

Digital disruption in the time of COVID-19: Learning technologists' accounts of institutional barriers to online learning, teaching and assessment in UK universities

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Digital disruption in the time of COVID-19: Learning technologists' accounts of institutional barriers to online learning, teaching and assessment in UK universities.

This article reports on the qualitative findings of a UK-wide survey of learning technologists and their recent struggles of supporting attempts for digital resettlement of learning, teaching and assessment in response to the COVID-19 pandemic, underlining the frailties of universities in the terms of crisis management and cultural and organisational change. We find broad attitude change towards the role and contribution of learning technology and technologists by higher education staff, yet a sense that institutions are neither grasping nor pursuing the potential of digital affordances and remain focused on returning to “pre-COVID normality”.

Keywords: learning technologists, UK higher education, digital disruption, COVID-19, boundary crossing

Introduction

The enforced closure of university campuses as a consequence of the COVID-19 global pandemic has resulted in “emergency remote teaching” and the rapid transitioning to online learning, teaching and assessment (LTA). The abandoning of lecture halls and laboratories, and the establishing of home-based interfaces for faculty and students began in the UK with “lockdown” in mid-March 2020. Almost a year later, the challenges of “returning to normal” remain, despite major changes to social practices and rapid vaccine distribution.

The impact of the pandemic on education systems has been profound (UNESCO 2020) and presented significant challenges to LTA (Doucet, Netolicky, Timmers, & Tuscano, 2020). In the UK, there have been major responses from governments, organisations and institutions across all levels and settings (Crick, 2021); from major national policy initiatives to support learners and maintain quality and standards, to ongoing government inquiries on the longer-term impact of COVID-19 on education and

children's services, as well as a high-profile focus on universities (including understanding and mitigating short and long term impact on research and innovation).

In country contexts, like Singapore, where policy investment in digital infrastructure and skills is high, the majority expectation is that COVID-19 has brought about a permanent transition to online post-secondary education and training (Watermeyer, Chen & Ang 2021). Permanent digital resettlement is also, however, viewed positively and as a progressive step that coheres with the overall digitalization of the global economy and what is variously designated an era of the fourth industrial revolution (Schwab, 2017) and digital economy (Unger, 2019), which also complements a neoliberal vision of education, pursued by transnational policy actors like the OECD and World Bank. However, in the UK such a permanent resettlement for universities may not be so straightforward given economic and market-based fears (Williamson, 2020) and various alleged inadequacies claimed of sectoral (and national) digital infrastructures – not to mention concerns related to the ‘unsatisfactory realities’ and ‘digital downsides’ of technology use in higher education (Selwyn, 2016; Castañeda & Selwyn, 2018). This situation is, moreover, complicated by a lack of confidence and capability in identifying and applying effective digital pedagogies and practice among faculty in general (Beetham & Sharpe, 2020; Shankar et al., 2021; Watermeyer *et al.*, 2021) and in specific disciplinary contexts e.g. computer science/engineering (Crick et al., 2020), underpinned by a sense of increasing resistance – certainly among academics – to the digital transformation of the higher education (HE) sector (Mirrlees & Alvi, 2020).

The general impact and efficacy of educational technology (edtech) is still unclear in the formal academic literature, and obscured by variation of educational setting, LTA context, and practitioner confidence and capability (Conrads et al., 2017; Means, 2014). While a range of international research studies have shown benefits of the successful

application of digital LTA across a variety of contexts and settings, the widespread adoption, implementation and evaluation of edtech has yet to be fully realised (Mayer, 2018). Moreover, critical studies of technologies' role in enhancing teaching and learning are contested as mythology-making (Goodchild & Speed, 2019). Analogously, the challenges of a shift to online LTA (Beetham & Sharpe 2020; Castro, 2019) have been exacerbated during the pandemic by media and public perceptions of online or hybrid approaches being inferior to face-to-face delivery (Coughlan, 2020 & Paechter & Maier, 2010). However, a recent UCISA survey reveals that UK institutions have been investing and scaling up their online provision: fully-online course delivery has increased from 48% in 2018 to 63% within pre-1992 universities, with 51% of UK HE providers supporting this mode of course delivery by March 2020 (UCISA, 2020).

