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The Unbundled University: Researching emerging models in an unequal landscape. Preliminary findings from fieldwork in South Africa

Bronwen Swinnerton, Mariya Ivancheva, Taryn Coop, Carlo Perrotta, Neil P Morris, School of Education, University of Leeds, UK. b.j.swinnerton@leeds.ac.uk

Rebecca Swartz, Laura Czerniewicz, Alan Cliff, Sukaina Walji, Centre for Innovation in Learning and Teaching, University of Cape Town, South Africa.

Abstract

As Higher Education undergoes a massive expansion in demand globally, and experiences financial pressures exacerbated by the global financial crisis of 2008, the sector is evolving rapidly. Market pressures on the sector encourage the search for additional income and new forms of provision, and private providers are increasingly entering the sector. At the same time, the HE sector has seen the appearance of many flexible online courses and qualifications, delivered by new configurations of providers and partnerships, including by parties new to the sector, through a process of disaggregating educational provision into its component parts, or 'unbundling'. Whilst these changes may offer opportunities for increased numbers of learners to access education and thus contribute to economic prosperity, there is very little empirical research about the nature, process and impact of this unbundling and rebundling of educational provision, as it is playing out in this rapidly reconfiguring space. This paper reports data on South African Higher Education from the research project 'The Unbundled University: Researching emerging models in an unequal landscape', a project which explores the terrain in both South Africa and the UK. South Africa is deemed the most unequal country in the world and its HE system is under pressure, demonstrated in part by rising fees, student protests and calls for decolonised education, whilst online education is viewed by some, including the South African Government, as a way to increase access. Using a new dataset systematically collected from the public domain, data visualisation is employed to bring a novel perspective to the educational provision being offered using digital technology (and the private companies partnering with universities in South Africa to provide it), to uncover patterns of activity and their relationship to existing patterns of inequality in the HE sector. Using mapping, or social cartography, this paper reveals patterns and relationships which are otherwise not so obvious. Significantly, the maps reveal relationships between universities and private companies which appear to reflect existing inequalities, insofar as private companies partner almost exclusively with historically advantaged, research intensive universities, with high international ranking and reputation. This paper argues that such partnerships do not disrupt an unequal terrain, but rather reflect and possibly reinforce the power asymmetries already at play.

Keywords

Higher education, South Africa, digital technology, marketisation, unbundling, private providers, inequality, data visualisation, social cartography

Introduction

Over the past decade, and as illustrated by several contributions to previous editions of this conference, networked learning has successfully repositioned itself as an area of socio-technical interest beyond online education *per se* (e.g. Bayne et al., 2014; Cranmer et al., 2016). The focus on the networks into which learning is subsumed has been gradually challenged and expanded, drawing on several sociological and philosophical trends: posthumanism, actor-network theory, critical praxis, and globalisation studies to name a few. It is now clear to many in the Networked Learning community that our understanding of the changing educational landscape hinges on the interdisciplinary study of several, thoroughly networked phenomena in which technology is involved: the market economy and the neoliberal paradigm, local and

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global inequalities, changing forms of educational governance, and emerging business models. In this regard, the recent dynamism and the generalised 'state of crisis' of global Higher Education (HE) represent, together, an area of great empirical interest.

This paper, and the project it stems from, are an attempt to analyse important changes in educational provision that have been in the making for the past three decades, but which gained greater traction recently, thanks to new 'market openings'. These openings emerged at the intersection of digitisation, marketisation and what Simon Marginson (2016) described as a trend towards High Participation Systems. High participation refers to the growth and the ensuing financial strain experienced by universities, as demand for tertiary education remains steadily high in the global north and explodes in the global south, as evidenced by official data on Gross Tertiary Enrolment Rates, which show worldwide participation in HE increasing at the pace of 1% a year (Marginson, ibid). Over the last two decades many commentators have seen this global expansion as coinciding with a larger global crisis of public HE (e.g. Readings, 1999; Mamdani, 2007; Washburn, 2008; Holmwood, 2011), which has been exacerbated by the global financial crisis of 2008, affecting in particular the funding of HE in developed and developing countries. As a result, the past few years have seen the appearance of many flexible online courses and qualifications, delivered in new configurations of providers and partnerships, including by parties new to the sector, through a process of disaggregating educational provision into its component parts, or unbundling. Whilst these changes may offer opportunities for increased numbers of learners to access education and thus contribute to economic prosperity, there is very little empirical research about the nature, process and impact of unbundling and rebundling, as it is playing out in the rapidly reconfiguring global HE system.

