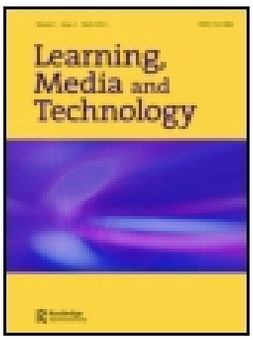

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The construction of legitimacy: a critical discourse analysis of the rhetoric of educational technology in post-pandemic higher education

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ABSTRACT

Whilst technology may have been the 'saviour' of HE from the immediate challenges of the pandemic, the opportunistic dialogue emerging in response is imbued with notions of the pandemic as a catalyst for change. Empowered by the apparent success of technology's deliverance, the door has been opened to unprecedented investment into a pervasive and data-driven paradigm of technology. Utilising a Critical Discourse Analysis of sector-orientated literature published in response to the pandemic, this paper examines the emergent rhetoric of technology and problematises taken for granted assumptions concerning its adoption in the imagined future of HE. This paper argues that such rhetoric is mediatory of neoliberal and consumerist ideologies, and that the portrayal of technology as a wholly beneficial enterprise obscures other issues and inequalities. By positioning educational technology in a uniquely political light, this paper offers a critical lens through which to view this new era of technological pervasion.

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Introduction

Whilst technology may have been the 'saviour' of Higher Education (HE) from the immediate logistical challenges caused by the global pandemic, there are important questions to be asked of the longer-term implications of educational technology in relation to its mounting legitimacy within HE. The opportunistic dialogue that emerged in response to the pandemic has imbued HE debate with notions of the pandemic as a catalyst for change (see Williamson and Hogan 2021). As this paper describes, the pandemic has acted to legitimise the technical pervasion of an already technology-centric HE landscape, culminating in unprecedented levels of investment into a new paradigm of data-driven educational technology to serve the needs of its imagined future. Indeed, empowered by the apparent success of technology's deliverance in the face of the pandemic, this new paradigm is entrenched in notions of transformatory potential, market opportunity, and liberal sentiments of consumer choice.

In the UK context, EdTech companies, alongside global technology giants, are redefining the landscape of post-pandemic HE. By mid-2021, the UK EdTech market alone was valued at over £3.4bn (Robert Waters 2021) and, on a global scale, venture capital EdTech investment was in the region of $20bn – three times pre-pandemic figures (HolonIQ 2022). Whilst these figures are

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striking, they represent the culmination of decades of progressive techno-centricity within UK HE as impelled through successive government policies, including changes to student fees, an emphasis on employability, and a focus on reformation, value for money, and efficiency.

Critical studies into the nature, use and effects of educational technology – collectively referred to as *Critical EdTech research* – have, for the past twenty years, sought to problematise the pervasion of technology in education, including its impact on pedagogy (Koehler 2014; Decuypere, Grimaldi, and Landri 2021; Gallagher, Breines, and Blaney 2021), the use of data (Jarke and Breiter 2019; Macgilchrist 2019; Williamson 2020; Witzenberger and Gulson 2021), the reinforcement of inequalities (Rafalow 2020; Swauger 2020; Jarke and Macgilchrist 2021), assetization and rentiership (Birch 2020; Komljenovic 2021), platformization (van Dijck, Poell, and de Waal 2018), and algorithmification (Selwyn 2019, 2021; Williamson 2021). Collectively, this work has been crucial in advancing a 'technological pessimism' (Selwyn 2013, 13) against the deterministic interpretation of educational technology as an objective force for good. It is on this basis that this paper is presented.

Whereas existing research has sought to problematise the impacts of educational technology, this paper introduces a new angle of critique, one that explores the role of rhetoric and discourse in the act of defining and legitimising the future role that educational technology plays in HE. By applying a Critical Discourse Analysis (CDA) to key sector-orientated literature published in response to the pandemic, this paper describes how the emergent *rhetoric* of the pandemic has acted to catalyse and legitimise a new paradigm of technocentricism that grants countenance to, and is mediatory of, neoliberal and consumerist ideologies.

