an OA, open-review (OR) ejournal. The open-review method is an alternative to the peer-review method. In the open-review method, manuscripts for a journal or book publication are available, usually online, for public commentary. The purpose of this commentary is to determine a manuscript’s eligibility for publication (Dougherty & Nawrotzki, 2012b; Fitzpatrick, 2011). Open-review is not a common practice in scholarly publishing, where peer-review is the dominant model, although it is an emerging practice and has the potential to transform publishing procedures (Dougherty, Nawrotzki, & Rochez, 2012). For instance, OR provokes a whole new working relationship between the manuscript author and reviewer. It encourages a dialogue, where author and reviewer work on a collaborative, rather than competitive basis to improve the material. Some fear that the quality of articles may suffer because reviewers may be less critical than if the double-blind procedure were being used (Dougherty, Nawrotzki, & Rochez, 2012); but one could also look at this as an opportunity to practice constructive criticism, as well as to build knowledge.

The ejournal under development was inspired by the OA/OR scholarly ebook Writing History in the Digital Age: A Born-Digital, Open-Review Volume (Dougherty & Nawrotzki, 2012b), which discusses the editorial processes within its contents as well as the implications of this new trend in academia. The intention is for the ejournal to follow a similar OR process as Writing History in the Digital Age (Dougherty & Nawrotzki, 2012b), because it is believed that this approach to reviewing embraces an emerging form of scholarly collaboration that could “speed up and improve the quality of research and writing” and “inspire others to join in rethinking how and why and even what we publish, all in the service of improving both our scholarship and others’ access to it” (Dougherty & Nawrotzki, 2012a, ¶ 10 and ¶ 39, respectively). Moreover, the ideology behind OA and OR is seen as being in accord with the ‘openness’ and ‘transparency’ principles of science, along other emerging collaborative knowledge projects, such as Wikipedia (Laakso & Björk 2012).

We (myself and the voluntary editorial board members) intend to publish postgraduate student manuscripts (both from national and international institutions), ranging from ‘work in progress’ (e.g., an overview of research in the process of taking place), to literature reviews, research notes, methodological critiques, and conference abstracts. The ejournal editors plan to do this in a manner that promotes dialogue with the wider academic community and general public, as well as make the editorial process transparent.

The Faculty has recently given their approval for the development of the ejournal, however, to get to this point, many challenges had to be overcome. It is worth mentioning several issues
that came out of numerous meetings with faculty staff and postgraduate students during the process of writing the journal’s proposal to illustrate some of the possible pitfalls of developing a journal within this context. Quality control was one of the major concerns. For instance staff were concerned about the safeguards in place that would protect the institution’s name. In response to this concern, several strategies were created (or more accurately, making use of multiple methods already in use), such as an editorial board criteria-check procedure of articles before they are uploaded to web for OR; the completion of a registration process before reviewers could access and comment on articles; and daily monitoring of OR comments by the journal editor. Such strategies as daily monitoring lead to more challenges, and it is anticipated many more will emerge as the project develops.

Another common concern related ensuring articles would be open-reviewed. From this foresight, advertising strategies have been created, such as sending out announcements to students at several universities about the opportunities to develop skills in open reviewing scholarly work and critical thinking. Lecturers will also be informed about this open-reviewing opportunity, which can be used as a class exercise for building the aforementioned skills. Another method that may be used will be to create a type of reward or certificate system, where open-reviewers can be rated by other reviewers (as well as the article authors and editorial board) in terms of their ‘trustworthiness’ or ‘helpfulness’ (similar to systems used by websites, such as Amazon and ebay).

Finally, one notable point of promise and pitfall was deciding the purview of the ejournal, since the implications of the project could extend beyond merely publishing OA articles using the OR procedure (e.g., the ‘journal’ could act as a ‘hub’ or ‘network’ bringing together individuals from around the globe to work on issues relevant to the field, or a platform to bring awareness of different cultural perspectives on research areas or learn about what practices are taking place ‘on the ground’). As one student put it, “we need to decide what type of animal this [the journal] is”. Addressing this point is difficult at present. It might be best to call this ‘journal’ (at least for the moment) a Chameleon lizard, as this reptile has the ability to adapt to its environment (e.g., it changes colour as a means to camouflage and can thermoregulates to survive extreme weather conditions; Anderson & Deban, 2010; Stevens & Merilaita, 2011). This type of adaptability is needed because of the rapid changes of digital technologies. Moreover, there is a need to remain flexible in order to support the academic community, which is also adapting to the digital age and reconsidering traditional forms of pedagogy.

13.3.2 Case: Rebooting an eJournal

My PhD project supervisor at the University of Hong Kong is the chief editor of our Education Faculty’s information technology (IT) research division’s ejournal, which was launched in 2004. I first learned about this ejournal as a Master’s student in 2006 when a course assignment I had written was published in the ejournal.

The aim of the ejournal is to strengthen links between research and practice about IT in education and to stimulate discussion and reflection. The geographic and socio-cultural scope of the ejournal is Hong Kong and the region. The ejournal is public on the internet. Ejournal authors own the copyright to their work. They can re-publish their content elsewhere.
In the initial years, the ejournal regularly published issues and volumes. In recent years, however, the ejournal had been neglected and in view of promising developments in presenting information on the internet, the ejournal’s infrastructure, content and interface had become antiquated. All the articles in the ejournal were text without other media, in a traditional journal article format. The articles and the ejournal were presented on HTML pages. This means that articles and the journal features were by and large static. There were no interactive features and ways to cultivate and sustain discussion by commenting on articles, for example. Updating the ejournal was also challenging without knowledge of HTML. Since the ejournal had ceased to publish new articles, it was assumed that readership for the journal was limited. Since the ejournal lacked analytics software, it was difficult to ascertain the degree and the quality of the ejournal’s audience. In sum, the ejournal was not demonstrating by its own practice a strengthening between research and practice about IT in education.

