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| Institution: The University of Leeds | | |
| Unit of Assessment: 23 Education | | |
| Title of case study: Enhancing strategy and pedagogy in global online education | | |
| Period when the underpinning research was undertaken: 2012-20 | | |
| Details of staff conducting the underpinning research from the submitting unit: | | |
| Name(s): | Role(s) (e.g. job title): | Period(s) employed by submitting HEI: |
| Neil Morris | Chair of Educational Technology, Innovation and Change | 2002- |
| Bronwen Swinnerton | Senior Research Fellow in Digital Education | 2015- |
| Period when the claimed impact occurred: 2012-20 | | |
| Is this case study continued from a case study submitted in 2014? No | | |
| 1. Summary of the impact | | |
| <p>Research examining the role and value of online education in Higher Education (HE) and the design and pedagogy of massive open online courses (MOOCs) has informed digital education policy development in the UK, South Africa and other countries, and shaped UK government initiatives to improve access, inclusion and digital skills. This sustained and substantial programme of research by Morris and Swinnerton has impacted on strategic direction through decision-makers in universities and companies supporting widened HE access, and resulted in changes to the design and delivery of online education provision for learners around the world.</p> | | |
| 2. Underpinning research | | |
| <p>In 2012, the <i>New York Times</i> declared the 'Year of the MOOC' and advocates promised that massive open online courses would democratise education and offer access to learning opportunities for disadvantaged individuals globally. Research led by Morris, a world-leading expert in digital education, examined the impact of the growth of online learning on universities and the HE sector by investigating online learning from the perspectives of a range of stakeholders, including learners, instructors and course designers. The research responded to increasing use of digital technology and online education, providing much needed empirical evidence about the impact of digital technology on learning, learners, teaching and teachers. Over time, the research widened to consider national and international perspectives, focusing on global educational practice and policy-making by government and institutional decision-makers. In particular, the research has examined the development of online education at a time of marketisation and the emergence of the phenomenon of unbundling of educational provision, revealing existing inequalities in access to digital education. The research developed from initial work in 2012 by Morris and Swinnerton, who have led throughout and fostered collaborations with colleagues from Leeds (via the Centre for Research in Digital Education, which focuses on digital technology in HE and the workplace), and nationally and internationally. Findings have been reported in articles (12), conference papers (15+), a book chapter, reports (2), policy pamphlets (3), blog articles (5), websites (2) and a course delivered on a global online learning platform.</p> | | |
| Research in online education informing educational strategy, decision-making and policy: | | |
| <p>An ESRC Newton-funded project (2016-18) [a] led by Morris (with Swinnerton, and the University of Cape Town), investigated the factors influencing changes in HE as a result of marketisation, digital technology and the unbundling of teaching and learning provision. Unbundling is the disaggregation of educational provision into its component parts, e.g. a degree programme offered as individual standalone modules for credit on an online platform, which often develops through a partnership with a commercial partner, and has accelerated as a result of digital technology and marketisation. This research revealed and explained the tensions between universities' core business of serving the public good and the commercial aspects of the growth of online education within universities, and showed the stratified and unequal nature of partnerships between universities and private companies, which has significance for the global HE sector. Using a novel interactive mapping methodology, Swinnerton et al found that private companies favoured</p> | | |

partnering with the historically advantaged and elite highly ranked universities, whilst neglecting the lower ranked disadvantaged universities, which dispelled the view that all universities had equal access to such activity [1]. Research by Morris et al identified key strategic drivers influencing leaders' and managers' decisions about upscaling online education, and identified the conflicting positions of leaders, staff and students in universities, demonstrating the challenges of growth and diversification of online courses in a marketised higher education sector [2].