Four publications are analysed within this paper:

- Digital at the Core: a 2030 strategy framework for university leaders (Jisc 2020a)
- Learning and Teaching Reimagined: a new dawn for higher education? (Jisc 2020b)
- Lessons from the Pandemic: making the most of technologies in teaching (Universities UK 2021)
- Gravity Assist: propelling higher education towards a brighter future (Office for Students 2021)

The influence of these publications is of particular significance when considered alongside their authorship and commissioning bodies: a mixture of sector consortia, private organisations, and EdTech venture capital companies. With this in mind, by focussing on the legitimacy that these publications bring to future practice, this paper positions educational technology in a uniquely political light and challenges the taken for granted assumptions concerning its increased adoption. Thus, this paper builds its argument in three core areas: Firstly, it challenges the transformational narrative that accompanies educational technology, arguing that it legitimises a 'technology-first' approach through which all problems become resolvable through purely technical means. Secondly, it challenges the view of educational technology as an instrument of social justice, arguing that such an approach ignores structural inequalities, obscuring more sophisticated approaches to understanding and tackling digital inequity. Thirdly, it contests the liberal view of the empowered student consumer, arguing that this normalises a deeply pervasive data-driven model of educational technology. This paper therefore offers a much-needed critical lens through which to view this new era of technological pervasion in HE and provides an important and timely counterpoint to the rhetoric that increasingly imbues the sector.

Problematising educational technology discourse

From a theoretical point of view, this paper is focussed on how, through the propagation of discourse, views and ideas (e.g., of technology) that are socially, culturally and politically specific (e.g., the opportunities that technology bestows) come to be regarded as natural and legitimate; a process that Fairclough (1989) refers to as the naturalisation of discourse. Understanding how discourse becomes naturalised is key to understanding how the new paradigm of post-pandemic educational technology has gained legitimacy.

Fairclough (1989) draws attention to the dialectical nature of social practice and the relationship between discourse and social structures, observing the cyclical nature through which discourse both reflects and *affects* social practice. Indeed, as Rizvi and Lingard (2010) warn, for the researcher, there needs to be an awareness of how publications (e.g., policy documents, reports, organisational strategies) manufacture problems (and their *solutions*) in particular ways: 'the nature of the problem is never self-evident, but is always represented in a specific manner, from a particular point of view' (Rizvi and Lingard 2010, 8). This framing focusses attention onto the discursive characterisation of educational technology as described from a particular perspective; a perspective that is inextricably socially, politically, and economically situated.

As shall be described, the selected publications suffer from what Selwyn (2013, 21 citing Adorno 1981, 126) refers to as an 'overbearing matter-of-factness' whereby their rhetoric acts to progressively naturalise educational technology. This paves the 'royal road to common sense' (Fairclough 1989, 92) and a state of taken-for-grantedness where the effects of educational technology are self-evident and require no further scrutiny. Framed in this manner, the naturalisation of discourse, and the normalisation of educational technology is fundamentally problematic because, as Fairclough (1989, 1993) contends, ideology is an inextricably embedded feature of discourse. Indeed, the view of technology as ideological and value-laden has been a mainstay in the philosophy of technology (see Garnham 2000; Winner 2004; Lefebvre 2006; Feenberg 2009) but this view has permeated critical EdTech literature in recent years (see Nye 2007; Rudd 2013; Selwyn 2013). As Selwyn contends, educational technology is an assemblage of value preferences; cogent 'social imaginaries and ideological formations' (2013, 11) presenting a view of the world and its imagined future.

Early writings of Marx have described both the explicit and *implicit* nature of ideology, and the seemingly invisible structures through which it is pervaded (Elster 1986). Likewise, the work of Gramsci has drawn attention to the notion ideology as lived social practice and the hegemonic 'reproduction of consent and submission to the political' (Maglaras 2013, 1). Other works such as Mannheim's focus on context (Mannheim 1991) and Habermas' emphasis on the role of language (Dews 1999) have offered a more nuanced appraisal of ideology, helping us to understand how the pervasion of ideology into lived experienced is in itself imperceptible; a hidden cycle of meaning making and hegemonic reaffirmation (see Žižek 1996; Bauman 2000). In this sense, as Fairclough (1993) observes, discourse is therefore fundamental to our understanding of power relationships and the mechanisms through which power and control are maintained, and through which social ordering is achieved.

Herein, therefore, the publications under scrutiny not only need to be considered in relation to what is being said, and by whom, but also the contexts in which the discourses, utterances, and statements contained therein were formed. It is on this basis that this paper explores the emergent rhetoric of educational technology, problematising not only the immediate impact upon practice within HE, but also, HE's capacity to be reshaped, reimagined, and redefined by commercial providers, advisory agencies, and private consortia.