I presented this problem to my supervisor. He and I agreed that I would lead the effort to reboot the ejournal. This change effort began by addressing the ejournal’s perceived shortcomings. This began with improving accessibility and interactivity. My supervisor and I agreed that a more adventurous, magazine — or blog-style format would broaden the ejournal’s appeal, particularly to practitioners. I investigated promising ejournal infrastructure and investigated good examples of content-driven, simple, colorful and social websites at our university, particularly those developed by the university’s Journalism and Media Studies Centre. Ultimately, with the help of the Faculty research division’s senior IT manager, the ejournal’s infrastructure was changed from static HTML pages to a Wordpress template. With the new format, it was possible to broaden the ejournal’s publication range in several ways. First, the Wordpress template made presenting multi-modal content and appealing to multiple literacies much easier. We could easily publish links, photos, powerpoint, video, audio and other media. All posts and articles could be tagged with metadata to make finding content easier from within the website and from the internet. The Wordpress template also made updating the website less tedious and enabled more frequent publishing of content. The addition of Google analytics to the Wordpress template enabled the editorial board to audit the audience and content of the ejournal.

All this provided more opportunities for people to publish. My supervisor and I called for a greater variety of contributions, particularly from practitioners and novice academics. We felt this would also broaden our community engagement. We began publishing Faculty research division seminars, presentations, dissertations, course assignments, conference papers and working papers. We emphasized sharing good teaching and learning practices through technology, particularly in higher education. Some of the content was peer-reviewed. In our appeal, we have emphasized that authors still own their content and can republish it elsewhere.

Therefore, this appeal to practitioners and pluralism presents new promises and pitfalls as there is still a great degree of continuity between this ejournal, its previous iteration and scholarly journals in general. Ejournal stakeholders have revisited the direction of the ejournal and how best to balance the presentation of peer-reviewed research articles while also presenting emerging research and practice in a variety of ways. The former requires greater attention to quality, it was argued. This quality argument has conflicted with the ejournal’s appeal to novice academics, practitioners and multimedia. At this point the ejournal has resumed publishing volumes and special issues which represent the continuity of orthodox scholarly
journal practice with double-blind peer-review and editors. These special issues often comprise guest editors and independent peer reviewers. In addition, the ejournal continues to publish a number of media types and non-traditional content on the website, separate from journal articles bound to traditional peer-review, issues and volumes. An accompanying, ongoing discussion has been standardizing formats, fonts, colors, pictures, and other content on the website. The guidelines for manuscript authors has been updated, extended and made more rigorous. While Wordpress creates a standard interface to a degree, there has been increasing emphasis on limiting colors, fonts and text formats across the website. In this way, the visual appeal of articles, other content and more generally the website must be balanced with an orthodox, if bland, image.

Additionally, several technological pitfalls have emerged as a result of our choosing Wordpress for the ejournal. Wordpress and the Faculty servers are vulnerable to hacking. For example, a hacking incident in the Faculty resulted in the disappearance of much content on the ejournal, content which was eventually recovered. The open-access of Wordpress has also made content vulnerable to spam. Incessant spam comments on articles have made conversation development using that feature unlikely. We are investigating other non-forum means by which to foster and sustain discussion about the ejournal’s content.

To conclude, the ejournal has changed markedly in one year. The editorial board has also grown from my supervisor and me to us and several keen research postgraduate students at the university. There is an ongoing struggle between increasing quality and increasing diversity in content and authors. The ejournal is increasing its transparency and accessibility through technological change.

13.4 Conclusion

Academic journals are evolving, not only in terms of conversion to e-formatting and associated changes (e.g., use of embedded links, and images), but also in regard to experimentation with non-traditional publishing schemes (e.g., OA) and adoption of new editorial processes (e.g., OR). We see several implications as a result of the changes taking place in scholarly journals. First, ejournals play an important role in revolutionising the way in which information and knowledge are shared. This sharing is notable for being more rapid, accessible, innovative, and transparent. Additionally, trends in ejournal editorial processes, such as OR, have the potential to transform author-reviewer relationships, such as fostering collaborative partnerships rather than independent, distant working relationship that currently prevail in double-blind peer-review models. Furthermore, networking opportunities appear possible during ejournal productions, such as ‘meeting’ other scholars online during the process of commenting on manuscripts.

With the rapid changes in digital technologies, the possible direction that scholarly journals can take are endless (e.g., interactive hologram formats or use of mind-to-text written articles) and likely as incredible as the existence of the internet would be to an individual living in ancient times. However, the original purpose of academic journals, that is, to communicate ideas and research to the wider academic community, appears to be one factor that remains,
or at least as long as scientific inquiry continues to be given societal authority. Because of
the changes taking place in online learning and increasing access to education, journals will
also likely be impacted to an extent, not only to better serve this movement, but scholarly
published material will likely reach a greater audience and will allow more individuals to scruti-
inise information, empowering more people and giving them a voice to engage in the creation
of knowledge.

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PART II

VARYING THE EDUCATIONAL MODEL
Chapter 14

Constructivism, the Learner-Created Syllabus & Distance E-Learning

MARIA JOSE GOMEZ RUIZ

Outline

This paper proposes the implementation of a moderate constructivist approach within Higher Education programs. It specifically encourages professors to implement the partially learner-created syllabus as a pedagogical strategy in the courses they teach. Professors teaching in distance E-Learning programs are particularly urged to do so given the range of opportunity that distance E-learning offers for this educational strategy.

▶ The implementation of a moderate constructivist approach to education is to be encouraged in Higher Education programs. This approach bolsters the development in the learner of skills such as responsibility and autonomy, creativity, problem solving, flexibility, critical and reflexive thinking. These are highly valuable skills in both education and employment environments and will become more necessary in the coming years because of the fast development of ICT, changing the ways in which we learn and work.

▶ Radical constructivist approaches to education should be avoided because they foster individualist and anti-realist attitudes which can impede collaboration with people and practical interaction with the world.

▶ The partially learner-created syllabus is an application of a moderate constructivism which is especially appropriate for Higher Education programs. Its implementation is to be encouraged. The partially learner-created syllabus directly engages the learner in responsible and reflective decision-making by giving her the opportunity to decide on some of the contents of her course syllabus. This process fosters the development of the skills sought for by moderate constructivist approaches. This practice is appropriate at the Higher Education level given the degree of intellectual maturity and self-discipline that learners have reached by this stage of their studies.

▶ The fully learner-created syllabus is not to be implemented as learners do not have the whole intellectual maturity and self-discipline that an overall assessment of the appropriateness of the syllabus created requires. This is to remain the responsibility of the professor.
Distance e-learning constitutes a particularly appropriate space for the implementation of the partially learner-created syllabus. The reasons for this are that: 1) distance learners face their Higher Education studies with a high degree of responsibility, 2) the distance between student and professor and student and peers can allow the student to make his syllabus choices without authority or peer pressure, and 3) distance e-learning offers a greater flexibility in terms of time and course content than traditional university does.