Research on the design and delivery of online courses informing educational practice: Early MOOCs were considered an opportunity to widen access for non-traditional groups of students. A novel and timely study by Morris et al, conducted as MOOCs were growing rapidly globally, challenged the extent of widening participation, by establishing the demographics of online learners using these courses [3]. The study of 27,000 learners found that older, non-working learners, with prior experience of online education and a high prior educational attainment, were more likely to complete a MOOC, contrary to assumptions about MOOCs widening access for those otherwise unable to study. Low completion rates characterised MOOCs from the outset and led to a focus on the relationship between engagement of learners and attrition. In another large-scale novel study, Swinnerton et al analysed data from over 25,000 learners to explore the relationship between commenting in discussion areas and completing a FutureLearn MOOC. FutureLearn's underpinning pedagogy emphasises social learning and the importance of online conversation, thus placing this research as key to understanding the impact of this pedagogy. It found that only those learners who post multiple comments ('superposters') are more likely to complete a MOOC, whilst commenting infrequently had no impact on completion; and that most learners did not comment at all or only commented once or twice, leading to increased attention in the design process to engage learners in online discussion [4]. To further inform engagement and learning in MOOCs, Morris and Swinnerton's doctoral student (Goshtasbpour) examined the role of instructors in MOOCs, providing theoretical insights about online interactions between learners and instructors, resulting in an extension of the Community of Inquiry theoretical framework to evaluate MOOCs. This research also provided practical insights about the design of online courses, and the training needed for online teachers to facilitate learning in discussions [5]. Cross-institutional research between leading MOOC researchers at the Universities of Leeds, Birmingham, Edinburgh and the Open University (lead) demonstrated that MOOC learner engagement is related to the inclusion of discussion or assessment within the course design, and the length of the course, with important practical impacts on the use of the FutureLearn MOOC platform, particularly in terms of the optimal length of online courses [6].

3. References to the research (indicative maximum of six references)

- [1] Swinnerton, B., Coop, T., Ivancheva, M., Czerniewicz, L., Morris, N.P. et al. (2020). The Unbundled University: Researching emerging models in an unequal landscape. In: Dohn, N., Jandric, O., Ryberg, T. & de Laat, M. (Eds). *Mobility, Data and Learner Agency in Networked Learning*. Springer, Cham. https://doi.org/10.1007/978-3-030-36911-8_2 [Book Chapter]. Output from [a] developed from peer-reviewed [Networked Learning Conference](#) (Zagreb 2018) paper presented by Swinnerton (lead author), and invited to be included in the book.
- [2] Morris, N.P., Ivancheva, M., Coop, T., Mogliacci, R., Swinnerton, B. (2020). Negotiating growth of online education in higher education. *International Journal of Educational Technology in Higher Education*. <https://doi.org/10.1186/s41239-020-00227-w>. [Journal article] Key output from [a] describing factors influencing decision making in relation to online education.
- [3] Morris, N.P., Swinnerton, B.J., Hotchkiss, S. (2016). 'Can demographic information predict MOOC learner outcomes?' [Proceedings of the European MOOC Stakeholder Summit 2015](#) 199-207. [Peer-reviewed conference paper]. This key output, led by Morris, published at the height of MOOC usage globally, has been instrumental in helping MOOC researchers, practitioners and platform providers understand more about MOOC learner behaviours.
- [4] Swinnerton B.J., Hotchkiss S., Morris N.P. (2017). Comments in MOOCs: who is doing the talking and does it help? *Journal of Computer Assisted Learning*. 33(1), pp. 51-64. <https://doi.org/10.1111/jcal.12165>. [Journal article].
- [5] Goshtasbpour, F., Swinnerton, B.J., Morris, N.P. (2020) Look who's talking: Exploring instructors' contributions to Massive Open Online Courses. *British Journal of Educational Technology*. 51(1), pp. 228-244. <https://onlinelibrary.wiley.com/doi/abs/10.1111/bjet.12787>.

[Journal article]. Also appears in a [collection](#) made available to support academics switching from face-to-face to online teaching as a result of the COVID-19 pandemic.