Methodology

Selection criteria

This paper draws upon publications written expressly about HE, and whose purpose is to stimulate discussion and identify opportunities in HE's response to the pandemic. The decision on which documents to include was largely determined by the presence of specific references to both the future of HE and the role that educational technology plays in shaping that future. Therefore, selection was based upon the potential impact such publications have upon future educational policies, initiatives, and practice, and cognisant of both readership and influence within the sector.

The first publication analysed, Jisc's widely distributed *Learning and Teaching Reimagined* report (2020b), represents a five-month initiative to assess the HE sector's response to the pandemic and to

explore the future of digital learning and teaching. The report is far-reaching and influential, not least because it was jointly commissioned by Jisc, Universities UK, Advance HE, and the venture capital company Emerge Education. Co-authored by Jisc, Universities UK and Advance HE, the report engages with over 1000 sector leaders, staff, and students, representing the first large scale review of its kind written in direct response to the pandemic. This publication is viewed alongside the sibling report *Digital at the Core* (Jisc 2020a), a high-level report co-authored as above, but with an additional contributor, the software company Salesforce. The purpose of this report is to provide university leaders with a long-term post-pandemic digital strategy framework and to encourage them to think about educational technology and its role in helping institutions realise their long-term strategic objectives. The third publication, *Lessons from the Pandemic* (Universities UK 2021) is based on discussions with a range of UK universities, exploring how they can enhance the learning and teaching experience by drawing upon the emergent practice of the pandemic. The report is notable in that it warns against reverting back to pre-pandemic practice, contending that significant progress has been made in priority areas (e.g., attainment gaps) through embracing a digital-first approach. Commissioned by the Secretary of State for Education, *Gravity Assist* (Office for Students 2021), the final publication examined, offers a long-term view of the future of HE, including the essential components of successful digital teaching and learning. The report focusses on the catalysing effects of the pandemic and on the need for institutional investment into educational technology.

Other such publications, reports and thought pieces (see HEPI 2020b, 2020a; QAA 2020, 2021; UCISA 2022) are excluded here not just through reasons of scope, but in acknowledgement that these publications themselves reference the four under scrutiny and can therefore be regarded as derivative; a factor in itself reflective of the influence the four publications have within the broader sphere of post-pandemic HE.

Critical discourse analysis

For Fairclough (2003), a CDA is more than simply reading texts; it is the inquiry into the interactive process of meaning making. As Fairclough contends, the analysis of any text must focus on the 'three analytically separable elements in the process of meaning making: the production of the text, the text itself, and the reception of the text' (2003, 10). Therefore, the formation of meaning within the text depends on what is implicit and assumed, and not just what is explicit and obvious.

Taylor (2004) notes there are many 'flavours' of discourse analysis, each approached from different theoretical positions (see Titscher and Jenner 2000; Chilton 2004; van Dijk 2008; Wodak and Meyer 2009). Nevertheless, proponents of discourse analysis tend to fall into two distinct camps; those that undertake a microanalysis of the linguistic character of texts, and those that undertake a macroanalysis of the social-cultural and socioeconomic contexts in which the texts were produced (Taylor 2004). The latter of these two approaches tends to be more 'critical' in that in draws on critical theory and is 'directed at the totality of society in its historical specificity' (Wodak and Meyer 2009, 9). This paper adopts the macro methodological position, uniting the text itself with 'the discourses and sociocultural practices that the text reflects, reinforces and produces' (Paltridge 2006, 184). This paper therefore focusses attention onto the 'constructive effects of language [and] the way in which the socially produced ideas and objects that constitute our 'reality' are actually created and maintained' (Phillips and Hardy 2002, 63).

Applying a CDA framework

The CDA commenced with a review of the four publications in their entirety. This initial phase focussed on identifying propositions using modal verbs, for example: 'digitally fluent staff *will* enable universities to grasp new opportunities' (Jisc 2020b, 34), or 'digital technology *can* enable educators to do more' (Office for Students 2021, 32). The initial review was iterative, and the identified propositions were used to form 'conceptualisations' relating to the description or

characterisation of educational technology and its actual or hypothesised impact on the future of HE (e.g., digital assessment is more efficient), as noted in row 1 of Table 1 below. Consistent with Fairclough's three-dimensional model of analysis (1989, 2003), the identified conceptualisations were considered in relation to their discursive practice (i.e., the process through which the texts were produced, distributed and consumed) and their social practice (i.e., the socioeconomic conditionalities of their production), thereby critically framing the conceptualisations.