14.1 Introduction

Constructivism has been popularized as an educational theory in the past decades in contrast with the more traditional instructivist or behavioural approach. One of the ways in which this educational model can be implemented within Higher Education is through student self-creation of his own course syllabi. Distance education and E-Learning technologies are particularly favourable to a widespread implementation of the learner-created syllabus within Higher Education programmes. This report seeks to explore whether the popularity of educational constructivism and the learner-created syllabus in particular is justified and evaluate how appropriate constructivism is for higher education.

14.2 The benefits of a constructivist approach to education

Constructivism is one of the most influential approaches to education of our day at all levels of education. The central tenets can be defined in terms of the following epistemological propositions: "knowledge does not exist independently of the subjects who seek it" and "knowledge is acquired through a process of active construction." These ideas were originally popularized in the mid twentieth century by Jean Piaget who argued that knowledge was not a copy from reality and, thus, should not be treated as a (more or less accurate) representation of the external things or events, but instead as the mapping of actions and conceptual operations that had proven to be viable within the experiences of the knowing subject.

These epistemological claims are reflected in educational theory through the general understanding that learners should be given the opportunity to seek for themselves their own contextually meaningful experience, raise their own questions, and model and defend their own answers. It is held that in the learning process learners intrinsically construct their own meaning by building on their own previous knowledge and experiences. The principal outcome of this process is individual-specific learning and understanding.

An important consequence of this approach to education is a change in the traditional teacher-learner hierarchy. On the one hand, the teacher is no longer seen as the authoritative knower

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Footnotes:

92 Ernst Von Glasersfeld, 'Introduction: Aspects of Constructivism' *Constructivism: Theory, Perspectives and Practice*, ed. by Catherine Fosnot (New York: Teachers College, Columbia University, 2004), 3-4
93 Cronje, 397
but as a facilitator and motivator of learning. On the other hand, the learner is no longer
c onsidered the unknowing controlled subject and is given an active role, an ownership of the
ideas. Autonomy, mutual reciprocity of teacher-learner relations and empowerment become
the key features of the teacher-learner relationship.\textsuperscript{94}

In recent years Constructivism has been seen as a promising substitute for the traditional ped-
egogy in which learners are considered passive and affected by reinforcement and instruction.
In the traditional model, the educator focuses on developing a sequenced and well-structured
curriculum and in determining how to instruct, reinforce and assess the learner. The learner, on
the other hand, is expected to progress in a linear and quantitative fashion through the educa-
tional curriculum.\textsuperscript{95} As Richard Fox puts it, "[t]raditionalists are said to believe that teaching
consists of telling, or instructing, and that the learner is treated as ‘an empty vessel’ to be
(inertly) filled with knowledge."\textsuperscript{96} By contrast, Constructivists have as their aim the construc-
tion of active learners, where learning is understood as a complex, non-linear process.\textsuperscript{97}

Many are the benefits for education that come with constructivism and account for its pop-
ularity. Firstly, learners in general become more responsible and autonomous with regards
to their whole educational process due to their active participation in it. Secondly, the criti-
cal and reflective abilities of students are significantly developed when operating within this
educational framework. Thirdly, learners do not only learn content, but also learn how to
learn, a skills which they can transfer to non-academic contexts. Finally, students generally
enjoy learning activities in which they have ownership and in which their own experience and
perspective is what matters.

14.3 The drawbacks of radical constructivism

As many benefits as constructivism has, it can be pernicious to learners when radicalized. A
radical constructivism is that which asserts that “all understanding and all communication is
a matter of interpretative construction on the part of the experiencing subject.”\textsuperscript{98} This claim,
as Olssen highlights, involves a rejection of metaphysical realism: the view that our knowl-
edge is of a world independent of our mind. “Rather than search for a correspondence or match
between mind and the world, the constructivist searches for a functional adaptation or fit be-
tween new knowledge and prior experience placing a much greater emphasis on the human
mind to construct and impose categories on the world.”\textsuperscript{99}

A radically constructivist approach has several implications for pedagogy. Educational cur-
ricula could come to be vacated of substantial content because “rather than the curriculum
being seen as comprising ‘that which is to be taught’ or as a list of knowledge or skills to be

\textsuperscript{94}Constructivism: Theory, Perspectives and Practice, ed. by Catherine Fosnot (New York: Teachers College, Columbia
University, 2004), ix
\textsuperscript{95}Fosnot, Catherine and Randall Perry. ‘Constructivism: A Psychological Theory of Learning’ in Constructivism:
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\textsuperscript{96}Fox, 25
\textsuperscript{97}Fosnot, and Perry, 10-11
\textsuperscript{98}Mark Olssen, ‘Radical Constructivism and Its Failings: Anti-Realism and Individualism’, British Journal of Educa-
tional Studies, 44 (1996), 277
\textsuperscript{99}Olssen, 277
taught to learners, it puts the emphasis on what learners bring to their learning situations.\textsuperscript{100} That which learners bring to their learning situations is always understood in individualistic terms, relative to each student, which closes the door on any possibility of including objective content in the curricula.

Assessments would also be impacted by this because there would be no possibility of evaluating students’ objective knowledge. This problem is highlighted by Olssen who explains that: “\textit{[t]o assess the students in their own constructions discounting accepted scientific truth or even accepted normative practices within a community runs the risk of encouraging what might be called ‘scholastic solipsism’ in which students’ definitions of the situations are reinforced in contradistinction to objective social and scientific necessities.”\textsuperscript{101}

The problem with radical constructivism lies in the fact that from a correct realization that the mind is active in the construction of knowledge they conclude that we cannot know reality. But the first proposition does not entail the second. As Olson puts it, \textit{“[j]ust because reality is discursively mediated […] that does not necessarily mean that we must abandon our ontological commitments to a real world.”}\textsuperscript{102} This commitment is crucial for our lives, and that is why curricula and assessments cannot do without it.