- [6] Ferguson R., Clow D., Beale R., Cooper A.J., Morris N.P., Bayne S., Woodgate A. (2015). Moving through MOOCs: Pedagogy, Learning Design and Patterns of Engagement. *Design for Teaching and Learning in a Networked World. 10th European Conference on Technology Enhanced Learning. Proceedings.* Lecture Notes in Computer Science 9307 pp. 70-84. Cham: Springer. https://doi.org/10.1007/978-3-319-24258-3_6. [Conference paper].

Associated grant secured in open peer-reviewed competition:

- [a] ESRC (Newton Fund) 2016-18. Morris N.P. (PI), Swinnerton, B.J. (Co-I). Unbundling education: Mapping the changing nature of Higher Education in South Africa and the UK. GBP484,000 awarded to Leeds (separate linked award to Czerniewicz, L., Co-PI, University of Cape Town, from National Research Foundation, South Africa). <https://unbundleduni.com/>.

4. Details of the impact (indicative maximum 750 words)

The research has benefited learners, educators, digital course designers, and policymakers at institutional, company and national levels through impacts on: i) education strategy and policy, and (ii) pedagogy and design of online courses.

(i) Impact on education strategy and policy at national and international level

Morris's expertise in digital education has led to invitations to contribute to influential committees and working groups. For example, a research presentation resulted in Morris being invited to sit on a UK governmental committee (Research Working Group on Digital Skills and Inclusion, Department for Digital, Culture, Media and Sport/Department for Education; 2018-current) to help support the Government's attempts to improve inclusion and digital skills amongst the UK population, in particular through the increased use of online education and MOOCs. Following publication of the research, Morris was also invited to join and present research at two national Jisc committees (the organisation for digital services in HE and further education), and contribute to its [outputs](#): (i) Senior TEL Working Group (2016-current), and (ii) [Horizon Group](#) (2018-current), directly influencing the Government's attempts to embed greater use of digital technology in the HE sector to improve access, learning outcomes and experience. The 'Unbundled University' project [a] (2016-18) has had impact on debates about policy and practice in both the UK and South Africa, the two centres of data collection, as well as more widely, and in particular on the global debate about the future of HE, including coverage in national media (e.g. [BBC News](#)). The findings from this research project, and the related publications allowed Morris to respond quickly at a time of crisis. During the initial height of the COVID-19 pandemic, Morris was regularly consulted for his expert opinion by the media (e.g. quotes in four [Guardian](#) articles during March/April 2020), and was asked to summarise the Unbundled University policy findings in a Higher Education Policy Institute ([HEPI](#)) blog post distributed to over 10,000 education professionals, directly accessed around 1,000 times and included in a Quality Assurance Association for HE ([QAA](#)) guidance document issued to all UK HE providers. Both Morris and Czerniewicz (South African PI on [a]) have contributed to international events and Government policy discussions via over 20 invitations, and two flagship impact events (one in the UK and one in SA). The research has changed university leaders' and managers' strategic views about the future of their online education offer. For example, the Director of University of Manchester Worldwide explains: *'Morris' presentation is being regarded as a turning point for the University of Manchester. Neil's thought provoking presentation and ensuing discussion ... had a significant impact on the University of Manchester's thinking with regards to technology enabled lifelong and flexible learning... the most significant project that came forth as a result of Neil's keynote is the development of a completely unbundled/stackable suite of courses and course units with our Faculty of Biology, Medicine and Health' [A]*. A presentation at King's College London, including findings about learner perceptions and preferences in relation to online provision, resulted in policy changes at the College concerning online programme fees and education practice in online communities, as described by the Executive Director of Online and Professional Education: *'The research on the Unbundled University, presented ... in September 2018, had an impact on how we set fees for our programmes... it was stated that a survey [from the research study] had revealed that the strongest motivating factor in taking an online course was reduced cost. We have therefore taken this into account, amongst other factors, when reviewing what the price point of a*