In the second phase of review, the conceptualisations identified were coded into high-level themes based on their hypothesised outcome or impact. Where conceptualisations denoted the capacity for technology to fundamentally change the mechanics of teaching, assessment, administration, and delivery, these were coded as 'transformation'. Similarly, conceptualisations concerning technology's capacity to bring about fairer access, flexibility, individual betterment, and personal empowerment were coded under 'social justice'. Finally, where the future use of technology was associated with competitive advantage, new markets, employability, and metrics, these were coded as 'economic reimagination'. These high-level themes are shown in Table 1 and form the basis of the following analysis.

Analysis and discussion

The high-level themes identified all reflect a positive and progressive appraisal of educational technology. The emergence of vociferous themes within publications designed to promote the benefits of educational technology expansion is hardly surprising; however, it is important to re-emphasise that these conceptualisations are being analysed within their broader contexts and in recognition of the influence they have, and the legitimacy they bring, to future practice. Attention therefore turns to these high-level themes, which have been distilled into sub-themes for ease of analysis. Concluding each theme, a discussion is tendered, enabling the findings to be discussed in context, consistent with the CDA methodology.

Theme 1: transformation

There is an implicit transformatory narrative that pervades the publications, where in which the pandemic is characterised as a catalyst through which to fundamentally change the format, delivery,

Table 1. Thematic map of the three high level themes distilled from their constituent conceptualisations.

Thematic map			
Conceptualisations of educational technology in future HE	• Efficiency of assessment • Data-driven processes • Automation • Artificial intelligence • Re-usable content and materials • New modes of engagement • Enhanced digital capabilities • Flexible and modularised learning • Networked learning • Bringing HE up to date	• Equal access • Personalised learning • Digital accessibility • Blended and flexible learning opportunities • Reduction in attainment gaps • Flexible working conditions	• New markets • Responsive to the needs of the economy • Reduction in physical estate • Resilience • Unique selling proposition • Staff recruitment • Increased career prospects • Collaborative opportunities with EdTech • Data as asset
High level themes	Transformation	Social Justice	Economic reimagination

and administration of learning, teaching, and assessment. The *Learning and Teaching Reimagined* report speaks of new dawns and of the pandemic as 'an opportunity to rethink the way learning and teaching is delivered' (Jisc 2020b, 14). *Digital at the Core* talks about digital transformation and the opportunity to transform 'the mindset and culture of an organisation' (Jisc 2020a, 12). The *Gravity Assist* report implores universities to 'seize the opportunity' (Office for Students 2021, 8), whilst *Lessons from the Pandemic* speaks of 'unexpected silver linings' (Universities UK 2021, 3) and the need to take advantage of the opportunities the pandemic has bestowed (Universities UK 2021, 14).

Transformation of learning and teaching delivery

The transformatory narrative is frequently manifested in the desire to design-out 'tradition'. *Gravity Assist*, for instance, makes references to 'traditional long monologue lectures' (Office for Students 2021, 44) and 'traditional education models' (Office for Students 2021, 34). Equally, *Learning and Teaching Reimagined* references 'traditional, increasingly old fashioned, ways of working' (Jisc 2020b, 4). Universities are encouraged to harness the capabilities of educational technology to break free of tradition and to establish new 'spaces' for learning and teaching, such as blended delivery. Universities should 'think radically about the scale and scope of their learning and teaching activities, prioritising blended learning approaches wherever possible' (Jisc 2020b, 8).

Alongside economic motivations – which will be discussed later – the so-called 'student voice' is drawn on as a justificatory mechanism for transformation. *Lessons from the Pandemic* asserts that 'students want greater flexibility' (Universities UK 2021, 1), *Digital at the Core* encourages universities to 'heed the student voice', noting that students 'expect universities to better address their individual needs' (Jisc 2020a, 26). Equally, *Gravity Assist* notes the 'rising appetites for digital delivery' from students (Office for Students 2021, 35).

Transformation of assessment

Learning and Teaching Reimagined refers to the 'death of the exam hall' (Jisc 2020b, 14). Similarly, *Gravity Assist* contends that 'the days of the invigilated written exams in lecture halls could be over' (Office for Students 2021, 54). These sentiments are woven throughout, and universities are encouraged to reimagine assessment through the transformatory possibilities of technology. Reflecting on the pandemic, *Gravity Assist* recalls that '[pre-pandemic], assessment exercises were often huge paper-based exercises which had not changed for a long time, whereas [during lockdown] digital assessment was much slicker and easier to mark' (Office for Students 2021, 55). The report adds, 'digital assessment presents a real opportunity to review, and in some cases redesign, how assessment is conducted and delivered' (Office for Students 2021, 53).