If we take the constructivist approach to education minus this radical anti-realist and individualist position, then it is possible to accept it as a promising approach to education due to its valuable insights. Furthermore, even when objectivist and constructivist approaches to learning are usually considered ‘opposite ends of a straight line,’\textsuperscript{103} perhaps the one could come to the aid of the other, as Johannes Cronje suggests, thus avoiding the radicalization of either of them and recovering their benefits because \textit{“[o]bjectivists tend to concentrate on direct instruction whereas constructivists focus on learning […] but the tendency of practitioners to move toward the middle of the continuum may be the instinctive realization that the process of learning requires substantial cognitive processing.”}\textsuperscript{104} In other words, a moderate constructivism that does not renounce objectivism is the best way to approach education.

14.4 The learner-created syllabus

Sociologist and futurist Alvin Toffler once said that \textit{“the illiterate of the twenty-first century will not be those who cannot read and write, but those who cannot learn, unlearn and relearn.”}. Indeed, in a world that changes every day at a greater speed, especially due to the development of ICTs, 21st century Higher Education needs to develop in students the learning competencies that will equip them for continued academic, vocational and personal growth. One of the ways in which this can be achieved is through the manifestation of the constructivist approach in Higher Education through the learner-created syllabus.

A syllabus is the outline of a course containing the topics to be covered, the assignments, rules, assessment procedures etc. Learner-created syllabi can range from the participation of

\textsuperscript{100}Olssen, 284
\textsuperscript{101}Olssen, 286-7
\textsuperscript{102}Olssen, 286
\textsuperscript{103}Cronje, 387-8
\textsuperscript{104}Cronje, 394
students in the design of some parts of the syllabus (e.g. design of assignments, selection of some topics to be covered etc.) to the entire syllabus.

The learner-created syllabus which stems from the constructivist approach to education find its proper place at Higher Education insofar as at this stage students confront their studies with a greater maturity and commitment than they do in their previous years of study. To this we can add that they have developed a more acute idea of what they want to do or become in their lives outside of the academic world and need to prepare for it in the best way possible. Nonetheless, the desirability of the implementation of this educational strategy should be carefully evaluated, taking its benefits and drawbacks into account.

Among the benefits, we find that the learner-created syllabus could help learners better develop the skills that society expects them to develop in Higher Education. As Diana Oblinger highlights, "[s]ociety has expectations of what it should receive in return for the trust, personal investment and public money that are invested in higher education." A straightforward goal is the preparation of workforce. However, simply being accredited for a specific type of job through the acquisition of a degree is not enough. Workforce preparation means being prepared for whatever job, career or challenge arises. It is having a set of skills that includes the ability to continuously learn. Additionally, Higher Education is also expected to encourage the formation of a rational and responsible society, through developing in students the ability and responsibility to understand complex issues and, consequently, make informed decisions. The learner-created syllabus helps achieve these goals — when confronted with the responsibility to partially or totally decide on the key aspect of their course, students are forced to develop their creativity, informed decision-making skills and problem solving abilities, and develop more responsibility and commitment towards their course.

As well as helping the learner develop the skills that society expects of him, a learner-created syllabus enables the learner to meet his own educational expectations. Pre-prepared syllabi and curricula always capture within them social and political interests but not necessarily the learner’s interests and needs and, as Oblinger asserts, “[i]f our programmes are not relevant to the learner’s needs, we do everyone a disservice.”

Every student is a different person with different prior experiences and interests, as a moderate constructivism emphasises. In consequence, their goals and aspirations will not necessarily be those of the instructor or society. As Denise Chalmers and Shannon Johnston emphasise, the interests of institutions frequently conflict to some degree with the interests of students, so “[i]nstitutions may claim that they operate to high academic standards while the students believe that the teaching and support does not meet their needs.” The design of the syllabus should reflect the goals and aspirations of the students. The learner-created can manage this since it directly involves the learner in its design.

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¹⁰⁶Oblinger, 134
¹⁰⁷Canole, Gráinne and others. 'Designing for Learning' Contemporary Perspectives in E-Learning Research: Themes, Methods and Impact on Practice, ed. by Gráinne. Conole and Martin Oliver (New York: Routledge, 2007), 102
¹⁰⁸Oblinger, 135
In most of the courses currently taught by universities around the globe, students take some important decisions regarding their educational path by getting to choose from a range of subjects those they want to follow, most of the time as specialization courses within their general field of study. The Open University in the UK has gone farther than this by creating the Open Degree course, within which students can get credit for the study of any subject they like within those offered by the university or even for courses studied at another university.¹¹⁰

The partially learner-created syllabus has already been implemented by some constructivist higher education professors and has been supported by the majority of students. An example of this is the Introduction to Sociology course imparted by Suzanne S. Hudd at Quinnipiac University. Hudd partially involves her students in the creation of the syllabus by having them decide on the assessment criteria for the course and the list of graded assignments.¹¹¹ Hudd reports that, at the end of the course her students affirm to have enjoyed their collaboration in the development of the syllabus and perceive that their overall experience of the course is enhanced. They also contended that the assignment construction enhanced their learning experience far beyond the content matter of sociology, given that they had control of the agenda and felt that their opinion was valued.¹¹²

A second example of constructivism in practice is the undergraduate programme in Environmental Justice at Queen Margaret University, Edinburgh in 2009, according to a study carried on by Catherine Boville. This was a course targeted at local activists who were interested in learning more about processes of social change and environmental justice. Course tutors created a general framework for the syllabus, which included the requirement for there to be a module on science and a module on the law. The specific learning content of the syllabus, however, was determined by the specific issues that each participant brought with them. If, say, a student was an active campaigner against fish farming, the law module would include sea law. This involvement of participants in the decision making within their course made them very responsible and interested in it.¹¹³

Boville also carried out studies on learner-created syllabi at two other universities.¹¹⁴ Through her research she noticed that there is a feeling of risk shared both by professors and students when adopting this new pedagogical approach. In the majority of cases, “even where academic staff had high expectations of students, students still exceeded these expectations.”¹¹⁵ Among the satisfactory results she reports, one of the most salient is that ‘students demonstrated high-levels of confidence and motivation with a resultant impact on improved student performance.”¹¹⁶

Overall it seems that the learner-created syllabus constitutes a promising constructivist strategy towards the development of important skills in students such as creativity, responsibility, informed decision making and even for them to follow their own academic interests when they are given the chance to decide on the content of their course. Nevertheless, the extent to

¹¹⁰http://www3.open.ac.uk/study/undergraduate/qualification/qd.htm (09/01/2013)
¹¹¹Cfr. (Hudd, 2003)
¹¹²Hudd, 199-200
¹¹³Catherine Bovill, Students and Staff Co-creating the Curriculum: Research into Three Case Studies from Scotland, Ireland and the USA, 2
¹¹⁴Cfr. Bovill, 1-5
¹¹⁵Bovill, 3
¹¹⁶Bovill, 3
which students should get involved in determining syllabus content needs to be restricted to a partial participation.

