Technology enhanced learning in the age of generative AI and post-pandemic higher education: Discourse and practice

Shannon Farrell, BA, MA

July 2025

This thesis is submitted in partial fulfilment of the requirements for the degree of Doctor of Philosophy

Department of Educational Research
Lancaster University
UK

Abstract

Technology enhanced learning in the age of generative AI and post-pandemic higher education: Discourse and practice

Shannon Farrell

The pandemic bolstered solutionist conceptualisations of Technology Enhanced Learning (TEL) within UK higher education. In the post-pandemic period, pandemic narratives operate as a catalyst for change within a sector immersed in uncertainty and precarity, compounded and complicated by the arrival of generative AI. However, these narratives also create ambiguity and conflict in relation to TEL practice.

Operating within the Third Space between academic and non-academic domains, TEL professionals—including learning technologists and learning designers—already challenge established domains and structures. Despite higher education institutions (HEIs) ostensibly championing digital solutions to myriad problems, TEL professionals have experienced diminished social capital as Emergency Remote Teaching (ERT) ended.

Through Critical Discourse Analysis (CDA) of HEI strategies combined with semi-structured interviews with TEL professionals, this research identifies how TEL has been conceptualised within institutions during this period, how these conceptualisations have impacted TEL professionals' practices, and how these conceptualisations of TEL and TEL professionals' practices intersect or diverge.

The research findings reveal that the overarching discourse of change promulgated through institutional strategies positions technology as both a solution and a threat to the sector. Innovation and transformation function as discursive strands which TEL professionals leverage, mediate and subvert. Whilst institutions promote TEL as innovative and transformative, they also

position TEL practice as subversive and threatening. Despite these challenges, TEL professionals continue to identify ways in which they can shape teaching and learning with technology, particularly in relation to assessment, generative AI, and digital transformation projects.

Framed by a sociomaterial lens, this thesis extends post-pandemic TEL research by focusing on the impact of TEL discourse and the corresponding ways in which TEL practice can and does shape this discourse in kind. The findings have formed the basis for recommendations for institutional leadership as well as academics and TEL professionals.

Table of contents

Abstract 1

Table of contents 3

List of Figures and Tables 8

Figures 8

Tables 9

Acknowledgements 10

Chapter 1: Introduction 11

1.1 The intention of this research 11

1.2 Research questions 16

1.3 The dream and the reality 17

1.4 The wider context of higher education 19

1.5 Why do we need to talk about TEL? 24

1.6 Why does this research matter? 28

1.7 Theoretical framework: Discourse, practice, materialisation 30

1.8 Summary 34

Chapter 2: Literature review 35

2.1 Introduction 35

2.2 Search process 35

2.2.1 Search 1: Post-pandemic research 35

2.2.2 Search 2: Generative AI 37

2.2.3 Search 3: TEL professionals 39

2.2.4 Second dip: 2025 41

2.3 ERT, generative AI and TEL: An overview of the research 42

2.4 Emergency Remote Teaching: Higher education moves online 43

2.4.1 Lessons from the pandemic: Innovations with TEL 49
2.4.2 A sense of location 53
2.4.3 Interpretations of TEL 54
2.4.4 Digital skills in relation to TEL 57
2.5 Generative AI arrives and chaos (again) ensues 58
2.5.1 Generative AI and learning 59
2.5.2 Generative AI, academic integrity, and assessment 62
2.5.3 Privatisation and surveillance 65
2.5.4 Generative AI and academic tasks 67
2.6 TEL professionals: Challenging the boundaries of knowledge structures 69
2.6.1 TEL roles are nebulous 69
2.6.2 TEL roles during the pandemic 77
2.7 Summary: overview of the literature and gaps 79
Chapter 3: Research design 82
3.1 Philosophical underpinnings of my research 82
3.2 Critical discourse analysis (CDA) 85
3.2.1 Applications of CDA 87
3.2.2 Dispositive CDA 90
3.2.3 Why dispositive CDA? 95
3.3 Overview of the research process 98
3.4 Stage 1: Discourse in institutional documents 105
3.4.1 Data gathering: Stage 1 105
3.4.2 Data analysis: Stage 1 111
3.5 Stage 2: Interviews with TEL professionals 113
3.5.1 Data gathering: Stage 2 113

3.5.2 Data analysis: Stage 2 116
3.5.2.1 Sketchnoting 116
3.5.2.2 Coding and themes 124
3.6 Bringing the analysis together 126
3.7 Ethical considerations 127
3.7.1 Trustworthiness of my research 128
Credibility 128
Transferability 129
Dependability 129
Confirmability 130
3.7.2 Protection of research participants 130
3.8 Summary 131
Chapter 4: Findings and discussion: Change and innovation 132
4.1 Core themes and structure 132
4.2 Navigating change 135
4.2.1 Discourse of change: Upheaval and opportunity 135
4.2.2 TEL professionals navigating change 138
4.2.3 Change in discourse, change in practice 140
4.3: TEL innovation and transformation: Change by design and responsive change 142
4.4 Innovation: A continuation of ERT practice 143
4.4.1 TEL innovation: Flexibility as personalising learning and alienating teaching 147
4.4.2 TEL innovation through efficiency 155
4.4.3 TEL innovation: The dream and the reality 162
Chapter 5: Findings and discussion: TEL transformation 168

5.1 Transformation of teaching and learning: redefining who we are and what we do 168
5.2.1 Transforming the culture of the university: digital-first and digital skills 171
5.2.2 Transforming space and place: Where is our campus? 180
5.2.3 Transformation projects: Ripping up the playbook 186
5.2.4 Transforming our approach: Design approaches to pedagogy 194
5.2.5 Transforming the TEL role: “We’re more than tech support” 201
5.2.6 TEL transformation: discourse and practice 214
Chapter 6: Conclusion 219
6.1 Research questions 219
6.2 Contributions to research 224
6.2.1 Methodological contribution 225
6.2.2 Contributions to Third Space research 226
6.2.3 Gaps in the literature 227
6.2.4 Addressing the gaps 228
6.3 Recommendations 230
6.3.1 Recommendations for leadership 230
6.3.2 Recommendations for TEL professionals 232
6.3.3 Recommendations for academics 233
6.4 Limitations of the research 234
6.5 What comes next? 235
References 238
Word Length 275
Appendix A 276

Technology enhanced learning in the age of post-pandemic higher education: Discourse and practice: Consent form 276
Appendix B 278
Technology enhanced learning in the age of post-pandemic higher education: Discourse and practice: Participant Information Sheet 278
Appendix C 282
Interview questions 282
Scene setting 282
Institution 282
Post-pandemic 282
Generative AI 282
Appendix D 284
My recruitment post in Association for Learning Technology: 284
Glossary and list of abbreviations 286