Educational technology is described not just in terms of its capacity to facilitate new modes of assessment, but its role in ensuring the integrity of assessment. *Lessons from the Pandemic* warns that any increase in online delivery will necessitate a rethink of academic integrity (Universities UK 2021, 14). The report calls on universities to give 'fresh thought to academic integrity and standards' in response to increasingly digital assessment practices (Universities UK 2021, 14). Equally, *Gravity Assist* notes that 'issues around plagiarism, cheating, academic integrity are areas that need substantial attention', adding that, 'developments in technology allow for increasingly sophisticated methods for identifying plagiarism and cheating' (Office for Students 2021, 57). The report lists facial recognition, authorship analysis and online proctoring as growth areas to be taken advantage of.

Discussion: deconstructing the transformational narrative

The narrative of digital transformation provides a convenient response to broader discourses that have, over the past two decades, characterised HE as outmoded or dysfunctional (Conole 2008; Flynn and Vredevoogd 2010; Flavin 2012; Moodie 2016) and in need of a digital fix (Selwyn 2013). As *Learning and Teaching Reimagined* contends, 'education is one of the last major sectors

yet to be radically transformed by the digital revolution' (Jisc 2020b, 4). The characterisation of HE as outdated is not necessarily problematic in itself; indeed, HE is imperfect, and it has been widely acknowledged that universities need to rethink many elements of their form and function. Nevertheless, it is the clamour to redress these challenges through 'digital transformation' that is problematic.

Much of the 'promise' of educational technology is based on conjecture, hyperbole, and desire, not facts, evidence, and substance, and it relies on blind faith and optimism (see Macgilchrist 2021; Selwyn 2021). Educational technology has an unconvincing track record, and this intensifies calls to move from superficial 'sustaining innovations' towards profound 'disruptive innovations' (Selwyn 2016, 20). The portrayal of HE as being out of step and flawed plays a fundamental role in the legitimacy of, and accedence to, educational technology as a transformatory enterprise; it is the foundation on which all subsequent action is built and justified.

Together, the discursive elements that form the conceptualisation of educational technology demonstrate a view congruent with technology as a force for good. This is reflective of what Coyne refers to as 'the romantic narrative' of the digital age (1999, p. ix) where there is a tendency to ascribe positive connotations to technology through dialogue. As Borgmann argues, there is a 'syncategorematic or rational sense of good' (1992, 208) instilled within the very notion of technology, despite there being no objective measure of what constitutes 'good-ness'. Throughout the publications, much of the rhetoric associated with the operationalisation of educational technology is aspirational and focusses on the transformatory *promise* of new spaces, formats, and possibilities. The publications offer very little deviation from this point of view, and whilst they do acknowledge the potential difficulties and negative outcomes of educational technology, these tend to be couched in amelioratory terms and overcome through 'better' use and 'improved' understanding.

The characterisation of educational technology as a noble endeavour is therefore problematic because it legitimises a 'technology-first' approach where every problem becomes resolvable through technical means. *Gravity Assist* and *Learning and Teaching Reimagined* both implore 'pedagogy before technology', but these discussions are emphatically framed by the desire for 'digital transformation'. Therefore, technology remains at the forefront of minds; it is the common-sense thing to do. This position is perhaps best evidenced by the way in which the transformation of assessment is discussed within the publications. There is an inherent reimagining of assessment, which few would argue against, but technology lies at the heart of this reimagination and so, rather than asking what opportunities there are to make assessment more authentic, continuous, and integrated, for example, the question focusses instead on how *technology* can be used to create opportunities for such assessment. The publications therefore discursively construct problems in certain ways (Rizvi and Lingard 2010, 8), and as assessment becomes reimagined through technology, technology must in turn mitigate the new risks, challenges and vulnerabilities it introduces (e.g., integrity, originality and cheating). This mitigation requires greater levels of pervasion and an increased reliance on data; legitimising the need for online proctoring, AI-assisted assessment, and authorship analysis, to name but a few examples.

Theme 2: social justice

A theme of social justice permeates the publications in which educational technology is characterised as enabling a fairer, more equitable, and accessible HE sector. Indeed, *Learning and Teaching Reimagined* notes that digital delivery can 'lower the barriers of access to higher education' (Jisc 2020b, 4); a point echoed in *Lessons from the Pandemic*, which contends that educational technology can 'make higher education more effective and more inclusive than ever before' (Universities UK 2021, 15). Whilst the publications do acknowledge the immediate challenges that the pandemic posed for access to learning and teaching, these challenges tend to be framed operationally, overcome through better connectivity and equipment.