The COVID-19 crisis, however, has both magnified the contribution of digital technologies to learning (EEF, 2019), and correspondingly stimulated rapid evidence assessment (EEF, 2020). It has also underlined the salience of a UK Government policy commitment to “realise the potential of technology in education”, as well as promoting the wider UK edtech sector (Department for Education, 2019). The crisis has, as such, intensified research and policy debate regarding the efficacy, utility and impact of educational technology and digital practice, reinforced by wider concerns regarding the selling, automating, and globalising of higher education in the digital age (Mirrlees & Alvi, 2020), more so during an era of “pandemic politics” (Williamson, Eynon & Potter, 2020).

There has been a significant corpus of work to better understand the impact of digital technologies on learning and teaching in HE contexts (Davies, Mullan & Feldman, 2017; Means, 2014; Mayer, 2018; QAA, 2020). More so, there has been an increasing focus on the impact of digital education policies and practice on faculty, as well the

emergence of associated academic roles and responsibilities. Over the past fifteen years, there has been much work in this space from Jisc (Jisc, 2004; Jisc, 2009), and a focus on building digital capability and developing digital practice in FE and HE (Jisc, 2020a). Much of this recent work has analysed the tools, techniques and platforms variously used within and across universities according to departmental needs and the confidence and capabilities of staff (Jisc, 2020b). A spotlight on pedagogy-focused academic support roles such as learning technologists, technology enhanced learning (TEL) specialists, educational technologists and instructional designers has thus intensified (Englund, Olofsson & Price, 2017).

Learning technologists as ‘third space’ professionals and ‘boundary crossers’

The UK’s Association for Learning Technology (ALT) defines learning technology as “the broad range of communication, information and related technologies that can be used to support learning, teaching and assessment, recognising the wider context of learning technology policy, theory and history as fundamental to its ethical, equitable and fair use” (ALT, 2020). Learning technologists are actively involved in managing, researching, supporting or enabling learning with the use of learning technology, combining expertise in edtech and learning design, often playing a “brokerage” role (Sugrue et al., 2018). However, an historical disconnect between the majority of academic faculty and digital education initiatives has come into sharp contrast with the shift to emergency remote teaching from March 2020 and rapidly evolving planning and policies for the 2020-2021 academic year.

Learning technologists constitute a largely unrepresented voice, whose experiences and perspectives in the context of both emergency and as may now be the case, *sustained* transitioning to remote LTA, have to date been for the most part unheard. In fact, their wider scholarly consideration as an occupational field within the higher

education milieu is, as our literature review suggests, sparse and dated. They are a minority, if not an historically marginalised constituency within universities, whose contribution is habitually far from understood, frequently confused and thus inadequately valued. Their role ambiguity has been attributed to role variation and a lack of consistency in job titles (Hudson, 2009). The absence of an explicit career structure (Shurville, Browne & Whitaker, 2009) and a history of insecure employment within universities (Beetham, Jones & Gornall, 2001) has also denied them the kinds of academic capital (Bourdieu 1988) and/or markers of ‘scholarly distinction’ (Watermeyer & Chubb, 2018) necessary for equal participation with and among academics in the milieu of HE as a ‘prestige economy’ (Blackmore & Kandiko, 2011) and endured by other non-academic university functionaries (*cf.* Watermeyer & Rowe, 2021); what Whitchurch (2012) calls ‘third-space professionals’. Impoverished of academic capital, learning technologists are accordingly subject to work-based ‘boundaries’, what Akkerman and Bakker (2011, p.139) refer to as ‘sociocultural differences that give rise to discontinuities in interaction and action’, and, therefore, occupational stratification, which means that while they may be central to supporting institutional change, they remain marginal institutional actors (Oliver, 2002). To prove role-efficacy they are thus obligated to ‘boundary-cross’ (Suchman, 1994). This requires interpersonal skills which have become increasingly important to their role given the growing complexity of the institutional needs and technologies they service and support (Browne & Beetham, 2010; Fox & Summer, 2014). Their capacity to boundary-cross has also become necessary in the context of the COVID-19 pandemic and an emergency transition to remote online LTA, which we take as representative of a ‘boundary-object’ (Star, 1989) and means of their ‘building bridges’ (*cf.* Fisher & Atkinson-Grosjean, 2002) between the world of technology and academia (Sugrue et al., 2018).

Research questions

In the following pages we report the findings of an online survey completed by $n=168$ learning technologists working within and across UK universities. The study aimed to answer the following questions:

- How do learning technologists perceive the impact of the shift to online LTA on their role, as a result of COVID-19?
- How has the shift to online LTA impacted learning technologists' perceptions of their university?
- How do learning technologists conceptualise the impact of COVID-19 on their profession and career path?

