

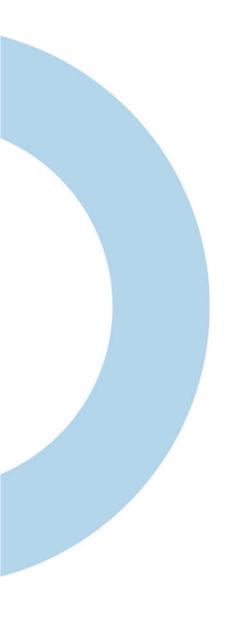
# Cost-Benefit Analysis of MOOC Provision

Sustainability Report for the Education Observatory at Wolverhampton University



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#### 2. Introduction

The purpose of this tool is to allow for a triple-bottom line cost-benefit analysis to be done on a MOOC and/or digital learning programme, actually a quadruple bottom-line analysis since academic institutions are characterised by, contribute through and are judged on, a range of intellectual outputs and activities and the current neo-liberal tendency to picture them and manage them as purely commercial corporate entities ignores their historical mission in European society. The MOONLITE project, described elsewhere, is an Erasmus+ project that is hosted within the Education Observatory and builds on the portfolio of TEL, language and/or refugee projects, papers and initiatives.



## 3. Scope

The Education Observatory is in essence the research centre within the Institute of Education of the University of Wolverhampton. Its key objectives are building research output, specifically high-impact journal papers, improving research income, preferably external but including consultancy, internal and postgraduate enrolments, and building sustainable research capacity across the Institute. There are several themes or clusters including digital learning. The Observatory exists within a complex and fluid financial environment, internal, national, European and international, in a sector fixated by the periodic national Research Excellence Framework (REF). Current funders include Erasmus, local authorities, Horizon2020, UK Research Council and range across empirical data gathering, interventions, impact evaluation, desk research and large-scale surveys. The Observatory is led by a full Professor<sup>1</sup>, Michael Jopling, and supported by three others, Peter Lavender and Sir Alan Tuckett, both formerly at the head of NIACE, and John Traxler and four Readers, and has strengths in lifelong learning, early years and post-compulsory, as well as digital learning. These will form the ongoing focus for investment and the focus for REF output, impact and environment, the subject of increasing detailed and complex metrics and review.

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<sup>&</sup>lt;sup>1</sup> Professor used throughout in the UK sense, inter alia Wikipedia explains



### 4. Purpose

This review is being undertaken to give a snapshot of the cost-benefit of the Observatory now in its third year and reaching a steady state. It is in the first instance a one-off exercise which will only require reporting our current status in order to gain insights for discussion

#### 4.1. Target Groups

- The Observatory research community, namely, those colleagues with some research outputs, income and visibility, or doctoral supervisions. This is however not stable or straightforward partly because all colleagues are now obliged to designate themselves contractually, subject to management approval, as either research-active or teaching-focussed, for REF purposes, as a tactic to game the REF criteria.
- Practitioner colleagues, lecturers in the Institute of Education who are not research-active or are emerging researchers.
- Research students, PhD and EdD, supervised within the Observatory community.



#### 5. Overall Goals

The Observatory's high-level goals are enhanced esteem and capacity for education research within our university, within our sector and internationally.

This analysis is necessarily partial; for whatever reasons, large organisations deliberately or accidentally make access to information time-consuming and the information itself fragmentary, opaque and confused. This may be due to commercial confidentiality, specialisation of departments and roles,

interpersonal/interdepartmental rivalry and competition or the need for organisational consensus based on vagueness.

#### 5.1. Business Goals

The Observatory's business goals that might be expressed as annual KPIs include, though not always explicitly, the following

- Research income, using the university's accounting procedures, not profit
- Research output, both total and per capita
- Research degree completions and time-to-completion
- Evidenced impact, meaning policy, practice, societal, commercial or other changes outside academia that can be attributed and evidenced as due to specific research outputs
- Esteem, as measured by press and media coverage, keynotes, national boards and panels etc

There is however no compound or composite measure of the totality of these, no way of measuring improvement in Observatory performance as a whole only disaggregated items as above, and in some cases, judgement might have resort to expertise rather than evidence. This does however mean that astute operators can 'game' the system, play one KPI off another or engage in nebulous special pleading.

#### 5.2. Financial Goals

The Observatory financial goals are clear, in the sense that there are explicit and agreed annual income targets, but unclear, in that they are merged into wider goals that blend different metrics such as academic output and less tangible ones such as esteem, visibility and reputation. Furthermore, in terms of purely financial goals there is often a tension between long-term strategic goals, including financial ones, and short-term financial opportunities seen in the context of annual goals and targets.

The university accounting system, that the Observatory works within, recognises income as a goal rather than anything that might be seen as surplus or profit. This is questionable since income as a metric meets fixed costs, namely staff on permanent contracts with unused time, whereas surplus as a metric assumes no unused slack but would allow re-investing back into the Observatory whilst depending on short-term project-based hires. The latter would be hindered by the university's inability to



expedite short-term hires and its policy of annually clawing back any surpluses. The skill-set of permanent staff introduces inelasticity into this analysis and might result in hiring in temporary project staff whilst permanent staff have unused capacity. There are however also short-term internal financial opportunities but these too are characterised the same constraints exacerbated by bureaucracy and opacity. The Observatory does have a procedure that attempts to articulate, reconcile and integrate these basically incommensurable factors but there is also of course a folklore across the Observatory in how to game systems, the internal accounting one and the external REF one.