The agency of the individual

There is an inherent focus on the role that educational technology plays in empowering the individual and in providing opportunities for personalised learning, which *Learning and Teaching Reimagined* defines as 'tailoring learning experiences to individual students' needs and interests' (Jisc 2020b, 35). *Digital at the Core* observes that 'technology has advanced to the point where highly personalised experiences can be delivered at scale' (Jisc 2020a, 35). Therefore, educational technology *empowers* students with the agency to choose how, when, and where they engage.

Gravity Assist lists a range of benefits to be gained from technology-enabled personalised learning, including students as co-creators, personalised assessments, personalised feedback, analytics and progression monitoring, and personalised content (Office for Students 2021, 32). In its 'vision' for 2030, *Learning and Teaching Reimagined* asserts that 'the widespread adoption of artificial intelligence (AI) provides a learning experience that effortlessly melds the preferences and needs of the individual learner' (Jisc 2020b, 32). As 'Lola', the fictitious student persona for 2030 contends:

> My studies fit around my life … my university offers really flexible, modular degrees so I never feel I'm missing out. I watch the chunked-up lectures on my phone on my commute and send questions to the tutor through chat in between our online check-ins. My AI coach logs how I'm doing on the essays, polls and quizzes and where I need more practice. (Jisc 2020b, 33)

No student level behind

The democratising effects of educational technology are further articulated through an apparent emphasis on the power of analytical data and the ability to stage 'interventions' based on this. *Gravity Assist* observes that 'predictive models could support the retention of students by identifying those at risk of failing or dropping out' (Office for Students 2021, 86) but warns that to realise this vision, richer models of data are crucial. *Learning and Teaching Reimagined* observes that, by 'harnessing' student engagement and attainment data, it is possible to 'predict, with over 90% accuracy, whether a student is likely to pass or fail a module' (Jisc 2020b, 25).

Lessons from the Pandemic notes that the move to digital teaching and learning has 'coincided with a narrowing of attainment gaps' (Universities UK 2021, 3). No further appraisal of this trend is tendered, although the report highlights a likely correlation between attainment and the provision of online resources. Similarly, *Gravity Assist* contends that educational technology and online learning offer opportunities to counter attainment gaps experienced by minority ethnic groups through promotion of 'equitable learning environments, supported by real-time data' (Office for Students 2021, 100).

Discussion: the fallacy of social justice

Within the publications, educational technology is characterised as being democratising in that it lowers barriers to access and creates opportunities for individuals to engage in HE in ways that suit their own circumstances. The narrative of technology-facilitated personal empowerment is emblematic of liberal views of choice, freedom, and agency, and reflective of broader shifts towards a view of the student as consumer. Consequently, in the reimagining of post-pandemic HE, the publications emphasise the crucial role that educational technology plays in enacting liberal principles such as student-centred learning and flexibility (Selwyn 2013). As is evidenced by the rhetoric of the publications, the imagined future of HE is one with personalised learning at its heart, including extensive use of predictive learning analytics, blended and hybrid delivery, personalised and adaptive learning opportunities, and an AI-assisted learning environment.

The liberal view of educational technology sees responsibility shift from the institution to the individual. To that end, educational technology acts as the conduit between the institution and the student, with the student 'controlling' the terms of that engagement. However, this is problematic because, by focussing attention onto the 'empowered' student, all emergent problems are

individualised (Lovink 2012) – the institution is not at fault, it is an issue located emphatically with the individual. In this sense, their empowerment is double-edged. Indeed, as Selwyn (2013; citing McCarthy 2011) warns, this rhetoric positions the individual as the locus of success or failure, as determined through self-motivation, merit, and effort. What is not considered is the impact of broader structural inequalities, such as an individual's social, cultural, and economic situatedness, such as race, class, and gender. The liberal discourse of educational technology seen in the publications is one that assumes, once operational issues (e.g., internet access) have been mitigated, a level playing field exists. However, technology is an unequal affair (see Henwood 2002; Freeman 2011; Rafalow 2020), and so the potential to benefit in the imagined future of HE is contingent upon the 'capital' that particular social groups possess. Characterising educational technology as a common good unhelpfully constructs an overly simplistic dichotomy between those that have *access*, and those that do not. The portrayal of a singular homogenised group of 'have nots' with a similar set of needs creates a deficit model that unhelpfully hinders more sophisticated approaches towards understanding digital inequality, and thus, the rhetoric is reinforcing of, rather than amelioratory to, educational inequality.