List of Figures and Tables

Figures

Figure 1.1. FAIRCLOUGH (1992) DIMENSIONS OF DISCOURSE 33
Figure 2.1. MAP OF FILTERING PROCESS FOR SEARCH 1 37
Figure 2.2. MAP OF FILTERING PROCESS FOR SEARCH 2 39
Figure 2.3. MAP OF FILTERING PROCESS FOR SEARCH 3 41
Figure 2.4. MAP OF SECOND DIP AND FINAL RESULTS 42
Figure 2.5: ADAPTED FROM SCHÖN (1987) REFLECTIVE MODEL 44
Figure 3.1. ADAPTED FROM JÄGER & MAIER (2009): THEORETICAL AND METHODOLOGICAL ASPECTS OF FOUCAULDIAN CRITICAL DISCOURSE ANALYSIS AND DISPOSITIVE ANALYSIS 94
Figure 3.2. THE DISPOSITIVE TRIANGLE MAPPED WITH THE COMPONENTS OF MY RESEARCH 99
Figure 3.3. A MAP OF THE ANALYSIS PROCESS 102
Figure 3.4. A MAP OF THE ANALYSIS PROCESS IN STAGE 1 111
Figure 3.5. A MAP OF THE ANALYSIS PROCESS IN STAGE 2 117
Figure 3.6. EXAMPLES OF SKETCHNOTES CREATED FOR EACH RESEARCH PARTICIPANT 123
Figure 4.1. MAP OF OVERARCHING AND SUBTHEMES 134
Figure 4.2. DISPOSITIVE OF INNOVATION DISCOURSE 165
Figure 5.1. DISPOSITIVE TRIANGLE OF TRANSFORMATION DISCOURSE .. 215

Tables

Table 2.1. ADAPTED FROM WHITCHURCH (2008): CATEGORIES OF IDENTITY FOR THIRD SPACE WORKERS 70
Table 3.1. JÄGER AND MAIER (2009): GUIDING QUESTIONS RECOMMENDED FOR ANALYSIS 103
Table 3.2. AN OVERVIEW OF THE UNIVERSITIES INCLUDED IN THE CDA STAGE 1 ANALYSIS 109
Table 3.3. EXAMPLE OF COMPLETED TABLE FOR STRATEGY DOCUMENTS USING GUIDING QUESTIONS 113
Table 3.4. AN OVERVIEW OF THE RESEARCH PARTICIPANTS FOR STAGE 2 WITH PSEUDONYMS 115
Table 6.1. AN OVERVIEW OF GAPS IDENTIFIED AND HOW THEY ARE ADDRESSED..... 229

Acknowledgements

I wish to thank those participants who contributed to my research through their time and their candid observations of their practice. I am grateful for the guidance and feedback from my supervisor, Dr. Jan McArthur.

I also wish to thank my husband, Neil and son, Elliot, who have accompanied me through these past few years and have accepted and supported my time commitment to the PhD programme. Finally, I wish to thank my parents Donald and Cecelia who have encouraged my lifelong pursuit of education.

Chapter 1: Introduction

1.1 The intention of this research

This research interrogates narratives of technology enhanced learning (TEL) as they have been formulated within UK higher education institutions since the COVID-19 pandemic, and how they influence and are influenced by TEL practice. Recognising discourse and practice as a dialectic, I have undertaken a form of Critical Discourse Analysis (CDA) of institutional narratives in the post-pandemic period to discern conceptualisations of TEL and their impact on teaching and learning.

I have also considered how TEL professionals translate and reconfigure these conceptualisations through their practice, extending my critique of discourse beyond investigation of language to encompass its interactivity (van Dijk, 1997). Two distinct events have shaped my specific approach to CDA: the recalibration of teaching practices in response to Emergency Remote Teaching (ERT) and the arrival of generative AI.

Discourse is preoccupied with language (Wodak & Meyer, 2009). As TEL is conceptually problematic and elusive (Bayne, 2014; Passey, 2019; Selwyn, 2013), it invites exploration of associated TEL discourses. During its evolution, TEL has elicited contrasting interpretations and diverging applications within scholarship and practice (Passey, 2019). Although TEL is integral to current and emerging approaches to pedagogy within higher education, TEL discourse remains highly speculative and anticipatory, reflecting its constant evolution, its promise and uncertainty, and its ‘not-yetness’ (Ross, 2016).

Deconstructing technology enhanced learning invites semantic confusion over clarity. Although technology does not need to be digital, increasingly, the term *technology* has been subsumed into digital technology; consequently, when we

refer to technologies for learning, we invariably mean digital technology. Technology is highly politicised, and often discursively entangled with *modernisation, social progress* and *innovation* which are also contested terms (Feenberg, 2002). As technology has become interchangeable with digital technology, it lays the foundation for and validates increasingly ubiquitous ideological arguments that the future of education is inarguably digital (Bailey, 2024).

The term *enhancement* further reinforces deterministic rhetoric around TEL (Kirkwood & Price, 2013), implying the inevitability of technology in teaching and learning. Enhancement is intertwined with quality, whereby existing practices improve based on adaptations to the status quo, with technology frequently positioned as the means of improving teaching practice *prima facie* (Köpeczi-Bócz, 2025).

Furthermore, the emphasis on technology enhanced *learning* marginalises the relationship between technology and teaching (Passey, 2019) and limits wider pedagogical discussions of technology (Castañeda & Selwyn, 2018) by prioritising the learning component of education at the expense of the teaching (Biesta, 2013). Such conceptualisations of TEL attempt to simplify what is, complex, contingent, and varied practice.

In focusing on the period spanning 2022 to 2025, I have intended this thesis to fulfil several purposes, none of which sought to ignore wider and sustained conceptualisations of TEL within which this research sits. Focusing on this period has allowed me to identify the ways in which significant upheaval to the practices that comprise teaching and learning have been managed, influenced and contained through TEL narratives. These conceptualisations are not severed from previous narratives of TEL, nor do they end abruptly in 2025. They are part of a trajectory of TEL discourse, which will be analysed through

the lens of what has come before and with the intention of considering what comes after.

Identifying TEL narratives within this period in relation to wider discourses of TEL underscores that this period both reflects and diverges from more sustained educational discourse. The pandemic elicited unprecedented sectoral shifts to online learning delivery (Beetham & MacNeill, 2023) but also reinforced entrenched, simplistic, solutionist TEL discourse (Clark, 2023). Generative AI has promulgated narratives that working with technology invites increased uncertainty, lack of transparency, and discomfort (Bearman & Ajjawi, 2023), but its reach into multiple dimensions of human activity creates a sense that it is simultaneously unique, familiar and tinged with endless possibility (Kolade et al, 2024). Furthermore, generative AI has the potential to both negatively and positively disrupt higher education (Jensen et al, 2025).

Although these events have reinforced sustained TEL narratives, they have also elicited significant shifts in how TEL is positioned in relation to practice. Tensions between discourse and practice did not arise suddenly during this period: they are a fundamental and inevitable component of discourse (Jäger & Maier, 2016; Raffnsøe et al, 2014). However, focusing on this period surfaces the dislocation of established relationships between the two and the subsequent internal discord between competing narratives. This study has examined how contrasting narratives have shaped a post-pandemic period of TEL practice and how practice may in turn influence discourse.

In relation to my discussion of *established* relationships, it is worth clarifying the position of this research on which I will elaborate later in this chapter and in my research design section. I take a relational approach to knowledge: consequently, my ontological and epistemological position is such that knowledge and reality are constituted and reconstituted through the assemblage of individuals, objects, their associated practices and discourses,

and thus, are subject to fluidity and change. Regardless, I do not outright reject the terms *tradition* or *establishment* which have shaped higher education:

> Fluidity requires stabilization, and education can be viewed as spaces of uncertainty within, and escaping from, spaces of control. (Fenwick et al, 2011).

The tensions between discourse and practice, stability and fluidity, tradition and transformation should not be viewed as binaries: they overlap, collide, integrate and diverge, and this scene of struggle is the core concern of my research.

I have observed how these tensions operate. As a TEL practitioner, who started my career in TEL during the pandemic, I have a personal interest in understanding how institutional discourse and its interactions with practice shape and reshape the contributions of technology to teaching and learning. More specifically, I have had an opportunity to reflect on the ways in which the pandemic increased exposure to the affordances of technology for learning whilst also eliciting a backlash to online learning as the sector attempted to course correct or to 'return to normal.'

