HIGHER EDUCATION – THE LAST BASTION? DISTANCE AND E-LEARNING POLICY AND DEVELOPMENT – THE ROLE OF E-LEARNING AND DISTANCE EDUCATION IN THE MODERNISATION PROCESS OF ECONOMIES, SOCIETIES AND EDUCATION SYSTEMS

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Abstract

We offer a review of recent research and opinions. We include more formal research-based and "grey" literature around transformation in education – at a watershed moment of challenge, change and turmoil – for the UK Higher Education sector and its relationship with Europe.

Juxtaposed on the changes in the UK and European political and educational ecologies, is the turbulence of the morphing of Open and Distance Learning into the much higher profile Online and Digital Education, and its place and contribution to achieving preferred and viable futures in the world.

We explore the wicked problem of defence and stasis in the university sector despite the huge drivers for change. We explore ways in which learning with and from the future can be encouraged. We anticipate opportunities for universities to reimagine and adopt their roles in changing environments and to make challenging, developing and disruptive contributions to the online world and to offer advantage, benefit and foresight to their students and staff.

Abstract in German

Der Aufsatz setzt sich kritisch auseinander mit neueren Forschungsergebnissen und Interpretationen und schließt in die Betrachtung auch „graue" Literatur ein, die sich auf die Veränderungsprozesse in den Hochschulen beziehen, besonders an einem Wendepunkt mit den damit verbundenen Unsicherheiten, die sich für das britische Hochschulsystem in seiner Beziehung zum kontinentaleuropäischen abzeichnen.

In enger Verbindung mit den allgemeinen Veränderungen in den Hochschulsystemen im Vereinigten Königreich und in der Europäischen Union stellt sich die Frage nach Erschütterungen und den Wandlungen, denen offene Lernsysteme und Fernstudium unterliegen angesichts neuer online und digitaler Lehr- und Lernangebote mit den damit verbundenen neuen viel versprechenden Realitäten.

Wir untersuchen die auf Gefahren gerichteten Abschottungen in den Hochschulen gegen die mächtigen Herausforderungen für Veränderungen und setzen uns damit auseinander, wie Lernen zukunftsweisend gefördert werden kann. So schauen wir voraus, welche Gelegenheiten sich für Universitäten ergeben, wenn sie sich Veränderungen stellen und mit Traditionen brechen, um sich in der online Welt wieder zu finden mit ihren Vorteilen für Lehrende, Lernende und Mitarbeitende.

About Bastions

In this paper, we explore the wicked problems (Rittel & Webber, 1973), that the traditions of stasis endemic and ever-present in the university sector (Mandviwalla & Schuff, 2014), are

creating the future for the Higher Education world. At a time of continuing environmental turmoil and the demolishing of many traditional supportive collaborations.

We would like to consider and reflect on the term *Bastion*. Bastions are built at an angle to the line of a wall in a fortification, to allow defensive fire in several directions, thereby repelling attacking forces and protecting those inside the stronghold, who may be under siege (MacMillan Dictionary, n.d.). So for most of us, bastions conjure up visions of fortresses that are protected and defended.

The metaphor of bastions is sometimes applied to organisations to suggest some reluctance within them to embrace change and to discourage transformation (Webster, 2009). These arrangements protect people inside the walls and preserve established organisational processes. These are the policies and ways of doing things that, over time, have become valued, well-rehearsed, constantly practised and thus embedded in the cultural norms of the organisations, many unconsciously.

The organizational ethos develops over time. Preferences become sustainably interpreted and underpinned by powerful values, embedded through a multiplicity of actions, and manifested in staffing sub-cultures (Adams, Martin, & Boom, 2018). They cannot simply be "changed" because someone, in a position of authority or not, wishes they were. The cultural norms often present a dominant resistance in even in the face of evidence for the "need" for change (Harris, 2018). Hence, the bastions help to alert the organisation that the forces for change are approaching, but then support the development of more or less subtle styles of denying and resisting the onslaught (Golom, 2018). Energy and resources are increasing put "defence" rather than achievement.

Is this beginning to sound familiar to those working in Higher Education in Europe? And do we feel "under attack" (Renton, 2018)?