Theme 3: economic reimagination

The publications describe how the catalysing effect of the pandemic and the resulting digital transformation of HE has allowed for an *economic reimagination* of new models, audiences, and markets. The publications are imbued with notions of market competition ('flexibility and international competitiveness' (Jisc 2020b, 29), 'an increasingly competitive higher education market' (Jisc 2020a, 5)) and opportunities for growth ('this offers opportunity to extend the reach of UK higher education through new partnerships overseas' (Office for Students 2021, 38), 'online teaching [has] helped to overcome physical distances' (Universities UK 2021, 6)). Therefore, the strategic importance of educational technology is framed in an economic light, both in remuneratory terms and in its role in preparing graduates for the future needs of the labour market (Office for Students 2021, 33).

New markets, new spaces, new opportunities

> The main benefits of online learning are that it enables multi-mode, anytime/anywhere/any-pace learning, breaks down the geographic barriers to delivery and potentially extends institutional reach into new markets. (Jisc 2020b, 16)

Digital at the Core warns Universities that, to maintain their competitive advantage 'they need to clearly articulate what if any role digital technology plays in brand differentiation' (Jisc 2020a, 28). As *Learning and Teaching Reimagined* contends, the use of educational technology – enacted through a digital strategy – can 'underpin expansion into new markets for recruitment and for delivery, both internationally and domestically' (Jisc 2020b, 29).

Gravity Assist observes the opportunities afforded by educational technology 'to create a more modular framework for higher education, allowing for more flexible learning … [opening up] possibilities for learning opportunities, allowing learners to continue to earn while studying' (Office for Students 2021, 34). Similarly, *Learning and Teaching Reimagined* makes numerous references to technology-enabled 'modular degrees', enabling universities to attract students in employment, those with child-caring responsibilities, and those in geographically isolated areas (Jisc 2020b, 33).

Investing in educational technology

There is a strong narrative concerning the need for universities to make significant investment into their technical infrastructures to realise the economic benefits of digital learning. *Learning and Teaching Reimagined* draws attention to the historically low levels of technological investment made compared to other industries (such as commerce and banking). The report argues that universities need to 'review their strategic investment in digital learning and teaching' (Jisc 2020b, 26);

indeed, universities should 're-orientate' their investment ratios between physical and digital spheres. Likewise, *Lessons from the Pandemic* asks universities to ensure that 'there is sufficient and redirected funding to invest in digital infrastructure' (Universities UK 2021, 10). Universities are encouraged not only to invest in technological infrastructures, but in EdTech itself:

> Senior leaders should adopt a more stratified approach to risk in IT. This will mean formulating a clear view on which areas they are prepared to experiment (and potentially fail) in, actively pursuing new initiatives, [and] openly working with startup technology providers. (Jisc 2020a, 11)

Gravity Assist echoes this sentiment, noting that rigid procurement processes in HE lead to an 'overly risk-averse approach' whereby older systems are retained simply because of sizeable investment many years previous (Office for Students 2021, 84).

Data as strategic asset

Digital at the Core implores universities to 'collect data, not anecdotes' (Jisc 2020a, 29) and become 'data-empowered organisations' (Jisc 2020a, 33), noting that whilst implementing data-driven analytical infrastructures can be complex, 'shifting to a data-driven culture and mindset is the larger transformational challenge … [to enable] a new age for actionable strategic intelligence' (Jisc 2020a, 33). Indeed, the report contends that investment in analytics can 'provide shorter paths to high value insights, and the intelligence gained can be used as an accelerant for transformation' (Jisc 2020a, 35). Similarly, *Learning and Teaching Reimagined* encourages universities to harness the 'data insights sitting within different IT systems to improve decision making' and to better support students and staff (Jisc 2020b, 18). *Digital at the Core* notes HE's apparent lethargy in this area:

> The higher education sector has on the whole been slow to unlock the value of institutional data as a strategic asset. (Jisc 2020a, 32)

Gravity Assist notes, unlike 'traditional' approaches to learning and teaching delivery, with digital delivery 'much more data is generated, often in far less intrusive ways' and this data can 'help providers make strategic decisions about learning design and identify students in need of support' (Office for Students 2021, 87). The report concedes that this cannot be achieved in isolation and requires 'collaboration between higher education providers and technology companies' (Office for Students 2021, 13); a sentiment echoed by *Learning and Teaching Reimagined* which encourages the 'interchange of learning data' between providers and 'sector consortia' to benefit from collective business intelligence (Jisc 2020b, 36).