The reason for this is that learners have not yet acquired the full maturity they need in order to decide fully on what they should learn or how they should be assessed. This is due, firstly, to their general lack of a deep knowledge in the field that is needed to guide the selection of topics and choose how they are to be evaluated. Learners might have a broad idea of the field and a particular knowledge of some of the topics within it, and this is what allows for their partial participation in the syllabus design. However, setting the overall and general guiding principles of the syllabus should still be the task of the professor who, presumably, has a broader and deeper knowledge. Secondly, not every student will be capable of the responsibility and self-discipline that deciding on the syllabus requires, and if given a total prerogative it is possible that some students would merely choose to study the easiest subjects and to be assessed through simple assignments that most benefit their desire for ease and not their learning experience. Given this, the professor is required to set a framework of what is allowed and not allowed within the syllabus according to the standards and goals of the course.

14.5 Opportunities for the learner-created syllabus within distance learning

New technologies offer new opportunities to enhance learning experiences. The development of E-Learning has been particularly positive for the development of distance education, a mode of delivering education to students who are not physically present in a classroom. However, as Gráinne Canole underlines, most of the time these opportunities are not realised. “Coupled with the gap between the potential and actual use of technologies is a failure to apply effectively the range of learning theories that have emerged in recent years, in particular those centred around more socio-cultural and constructivist perspectives which emphasise learning by doing.”

Nevertheless, E-Learning technologies, especially when applied to distance education, can be an excellent tool for the implementation of partial learner-created syllabus. As Liz Burge asserts, “[t]he potential of this emerging communications technology to enhance individual and collective learning prefigures radical changes in how educators approach curricula.”

There are three key reasons why distance E-Learning in Higher Education is particularly favourable to an individually learner-created syllabus. Firstly, distance degrees imply a distance between student and professor and other students. The professor develops more the function of a tutor and facilitator of knowledge and less as an authoritative and imposing instructor. In this way the fulfilling of one of the general requirements of the constructivist approach is implicitly met by distance learning. The contact with other students is usually reduced to online forums and online group activities. Given this, the pressure a student might feel from his peers or from the authority when deciding on elements of the syllabus is significantly reduced in this educational media given more freedom to each student to make his or her own choices.

¹¹⁷ Canole and others, 103-4
Secondly, the success of the distance learner in fulfilling his course depends solely on his learning motivation and his willingness to take responsibility for himself, given that he must fix and follow his own schedule without the external impositions that are present in traditional university courses. Because of this factor, the commitment he must show towards his course is more than that expected from a student enrolled in a traditional university course.

Finally, distance E-Learning incorporates a flexibility which is not present in traditional universities. Due to logistical restrictions present in traditional universities, there can only be a given set of lectures that a student can choose to follow. However, when a student decides on his own schedule at home, he can manage to fit in whatever lectures he wants to listen to or whatever materials he wants to study. The client attitude that students have developed in recent years towards educational personnel finds a better place within distance e-learning where a student could adapt a syllabus to his own needs.

14.6 Conclusion

In conclusion, it has been seen that constructivism is a desirable approach to education because it develops learners creativity, decision making and continuous learning skills, among others. However, care should be taken in order not to radicalize this approach.

The learner-created syllabus is proposed as a promising way of introducing constructivist principles to Higher Education. When earners get involved in the development of some part of their course, they become more committed to it and their learning experience is enhanced beyond the learning content of the course. Additionally, this gives learners the opportunity to pursue their own intellectual interests to some extent. However, it is emphasized that the involvement in syllabus design by the students should be partial and not total, given a lack of full maturity in the students regarding their knowledge on the subject and, sometimes, their responsibility and discipline in their studies.

Finally, it is suggested that distance E-Learning is possibly the most adequate space to introduce the learner-created syllabus and that in this medium the creation of the syllabus could be fully individual. The key reason for this is the flexibility that virtual learning offers to higher education.

¹¹⁹Burge, 77
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Bovill, C. (n.d.). Students and staff co-creating the curriculum: research into three case studies from Scotland, Ireland and the USA (pp. 1–5).


Chapter 15

The Private Tutoring model for Inner-City Schools

Emma Ramsay & Susannah Clark

Outline

- This paper proposes that the growth of the private tutoring industry is placing pupils from underprivileged backgrounds at an increased educational disadvantage, which needs tackling. 43% of 11-16 year olds in London now receive private tuition at some point during their secondary education, but at £30-40 an hour, this is simply not an option for many families.
- The paper explores the benefits of private tuition, including improved attitudes to learning, increased attention, a personalised learning style and direct feedback, increased motivation and improved grades.
- The links between poverty, social exclusion and education are explored, including the rising number of 16-24 year olds not in education, employment and training and the possibility of tuition to help these vulnerable pupils.
- The paper then explores a case study from Action Tutoring, a charity seeking to implement voluntary tuition in inner city schools in London and Manchester to pupils at risk of not achieving 5 A*-C GCSEs including English and Maths, charting the success of this so far and the possibility for the programme to be more widely rolled out.
- Finally, the paper explores the benefits for the volunteer tutors themselves, many of whom are university students, including breaking down social stereotypes, providing valuable work experience and encouraging bright graduates into teaching.
15.1 The Growth of the Private Tutoring Industry

Private tutoring, while not a new phenomenon, has recently experienced a boom in popularity throughout Britain and especially in London. This reflects the growing pressure for high educational achievement and the intensifying competition for places at top universities. A recent study by The Sutton Trust highlighted this growing trend revealing that 43% of London pupils have received tuition at some point in their academic lives, an increase of 7% from the figure just six years ago. The study also showed the extent to which London is leading the way in this growth with nearly double the amount of pupils receiving tuition than in the rest of Britain. The surge in popularity of the tutoring industry raises many questions predominately surrounding whether tutoring is actually effective and, if so, whether the remaining 57% of London pupils are at a disadvantage for not receiving tuition. It is important to point out that private tuition is by no means a cheap option for parents looking to improve their children’s grades. Many private tuition firms have fees that average between £20-40 per hour and sometimes much more (Ireson 2004). Tuition is therefore not an affordable option for many families and if tuition is an effective way of improving pupil’s grades then it begs the question whether there needs to be a similar ‘shadow scheme’ implemented by the government to compensate for the advantage it provides. This potential free tutoring programme would be aimed at the most vulnerable and deprived children in society who would benefit the most from such intervention.