Against such a complex background, this paper reports some preliminary findings from the research project 'The Unbundled University: Researching emerging models in an unequal landscape'. While the project takes place in South Africa and the UK, this paper presents some reflections and preliminary findings from the first stage of data collection in South Africa. We present a visual mapping of the patterns of partnerships between public universities and private companies in South Africa, to explore the terrain and the emerging 'picture'. For reasons of scope, our focus here is chiefly on the analysis of the changing nature of educational provision in South African universities, in particular in relation to the growing role of private companies, and their exploitation of these 'market openings'. This focus is exemplified by the following research question: Does the pattern of current partnerships between universities and private companies in South Africa suggest that unbundled provision challenges the existing inequalities between historically-advantaged and historically-disadvantaged universities?

The evolving nature of higher education and emerging topics in networked learning: defining the intersection of digital technologies, marketisation, and unbundling

HE, globally, is experiencing unparalleled demand at the same time as huge financial pressures. Neo-liberal influences have resulted in universities having a greater emphasis on accountability and measured outputs, and forging links with industry and business to support the knowledge economy (Olssen and Peters, 2005). Globally, the concept of the university as a public good is being eroded in favour of a market-driven approach to HE governance in which universities are increasingly pushed to commodify their products and outputs and compete for funding (Lynch, 2015). Alongside these external pressures, universities also face rising expectations to make effective use of digital technology to increase flexibility, access and improve learning outcomes for their students, as well as respond to massification, for example through Massive Open Online Courses (MOOCs) (Castillo et al., 2015; Lawton et al., 2013). These emerging forms of provision are creating markets in the sector, as universities develop new business models and rely to varying degrees on the involvement of private providers (Komljenovic and Robertson, 2016; Sharrock, 2015). The 'unbundling' or disaggregation of educational provision into smaller parts offers, in theory at least, opportunities for HE institutions to separate traditionally integrated components and reimagine new products and services (Yuan et al., 2014).

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The complex relationship between unbundling and the marketisation of HE requires, however, additional clarification. To begin with, unbundling is not merely an educational concept but also a technological and corporate one; a neologism that emerged in the computing sector, with the pivotal event being IBM's separation of software and services from hardware sales in 1969. This led to dramatic market expansion and the birth of the software industry. Technology-based unbundling was also a highly disruptive phenomenon in the music and home entertainment industries. For some commentators, the disaggregation of TV and music from the traditional creation and distribution channels, and its reaggregation as on-demand digital 'content' represents a template for HE (Craig, 2015). This, however, assumes that HE and the entertainment industries operate according to similar market laws, which is not the case, as amply shown by research on the peculiar nature of HE markets and quasi-markets. In this regard, Marginson (2013) argues that universities will only ever be regulated quasi-markets due to governments still insisting that HE has a role to play in promoting public good, contributing to social participation and in socio-economic and gender equity. However, the story of the last 40 years in HE has been of decreased government spending, an increasing role of the market and increased state regulation of HE.

The South African context

Similar pressures apply within the South African HE context. The economic pressure on funding universities has led to fee increases of 9% since 2010, making HE even more unaffordable for most students. Student protests calling for 'free' education and the call for decolonised education reveal a more contested landscape than in the UK. However, the discourse about who should pay for education is located in inequality; South Africa was deemed to be the most unequal country in the world in 2016 by the World Economic Forum. Issues of access and low throughput rates are widespread, with 20% of students graduating in three years, 53% in five years (Papier et al., 2016, p.5) and large numbers of students unable to pay fees or apply for fees funding - the missing middle. On this basis, and given the current austerity programs implemented in South Africa, the Department of Higher Education and Training (DHET) has encouraged all universities to "expand online and blended learning as a way to offer niche programmes, especially at postgraduate level, to those who are unable to attend full-time programmes, either due to their employment status or their geographical distance from a campus" (DHET, White Paper, 2013, p.51).

Distance learning is seen by some, including the South African Government (DHET, White Paper, 2013) as a way to increase access. As with the Open University in the UK, distance learning is not new to South Africa, having a dedicated distance learning university (UNISA, University of South Africa). However, in both the UK and South Africa, universities that previously focused on face-to-face provision are increasingly offering more flexible forms of provision sometimes in partnership with for-profit or commercial providers. As the funding pressures continue, universities have been pushed to innovate, and institutions have increasingly moved into the market to gain revenue. Private providers can be characterised as having taken the opportunities which have arisen from these economic pressures and approached universities to develop partnerships. With the promise of widening access and improvement of teaching and learning through technological innovation, public-private partnerships have mushroomed.