Such narratives, in addition to maligning TEL and playing into reductionist perspectives of ERT, have positioned online learning as one part of a binary with face-to-face teaching and learning. These narratives, which calcified as campuses reopened, collided with the emergence of generative AI and have prompted considerations of how to accommodate both the promise and potential danger this new technology presents to teaching and learning.

Joining the PhD programme at Lancaster University coincided with the progression of my career in digital education. Within the PhD programme, I've been exposed to diverse strands of TEL research, and have become increasingly drawn to understanding how TEL is conceptualised within higher education in conjunction with how TEL professionals navigate and interpret

these conceptualisations. The TEL professional perspective, whilst increasingly visible in research, remains underrepresented (Lister et al, 2021; Watermeyer et al, 2021a). This study seeks to address this gap, particularly as the contributions of TEL professionals to teaching and learning expanded and increased during ERT (Livingston & Ling, 2022).

TEL provides rich ground for experimentation, discovery, and critical analysis. Furthermore, the pandemic and generative AI have increased the visibility of TEL professionals, armed with the experience and skills to shape teaching and learning in a progressively contingent and complex environment (Livingston & Ling, 2022). Regardless of this shift, TEL scholarship and research have not responded in kind.

Consequently, assessments of the lasting impact of ERT and the emergence of generative AI from a TEL professional perspective have remained largely unexplored. Higher education thrives on reflection. Yet, as I discovered in my review of post-ERT literature, although there has been considerable reflection during the pandemic, there has been very little emphasis on reflection about the ways in which pandemic practices changed the perspectives of academics, TEL professionals and others working within the sector post-pandemic. Instead, most higher education workers have been thrust from one upheaval to another with little opportunity to take stock of that period.

Although my primary intention is to uncover the current environment of TEL practice in relation to associated discourses that shape and are shaped by practice, I aspire to improve TEL practice particularly in response to discourse. Techno-centrist views have pervaded organisational approaches to TEL, black-boxing technology, resulting in reductionist positions that limit effective practice (Orlikowski, 2007). This thesis aims to create opportunities for higher education workers, particularly TEL professionals and academics—but also senior leaders in the sector—to reflect on ERT in a way that can integrate effectively with

current and emerging TEL practice. Discourse operates as a motivational tool—particularly in strategic spheres—attempting to build consensus across disparate parts of institutions (van Dijk, 1997). However, it also simplifies complexity, with the pandemic proving no exception.

Lack of critical exploration of this period risks limiting the ways in which TEL practitioners may work with colleagues, particularly academics, to sustainably support empowering approaches to technology in teaching and learning. My intention with this research has been to contribute to a growing but small cache of TEL research that addresses this divide. In identifying the way in which discourse, practice and the technologies with which practitioners and others in HEIs interact, this research opens practice to new potential approaches that do not simply cast technology as a solution without critically assessing its entanglements with practice.

Change is the overarching theme of higher education in the post-pandemic period as institutions grapple with how to use ERT to best effect whilst also defending against wider social and political challenges. Although relentless change has created barriers to effective reflection of ERT and generative AI and what this might mean for TEL conceptualisation and practice, this study seeks to rectify this.

1.2 Research questions

Given my own context and the wider changes and challenges experienced within HE and TEL, this study has addressed the following research questions:

RQ1: How has technology enhanced learning (TEL) been conceptualised in post-pandemic UK higher education institutions?

1.1 How have ERT practices influenced conceptualisations of TEL?

1.2 How has generative AI influenced conceptualisations of TEL?

RQ2: How have these conceptualisations impacted TEL professionals' practices?

2.1 How do these conceptualisations positively impact TEL professionals' practices?

2.2 How do these conceptualisations negatively impact TEL professionals' practices?

RQ3: How do conceptualisations of TEL and TEL professionals' practices intersect or diverge?

1.3 The dream and the reality

In January 2022, after a series of side moves and one unforeseen redundancy, I believed that I'd finally secured my dream job: a learning designer position in a university. I'd spent years undertaking postgraduate qualifications, including a qualification in Blended and Online Education, accepting pay cuts and incrementally moving into positions further away from my entry into education as a business development officer and closer to the roles to which I aspired in learning technology. I believed I've reached my destination.

In the interview, the panel provided an overview of the projects on which I'd be working, including a new online postgraduate programme. I was ecstatic and eager to prove myself with these large-scale projects. This would provide an opportunity to develop my design skills quickly.

When I started the role, excitement turned to disillusionment almost immediately. On the first day, my new manager informed me that leadership had changed over the course of the month between my interview and my start date. The online programme and all online development projects were put on hold as the new leadership reassessed priorities. I continued to establish myself in my team as I waited for a change in circumstances and for the projects to start to roll in.

As the new leadership team began to make decisions, it quickly became clear that online learning was no longer a priority for the institution, and the projects discussed in my interview evaporated. The leadership team wanted to reinvest in the physical campus, which had experienced a sustained level of inactivity since the pandemic ended as staff and students continued to hold lectures and other teaching and learning activities online. Reinvigorating the physical infrastructure came at the expense of digital education and TEL.

To emphasise this, leadership issued new guidance that required that all teaching and learning be delivered in-person, even those programmes that had been delivered by distance before the pandemic. Online learning was viewed as countering opportunities for learners to have the ideal student experience, including in-person teaching and on-campus learning. I remained in the role another few months, picking up small tasks, before accepting that I needed to move on to a new role and organisation if I wished to develop myself professionally.

My experience was eye-opening, particularly as I had come from working in the EdTech industry during the pandemic, when interest in technology for learning thrived. Was this an isolated incident or was I witnessing a backlash against TEL?

I would never claim that my experience is universal for TEL professionals; however, my own experience of the divide between concept and practice demonstrates how vulnerable TEL professionals can be to changing priorities and lack of understanding about how TEL practice is enacted in relation to institutional ambition. Institutions wish to be seen to invest in digital education, so they create new roles like mine to signal their commitment. Commitments then change with new leadership, new strategic direction, or new priorities. Financial concerns arise, shifting perspectives on investments, transforming them from essential to superfluous.

These divides between the conceptualisation of a role—what it represents for the institution—and the practice or operationalisation—what exactly we will be doing on a day-to-day basis—are not unique to TEL professionals. However, TEL professionals may contend with the persistent divergence between ideation and their day-to-day practice that is indicative of larger tensions between the narrative of TEL and its application across the higher education sector.

1.4 The wider context of higher education

Although this research has focused on specific events that have influenced TEL discourse and practice over the years immediately following the COVID-19 pandemic of 2020-2022, these events inextricably link with larger social changes and their corresponding impact on higher education.

Evaluating the impact of one event that has ended and another that is emergent provides scope in assessing how these two events have both aligned with and countered wider sectoral upheaval. Such analysis may decipher the ways in which TEL has operated within a wider arena of sectoral change, frequently viewed in negative terms and portrayed as a steady deterioration of higher education through an associated theme of crisis (McFarlane, 2024).

The pandemic's connection to wider sectoral crisis is complex. COVID-19 acted as an interregnum as it distracted from longstanding crises impacting the sector: it created a clear and unequivocal mandate (Bartolic et al, 2021). However, as this imperative became tempered by financial and social pressure to reopen campuses and increasing divergence on appropriate, sustained logistical responses to the pandemic, the mandate became diluted and established crises reasserted themselves (Shaw & Blazek, 2023).