There is also an item, known for short as 'scholarly activity' in every academic's workload allocation, so many hours per annum, that represents an quasi-financial asset that could be invested for income generation but this is under multiple conflicting pressures and is negotiated annually by each individual academic with their line-manager and income-generation, either short-term or strategic, may not feature, in the face of for example teaching-related activities, and where any activities are speculative, such as income generation, may be perceived as difficult to monitor, manage and audit.

So to summarise, there are clear financial goals for the Observatory, and within the University as a whole these are now paramount. UK universities are now effectively independent corporations and the message from government and the media is that those in financial trouble can expect 'to go bust' - in the words being used - rather than expect any bale-out of public money. The situation is clearly more nuanced than this but is nevertheless the current operational expectation. So a university can only have environmental, academic or social ambitions if it actually stays in business.

#### 5.3. Social Goals

The overarching University mission is "Maximising opportunity through generating knowledge, innovation and enterprise." with an ambition, "to be a progressive and influential sector leader, championing diversity, growth, and creating life changes for all while enhancing economic impact and accelerating ambition across the entire University community." It could be argued that given a variety of political, historical and economic constraints, the University did not have complete freedom of choice in choosing its mission or its ambition and furthermore that for an organisation of over 700 academic staff with an annual income of nearly 200 million GBP offering over 500 courses to 22,000 students it is obvious how individual or unit concrete experiences of this mission might vary or be difficult to discern.

The University has social goals usually expressed as individual opportunity and regional economic regeneration. The University as a whole has some ethical rules, for example in its procurement activities, for example, proscribing contact with known terrorist groups. Research in any form is governed by a research ethics procedures.



The research activities of the Observatory are governed by these research ethics procedures. In both cases it could be argued that these are prescriptive and merely identify what the University and its members will not do and with whom they won't do it.

So, the wider University social goals are however not a significant constraint or driver once once analysis take place at a unit level so are probably not significant for the Observatory

#### 5.4. Environmental Goals

The University has environmental goals focussed around sustainability; see for example

- https://www.wlv.ac.uk/about-us/corporate-information/sustainability-and-theenvironment/
- https://www.wlv.ac.uk/business-services/conferencing-solutions/dining-refreshments/sustainability/
- https://www.wlv.ac.uk/about-us/corporate-information/sustainability-and-theenvironment/policy/

These are however, like the social goals, seldom discussed at a faculty or institute level for the reasons above, and are mainly the concern of central, non-academic service departments such as catering, residential, procurement, transport and estates.



## 6. Management Approach and Activities

Ideally we should now analyse each goal or cluster of goals in terms of the management approach and activities. It is however in practice difficult to isolate goals or clusters of goals and articulate how they are managed. It may be the case that this blurring of activities, goals and boundaries is necessary to maintain the appearance of consensus and to contain competing ambitions, personalities, stakeholders and values.

Also in looking at the management of a university, at any level, we have to recognise that the people doing the management are essentially 'amateurs', people with little or no management training or support and with only a limited repertoire of management tools and techniques, haphazardly copying what osmoses in from the wider corporate world. This means that whatever the managerial rhetoric, the actual practice of management is largely driven by short-term demands (changes in regulations, data to be gathered, reports to be submitted, staffing oversight, operational decisions) executed according to whatever personal style. This is true around and within the Observatory although Observatory staff, being mostly career researchers rather than migrants from the school sector, probably have a narrower repertoire and less operational and logistical decisions to make.

#### 6.1. Introduction

The management of academic work, the overwhelmingly dominant asset and expenditure of a university, encapsulates a fundamental contradiction. In many universities it is managed by a complex annual workload allocation that classifies and itemises academic activities hour-by-hour and on the other hand expressed as the obligation to work a working week defined defined by the need to discharge professional responsibilities irrespective of the time needed. This contradiction is captured in the conventional UK academic contract but the increasing managerialism, the worsening financial climate and the growing competitiveness, especially in newer universities with fewer endowments and a less established custom-and-practice to fall back upon, has seen both sets of requirements used to apply increased pressure on academics.

#### Approach

It is not clear that the organisation, either the University or its constituent units such as the Observatory, does manage its operations on a day-to-basis; it is either reacting to short operational issues or responding to a strategic imperative, the Research Excellence Framework (REF) in the case of the Observatory.

The literature points of university culture globally talks about overlapping, confused and often conflicted cultures of academic collegiality and corporate managerialism, amongst others, of confused ideological messages about education as variously a



publicly funded public good and a Darwinian free-market system, and the competition for resources between teaching (and students) and research (and data).