These developments are gathering pace in South Africa but there is very little empirical research about the nature, process and impact of such changes. Whilst there are a few excellent examples focused on the UK or US contexts (e.g. Komljenovic and Robertson, 2016) and, as Marginson notes (2013), there is a growing interest in the fast-developing HE contexts of East and Southeast Asia, there is a lack of evidence about how these market dynamics are affecting institutions in other regions of the global south (chiefly Africa), and the role of Western and local providers or partners.

Data collection methods and methodology

The project has three strands of data collection:

1. Interviews and workshops with senior decision makers and senior support staff in public universities and private providers, academics, students and employers.

ISBN 978-1-86220-337-2

2. Analysis of documents and other artefacts identified through desk research.
3. Use of official sources available in the public domain to produce mappings of partnerships between public universities and private companies, which are delivering online education.

This paper draws on the third strand and presents two maps to explore these partnerships.

Mapping as a point of departure

Social cartography involves creating visual maps to communicate the dynamic of social change (Liebman and Paulston, 1994). The approach provides a way to visualise spatial metaphors, such as webs and networks, for the analysis of connections, potential power dynamics and the positioning of social subjects (Ruitenberg, 2007). The visual mapping exercise in this project serves as a point of departure in gaining a preliminary understanding of the terrain as is evident from publicly available sources. In producing a systematic mapping of emerging partnerships between public HE institutions and private companies as well as innovations in educational technologies for teaching and learning in South Africa, a panoramic perspective of the terrain is captured, providing an overview at a moment in time. All data sourced for these partnerships have been gathered in the period October-December 2017 through official sources available in the public domain and verified through telephone conversations with the 19 public universities included here.

Visual features

There are not only static, two-dimensional maps included in the cartographic discourse but also layered, interactive and dynamic maps (Ruitenberg, 2007). By allowing users to see and explore large amounts of information simultaneously, interaction techniques in the visual analytics stimulate new insights (Thomas and Cook, 2005). Interactive visual maps elucidate some of the potential influencers within the context and make explicit connections between different actors that give rise to new phenomena or reinforce phenomena already embedded in the context (Stanley, 2006). Clustering around different categories and in different ways contributes to a disruption in preconceived notions of the terrain. Or as Stanley (2006) suggests when studying a new context "in the absence of an overall "blueprint", globally emergent patterns can arise through local interactions for the ongoing movement and unfolding of the system itself" (Stanley, 2006, p.74).

The interactive version of the maps that we have prepared in our larger study has options to cluster the elements according to university ranking systems, historical context or insight into digital technology aspects such as provision of online courses or the number of MOOCs on offer. Each new arrangement of the elements in different clusters provides a lens for the analysis of our research data collection on the links between public universities and private providers. Returning to our research question of whether newly emerging partnerships disrupt the highly unequal terrain of HE in South Africa, or whether they reinforce already existing inequalities, the visual maps shown in this paper explore how partnerships relate to two existing classification systems used to categorise South African public universities:

- a national system of classification that divides them into research-intensive and comprehensive institutions;
- a world ranking (Times Higher Education ranking) that classifies them within a global field of HE.

Today, South Africa's HE institutions are categorised as 'research-intensive', 'comprehensive' and 'universities of technology',[1] according to the type of academic programmes offered. 'Traditional or research-intensive universities' offer a wide range of professional and general formative programmes at undergraduate and postgraduate levels as well as extensive knowledge output (CHE, 2016). 'Comprehensive universities' refers to institutions that combine university-type academic programmes and technikon-type programmes (CHE, 2016). In addition, South African HE institutions are also classified according to their status from the apartheid era: (i) 'Historically Advantaged Institutions (HAIs)' which are predominantly white institutions championed during the apartheid era (DHET, 2014), (ii)'Historically Advantaged Institutions with Historically Disadvantaged Sites (HAI with HD sites)' which exist as a result of the mergers between traditional universities and former technikons, and (iii) 'Historically Disadvantaged Institutions (HDIs)' which were disadvantaged during

[1] Universities of technology and private universities are excluded, as is a comprehensive university which had its first intake in 2015, as this analysis uses data published in 2016 (DHET, 2016).