Generative AI has not been viewed as a crisis for higher education as much as a disruptor, requiring reconsideration of the way in which educators educate

(Jensen et al, 2025). As with the pandemic, there is no sector or segment of society that is immune from the influence of generative AI: it has challenged legal and ethical frameworks (Johnson, 2024), employability and the predictability of in-demand skills—particularly for new graduates (Murray et al, 2025)—and the establishment of what is newsworthy (Simon, 2025).

Consequently, the pandemic and generative AI have added to sustained sectoral upheaval, which has resulted in slashed budgets, mass redundancies, and retrenchment of faculties, course offerings and—potentially—the collapse of some HEIs. An article published by the BBC in November 2024 referred to a "university cash crisis" in which cash flow problems will continue to plague universities in England despite a rise in university fees (Jeffreys & Rhodes, 2024). Such crises are not limited to England and have been experienced throughout the UK (Fraser, 2025; Glyn-Jones & Lewis, 2025).

Whilst giving evidence for the House of Commons Education committee, Dr. Hollie Chandler, Director of Policy for the Russell Group stated:

> The scale of the deficits we're facing are so large that efficiency measures alone are not going to be able to address them. (Russell Group, 2025)

The fiscal challenges faced by higher education extend beyond any lasting impact of the pandemic and are indicative of entrenched sectoral vulnerability.

In tandem with financial uncertainty, neoliberal configurations of higher education have prevailed for decades, promulgating the knowledge economy. Within the knowledge economy, knowledge has become instrumentalised and educational systems have transformed into spheres of transaction (Goodson & Rudd, 2017; Mahoney & Weiner, 2017).

A culture of managerialism and metricisation of teaching and learning operates from both outside of and within higher education. Functioning within this culture, the sector has been both victimised by and complicit in reinforcing neoliberal discourse. Within institutions, leadership has been driven by assetisation of higher education, shifting the overarching mission of the university (Shore, 2024). New managerial leadership, which enacts neoliberal ideology, has largely failed in the face of what Wright et al (2021) identify as ontological uncertainty, in which sustained precarity coinciding with financially-incentivised management has deterred institutions from taking risks or formulating new ideas.

Rudd and O'Brien (2019) argue that neoliberalism is in the process of running its course but with a negative, systemic impact on higher education, including a deterioration of legitimacy that will be difficult to regain. Neoliberal 'reform' of education, instituted during the Thatcher government, has reclassified higher education from a public good to a private asset, underpinning the push towards assetisation and outsourcing of services. Furthermore, whilst neoliberal discourse promotes the concept of social mobility, the corresponding massification of education (Giannikis & Bullivant, 2015) means that levelling inequality remains more conceptual than actual (Zhang, 2024).

Despite an emphasis on widening access and participation in higher education, tuition fees continue to increase in England (Clarke, 2025), as the cost of living continues to rise, making university education less affordable. On the other hand, tuition fees have not risen enough to account for declining income for HEIs in the wake of restrictions on international students and a perception that higher education should not be publicly 'propped up' by government (O'Hara, 2025).

As students and governments seek measurable returns on education investment, HEIs face increasing pressure to account for the return on

investment for students who are viewed as consumers and customers. Within neoliberal configurations of the university, higher education has been reduced to acting as a manufacturer of qualifications that serve to endorse employable graduates (MacFarlane, 2024), stripping higher education of its intrinsic value. The financial precarity of institutions has fuelled competition and the associated marketisation of higher education (O'Hara, 2025).

These wider factors have contributed to pedagogical and academic inertia. As highlighted earlier in this chapter, the pandemic provided an opportunity to experiment with new approaches to teaching (Beetham & MacNeill, 2023). In contrast, conflating ERT with considered and well-executed online and blended learning risks pedagogical stasis and deters experimentation with technology for learning in the post-pandemic period (Watson et al, 2025).

Compounded by the increasing precarity of both academic and non-academic roles along with the metricisation of higher education that emphasises quantification and measurability, teaching and learning risks becoming more conservative in the post-pandemic period as educators attempt to maintain what they can control (Wright et al, 2021).

These challenges characterise the wider landscape in which higher education is operating. It would be difficult to untether these challenges from the unique circumstances of the pandemic or of generative AI, nor would it serve the purposes of this research to do so. Technology facilitates neoliberal objectives such as increased control of the workforce and a focus on the knowledge economy into palpable outcomes through increased automation and surveillance of work, and connectivity that allows the knowledge economy to thrive (Jones, 2019).

The entanglement of technology with a neoliberal worldview has fundamentally changed the practices and purpose of higher education. A web of increasingly

complex technological interdependencies within institutions hinders academic agency and focuses on maximising efficiency from higher education processes, including teaching and learning (Birch et al, 2025; Hall, 2016). The increasing digitisation of higher education—hastened by the pandemic and motivated by purportedly making processes more efficient— has exacerbated the pressure on human and financial resource (Komljenovic et al, 2024).

An increase in Big Four consultations in higher education in the UK is associated with a push to increasingly unbundle and marketise higher education activity and accompanies positioning the pandemic as a catalyst to digitally resuscitate the sector (Shore, 2024). As part of the Big Four narrative, digital transformation becomes crucial to the survival of HEIs (Shore, 2024). When positioned in this way, technology may be perceived as complicit in undermining of academic authority and in shifting the focus of higher education towards instrumentalism, marketisation, and performativity.

The relationship between technology and higher education has been further complicated by increasing exposure to external actors—amplified by the pandemic—including EdTech companies and consultancies (Williamson & Hogan, 2021). As generative AI becomes more integral to institutions and associated EdTech providers more profuse, the entanglement of EdTech and HE will potentially accelerate. These actors have become influential in shaping technological discourse, positioning technology as either a poison or remedy to suit commercial interests. These simplistic narratives obscure and downplay the complex relationship between technology and the end user.

Concerns about technology replacing humans, amplified by the emergence of generative AI, extend beyond employability concerns and raise existential questions that fall within the purview of higher education. HEIs contend with change on multiple fronts, prompting them to look outwards as well as inwards as they consider the ways in which technology may mitigate or facilitate change.

Consequently, the conceptualisation and practice of TEL have warranted further examination, particularly within the wider scope of social and sectoral disruption.

Focusing on two key events—the pandemic and generative AI—allows for a detailed investigation of TEL conceptualisation and practice within this challenging and shifting landscape of teaching and learning and sectoral upheaval. No investigation of TEL in UK higher education can ignore the wider context in which TEL operates. By focusing on these two key events, I position them as pivotally influencing TEL narratives and practice, but I do not minimise or ignore their entanglement with the wider social terrain of change in higher education.

1.5 Why do we need to talk about TEL?

Technology enhanced learning (TEL) has captivated me since the beginning of my second career in tertiary education. I initially became attracted to the potential ways in which technology might change teaching and learning. With a passion for education, I viewed each exposure and experimentation with technology for learning as an opportunity. Understanding how each tool or technology might be used—or not used—became an area of personal interest.

Earlier in this section, I presented TEL as a loose association of terms. My position on TEL shapes my approach to this research. TEL is more than a collection of terms: it is neither simply solutionist nor threatening. It is shaped by human perspectives and uses of technology and the technology itself. My focus on the relationships between users and technology, and the associated meanings formulated through these interactions, underpins this research. My position is that TEL is a sociomaterial practice.

Technology does not sit in isolation from social practices, and technology and the human dimension of technology use are intertwined (Orlikowski, 2007).