Discussion: the cost of economic reimagination

The publications place a significant emphasis on the need for organisations to embrace digital or risk losing their competitive potential, with much of the associated rhetoric instilling notions of survival through change. Once again, the authorship of the publications is significant in relation to what is being asked; not content with encouraging increased and more strategic adoption of technology, the publications call for greater involvement of EdTech providers in HE decision making, with particular emphasis on outsourcing and unbundling of provision, partnerships with EdTech start-ups, and a shift to cloud-based infrastructures. As observed throughout this analysis, the rhetoric of the publications can be seen to be crystalising and actualising practice that pre-dates the pandemic, drawing upon the apparent paradigm shift of technology's increasing legitimacy in HE.

This rhetoric is acquiescent of the progressive neoliberalisation of HE (see Selwyn 2013; McGowan 2017; Komljenovic 2019; Williamson 2019), including the neoliberal compulsion for metrics to measure, compare, and evaluate. The imagined future of HE, as envisioned in the publications, is one with data as its lifeblood. Indeed, in *Digital at the Core* data is likened to oil in that it has little value until it is extracted, refined, and distributed. The use of data is presented as a matter of fact; without data, true transformation cannot be achieved. Institutions that fail to 'harness' data will lose

their competitive edge and will perish. But, as Bauman and Lyon (2013) warn, as data becomes more integral to the functioning of a particular system, the *possibilities* become more fantastical, and with each incremental step it becomes progressively normalised. Therefore, references to sophisticated data-intensive technologies (e.g., biometrics) is emblematic of the incremental normalisation of this activity as a legitimate and taken-for-granted component HE. As Williamson, Bayne, and Shay (2020) observe, as the neoliberal model of HE becomes progressively normalised, so to do the supporting data structures and practices that sustain it.

User accedence to this data-hungry neoliberal vision of HE is obtained through notions of *implied familiarity*, whereby students (and staff) are portrayed as being accustomed to, and expectant of, their data being gathered, aggregated, and analysed. In this sense, consent is not required; the pervasive nature of technology and its use of data feels so familiar that it is entirely natural – to the user, consent was conceded seemingly imperceptibly, at an unknown point in the past. It is therefore unsurprising that the use of data has been posited as an expression of power (see Beer 2016; Jones 2019; Macgilchrist 2019; Williamson 2021) in that it is both omnipresent and unseen (Foucault 1970) and acts to construct the nature and limits of knowledge, the assemblance of authority, the subjects of intervention, and the mechanisms through which behaviour is affected (Ball 2013). To come full circle, therefore, the notion of the data-empowerment is problematic because it assumes there to be a universal benefit, however, power is unevenly distributed and is an inherently unequal affair.

Conclusion

This paper has demonstrated that the rhetoric that emerged in response to the pandemic is imbued with notions of the pandemic as a catalyst for change. By repositioning the locus of inquiry away from the *impact* of educational technology and instead focussing on its discursive characterisation, this paper has deliberately politicised educational technology by described how it has been legitimised through the symbolic and authoritative nature of discourse, and how this discourse is inexorably entrenched in the conditionalities of its production.

Most importantly, this paper has demonstrated how HE is increasingly permeable to outside influence, and how the ideological positionality of this outside influence is increasingly incompatible with traditionalist views of HE. Nevertheless, the persuasive nature of these publications is already evident; organisations are embarking on digital transformation projects with unprecedented levels of investment into pervasive and data-driven models educational technology use. The CDA has demonstrated the need to consider the social, political, and economic contexts and motivations behind the production of a text and warns against a face value acceptance of its rhetoric. In doing so, this paper has highlighted the growing influence that private and commercial providers have upon the future of HE.

There is a relative paucity in critical EdTech research compared with the centrality and dominance of educational technology in HE. Given its ubiquity, its portrayal as a common good demands further scrutiny through a deliberately pessimistic lens. As Selwyn contends, 'pessimism should not result in a passive resignation to one's fate, but as an active engagement with continuous alternatives' (2013, 16). This paper is an attempt at exploring what these continuous alternatives may be. Whilst this paper should be considered as a timely think piece that warns against the normalisation of technology in HE and questions the sentiments and motivations of outside influence within the sector, it should also be regarded as an invitation for researchers to continue to explore not only the impact of educational technology, but the means through which it continues to be granted the legitimacy and credence it now commands in the HE sector.

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