About Transformation

All across the globe, sectors are transforming, driven by external pressures. For example, a major force for transformation is the role of digital technology. Digitisation has been rapidly shifting, from a driver of efficiency to an enabler of fundamental innovation (Mandviwalla & Schuff, 2014). In 2018, there are now more than 4 billion people around the world using the internet, i.e. half of the world's population, with its adoption in developing countries rising fastest (Kemp, 2018). As a result, many more individuals have access to a *virtual campus*, than any university could accommodate within its walls.

In most industries, agents of change have inverted their bastions, using them instead to engage the forces heading their way, opening doors where before there were only embrasures and so creating new visions (Psotka, 2013). So it seems very mysterious that the Higher Education sector has not done this, yet. After all, some have argued universities have the lion's share of the best thinkers, scientists and the most creative people on the planet inside their walls (Pavel, 2012; Psotka, 2013). Can they not look over the horizon?

Ten years ago, there was strong recognition in the sector, that transformation could be driven through *technology-enhancement* (Mayes, Morrison, Mellar, Bullen, & Oliver, 2009; Staley & Trinkle, 2011). But, by 2004, commentators were already asking "what happened to the promise of e learning?" (Zemsky & Massy, 2004). In 2007, the MegaTrends initiative reported that "it is therefore of great concern that too much of the online education …offered so far has been transient, unsuccessful and far from sustainable" (Keegan et al., 2007; p.6). As MOOCs arrived on the scene from 2012 onwards, it certainly looked for a while as if they might be bastion-inverting, but perhaps because they were developed rather separately from universities' everyday core business, they have failed to provide the radical transforming power that was originally envisioned (Hochschulforum Digitalisierung, 2016).

In Australia, an Ernst & Young (2012) study suggested that the "transformers of the future would be private providers and new entrants who will carve out positions in the sector; storm the bastions with their new technologies and big data perhaps?". In 2013, MIT launched a *task-force* to explore the future with HE bastions in mind (Willcox, Sarma, & Lippel, 2016).

Again in Australia a collective of pro vice-chancellors for education collated an extensive snapshot of challenges and issues (Christie, 2017). Then in 2017, "The Changing Landscape of Online Education" (CHLOE) outlined in detail the drastic changes in the external landscape and in the drivers of HE but reported that internally "Stability is more apparent than innovation" (Legon & Garrett, 2017; p.11). And by 2018, the extensive ICDE study and report of April 2018 noted "…most Higher Education providers are just at the beginning of developing comprehensive strategies for harnessing digitalization." (Orr, Weller, & Farrow, 2018; p.3). Other authorities claim

> *"Most universities approach this in an amateurish and sometimes even counterproductive manner, by putting a few traditional classroom courses online. It is still beyond most universities to understand how online teaching enables a completely new approach to learner-focused, personalised, international, and interactive education." (van Rooijen, 2018)*

Over the years there have been many trends and indeed conflicting and competing forces directing impacting upon universities and many responses to the development and understanding of teaching and learning (Rushby, 2013; Traxler, 2018). Here we focus particularly on those driving one of our universities' key roles- that of educating our students to be prepared and enabled to contribute to and take part in very uncertain or perhaps even unimagined futures (Rushby, 2013).

Innovation and Higher Education

We have chosen to deconstruct the components that go to make up past, present and future education. These trends include the characteristics and expectations of the student body, increased demands for flexible engagement, differing experiences for learners associated with lifestyles and funding, dramatic increases in the applicant numbers, and the associated phenomenon of massification of teaching, the mode of learning itself, the change in access and characteristics of knowledge, new contexts and the placed for learning, constant calls from industry about different outcomes for graduates and many futures jobs not yet defined (Altbach & Knight, 2007; Watson, Watson, & Reigeluth, 2015). Future drivers also include the massive opportunities and challenges created by digital technologies in multiple forms (Watson et al., 2015). All of these have significantly impacted and have started to destabilise the time-honoured conventions of Higher Education. But – to reiterate – within the safe and substantive walls and structures of most universities, we can see HE only slowly changing its cultures and the associated structures of its highly politicised bureaucracies, conservatism and the internal landscape of functional silos (Mandviwalla & Schuff, 2014; Marshall, 2010).