Consequently, the philosophy of digital education provokes interesting conceptual considerations. By adopting a sociomaterial lens, several components frame this research.

Firstly, that the practice of TEL is protean, relational and part of an assemblage of individuals, objects and discourses that are constantly interacting with each other (Fenwick et al, 2011). Secondly, I discuss context throughout this research, but context should not be viewed as a hermetically sealed environment. Context is not stable or fixed but is produced and reproduced through these assemblages that are not solely due to the actions of individuals but encompass the technologies they use and other objects, actors and discourses (Fenwick et al, 2011).

As highlighted when I discussed the UK higher education context in which this research has unfolded, technology for learning, much like technology more generally, has been commissioned in various political and social dimensions to suit the objectives of specific actors. Practitioners of TEL are forced to confront its rhetoric even if there is some form of acceptance of that rhetoric in working with technologies for learning. For example, I have sometimes felt complicit in reinforcing simplistic and deterministic depictions of TEL, which can marginalise or cloak the human component of TEL in which individuals shape the nature of technologies for learning just as technologies for learning shape conceptualisation and practice (Hayes & Jandrić, 2014).

This was particularly true when I worked in EdTech and understood that commercial motivations around technology for learning often most impact and potentially disadvantage the direct users of that technology, not the decision-makers.

My enthusiasm for TEL can sometimes feel aligned with institutional objectives that oversell the ways in which technology can improve teaching and learning.

By taking a critical stance, I have attempted to balance enthusiasm with pragmatism. Furthermore, through this research, I seek to clarify one of the biggest misconceptions about TEL professionals: that we wish to promote technology for learning *prima facie*. Although there is rhetoric that promulgates the inevitability of technology in teaching and learning, this should not preclude us from conducting what Selwyn (2021) refers to as “sustained and honest appraisal” (2).

The core remit of TEL professionals is to find ways of using technology appropriately and effectively based on context. This requires an understanding of when not to use technology, just as much as identifying when it can enhance teaching and learning. I believe that discussions around TEL inevitably intersect with reflections on current practice, or as stated by Bayne (2020) in the Manifesto for Teaching Online:

> Online teaching need not be complicit with the instrumentalisation of education. We argue that understanding digital education as critical and sociomaterial opens up new, and better, ways of understanding and practicing online teaching. (21)

How, then, might sectoral discussions of TEL become more focused on these critical and sociomaterial components? Working directly in a TEL role provides an opportunity to cast a critical lens that focuses in on individual exchanges with academics and colleagues but also widens the lens, to encompass institutional applications and increasing ‘digital initiatives’, zooming out further still as we consider how technology is conceptualised in ways of working, by employers, by governments, and by society, which influence and are influenced by TEL.

I have worked as both a learning designer and learning technologist, mostly within higher education but also in the context of lifelong and professional learning. Shifting into a TEL role from another professional services role in education coincided with the onset of the pandemic. Consequently, I have

observed how the pandemic and post-pandemic periods have impacted TEL practices, creating evolving and emerging challenges for TEL professionals and how TEL professionals have adapted.

Many institutions are making key strategic decisions about the way in which technology will be incorporated into existing knowledge structures, with some investing more heavily in technology for learning and others positioning investment in technology as counter to investment in infrastructure (Skelton, 2023). This has directly impacted TEL professionals' practice.

TEL professionals regularly contend with uncertainty, lack of visibility and vaguely determined priorities (Watermeyer et al, 2021a): this is indicative of the experiences of many Third Space professionals within higher education, in which the delineations of academic and non-academic blur (Whitchurch & Healy, 2024). Distinct from other Third Space workers, TEL workers are immersed in a conceptually dense terrain of digital teaching and learning, in which they must grapple with and temper discourse and deterministic language (Hannon, 2013) on a regular basis. The post-pandemic period has further recalibrated the balance between discourse and practice (Watermeyer et al, 2021a) and these struggles resonate with my own experience of working within this space.

TEL professionals have historically had less authority and visibility than academic peers. As Third Space professionals, they struggle with social capital and their ability to influence others within their institutions (Whitchurch, 2008; Whitchurch, 2024). However, this does not dictate that TEL workers are complacent or that they are stripped of agency. Particularly given their ability to cross academic and non-academic delineations, they have the capacity to disassemble the boundaries that seek to limit and contain practice (Fenwick et al, 2011).

Conceptualisations of technology at sectoral and institutional level have shaped the ways in which TEL is positioned and practiced but have also been influenced in turn by TEL practices that reaffirm or subvert discourse. TEL practitioners, whilst less visible in the discourse of teaching and learning when compared to academics (Livingston & Ling, 2022; Watermeyer et al., 2023), have capacity to shape conceptualisations and materialisations of TEL as the sector contends with complex and emergent challenges.

1.6 Why does this research matter?

Although the tensions between TEL discourse and practice offer rich material for discussion, interest alone would not have sufficed to conduct this research. A large body of pandemic and post-pandemic literature and a growing body of literature on generative AI offer ample opportunity for research into new and emerging applications in teaching and learning. This thesis did not seek to retread this area of research. Rather, I have focused on how TEL discourse within higher education is manipulated to reflect institutional objectives and wider sectoral ideologies that coalesce with and diverge from the experiences of TEL professionals.

Why does this matter? An awareness of institutional narratives of TEL provides a foundation for critical reflection and evaluation of the ways in which technology impacts teaching and learning. Furthermore, by analysing the institutional language or discourse of TEL against the experiences and practices of TEL professionals, this study offers insight into how to improve the messaging as well as the operationalisation of TEL within institutions and to open up opportunities in TEL practice.

This thesis does not seek to discredit discourse, which can be a powerful motivational tool and is an inevitable output of any social organisation: my research identifies how discourse and non-discursive practices operate in tandem and tension, along with technology. I do not attempt to ‘redefine’ TEL as

TEL is defined by the relations between practitioners, technologies and other materialisations as well as the discourses produced by and through these interactions.

My research in anchored in criticality of existing power dynamics and in neoliberal approaches to higher education that are entangled with technology and often hinder participatory approaches to TEL. As an insider and outsider researcher, I seek to increase the agency of TEL professionals and other higher education workers to formulate more effective and open approaches to practice. Consequently, this research primarily seeks to identify the tensions between discourse and practice and to provide recommendations based on the findings.

As highlighted in an earlier section of this chapter, neoliberal configurations have permeated higher education. There is a desire to turn away from neoliberal and managerialist approaches to technology and to acknowledge that interactions between humans and technology ensure that there are no simple narratives of TEL. At a more granular level, the recommendations provided at the conclusion of this research are comprised of points that may be more or less salient for individual practitioners. These recommendations arise from my analysis and interpretation of the findings, using the sociomaterial lens, and my insider position as a TEL practitioner, who also operates within, navigates and mediates TEL discourse.

The results of this research would not only benefit TEL professionals who regularly strive to reconcile conceptualisation and practice, but it would also advantage academics and leadership within HEIs, particularly where expectations and understanding of TEL professionals remain misguided or obscured. Post-pandemic conceptualisations have added urgency to understanding the divide between TEL narrative and practice, particularly as institutions find themselves in an increasingly competitive landscape.

Teaching and learning remain inextricably linked. Although most students lack awareness of TEL professionals working largely in the background (Fox & Sumner, 2014), TEL professionals are firmly committed to improving both teaching and learning and students may—albeit indirectly—benefit from TEL workers' contributions to pedagogy. By fostering better collaboration between TEL workers and academics, there is an opportunity for these improvements to cascade down to students.