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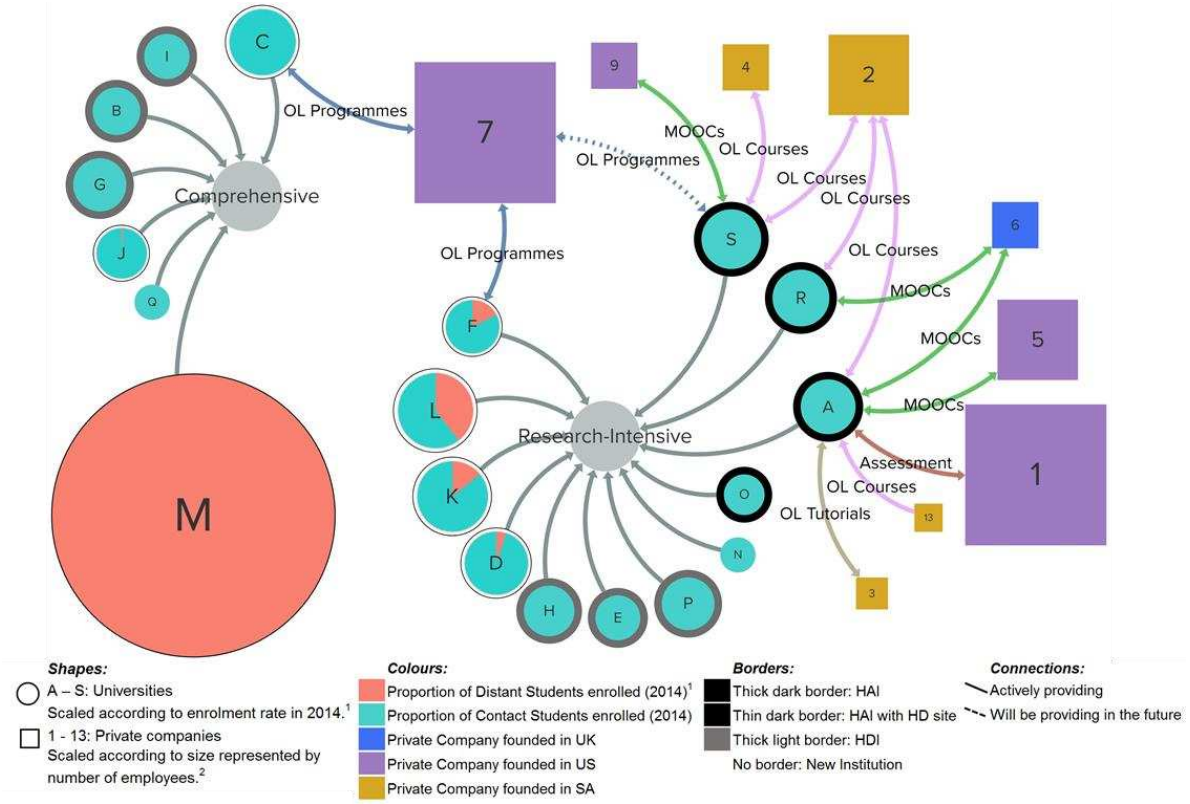
apartheid and remain unaffected by the mergers and reforms introduced by the post-apartheid government (DHET, 2014). Some institutions maintain their historically advantaged status but have campuses or sites that were formerly part of a technikon institution and are considered historically disadvantaged (DHET, 2014). 'New Institutions' refer to two universities that were established within the last five years and have not been given a historical status.

Preliminary findings

The two maps shown in this paper contain information relating to the type of university, whether they are research intensive or comprehensive, their historical status of being advantaged or disadvantaged, their relative size in terms of enrolment rates and ratio of contact to distant, and their global position according to the Times Higher Education World Ranking. The maps also contain information relating to private companies active in this space, focusing on the type of provision they offer and the institutions they partner with, as well as their size and country of origin.



[1] DHET, 2016; [2] Data about companies are found on their websites and social media platforms (such as LinkedIn).