Many writers consider that innovation in all its forms is therefore the key strategic platform on which to build a successful engagement with these myriad forces instead of constructing the walls of the bastions even higher (Elena-Pérez, Saritas, Pook, & Warden, 2011; Striukova & Rayna, 2015). There are calls for transformation from multiple stakeholders – not the least from HE's students and their future employers (Capogna, 2012; Piirainen, Andersen, & Andersen, 2016).

Currently in universities there appears to be insufficient attendance to the forces shaping futures opportunities because universities are too busy responding to them in time-honoured ways – those normative behaviours learnt from past experiences and histories (Marshall, 2010; McMurray, 2001). Universities see challenges and then apply their existing mental models, frames of reference and strong espoused values to solve them (Coady, 2000). They are good it.

A disruptive force then comes along, like a company providing massive open online courses (Billington & Fronmueller, 2013), and is able to take hold because it offers a product to people who are not otherwise being served by the core education that universities have always offered for a thousand years.

It is often the way academic members of the university communities were taught that governs their responses to forces for change. The history of a discipline is overwhelmingly powerful, and dominates academics' thoughts, arguments and practice (Oleson & Hora, 2014) since the norms and traditions of disciplines or professions creates their identities (Clegg, 2008). Most academics consider that their prime responsibility is to educate the new generation in a way that inducts and transports their students into that particular community – with all its requirements, cultural and unconscious power (Mazur, 2009). Academics often interpret the future from within the existing system. Of course they may glance out at the army charging forward that threaten to engulf and swamp well-rehearsed and embedded norms and values (Verri, 2003). Then they tend to focus on implementing a minor change process, improving the system or perhaps changing someone else to match their views (Mazur, 2009).

Our thesis here is therefore that innovating in universities is not a lack of creativity or great ideas, or even a lack of will. The problems are of culture and capital – of the capacity to transform and capability to see the future and act upon it (Macfadyen & Dawson, 2012; McMurray, 2001). In short, the demands of future prospective beneficiaries and our ability to innovate are currently mismatched.

So, what can be done to chip away at those Bastions?

Here we offer three suggestions

First, many universities manage millions in research funding, but in most instances, there are very limited Research and Development (R&D) budgets for their own key product of delivering education. Then there is the "elephant in the room" that many universities traditionally attach higher status and rewards to research over teaching (Chalmers, 2011). Further, operating budgets are typically extremely tight and annually allocated. Hence, universities are "lucky" if they can dedicate a small team charged with visioning and developing alternative futures for learning (Brown, 2012) and most do not. Over time there has been rarely any funding to take risks and no room for failure (Carrington, O'Donnell, & Rao, 2016). As a result, many universities find themselves at best with small incremental and adaptive changes. Disruption can be viewed with horror.

Second, one force is digital technology (Brown, 2015). However, even the best governance, good will and some funding, universities are weak consumers. They often buy technology with a view to pursuing and enabling innovation however it is met with resistance and lack of fundamental agency, indecision, limited budgets for academic use, and policies and politics which act as barriers (DeSantis, 2012; Spector, 2013). Furthermore, digital technology, in many instances, is poorly integrated into teaching and learning practices (Hauge, 2014; Holland & Holland, 2014; Spector, 2013). Challenges to the implementation of digital technology are often internal, confrontations occur from academic and teachers (Holland & Holland, 2014). Hall and Winn (2010; p.7) offer us the concept of resilience in education "Resilient forms of HE should have the capacity to help students, staff and wider communities to develop these attributes. As technology offers reach, usability, accessibility and timely feedback, it is a key to developing a resilient Higher Education.". However, typically, when digital technology is implemented, a knowledge gap emerges due to maintaining old methods of teaching and a lack of understanding of the need to design for technology and pedagogy (Hauge, 2014).