TEL is protean in nature. Consequently, it may appear that meditating on discourse and practice during this period represents a wasted exercise given change is a key assumption underlying this research. The purpose of focusing on post-pandemic TEL is to establish the current direction of TEL ideology and practice, and to provide recommendations for HEIs on how they can better leverage the perspectives and skills of TEL professionals rather than focusing on the affordances of specific tools and technologies. Uncertainty invites rather than limits critical analysis.

1.7 Theoretical framework: Discourse, practice, materialisation

As elucidated at the beginning of this chapter, I have adopted Critical Discourse Analysis as my theoretical framework underpinned by a sociomaterial ontology. Within this research, sociomaterialism provides a critical lens in which agency is distributed across assemblages of individuals and technologies as the objects they use (Fenwick, 2011); consequently, there is no inevitable outcome of using a specific technology or technologies. This approach challenges a technological determinist stance and disseminates meaning across arenas of technology and users of technology. Reality is relational, not discoverable.

Knowledge is located in action and interaction (Fenwick et al, 2011), and particularly in practice (Jäger & Maier, 2016). Consequently, meaning is

contextual and situated. The question of structure and agency must be addressed when adopting a sociomaterial lens, and, in fact, more generally when undertaking social research. Although practice is shaped by entanglements with objects, other individuals and discourses, agency does not cease to exist but operates dialogically:

> If we are seen to appropriate the world without being appropriated, the account will be too anthropocentric. If we are appropriated without appropriating, the account will veer towards determinism. (Hawley, 2021)

The rejection of binaries—particularly between human and technology—are core to sociomaterial approaches. However, this research does not eschew the use of binaries altogether. This is because binaries are frequent within discourse and are a component of this study. Binaries matter because they are used in discourse. Ultimately, this research seeks to interrogate them and to expose their limitations when forming critical approaches to TEL.

In relation to this, my study is fixated on language, particularly the way in which language can foment ideas and influence practice and the everyday experiences of its audience or its citizens. More specifically, language has been used in institutional literature to support narratives – not only the narrative of TEL created within institutions and across the sector, but also the narratives elicited from TEL practitioners' experiences.

Foucault's knowledge/power dialectic shapes this research and his definition of discourse as language intended to construct and normalise meaning (Khan & MacEachen, 2021) guides the Critical Discourse Analysis methodology which will be explicated more fully in the Research Design section of this study. Power is a slippery and broadly defined concept. Within the context of higher education, universities operate as centres of knowledge construction and

dissemination where new forms of knowledge challenge existing structures (Barnett, 2022).

Power and knowledge legitimate and sustain each other, shaping discourse and other mediums (Foucault, 2002). Foucauldian discourse has provided an appropriate critical lens for the current position of universities as sources of knowledge production but also as organisations that attempt to contain threats to existing power structures (Allan, 2013). Meaning is constructed through a dialectic of discursive and non-discursive practices and tensions as they arise from conflict between the two (Khan & MacEachen, 2021).

Despite acknowledging Foucault's concept of discourse, his views have limited the contributions of practice to the formulation of discourse (Jäger & Maier, 2009). Consequently, I have adopted a particular form of Foucauldian discourse analysis— dispositive analysis—which analyses discourse through the investigation of actions or practices associated with that discourse, and materialisations or objects that embody discourse (Jäger & Maier, 2016). Dispositive analysis extends discourse analysis beyond discourse or language alone (Caborn, 2007).

Critical Discourse Analysis (CDA) is broader and more divergent in approach than Foucauldian discourse. Within the methodology section, I will expand on where Foucauldian discourse sits within the wider family of CDA. At this point in time, it is sufficient to state that CDA is preoccupied with the use of language, the normalisation of specific practices and the appropriation of previous events to explain the present and influence the future (Fairclough, 1992a). How that preoccupation is expanded upon diverges within the family of CDA.

Norman Fairclough, a key founder of Critical Discourse Analysis has depicted the relationship between language and practice:

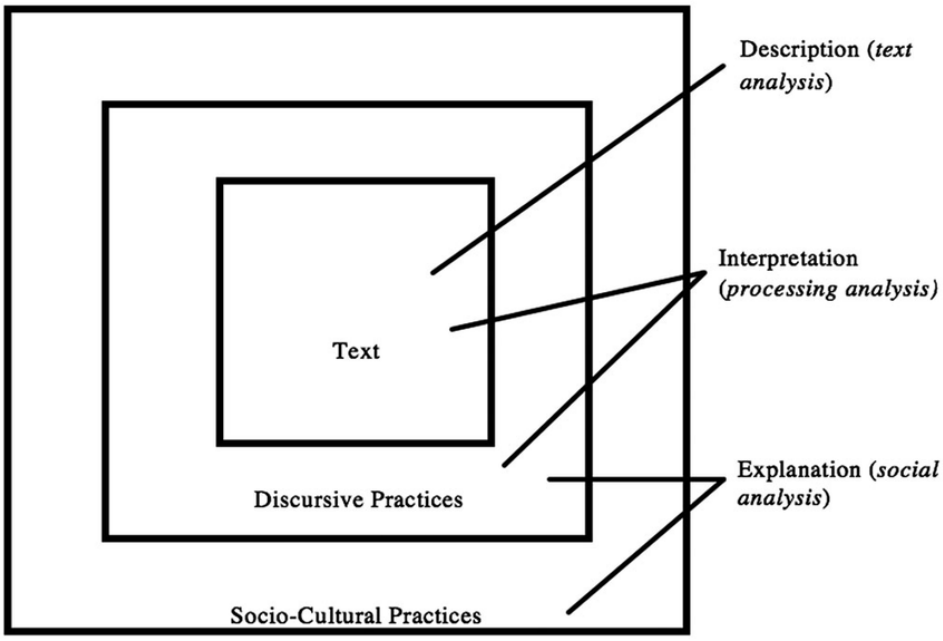

Figure 1.1. FAIRCLOUGH (1992) DIMENSIONS OF DISCOURSE

This depiction demonstrates the intention of CDA to unveil and critique the associations and connections between language, discursive practices, and wider social practices with socio-cultural practices encapsulating discursive practice which in turn encapsulate text.

TEL has provided rich opportunity for interrogation through a CDA framework. However, focusing on language would have limited this research to conceptualisations of TEL without consideration of how TEL practices conflict and harmonise with—and consequently reframe—discourse. This research has explored both components to identify the materialisations of TEL within institutions that results from these sites of contestation.

Sociomaterial approaches acknowledge tools and technologies as objects that contribute to shaping knowledge and practice (Fenwick et al, 2011) even as they have no means of *undertaking* discourse. Within sociomaterial approaches, humans and objects are not separable; however, discourse frequently presents them in isolation. In applying dispositive analysis, discursive, non-discursive and materialisations operate as separable components: it is important to state that these categorisations are not neatly positioned in opposition. They extend into

one another: they are the means of answering the research questions with an objective to synthesise these components as part of the research process.

CDA contends that ideological neutrality is not possible. Echoing this, my position as a researcher is not to eschew ideological neutrality but to recognise it as part of the research process.

1.8 Summary

In this introductory chapter, I set out the purpose and contributions of this research along with my personal investment in this topic. In the next chapter, I critically evaluate the current literature pertaining to TEL in the post-pandemic period, generative AI in relation to teaching and learning, and the experiences of TEL professionals as challengers to established boundaries within HEIs.