Thus, the intention of the survey was twofold in that it was designed as a means to shed light upon and give voice to these 'unknown VIPs' and to gauge their perspectives on the impact of emergency remote LTA in universities and the impact also of LTA remaining online. Much as e-learning has been previously examined for its impact on academics' 'trajectory of self' (Hanson, 2009), we have tried to capture, document and analyse another story of ontological disruption brought about by an increased reliance on technology. What we report provides evidence of the organisational shortcomings and cultural intransigence of UK university communities in the face not only of the COVID-19 crisis, but in mediating the present challenge of their forced, and as some would have it, long overdue, transition to digital working (*cf.* Knight, 2020).

Methods

An online anonymous survey, consisting of three sections, was designed by the research team and administered via Qualtrics. Universities in the UK ended their face-to-face

provision for students over the last two weeks of March 2020. This survey was launched on 8 June and remained open for one month until the 8 July.

Section one provided a set of demographic questions in order to determine relevant information about respondents' institutional setting and role; which revealed an almost even gender-split and a majority of respondents (67%) working in pre-1992¹ universities. Section two asked a series of closed-ended questions designed to identify respondents' feelings and experiences of their institutions move to online LTA. Most prominent in these responses was a sentiment that academics had become vastly more positive in their attitude towards online LTA². Finally, in section three, open-ended questions asked respondents to "summarise what you think are the major challenges for your university in transitioning to (full/fuller-scale) online learning, teaching and assessment"; "what do you consider to be the long-term impact of COVID-19 on your role and that of other learning technologists working in UK universities?"; and for any other comments. The data from sections one and three are reported in this article.

Responses from the open-ended questions in section three form the corpus of our discussion and correspond to the emergent themes generated through thematic analysis (Braun & Clarke, 2019). Adopting an exploratory approach, open-text responses were read by the three members of the research team before coding was applied to each individual group of responses. The entire dataset was subsequently re-read, and coding adjusted as required (IRR= 0.76). Qualitative data is presented as numbered survey

¹ Typically, research-focused universities.

² Respondents perceived academics' attitudes to online LTA as significantly more positive in the current context (76%) than prior to COVID-19 (28%).

extracts and with an 'LT' (learning technologist) code. The extracts presented are representative of typical comments under each theme.

Prior to distribution, the survey was piloted on a subsample (n=5) of the population who commented upon its structure and readability. Based on these recommendations, adaptations were made before the survey was distributed through the ALT membership; via relevant JISC mailing lists; professional networks; and social media platforms.

Narrative accounts

Our respondents' accounts coalesce around three core features of their working lives during the pandemic: (i) work intensification; (ii) professional (mis)recognition and role re-rationalisation; and (iii) digital illiteracy and distrust. These features, discussed sequentially, respond to our core research questions concerning the impact on the role and career path of learning technologists and their (changing) perceptions of universities as a consequence of enforced transition to online LTA in universities precipitated by the pandemic.

(i) Work Intensification

I actually matter for a change!! I have been hugely frustrated where I work that no one seemed to know what a learning tech does, despite being recruited as one!
(LTI)

While many respondents, like *LTI* spoke of emergency remote LTA as having boosted the professional esteem of learning technologists, they also complained of severe work intensification coupled with a lack of resource and resource investment from their

institutions³. Such a lack of investment was attributed to an escalation of work-related stress among learning technologists and interpreted by respondents as a denial of the limitations of universities' existing digital infrastructure. Instead, any new-found professional recognition was considered to be ephemeral and a consequence only of learning technologists' contribution to crisis management. Their accounts thus portray a desperate situation, of increased demands and responsibility without corresponding support or recognition:

It (emergency remote LTA) has tripled my workload but nobody wants to know, as long as the work gets done. (LT2)

The university has acknowledged my role is key to delivery. The SMT [Senior Management Team] is now open to learning tech, but there is increased pressure on the same sized team with reduced budget. I've not had a break since Xmas and am working most weekends and all closure days to keep up. (LT3)

In fact, we find, at root, a story of institutional neglect related to the occupational welfare, health and wellbeing of learning technologists and the resources necessary to their managing a diversified and augmented work portfolio – with overtones to recent evidence of the increased stress and threat to mental health faced by technology professionals under COVID-19 (Harvey Nash 2020). Moreover, as suggested by *LT4* we find work-based (mis)assumptions committed by institutional managers causing role-unravelling and