This report will explore the potential of such a policy initiative, first looking at the benefits of tutoring and whether such a programme would be effective and have academic value. Next we will establish the academic precedent that will be referred to throughout this essay, namely the link between poverty and educational achievement and how tutoring could potentially help combat this. Thirdly, we will look at Action Tutoring, a case study to demonstrate the potential of a policy initiative offering tuition for disadvantaged students. Action Tutoring is a charity that has introduced free tuition programmes for GCSE students in 30 inner-city schools across London and we will explore the results that this has produced and how it operates successfully. Lastly we will explore the wider implications of such a policy initiative, how this could tie into current government educational policy and the potential benefits for graduates and higher education institutions.

15.2 The Benefits of Tutoring

The academic benefits of tutoring are well recorded within the literature with the many advantages over standard classroom learning documented by various educational psychologists and sociologists. Dzubak (2009) lists three reasons why tutoring is superior to classroom learning. Firstly, it has the advantage of personalised ‘face-to-face’ social interactions that a teacher with a class of thirty pupils cannot possibly provide. Secondly, tutoring provides immediacy of feedback and allows the pupil to be instantly corrected on a wrong idea or praised for a correct one. Lastly, the student is actively engaged in the process of learning and, for example, may interject with questions at any point. These advantages allow pupils to move much faster and more efficiently from a position where they need support to where they can perform a skill independently and then transfer these new learning strategies to other areas. It
is because of these advantages that studies have shown a massive difference in achievement when students are tutored in both one-to-one and small groups. In a study by Bloom (1984) it was found that the average tutored student outperformed 98% of the control class and that tutoring greatly reduced the academic variability between students. Bloom also found that students who had been tutored also experienced a greater development in other areas including the development of a more positive attitude towards work, becoming more focused and a reduction in their test anxiety. Further studies support the contention that tutoring increases learner motivation (Misko & Haag 2002), improves attitudes towards school and increases attendance (Macbeath et al 2001). In a meta-analysis by Cohen, Kulik and Kulik (1982) it was also reported that the beneficial effects were not just reserved for the tutees — in the majority of studies the tutors also achieved more academically and had more positive attitudes to the subject matter. In summary, the benefits of tutoring, both academic and non-academic, are both diverse and undeniable. As such the question becomes what are our responsibilities to the students not receiving tutoring and how can we use tutoring to help the most vulnerable and deprived children in society.

15.3 Poverty and Education

The link between poverty and academic underachievement has been well documented throughout academic literature and government reports. In 2010/11 the Department for Education reported that children from low income backgrounds only gained on average 34.6% 5A*-Cs including Maths and English at GCSE compared to the national average of 58.2%. Schools with high levels of poverty, reflected in free school meal rates, operate in particularly challenging circumstances. Securing good grades for pupils is made more difficult by the direct effects of material poverty and the resulting impact on the emotional climate of the school, a lack of resources at home, students with little or no parental support and a wide range of abilities and additional learning needs (Lupton 2002). It is in these schools that children have little or no access to the advantages of academically valuable but financially demanding extra support such as private tuition. It is also these children for whom such interventions as tuition could potentially help the most. It is often not a lack of ability but a lack of resources and opportunities that cause academic failure.

One of the greatest concerns of the government is the growing trend of children from disadvantaged areas ending up as ‘NEETs’ (Not in Education, Employment or Training). Rising numbers of NEETs from disadvantaged backgrounds perpetuates the cycle of poverty as well as proliferates the feeling of social exclusion which can lead to such consequences as involvement in criminal activity. One of the primary predictors of a child becoming a ‘NEET’ is truancy and exclusion from school (Webster 2001), something that children in care and ethnic minorities especially Black African-Caribbean boys are particularly vulnerable to. For example the department of Education reports that African-Caribbean boys make up just 2% of the school population but 8.1-8.5% of those excluded (Gillborn D. and Mirza H. 2000). The reasons for these patterns are complex and variable and not all of them easily resolvable. However, one of the main reasons these children give for their disengagement with the schooling system is that they feel alienated from the schooling system, as well as disaffected, bored and are finding it ‘too hard’. This may be rescindable by intervention. In a study by Cullingford (1999) where
excluded pupils were questioned about their school experiences, nearly all attested that they enjoyed the lessons in which teachers related to them personally and took an interest in them and their problems. They also were enthusiastic about subjects that were taught in an innovative way. Cullingford points out that when a subject becomes interesting it becomes easy and the mistrust and suspicion that the at-risk pupil has built up around teachers and school is removed.

In the cases of disadvantaged pupils who may well feel alienated from the schooling system and at risk of becoming further socially excluded by academic failure, it is clear there is the potential for tutoring to be a possible tool for intervention. Tuition would hold many potential benefits for these pupils, starting with the potential to greatly improve exams results and decrease academic variability between children. It also has the potential to increase attendance and create better attitudes towards school, which as stated above is one of the biggest predictors of school exclusion and eventually becoming a ‘NEET’. Furthermore, it allows children who may not be responding to a traditional school environment due to its ridged routine and lack of personal interactions with teachers to try an alternative style of learning better which they might find better suited to their needs. A more positive attitude in one subject as a result of the pupil adopting new learning strategies can stimulate a more positive attitude across the board and lead to a general increase in learner motivation. Finally, tutoring in disadvantaged schools could narrow the academic advantage that wealthier students and their increased utilisation of the private tutoring industry possess.