The Chair of the Observatory has a budget and can make meaningful decisions; other academics may have externally funded projects and can possibly also make meaningful decisions, these are all however hedged about by access the only significant resource namely labour and the bureaucracy surrounding how this can be hired or deployed. There is always the nagging sensation that central service departments, such as Personnel and Finance, will impose delays or conditions intended in their view to safeguard and minimise the University's expenditure, liabilities and responsibilities safe in the knowledge that lecturers' sense of commitment and responsibility will ensure that front-line services are maintained regardless.



## 7. Impact of our MOOCs for Employability & Social Inclusion

Current statistics show the University's KPIs for graduate employment measured nationally are poor. Aside from any ongoing and long-terms issues with the impact of education, across all sectors, and with the composition and health of the local industry, the University recruits a a very high proportion of local students,many mature and with family commitments, the highest such demographic in the UK HE sector, and the region has least graduate opportunities in the UK, certainly in England, this means that annual first-destination returns are poor since graduates are unlikely to move out of the region looking for graduate-level employment. The University continues to argue for better measures of value-added and performs well once these factors are included but the metrics continue to change and are subject to political pressures. At a national level, press coverage, both popular and professional, of grade inflation and flawed admission practices continue to tarnish the credibility of university qualifications.

Employability and social inclusion are two different questions, and thus the impact of any MOOC will impact one of these perhaps and not the other.

In looking at the composition of the West Midlands we probably see a number of discrete ethnic and/or cultural groups, including for example Sikhs from the Punjab, Muslims from Bangla Desh, Hindus from India and specific denominations of Christian from the Caribbean. There are also substantial communities of different EU nationalities specifically from Poland. There is also a perception that the core of the so-called Black Country - the historic focus of 19th century metal-working - is characterised by tightly-knit and highly differentiated and insular urban village communities, Bilston, Darlaston, Wednesfield, Willenhall to name only a few, each with their own dialect. So social inclusion must be seen in the context of this demography rather against some undifferentiated and average population. Where a refugee can integrate into one of these communities this process is likely to be easier though the role of MOOCs, even language MOOCs, given these factors is quesationable.

Historically immigrants, either from the Commonwealth or from the EU, have moved into urban areas. The rural areas of the West Midlands, Shropshire for example have been characterised by a far more homogeneous population, of white British, and a more static and traditional rural employment profile. Increasingly EU immigrants, notably Poles, and sometimes British Asians have displaced white British farm workers but employed as 'gangs' and bussed out from urban bases. Isolated refugee families and individuals are being settled in smaller towns outside the West Midlands conurbation but well-being and basic needs rather inclusion and employment are their priorities.



The University is more likely to measure the impact of MOOCs not on inclusion and employability, multicausal and methodologically tricky anyway, but in terms of corporate KPIs and national league tables, such as student satisfaction. Even this is methodologically difficult since establishing some causal link between accessing a MOOC and improved student satisfaction is problematic and the University devotes far more statistical expertise and targeted resource on more mainstream metrics and its core audience. The Education Observatory whilst not exactly a microcosm of these institutional issues and factors and being devoted to research rather than teaching, suffers from a similar inability or avoidance establishing the necessary clear causal links posed by this topic. It is quite possible that the obfuscation and vagueness are necessary to preserve the impression of collegiality and consensus.

These factors do however have little discrete or discernable impact on Observatory behaviour.

The University is now drafting a new IT Strategy (sadly only in parallel to any Learning and Teaching Strategy); this may provide a top-down driver for MOOC development and exploitation but there continues to be a marked predilection for conservatism and 'closedness' rather than transformation and openness, partly because the business model is based on 'closedness' for example using enrolment as a paywall around university resources and communities. Over the past two decades, there has been a transition. Initially, for the University demographic institutional digital systems provide their only access to educational technology for disadvantaged students. Now, these students could access such resources and communities globally and free and the institutional systems and the pedagogies implicit in them (VLE, Turnitin etc) are now more blatantly protecting the University business model and exploiting its monopoly as an awarder of degrees. Moving from 'closedness' to openness and re-engineering the business model accordingly is currently unthinkable and so MOOCs, with their dubious business case stay outside the institutional envelope.

So in conclusion, in looking at a Cost Benefit Analysis of the Education Observatory, and recognising its role in promoting educational research and innovation - and thus recognising it as one obvious catalyst for MOOCs - we see that the complexity of the environment around the Observatory and the ways in which institution aspirations are cascaded down to the Observatory makes any analysis other that either income or research output difficult to imagine or undertake and thus the odds are stacked against MOOCs as the engine of local social inclusion, academic progress or gainful employability.

In the coming year the major preoccupation of the Observatory senior researchers and their administrative support will be optimising the Observatory REF submission covering the every aspect of the University's education research. Whilst the overall objective is simple, namely selectively and competitively rewarding the national



investment in research based on merit as perceived by the taxpayers' elected representatives, successive iterations of the exercise and value of the rewards in question, have led to more-and-more complex rules and more-and-more subtle attempts to 'game' them. So whilst the headlines might be research publications and research income, the detail is more complex and that's where the devil is.





This report presents a cost-benefit analysis of the Education Observatory at Wolverhampton University, using triple-bottom line reporting to understand the environmental, social and financial impacts of the programme. The report pilots a methodology for such analysis being developed and tested within the framework of the MOONLITE project.

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