³ We note that only 25% of all survey respondents acknowledged institutional procurement of external edtech services or products

deprofessionalisation for learning technologists who are assigned a plethora of disparate tasks, which only loosely connect with their role and expertise or even the reason for their appointment:

I am overwhelmed. I have been a Learning Technologist for a long-time and I am good at adapting to change, but these events highlight that our resource is fully used. We are under resourced and do not have the right technology solutions due to budget cuts and proposals that we have made being routinely turned down in favour of manual or paper-based processes to save money. I am utterly frantic and the support load has risen exponentially. We are pulled in too many directions on the one hand providing pedagogic support and the other being asked to provide triage and troubleshooting – these things don't go well together. (LT4)

While emphasising the professional and personal impacts – positive and negative – of a transition to emergency remote LTA, our respondents also reflected upon how work intensification might be differentially experienced according to gender – with parallels to recent evidence of the greater burden endured by female academics as a consequence of COVID-19 (Gabster *et al.* 2020) – and how a potential for universities to embrace more flexible forms of working might benefit the future recruitment of a greater mass of learning technologists across the HE sector:

Whilst relishing the challenges and delighted that we can finally move forward on many of the areas we have wanted to promote for ages, we are also exhausted. Many of us are working stupidly long hours under intense pressure and many with caring responsibilities. I wonder if this is affecting women more than men as well.

It would also be good to know what flexibility universities will extend to learning technologists in future to work from home, as we are all doing so perfectly successfully. This could open the door to many more people working in learning technologies and universities should consider this in their recruitment. (LT5)

(ii) Professional (mis)recognition and role re-rationalisation

Our respondents spoke of how role conflation and role generalisation by academics: “Too often learning technologists are seen as ‘the Moodle guys’, the IT team, the techies”, contributed to non-recognition of their pedagogical expertise and their contribution being undervalued not only in the context of professional esteem but financial recompense:

The position is very underpaid and should match that of Lecturer given the level of advice and pedagogical input we have to building and helping others design their courses. Often, we are dumped upon when a lecturer cannot be bothered to solve an issue which is of their doing. (LT6)

I feel I have had to work very strategically to assert myself as someone who can offer pedagogical and design support rather than become someone who churns out multimedia content and captions. (LT7)

A dearth of professional recognition within institutions was also reported by respondents who complained of the absence of an internal career structure within universities and academic prejudice exacerbating their marginal status:

My institution sort of resents learning technologists – we are the only profession with no promotion route, no CPD, and the institution doesn't value or understand what we do. I think they see us as a threat, or as robots who want to digitise everything, dehumanise it, put lecturers out of work, and take the soul out of education. (LT8)

In asserting their pedagogical credentials, respondents also sought institutional role clarification and demarcation of the learning technologist as existing at the nexus of academic and professional service staff:

It's important that universities recognise the instructional design and pedagogical work we input into courses. There is a danger that we become 'support staff' again. I hear jokey comments from senior managers in my School that we are taking on more IT support type roles. I really hope we can have a career progression out of this that recognises that Learning Technology sits between Professional and Academic and that role structures are applied accordingly. (LT9)

Our respondents also spoke about change in the nature of their institutional work and profile, having been diverted, during the crisis, from focused project based and smaller scale, department level activity and redeployed to service institution-wide and typically mundane support needs.

During the crisis, I've been more involved in developing support on an institution-wide basis. For six weeks or so, my team was drafted in to provide a telephone and email support line for students struggling to get online. (LT10)

The focus of the role is less project-based and more around long-term cross-departmental to address everyone's needs during and after the pandemic. (LT11)

Their accounts are perhaps unsurprisingly also laced with a sense of unease related to task reprioritisation and a drift from more creative assignments:

There is a greater emphasis on supporting others to design online learning. I'm not creating as much content. The focus is on scalability of what I offer. (LT12)

We're wholly focused on the move to online, so other projects have stopped. (LT13)

Conversely, some of our respondents describe a role shift – and in some cases entire role redefinition – that has resulted in them taking on a more explicitly pedagogical function:

I was recruited to VLE platform migration. Now I have been involved in response to COVID-19 to write guides and train staff and provide ongoing training to staff for responsive learning for next semester. (LT14)