Figure 1: University and private company partnerships clustered according to institution type

Figure 1 is a mapping of the relationship between public universities and private companies according to the institution type (research-intensive versus comprehensive). Four of the research-intensive universities have partnerships with private companies (A, R, S and F). Of these, universities A, R and S, all HAIs, partner with multiple private companies. University S partners with four different companies, one (9) to provide MOOCs, and three other companies to provide online courses (OL courses; 4 and 2) and programmes (7), the latter not yet being available. University R partners with two companies, one to provide MOOCs (6), and one to provide online courses (2). University A has the most partnerships (five) with private companies, partnering with two different MOOC providers (5 and 6), a large company that provides assessment (1), and two smaller companies which provide online courses and tutorials (OL tutorials; 13 and 3 respectively). The 4th research-intensive

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university to partner is university (F), a HAI/HD, which partners with one private company (7) to provide online programmes. Most of the private companies partner with one university only. However, MOOC provider 6 partners with two HAI universities, and online course provider 2 partners with three HAI universities. The one company (7) that partners with a comprehensive university (C) also partners with university F, a HAI/HD, and a HAI (S) to provide online programmes. The remaining five HAI/HDs, six HDIs and two new institutions do not have any partnerships with private companies. One HAI also has no partnerships. The 12 research intensive universities have predominantly contact enrolments (campus-based students), with four (D, F, L and K) having varying proportions of distance students, and of the seven comprehensive universities, one is fully distant, five are fully contact enrolments, and one (J) has a very small proportion of distant students. The HAI universities which partner with private companies (A, R and S) to offer MOOCs, online courses and programmes do not have distant students. The six comprehensive universities with no distant students also have no partnerships to offer online provision.

This map shows that private providers work predominantly with a specific type of institution: research-intensive HAIs. The two exceptions are a comprehensive and a research intensive university (C and F), although both are HAI/HDs. The distinction becomes even clearer when we look at which research intensive universities do *not* have any partnerships, we see these are predominantly HDIs or HAI/HDs. The mapping also illuminates the volume of partnerships, showing that the three institutions that engage in a high number of partnerships are the research-intensive HAIs. It also shows that most private companies partner with just one university and they tend to provide one type of offering. The mapping also highlights the relationship between distant students and online provision. The three universities with the most online provision through partnerships (A, R and S), do not have a distance cohort, suggesting this provision is for a new market and to support campus based students, whereas the comprehensive universities who may want to exploit the distance market are not forming partnerships to develop online provision, with the exception of university C, which has formed a partnership to develop online programmes, but has no distant students. University M, fully distant, has no partnerships to create online provision. The mapping shows little relationship between partnering with private companies to develop online provision and the existence of a distance student cohort (the exception is university F), which suggests that online provision is not being developed for existing distance students.

The reinforcement of inequalities is also evident when we examine global inequalities as seen through the lens of the HE system in South Africa. In Figure 2, universities are grouped according to their Times Higher Education (THE) World University Rankings 2016/17: a ranking system that is based on teaching, research outputs and citations, industry outcomes, and international outlook of universities (Times Higher Education, 2017). In the map we sort the universities into five main groups: not ranked, 1-400, 401-600, 601-800 and 801+, and we see that universities which are highly ranked (A and S) engage in partnerships with private companies, A with six companies and S with four. University R, which is ranked 401-600, partners with two companies, whilst university C, ranked 601-800 partners with one company. University M, ranked 801+, and the 11 universities not ranked, have only one partnership, university F with company 7. The two highest ranked universities in South Africa and the only two in the top 400 globally, A and S, are collectively partnered with all nine of the private companies currently active in the terrain.