15.4 The Action Tutoring Model

With the potential to introduce tutoring into disadvantaged schools having been shown and the possible benefits established, it simply remains to create and implement a possible working model for such a policy initiative. We will now look at Action Tutoring, a case study to demonstrate what a policy providing tuition to disadvantaged pupils could look like or the types of projects that the government could look to support. Action Tutoring is a recently established charity that works with 30 inner-city schools across London providing cohorts of 15-20 volunteer tutors for an eight-week programme. The tutors work with GCSE pupils for an hour a week aiming to help them achieve a ‘C’ or above in Maths and English. Action Tutoring targets the D/C borderline pupils who are often capable of passing but for various reasons often leave school without basic qualifications. These are also the pupils who are not targeted in interventions as they are neither classed as Gifted and Talented or ‘the worst’ students in terms of grades or behaviour. There are many organisations to help pupils identified as being ‘Gifted and Talented’ such as The Brilliant Club and The Access Project and many to target those at risk of exclusion such as XLP but few to target this middle group who in many ways are just as much at risk. Action Tutoring is funded by various charitable bodies and individual donors. The participating schools are also asked to pay £500 per programme which represents around 25% of the overall costs. The schools are encouraged to think about this contribution as putting their Pupil Premium money to good use.

Results found so far by Action Tutoring reflect those predicted by this report and provide a starting point for any similar policy initiative. In terms of academic improvement, similar
results to those recorded in sociological literature were found, and in the pilot programme of 2011 over 75% of students tutored who were predicted Ds or below at GCSE achieved Cs or above in the subject tutored. The subjects targeted were Maths and English, the subjects that The Sutton Trust identified as those most tutored in the private sector with 77% of students who had been tutored receiving help in Maths and 55% in English. Action Tutoring’s targeting of GCSE pupils reflects how crucial this stage of education is in providing students with the qualifications needed to go on to further education and training. This is also reflected in the nation-wide statistics for tuition that show that GCSE years are by far the most common time to have a tutor with 30% of Year 11s receiving tuition compared to only 17% of Year 7s.

A policy initiative like Action Tutoring would reflect the recent trend within government policy for local area initiatives rather than nation-wide programs that do not necessarily reach or impact the people they need do due to the variability between areas. The previous New Labour government implemented initiatives that included Education Action Zones, Excellence in Cities and Surestart whilst the current government has instigated the policy of ‘Free Schools’. Action Tutoring works exclusively with inner-city London schools and allows the schools to tailor their own learning programs in order to suit their pupils. The pupil statistics of the schools reflect the diversity of London and two schools in the same local authority may not share the same proportion of students on free school meals, English as a second language or special needs students and therefore will not share the same challenges. Two of the schools Action Tutoring works with demonstrate this. Raines School and Swanlea School are both in Tower Hamlets but whereas the former has 12.2% of students with English as a second language and 33% on school meals Swanlea School has 92.2% and 68.1%, respectively. The school, working with the pupils every day, knows how to engage them and what their strengths and weaknesses are. The pupils are also able to learn in an alternative way to normal classroom teaching giving students who are not responding in a class of 30 the chance to engage with the material in a different way. Pupils who have been tutoring by Action Tutoring volunteers have said the following about the programme;

“I now understand Maths more than I did before and it was fun”
( Fyonna, Southfields Community College. )

“The Saturday mentoring has really helped me with my Maths because it has given me a chance to go over some of the topics I didn’t do so well in previously. Max has been very helpful and friendly and I’m hoping to meet with him for a few more sessions after the programme has finished to give myself an even better chance in the exam.”
( Gustave, Harris Academy, Peckham )

“I could go over the stuff I didn’t understand in class and there was time to ask questions.”
( Yuliya, Southfields Community College. )

Another aspect of the programme that would be especially appealing to policy makers in light of recent budget cuts in schools is the low running costs as the tutors are predominantly university students who volunteer their time. By utilising the talent and knowledge of students from some of the top universities in the country the pupils have the advantage of learning from tutors who have a brilliant knowledge of the subject they teach as well as recent experience in taking the GCSE exams themselves. Furthermore as the tutors are young and successful they
could serve as potential role models to disaffected students, and from the pilot study the many stories of the bonds built between tutor and tutee testify to this possibility.

“This was an amazingly rewarding experience for the children involved. As well as accessing these subjects in a more intimate and personalised way, they also enjoyed the relationships they formed with their tutors.”

( Fiona, English Teacher, Raines Foundation School )

Action Tutoring have not to date experienced any problems attracting volunteers, so it is plausible to suggest that using voluntary tutors could be practically as well as financially viable for a wider policy initiative in this area. The various wide-reaching benefits for volunteers are discussed in the next section.

Finally, the pupils that Action Tutoring work with often lack ‘social capital’ and the networks of successful family and friends that children from more affluent backgrounds take for granted, which limits the potential for social mobility. Action Tutoring’s scheme gives the pupils a chance to build connections with people who do have these advantages and the programme has the possibility to open up offers of work experience and even jobs with some of the older tutors.

15.5 The Role of Higher Education Institutions

The primary source of Action Tutoring volunteers are universities, where students are recruited through sources such as volunteer centres and fresher’s fairs. This presents numerous opportunities for graduates and higher education institutions as well as having implications for any potential policy initiative.

15.5.1 Challenging stereotypes of inner-city schools and increasing community cohesiveness

It is important to note that the demographic of the tutors is generally very different to that of pupils as predicted by national trends. The progression of disadvantaged pupils onto higher education in comparison to their more privileged contemporaries is dismal. The Sutton Trust reports that while 96% of private school students go on to university the figure is only 36% for students from state schools and only 16% for students who received Free School Meals while at school. The demographic of university students, therefore, is skewed towards the more affluent of society, many of whom have received tutoring themselves whilst at school. Many university students would never have the opportunity to see the type of schools that Action Tutoring works with first-hand. Many of Action Tutoring’s past volunteers admitted in their evaluation of the programme that one of the most positive aspects of the experience was having their misconceptions and prejudices about inner-city schools and their pupils challenged. A programme like Action Tutoring allows different groups of people operating in very diverse social settings to interact. This has far reaching implications for citizens operating in cities as culturally, socially and economically diverse as London and could create an atmosphere of better understanding, tolerance and harmony.
15.5.2 Work experience in an increasingly competitive graduate job market

One of the most ubiquitous issues in the media recently has been the difficulty for recent graduates in finding employment after graduation and the subsequent perceived devaluing of degrees. In past years graduates did not need any additions to their CV other than noting their degree in order to find employment but times are changing. It has recently been reported that 40% of graduates are not in graduate positions two years after leaving university. (Purcell, K. et al. 2012) The addition of work experience to a CV can be the difference between a graduate position and unemployment. In a report by Futuretrack it was found that;

There is evidence that participation in extra-curricular activities while in HE is associated with positive labour market integration. In particular, graduates who were office holders or student representatives while in HE, indicating experience of leadership and roles of responsibility had more positive outcomes. Graduates who took part in extra-curricular activities and those who were office holders were less likely to be unemployed, and more likely to be employed in a graduate job. This demonstrates the value employers place on such activities as a means of demonstrating desirable characteristics, such as teamwork and leadership, and in particular the value placed on these activities by employers recruiting in areas of traditional graduate employment... Graduates with extra-curricular experience while in HE were less likely to be earning a comparatively low salary, and those with experience of being an office holder or student representative were even less likely.