Wider and deeper institutional exposure is (and its work-based demands), however, also rationalised by some of our respondents as providing opportunities for penetration into

institutional decision-making processes specific to pedagogical concerns, though accounts of such experiences by respondents are few and far between:

It's [emergency remote LTA] has doubled my workload but I am now allowed to sit on more senior teaching and learning committees. (LT15)

(iii) Digital illiteracy and distrust

The repositioning and greater prominence afforded to learning technologists on university campuses is also rationalised by our respondents in the terms of marketisation and institutional cultures of performativity, especially among university leadership who are seen to invest in learning technology not for any substantive and educated understanding of its pedagogical benefits but for its symbolic capital. In reflecting on the challenges faced by learning technologists in respect of long-term transitioning to digital pedagogies, one of our respondents, LT16 commented:

There are unreasonable expectations from senior management coupled with a profound lack of knowledge of technology. They are blindly purchasing random shiny tools/tech rather than working with established tools and purchasing tools which replicate functionality of existing tools because they're trendy. (LT16)

Here we find a suggestion that where there is evidence of investment in resourcing universities' digital infrastructure, such investment is made haphazardly and seemingly without consultation of learning technologists as those with expertise both of digital products and presumably of an institution's digital needs. Moreover, we find a sentiment among respondents, confirmed by what is reported to be low levels of institutional digital

infrastructure investment and external procurement of digital services, that the symbolic capital associated with traditional and prominent estate investments will continue to overshadow and thus inhibit a fuller commitment to digital transitioning:

A shift has started but for the institution where I am, building and physical spaces are more important than digital, so I am expecting a back to normality as soon as it is allowed. (LT17)

A lack of digital literacy more broadly across university communities and an under-appreciation of the time and labour demands of achieving effective online learning is also bemoaned by our respondents as a major professional handicap, which also links to the kinds of cultural resistance to digital pedagogies suffered by learning technologists:

There is a total lack of understanding by all staff of what good quality online learning is and the time and resources required to create it. (LT18)

A lack of digital literacy within institutions – especially at senior levels – is also criticised by respondents in relation to universities’ failure in “*underlining the importance of a high quality and inclusive learning experience*”. Moreover, our respondents complain of pedagogical apathy among university senior leadership and tokenism towards digital leadership roles:

Our Digital Directors are academics with little/no formal history of TEL [technology enhanced learning]. They applied for the roles and got the position. They have no idea about online pedagogies and think the solution to online

student engagement is chunking recorded lectures. They make the decisions.
(LT19)

In such terms, our respondents are unsurprisingly proactive in advocating for the social affordances of online learning, while being simultaneously explicit in arguing for cultural acceptance of digital technologies for pedagogical purposes via enrolling the active participation of faculty in its implementation and by appealing to the potential of digital technology's democratising effect on teaching and learning:

I believe that the Centre needs to be frank with academic departments and encourage a thrust towards developing a high-quality baseline that puts community and 'the cohort' at the centre. (LT20)

Despite many of our respondents registering positive attitudinal change among academics towards online LTA since the onset of the COVID-19 pandemic, a view of academic distrust towards and phobia of technology is seen to persist. Respondents like LT21 spoke of academics' inertia and inflexibility in adapting to the demands (and opportunities) of online learning:

The main challenge is academics and their fear of change. Maybe an even bigger challenge is those that think they know best – that a two-hour synchronous lecture online for 300+ students is a great learning experience. (LT21)

Many other respondents shared a concern of academics – either naively or nonchalantly – attempting to transfer traditional classroom pedagogies into online settings, “a mis-step

of trying to keep things as close to traditional (non-COVID-19 approaches)” and their unwillingness to decouple from so-called tried and testing approaches: “I see staff looking to behave in the same way using desktop conferencing to mirror what they did face-to-face”.

Others, however, approached academic resistance to the use of technology as role dissonance, with academics disinvesting themselves of a responsibility not of their own, passed instead to learning technologists:

“There is much frustration and expectation that the instructional designers or learning technologists will do it for them, thus increasing our extreme workload”. (LT22)

Yet despite numerous concerns of work-intensification, respondents intimated how changes to universities brought about by the pandemic might be professionally advantageous, where learning technologists were now in vogue:

I find that all of a sudden, all those academics who for the past twenty years have been desperately trying to avoid the use of tech, suddenly all want help at once. (LT23)

Discussion

Learning technologists occupy what Whitchurch (2008) has labelled ‘third space’; a territory between management and the managed. They are part of a growing group of university employees in academic support roles such as educational developers, widening participation officers, and learning support staff who work with both academic staff and

students. Such staff sit in-between, but in effect bridge professional and academic activity.