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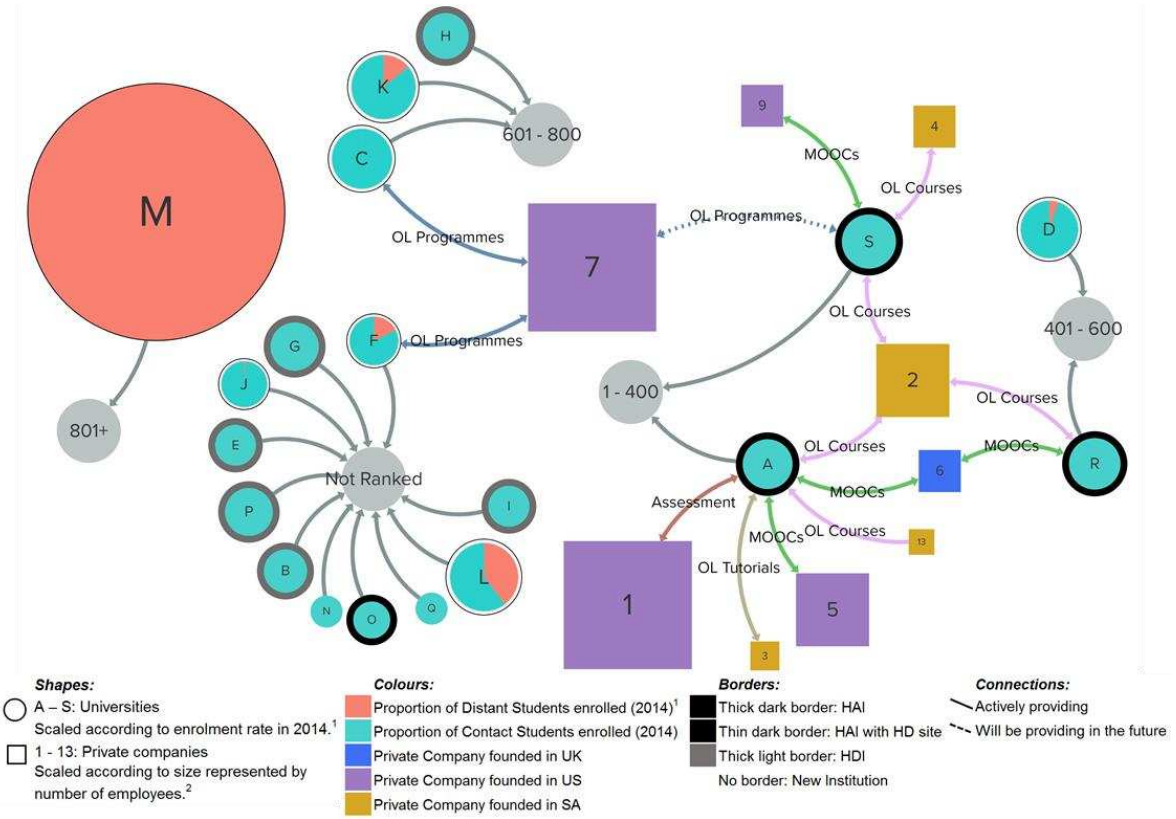

[1] DHET, 2016; [2] Data about companies are found on their websites and social media platforms (such as LinkedIn).

Figure 2: University and Private Company partnerships clustered according to THE Rank

The two mappings shown here are clearly interrelated, showing that those universities which are highly ranked are the HAIs (A, S, R and H in decreasing order of rank), with one HAI unranked (O). In this highly unequal context, the patterns of partnership appear to reflect these existing inequalities, in terms of private company activity being almost exclusively located within HAIs, that are white, research-oriented universities with high international ranking, reputation and thus recognisable brand. Such partnerships do not disrupt an unequal terrain, but rather reflect and possibly reinforce the power asymmetries already at play.

Conclusion and next steps

We demonstrate in this paper how clustering using these two different classification systems shows that existing partnerships are influenced by the historical and institutional context in which they are formed. Our preliminary findings suggest these partnerships come in many different forms, involving different types of relationship and business models, and are built on existing inequalities. Mindful that it is early days for these new private/public relationships, it will be valuable to track which types of institutions form these relationships going forward, which grow internal capacity and which do not innovate in the unbundled digital sphere. Particularly relevant are the implications for inequality and social justice agendas. These findings raise important questions about the introduction of digital technology for teaching and learning, but further analysis of all three strands of our data is required to enable an exploration of how these partnerships and the associated provision impact on teaching and learning. The mapping of the terrain at a broader level is not a statistical exercise but rather a way of using information from the public domain to gain a 'snapshot' of a rapidly changing landscape. Instead of two distinct research stages, the interaction between the broader overview (the mapping) and the stakeholders' insights (data collection through interviews) is iterative and serves loosely as a method of triangulation. Through the breadth of information shown in one visual format, the maps bring into focus the complexities of the research process such as definitional issues that require group discussion, further considerations for the interview questions, areas that may have been overlooked in the initial data collection plan logistics. In terms of analysis, the maps provide

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a broad view of the terrain to provide context for the data gathered through qualitative methods. In the next stage of our research, we will juxtapose the information it shows to the voices of HE managers, private company CEOs, academics, students and other stakeholders in the field. Building upon and enhancing the foundational mapping we hope that the qualitative analysis will open space for more voices and prompt the discovery of themes or focal points not previously realised.

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Contact details

Bronwen Swinnerton, School of Education, University of Leeds, UK. b.j.swinnerton@leeds.ac.uk

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