new course should be' [B]. Online educational provision developed in partnership with private companies can follow several models. The unbundling research has enabled institutions to negotiate with commercial providers from an informed and therefore stronger position. For example, the research was 'instrumental' for the University of Bristol in shaping its online education strategy, as its University Education Director (Online and Blended Learning) describes: 'The University ... is planning to make a significant and rapid expansion into credit-bearing, fee-paying courses and programmes. Central to this has been the outputs from the Unbundled University research programme, run by the University of Leeds and Cape Town... The insight from the research has therefore helped us to moderate some of the assertions of the benefits of partnership made by some potential commercial providers, allowing us to make better informed decisions on approach, ultimately leading to more sustainable and better quality online courses' [C].

An online course about the research delivered through the FutureLearn platform attracted over 1,500 participants (including policymakers, university managers, edubusiness leaders) from over 65 countries, who described changes in their attitudes and behaviours as a result of the course. The online course and a presentation about the research at Leiden University in the Netherlands led to the development of a partnership between the University and FutureLearn to deliver unbundled educational provision. The Program Manager in Digital Learning at Leiden University explains: '*... colleagues of Leiden University have taken the MOOC on Unbundling and organized an internal discussion session about the subject ... The online course and a presentation about the research findings at Leiden University was a significant contributing factor leading to a partnership between the University and FutureLearn' [D].*

The findings were also welcomed by the largest global education publisher and provider, Pearson Education, who have referred to them in support of their strategic focus, in particular their increased development of unbundled educational provision, and partnerships between education providers and employers. Vice-President for University Partnerships at Pearson Education states: '*The research findings influenced our decisions to proceed with the development of UK Learns, a marketplace for learners to find employment focused learning experiences that can be linked together in order to acquire the knowledge and skills necessary for further employment ... It further supports our beliefs about the direction the market is traveling with regard to the demand for alternative credentialing' [E]. Similarly, the global social learning platform FutureLearn used the research to support its unbundling strategy: 'Morris' research on unbundling of online learning has been instrumental to us at FutureLearn in terms of delivering our strategy for micro-credentials and stackable online degrees' (CEO, FutureLearn [F]). In addition, the CEO of Universities South Africa (representing and advising the country's universities) states that the research forced them to 'begin to think at least how as a sector we can begin to advise universities about the – both about the – kind of the opportunities and the, the risks associated with [unbundling]' [G].*

(ii) Impact on pedagogy and design of online courses

The research on learner engagement and completion of online courses has been used extensively by the Digital Education Service at Leeds to inform the pedagogy, design and delivery of over 100 online courses, to emphasise learner engagement and encourage retention. In particular, the findings that MOOC completion is related to pedagogical approaches in course design, course duration and educator involvement led to the inclusion of specific learning focused discussions in online courses, which encourage learners to be more (inter)active, and educators being encouraged to adapt their behaviour towards learners. These courses have attracted over 2.2 million individuals from over 170 countries since 2013, many of whom have no access to formal education [F]. These research-based design principles have resulted in higher than average satisfaction rates from participants on Leeds's online courses, and Leeds's courses on FutureLearn are considered sector-leading and a template for others to follow [F]. The FutureLearn CEO describes how the research has impacted course design and learner engagement: '*Leeds' courses on digital skills, produced in partnership with the Institute of Coding and FutureLearn, have enrolled over 500,000 learners since March 2020, and these courses were designed based on research findings from Morris and colleagues, about the need to be inclusively designed, interactive and social, to engage the target audience of young BAME learners' [F]. These courses were included in the UK Government's Department for Education's Skills Toolkit to support national digital skills training. To ensure learners gained from the outcomes of this*

research, Morris wrote a research-informed '[guide to studying MOOCs](#)' for learners, which was promoted to all FutureLearn learners in 2014-15 (downloaded over 10,000 times, 2014-19).