(Purcell, K. et al. 2012)

One of the main issues for graduates is how to gain meaningful work experience that can be used for evidence of generic employment-related skills (i.e. not degree subject specific). This is an area which employers have been found to feel is lacking in graduate applicants, in a study by the IoD it was found that only 55% felt recent graduates had these basic skills (such as communication, self-motivation and ability to work with others) and only a quarter felt graduates were ‘prepared for employment’. One reason that many volunteers find working with Action Tutoring appealing is that they are able to develop and demonstrate these skills in a novel way. The programme is very structured and at an hour a week for 8 weeks is a relatively small time commitment. Many other programmes similar to Action Tutoring that run in London differ in that they provide ‘mentoring’ and while worthwhile it is a rather woolly term with few measureable outcomes. They also tend to be long-term commitments or very time-demanding. Volunteering for Action Tutoring is challenging and requires good communication skills, creativity and the initiative and ability to adapt teaching methods and lessons to the students and their needs. The programme allows volunteers to develop skills and demonstrate their employability suggesting there is potential for Action Tutoring, or any similarly developed programme or policy initiative, to form stronger links with universities.

15.5.3 Encouraging bright graduates into teaching

The importance of high quality teaching and the impact it has on pupil achievement has been well documented throughout academic literature. The Sutton Trust has found that “the effects
of high-quality teaching are especially significant for pupils from disadvantaged backgrounds: over a school year, these pupils gain 1.5 years’ worth of learning with very effective teachers, compared with 0.5 years with poorly performing teachers. In other words, for poor pupils the difference between a good teacher and a bad teacher is a whole year’s learning.” (2011) The report also points out that the quality of teachers is the most important factor within schools that policy-makers can directly affect to improve student achievement. This is reflected in current government policy to implement performance-related pay for teachers and the current campaign to encourage high achieving graduates into teaching with training bursaries up to £20,000. The success and subsequent growth of programmes such as TeachFirst also reflect this new trend and as a result of these higher standards and growing popularity teaching is a more competitive profession than ever. The Department for Education has reported that more trainee teachers than ever hold a 2:1 or a 1st class degree (November 2012).

With this in mind it is important to encourage high-quality graduates into teaching and to enable them to gain experience of teaching for PGCE and TeachFirst applications. Action Tutoring works with many of the brightest students in the country at some of the best universities and some of the volunteers have decided based on their experience that they would like to enter teaching. Many tutors were already thinking about teaching and were grateful to have the opportunity for work experience in a school.

“I’ve really enjoyed working with Action Tutoring and I think the work they do is fantastic. It’s convinced me that I would like to be a teacher”

( Charlotte, Elizabeth Garrett Anderson School. )

“All of the boys that I have tutored were very hard-working and looking to improve, they had a great attitude. I am going on to do a PGCE and it has been a helpful experience for me.”

( Jane, St Mary Magdalene Academy. )

“It has definitely equipped me with a lot of skills which I know I can apply to my PGCE application.”

( Arooj, Raines Foundation. )

Introducing a policy initiative similar to Action Tutoring, or giving government support to an existing project, would be in keeping with current government strategy of attracting high quality graduates into teaching. It also allows graduates to experience teaching in inner-city London schools which could encourage many to consider teaching in such institutions where, as found by in the Sutton Trust mentioned above, is where good teachers are most effective and needed. An initiative like Action Tutoring could also be used as a feeder-programme into alternate routes into teaching such as TeachFirst that specifically caters to inner-city schools.
15.6 Conclusions

It is clear that there is a role for tutoring to play in disadvantaged schools which could be explored by introducing a policy initiative that encourages the introduction of a programme such as Action Tutoring in inner-city schools and partner universities. Such a programme has the potential to deliver huge benefits for pupils, teachers, graduates and wider-society in a cost-effective manner. Tutors have the opportunity to explore teaching as a potential career, gain work experience and discover first-hand the challenges faced by some of London’s poorest citizens. They will have the opportunity to interact with pupils with a variety backgrounds and cultures which is an invaluable experience in a diverse multi-cultural city such as London. The pupils targeted have the potential for greater academic achievement, better attendance and improved attitudes towards work. The consequences of this are far reaching including enhanced job and higher education prospects, lower exclusion rates and less individuals classed as NEETs as well as the all the potential benefits of this. Equally as important it could help narrow the advantage that wealthier pupils enjoy in having the option of hiring a private tutor to boost their grades. As demonstrated by The Sutton Trust research private tutoring is a growing industry and the pupils who cannot afford such measures must not be left behind. Most importantly of all, the introduction of a national programme similar to Action Tutoring has the possibility to improve lives and give bright but underprivileged children a chance to live up to their potential. Though society would undeniably benefit as a result the most important outcome of the programme is children who are empowered by improved academic achievement and the subsequent increased self-esteem and confidence to fulfil their dreams.

It is important to note that this report is a simple overview of ideas tying together the growth of the private tutoring industry, the benefits of tutoring and the potential of introducing a policy that could narrow the attainment gap between pupils from low income backgrounds and their more privileged peers. A more comprehensive review would need to include far more case studies and take into account other aspects that impact attainment that have only briefly been touched upon here such as ethnicity, gender, special needs students and parental impact. This report is also very London-centric and any programmes or policies introduced on a national scale would have to investigate ways to adapt to the inevitable differences between geographical areas. Further research would also need to be done on the potential funding for any projects and whether this would involve Pupil Premium in any way.

15.7 References

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