Our data illustrates many of the typical frustrations of third space professionals related to occupational marginalisation caused by the ambiguity of their roles and their ‘boundary’ status; sandwiched between the expectations and demands of management and the managed. Third space professionals often feel that their work goes unnoticed ‘under the radar’. However, in the current context of ‘pandemia’ (Watermeyer et al., 2021), it is clear that learning technologists are beginning to emerge as *de facto* policy actors and key brokers in respect to learning and teaching practice in a way that has not been seen before. Gains in institutional capital may also facilitate more of a ‘scholarly approach’ to the use of digital technologies in universities (Kirkwood & Price, 2012) amidst an ‘avalanche’ of change (Barber, Donnelly & Rizvi, 2013), and by extension the fuller capacity of learning technologists to ‘boundary-cross’ into academic territories. However, learning technologists have not quite yet discarded their status as peripheral or else liminal workers, nor yet overcome poor role recognition; academics’ apathy and/or distrust and managerial parsimony – the power of the pandemic as a boundary-object is limited.

The continuation of universities’ organisation into a prestige economy and the dominating influence of status and symbolic capital – and their material representations – are we would argue linked to the potential of universities (and their senior leaders, especially) to ignore the contributions of learning technologists that appear necessary to the continued viability and salience of the current HE model in the UK and paradoxically, universities’ capacity to remain market competitive. The institutional mobilisation of learning technologists requires universities and their managerial and academic communities to set aside status games, professional fears and prejudices, and instead

commit to working and identifying with; properly supporting and resourcing; and recognising and rewarding their pedagogical contribution. Equal recognition must be given to their professional and personal challenges.

While a spotlight has been focused most on the travails of academics throughout the crisis, the comparative scarcity and relative invisibility of learning technologists – as third-space professionals – within institutions should not result in the deleterious effects of their work intensification going unnoticed and unaddressed. The impact of their current and ongoing contribution to the university is surely significant; so too is their contribution in ensuring that digital technologies not only sustain the provision of universities as education providers but that the nature of their education provision is guided by principles of equality and inclusion and cognisance of the dangers of wholesale (market) reform (Williamson & Hogan, 2021).

Limitations

As is habitually the case with attitudinal survey data, the authority of our respondents' accounts is context-dependent and subject to the vagaries of passing time, new developments and trends. The kinds of accelerated changes brought about by the pandemic mean of course that attitudes expressed, not long after emergency transitioning to online LTA, may well have evolved. Moreover, we are cognisant that our respondents are far from being a homogeneous group and are drawn from a range of working contexts. Their interpretations of change will no doubt, therefore, have been shaped by institutional idiosyncrasies. We report then, perspectives of, less consensus apropos edtech investments and service management approaches. Notwithstanding the coherence of these perspectives lends credence to our analysis of the challenges they articulate.

Conclusion

We glean a view of learning technologists as no more one-stop shop than short-term solution and that institutional education on the nature of their role is exigent; especially so as to avoid misdirecting or underusing their expertise. While these accounts suggest a more extensive profile and generous appreciation of learning technologists in universities, the prevalence of digital illiteracy or incompetence – most pronounced among university leadership – and even technophobia and digital disavowal (Lea, 2011) remains a major handicap to their institutional harmonisation and their capacity to forge more profitable partnerships with academics as frontline to LTA. We consequently advocate for longitudinal occupational analysis (and policy solutions based on such) to better understand, educate on, and coordinate the distinct contribution(s) made by learning technologists across diverse institutional settings – this may be especially important to universities' future-proofing. A fuller, more complete evidence base may in turn be used to alleviate, if not soften the kinds of organisational and cultural discordance, showcased herein, that undermines the contribution of learning technologists as chaperones through current and future disruption.

The power of the pandemic as a boundary-object is shown to be only partial. It may thus ultimately prove to be the case that boundary-crossing between technology and academic domains is driven by market imperatives – undergirding the perpetuation of most institutions – and academics' survivalism in the face of intensifying precarisation. Less likely is synergy based upon a commitment to pedagogical innovation and/or learning technologists achieving a parity of esteem.

Biographies

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