Morris has received significant external funding to design, develop and deliver online courses informed by the research relating to the design of online courses, their potential for CPD, and how to effectively engage learners online [3-6], for example, from the Goldman Sachs Foundation, Ufi Charitable Trust, and the Institute for Coding. The Ufi Charitable Trust project (2015-17, GBP450,000, with UCL; Morris Co-Director) developed four MOOCs - Blended Learning Essentials (BLE) – to teach teachers, trainers and decision-makers in the Vocational Education and Training (VET) sector about incorporating digital and online education into their curricula, with the specific aim to enhance practice in this sector in the light of significant funding cuts accompanied by requirements to increase use of digital technology. The Digital Skills course within this collection was endorsed by the UK Minister for Digital via an introductory video, commending the work to support digital skills in the VET sector: *'There's lots of great work happening right across the country, including at UCL and the University of Leeds with the new Developing Digital Skills course'* [H]. The BLE courses reached over 60,000 participants in the UK and internationally (mostly teachers and trainers), and the beneficiaries reported significant changes in teacher behaviour, colleges' education strategy and views about blended learning [I]. The courses are regularly used by teacher trainers in universities and colleges. For example, a lecturer in post-compulsory education at the University of Wolverhampton remarks: *'The BLE courses provide insights into practical pedagogical methods underpinned by theoretical references ... The videos that share practice are clear to training teachers who may otherwise be daunted by the notion of using technologies ... They are valuable because they can see how the knowledge they have about teaching can be transferred and applied through technology'* [J]. Some participants on the BLE courses were interviewed (anonymously) as part of project evaluation and described how the courses impacted practice in colleges: *'I have gained the confidence to use digital in the deployment of apprenticeship programmes. This is critical for me since one cannot deliver competitive results in today's training practice without digital'* and *'we shouldn't be reinventing the wheel all over the country ... for me it was really quite a revelation'* ([I] p.3).

5. Sources to corroborate the impact (indicative maximum of 10 references)

[A] Director of University of Manchester Worldwide in relation to 4(i). Letter of corroboration dated 18 August 2020.

[B] Executive Director of Online and Professional Education, King's College London, in relation to 4(i). Letter of corroboration dated 24 August 2020.

[C] University Education Director (Online and Blended Learning), University of Bristol, in relation to 4(i). Letter of corroboration rec. 20 August 2020.

[D] Program Manager in Digital Learning, Leiden University, in relation to 4(i). Letter of corroboration dated 31 August 2020; FutureLearn course: <https://www.futurelearn.com/courses/the-unbundled-university>.

[E] Vice-President for University Partnerships at Pearson Education, in relation to 4(i). Letter of corroboration dated 9 September 2020.

[F] CEO of FutureLearn, in relation to 4(i) and (ii). Letter of corroboration dated 7 September 2020; Institute for Coding case study: <https://instituteofcoding.org/news/case-studies/2020/09/why-online-digital-skills-education-is-a-hit-with-learners/>.

[G] CEO of Universities SA, in relation to 4(ii). Video, 'Role of Regulators and Accreditation Bodies' (02:29-02:48): <https://mymedia.leeds.ac.uk/Mediasite/Showcase/default/Presentation/893ab0b08943495ab7db241c2ee18a661d/Desktop>.

[H] Minister of State for Digital and Culture. Video clip in Blended Learning Essentials: Developing Digital Skills FutureLearn course: <https://www.futurelearn.com/courses/blended-learning-digital-skills/2/steps/298707>. Transcript supplied.

[I] ALT Marketing and Engagement Plan, in relation to 4(ii). Blended Learning Essentials Phase 2: Jan 2017 - Dec 2018: <https://cutt.ly/ohEfKr2>.

[J] Lecturer in Post-Compulsory Education, University of Wolverhampton, in relation to 4(ii). Letter of corroboration dated 1 September 2020.