Hence instead, innovation in education mostly occurs outside of academia, with entrepreneurs leading the way (DeSantis, 2012). For example, Coursera have a rapidly scaling business (Enis, 2014), Microsoft, Amazon and Google are exploring the future for education, pointing the way (Daly, 2013) and if they succeed, there could be a real shift in the centre of power.

Third, there is the understanding that the science, engineering, technology and mathematics disciplines (STEM) have a significant and directly causal role to play in economic productivity (Office of the Chief Scientist, 2014). Some writers consider that these disciplines will fuel the global solutions to the problems that we will leave our grandchildren to inherit and resolve, and boost future economies (Ormsby, Daniel, & Ormsby, 2011). Other writers insist that more holistic approaches to innovation (Clarke, 2019, Tsang, 2019).

However, in HE the typical focus is on what is taught rather than a holistic view of the students' learning and future contribution (Butson, 2011). In practice, there is a need for increasing focus on educating students for multiple unknown futures and on creating committed problem solvers (Su, Feng, Yang, & Chen, 2012). We suggest that the *way* learners are educated is just as important as what they are learning about. Innovation in this context is nothing more than shorthand for the harnessing of the knowledge economy – for both research and educational experience – and is a vital and long-term input that will stimulate success in the STEM and STEAM fields.

So – How do we Bring forth New Realities?

There is no "silver bullet" nor is there one heroine that can gallantly storm these bastions and arrive on campus and single-handedly solve all the problems. Complex wicked challenges require creative, synergistic solutions – involving at least a village and maybe whole armies who share a common aspiration (Cantor, DeLauer, Martin, & Rogan, 2015). Further, it is true that we need to disrupt in order to construct; and that involves disrupting ourselves, not just those around us. We can start by exploring the innate or sometimes hidden assumptions in our current models and ways of working (Evans-Greenwood, O'Leary, & Williams, 2015)

We then need *future vision* before missions or strategies in order to shape and create our preferred and viable futures. It should be reassuring for universities to know that their long-lasting, much-loved values do not need to be altered – but their operating practices, their overall reach, most definitely do (Collins & Porras, 2005; Weller & Anderson, 2013). It is from within that the disruption needs to happen first. Universities change slowly and need to appreciate the future before they strategize. Even when some disruption is evident, they often go back to a vision of the future that they have used before, as they have not foreshadowed what can be, they have not genuinely explored alternatives. So futures thinking needs to be learned and innovative alternative scenarios to help appreciate and create new opportunities (Nasruddin, Bustami, & Inayatullah, 2012).

Driving Vision and Practice

Three main areas should help us to drive our vision and our practice forward, and finally knock back our bastions.

- First, enabling our students to engage in true, life-long, responsible, personal development. They will become serial masters rather than shallow generalists and develop "growth mindsets" (Dweck, 2006).
- Second, to transform the way we provide our educational experiences – embracing multiple technologies such as sensors, immersion, augmented reality, touch interfaces, wearable and fabrics and to deploy a very wide view of places and spaces to learn- well beyond the bastion-campus walls (Ahn et al., 2017). We need to continue to be open to moving constantly towards complex and rich human and technological experiences and their optimal synthesis.
- Third our bastions can be considered differently – to get a 360°, all-round view of the landscape of the future. Universities can "learn from the future as it emerges" by stepping outside their regular and traditional experiences (Otto Scharmer, 2012). Then they too need to come down from the bastion and start to explore – to wake up to the threats that will happen if they allow education to simply perpetuate the trends of the past (Inayatullah, 2012).

When the future is in view, and therefore available for action, the opportunity must be seized. Orr et al. introduce the critical elements of "organisational flexibility" (2018; p.9). Orr et al. propose a major shift to open up the bastions, by the "harnessing" of digital technologies, reducing the current ever-present driver of the need for physical campuses and their inevitable static influences. In order to demolish the bastions, Orr et al.'s notion of "procedural openness" will be needed (2018; p.3). They state a clear imperative "…less limitations on who has access to and who delivers or controls contents, delivery, assessment and recognition".