In Chapter 3, I elaborate on my research design, including my methodology, data gathering process, analysis, and ethical considerations. Chapters 4 and 5 present the data findings, which are integrated with discussion points to form a response to the current body of research. Chapter 6 concludes this investigation, presenting recommendations for how the research might inform practice and identifying areas for further research in relation to this study.

Chapter 2: Literature review

2.1 Introduction

This research focuses on the intersection of two different phenomena that have uniquely impacted higher education: the COVID-19 pandemic and generative AI. Whilst these two events operate as paradigmatic of TEL at a particular point in time, they have impacted the sector in different ways. A review of the literature was conducted to understand these two phenomena, their effect on higher education, and the ways in which they have shaped TEL.

A separate strand of this literature review establishes the current body of research on the practice of Technology Enhanced Learning, particularly in relation to TEL practitioners operating within the Third Space of higher education. This strand establishes a foundation on which to ascertain how TEL professionals' practice, social capital, and agency have changed.

2.2 Search process

Three separate searches were conducted using Scopus.

2.2.1 Search 1: Post-pandemic research

This first search strand aligns with understanding how Emergency Remote Teaching (ERT) and COVID-19 have impacted conceptualisations and practices of TEL in the post-pandemic period. Although the World Health Organisation (2023) provided an official end date of the pandemic of 5 May 2023, the post-pandemic period is defined, for the purposes of this research, as autumn 2021, when the second lockdown for UK HEIs ended and learners were allowed to return to campus. It is the notable end of ERT – although universities took slightly different paths to transitioning back to in-person teaching over the course of autumn 2021.

A raft of research, published in late 2021, retrospectively reflected on specific ERT practices and experimentation. My review of the literature was not primarily guided by that activity. Rather, I sought to focus on how ERT impacted TEL conceptualisations and practices from that period into the post-pandemic period. Where I have included studies that centre on 'what worked' during the pandemic, this is to highlight the ways in which ERT has been translated – in other words, how it has continued or not – into the post-pandemic period.

The following search terms were used: "post-pandemic" OR "post pandemic" AND "higher education" OR "universities." Although ERT is a core component of my research, it does not encompass all the components of that period and was not used as a search term.

A filter was placed on this search to capture articles published from 2022 although I make light reference to some literature that was published in 2021 at the beginning of my review as a means of comparison. Focusing on publications from 2022 ensured enough time after the end of ERT for reflection on continuation or cessation of specific ERT practices. Results were further limited to articles and book chapters. A final filter excluding non-UK published articles was applied. However, some articles included in the results captured experiences outside of the UK.

The pandemic was a universal experience for higher education, however, as this research is UK-focused, I was determined to ensure that focus was reflected in my review of the literature. Regardless, where my search results included studies that were conducted in other countries, I made individual determinations if the findings were suitably linked to wider themes found across the research literature.

I have critiqued these studies for what I would consider universal themes that may translate to the UK context, understanding that experiences of ERT – for

example, in Australia, where lockdowns were longer and more sustained – may differ based on governmental decision-making.

After reading abstracts and excluding articles based on their relevance in relation to my point of focus, a final list of nineteen research articles was included for this strand of research. The process of filtering my findings follows:

Figure 2.1. MAP OF FILTERING PROCESS FOR SEARCH 1

2.2.2 Search 2: Generative AI

A second search was conducted in Scopus to establish the body of research conducted into generative AI. Unlike post-pandemic research, which has tapered off over time, generative AI remains an emergent and expanding field of research, with many specific points of focus related to higher education and teaching and learning.

The following search terms were used: “generative AI” AND (“higher education” OR “universities”). Given that generative AI research begins in tandem with its emergence in late 2021/early 2022, I did not filter the results based on time parameters. I excluded any grey literature, focusing on articles in peer-reviewed journals.

Research into generative AI in teaching and learning has exploded since its inception, with the bulk of the research exploring implications for learners. As my research is focused on understanding the ways in which generative AI is impacting TEL practices, studies that centre on student attitudes to generative AI have generally been excluded unless to highlight a corresponding impact on teaching. Some included studies have investigated the ways in which generative AI may change the nature of learning; for example, in relation to how students may or may not use generative AI effectively.

Policies across countries have differed somewhat in relation to generative AI, but this research is not focused on policy, and the general findings have supported my belief that generative AI remains unevenly applied across institutions and is not nation-specific in its enactment within higher education. For that reason, I have not filtered articles published outside of the UK.

As with the first search, my second search then involved reading abstracts to ensure relevance to my point of focus. This resulted in a final list of 27 articles. No further articles were removed after a full read.

The filtering process is depicted below:

Figure 2.2. MAP OF FILTERING PROCESS FOR SEARCH 2

2.2.3 Search 3: TEL professionals

A third and final search focused on TEL professionals. As highlighted in the first chapter of this study, TEL is an eclectic profession. Consequently, using *TEL professional* as a search term does not adequately capture the focus of my research because TEL is comprised of an assortment of roles, few of which include *TEL* in the job title. Consequently, I used the search terms of the two roles most encapsulated by TEL professional – learning technologist and learning designer.

The following search terms were used: ("learning technologist" OR "learning designer") AND ("Higher education" OR "universities").

I did not filter out results based on year of publication because research about TEL professionals is limited and the experiences of TEL professionals over time have been integral to my research interests.

Despite filtering for UK articles only, several UK-based research articles focused on experiences of TEL professionals; for example, in Australia. A thorough read of these articles determined if their experiences resonated with UK professionals' experiences based on the description of the role and were included if deemed appropriate but only insomuch as they focused on the experiences of professionals and not wider sectoral issues which can vary from country to country.

After an abstract review, I created a final list of 32 articles. Two articles were removed upon a full reading of each article as I felt that they were not relevant.

The filtering process including the results is depicted below:

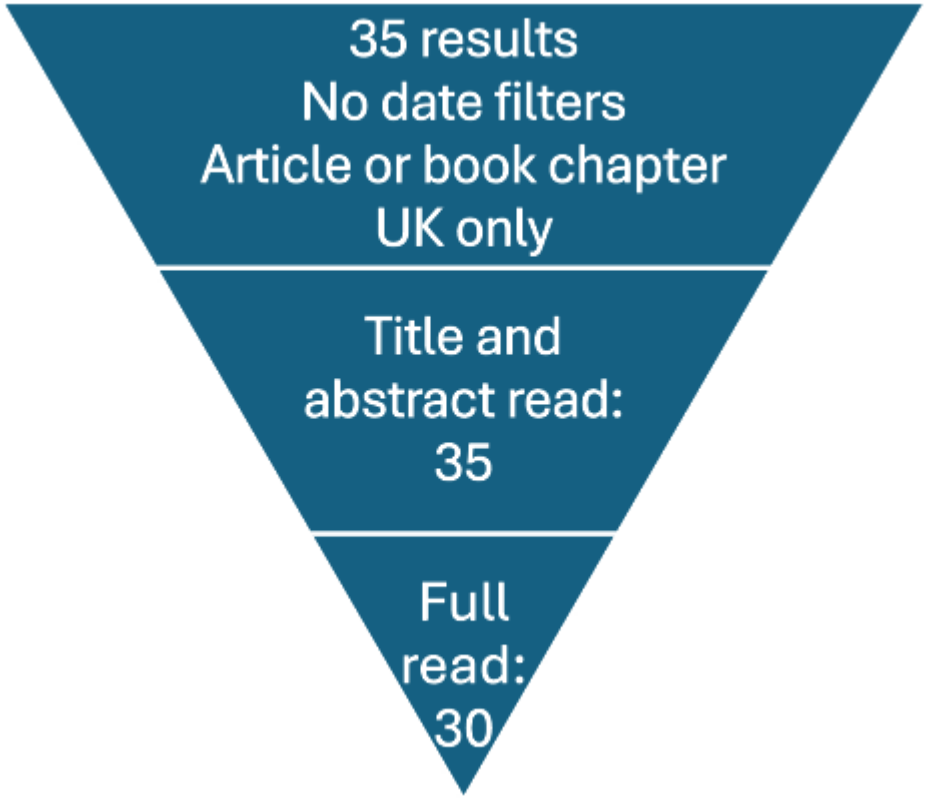

Figure 2.3. MAP OF FILTERING PROCESS FOR SEARCH 3

2.2.4 Second dip: 2025

The initial findings were used to create a first draft of the literature review, written in mid-2024. The initial draft provided grounding for my own research and underpinned my methods. A second review of the research was conducted in April and May 2025 to ensure that new research was captured and incorporated into the literature review.