In our view, if universities can match highly-effective educators with great entrepreneurs and if they can direct smart capital toward these projects, the market for educational technological innovation might just spurt from infancy into adolescence. That maturation would finally bring millions of university students the much-touted yet delayed benefits of the technological revolution in education (Etzkowitz, Webster, Gebhardt, & Terra, 2000; Havas, 2008). As a result, students and staff might stop behaving as consumers of education, but become creators, producers, and prosumers (Moravec, 2013).

Many Higher Education institutions throughout the world are trying to accommodate new ways of learning, while at the same time meeting students' shifting aspirations and expectations (Holley & Oliver, 2010; Orr et al., 2018). Major investment beyond the occasional student on a committee is required. In the rapidly changing context of university learning and teaching, it is important to enable students, alumni and employers to have a voice in their future learning environments and to be involved in creating new futures (Crawford, Hagyard, Horsley, & Derricott, 2018; Kahu, 2013).

Many great ways forward for Higher Education do not start inside walls. They begin in all the other sectors that have already demolished their bastions. When there is an impactful development in one of these domains, it may eventually influence broader cultures and have the potential to impact on an organisation or on operating practices. At least in this way, the walls of our HE bastions become more permeable (Rogers, 2010).

Is Higher Education Transformable?

Or is HE the final citadel in a tide of change in the knowledge world? Is it preparing for siege, or building an escape route? The future need not be mysterious or unknown, but rather it poses a variety of alternative narratives and possibilities, neither too near nor too far, both incremental and radical (Enders, Bleiklie, & Lepori, 2017; Inayatullah, 2015; Salmon, 2016). Embracing external disrupters very can be daunting as they can challenge the norms and practices executives and educators are so comfortable with.

In practice, universities are rather special and interesting organisations often referred to as *hybrid* in systems terms – i.e. that whilst being aware and somewhat influenced by their complex external environments, buffeted by constant changing in government policy and funding regimes, they are also subject to isolation embodied by their layers and layers of institutional autonomy and, governance and supremacy (Jongbloed, 2015). A 2018 literature review provides a timely "call to arms" for universities to merge educational management with technology leadership and include "decision-making for TEL (Technology Enhanced Learning) adoption at organisational level…to place e-leadership firmly within the original scope of leading…" (Arnold, 2018; p.25).

Another very important approach is to "roll back" from predictions of skills and jobs of the future, to designing for the curriculum of now and soon (Davies, Fidler, & Gorbis, 2011). There are examples of people challenging the bastions from the inside, and those not through "formal embedded processes", but they are few, and perhaps insufficiently collective to go beyond the individual silos and open out the campus walls (Pritchard, Ashley, Connolly, & Worsfold, 2018). Promoting new, multiple perspective internal partnerships with a new clear mission may be one constructive approach (Salmon & Angood, 2013). As in the increasingly complex world of 'thinking and doing differently' becoming the norm, collaboration across disciplines,

interactions and embedding of different roles, high level syndication between industry and universities and perhaps most of all ensuring consortium and fully private-public partnership and joint ventures for education, not just research, may be the only real pathways to opening the walls (Frølund, Murray, & Riedel, 2018).

And next

In summary, we have explored the wicked problem that the traditions represented by *Bastions* in the complex adaptive system that makes up the European university sector are stifling and slowing constructive and productive futures for the Higher Education world. We identify that, as we write at the beginning of 2019, tectonic forces are reshaping just about every sector, in Europe and throughout the world.

Traditions for universities critically included sustaining a challenging, developing and disruptive contribution to the world – to offer advantage, benefit and foresight. Learning with and from the future involves innovation. The moment in history is ripe for the time-honoured models of universities to change from deploying bastions as defence of stasis and instead deploy them to create and achieve a 360° view of emerging learning futures. As the whole issue of creating new knowledge shifts to becoming more open, more collaborative and more available outside of the glimpses of "dreaming spires", perhaps too the walls can come down to allow greater osmosis between staff and students of the future.

Visioning Higher Education involves actually doing things differently. Leadership involves people and groups who are the most capable of letting go of established concepts and practices – these people are found in many roles and levels in our universities. Indeed, maybe the future will judge the established universities of the early 21st century by their capability and capacity for reinventing themselves, starting with the demise of their bastions.

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