A second literature search was particularly beneficial when reviewing developments in generative AI research. Whilst the initial literature review focused on applications and perceptions of generative AI with learners as well as speculative work on the impact of generative AI on teaching and learning, the benefit of time has provided more studies on the ways in which institutions have responded to generative AI, the complexities of creating cohesive but

comprehensive policy, and more detailed examples of generative AI used in teaching and learning.

A second dip into the research initiated a light rewriting of the first draft. In addition to revisiting the literature with the benefit of spaced reflection, the revision allowed me to revisit existing research in relation to my findings and to inform my integration of findings with the research for the discussion component of my thesis. I have presented the number of new articles included in the second dip across these three searches which were stored on Scopus.

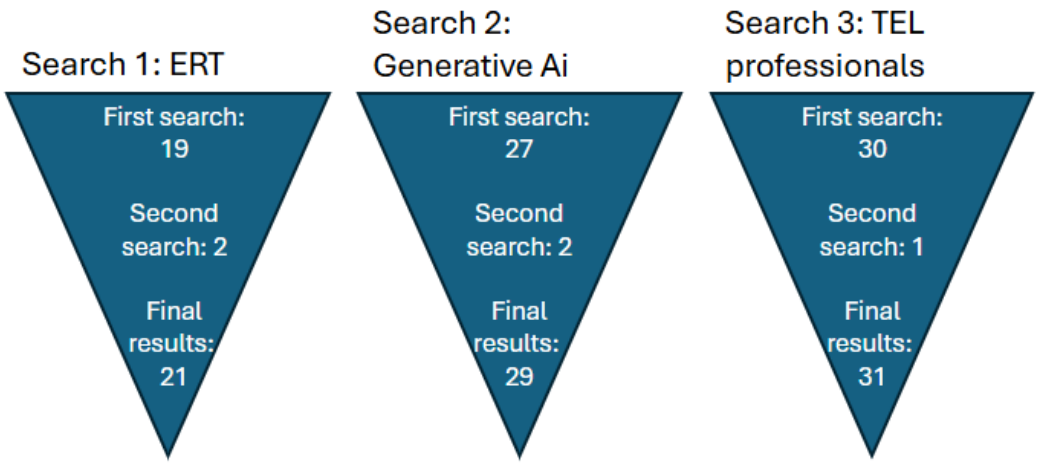

Figure 2.4. MAP OF SECOND DIP AND FINAL RESULTS

2.3 ERT, generative AI and TEL: An overview of the research

I have organised my findings based on the three separate searches of the literature. Although there is some overlap across searches—for example, several research articles investigated experiences of TEL professionals during and after ERT—they are broadly compartmentalised and analysed within these three strands. I will now explore each of these strands in detail.

2.4 Emergency Remote Teaching: Higher education moves online

The COVID-19 pandemic required an immediate global shift to online learning in March 2020 and forced the shut-down of physical campuses across two lockdowns in the UK, ending in the autumn of 2021 with gradual returns to campus from that period onwards.

The form of teaching that was required during the pandemic became referred to as Emergency Remote Teaching (ERT) to distinguish it from what existed before and after that period and to emphasise the special circumstances that warranted that shift. A raft of research into pandemic practices, including surveys of student experience and specific uses of technology for teaching and learning, was published during this period.

An extensive body of literature exists with accounts of ERT practices *in medias res*, demonstrating new practices in TEL from March 2020 to the autumn of 2021, the period that covers both lockdowns in the UK. In these accounts, technology-enhanced experimentation in teaching and learning is positioned within the context of constraints that existed in that two-year period of the pandemic.

Complementing heroic tales of the digital pivot borne of necessity, ERT research from this period consists of investigations into student attitudes to online learning (Oliveira et al., 2021), accounts of increased teacher workload (Erlam et al., 2021), pedagogies of care (Moorhouse & Tiet, 2021), and increased concerns of plagiarism (Oliveira et al., 2021).

Schön's model of reflection has been helpful for me in framing the part of the research that comprises case studies of teaching with technology during the pandemic. It facilitates distinguishing between the way in which ERT teaching

and learning is analysed during ERT and how it is analysed after it ends. This distinction is important when thinking about how one reflects on one's practice whilst practicing and how one reflects after:

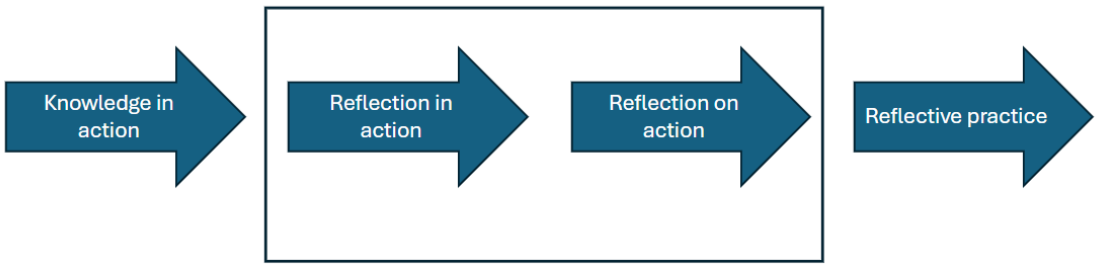

Figure 2.5. ADAPTED FROM SCHÖN (1987) REFLECTIVE MODEL

Applying Schön's (1987) concept of the reflective practitioner, several ERT case studies exemplify *reflection-in-action*, in which purported innovations in teaching practice are immediate and instigate synchronous action and reflection (Schön, 1987): they occur within the alternative universe of the pandemic. Educators rallied, providing ample examples of TEL, but the pandemic was viewed as a novel problem (Bartolic et al., 2021; Broadbent et al, 2023).

Consequentially, these practices may not have translated across to the post-pandemic period because of the unique landscape in which they were applied and evaluated (Bartolic et al, 2021). As these case studies have been published during ERT, it is impossible to know what components of specific examples have been retained and why.

In contrast, post–pandemic literature—published from 2022—is more fixated on the human impact of the pandemic on academic staff and students and is consequently more salient in relation to my own investigation. Retrospectives of ERT (Robson et al., 2022) and literature reviews (Imran et al., 2023) prevail over a deeper assessment of the impact of those practices on current and planned approaches to learning and teaching.

This bifurcation between pandemic and post-pandemic studies highlights how the narrative has shifted quickly from seeking to identify examples of TEL innovation to reflection. It also highlights a lack of *reflection-on-action*, or looking back on practice, which might elicit a different perspective on such exemplars and their applicability in the present or future (Wilson, 2008). Consequently, reflections on how pandemic practices have translated into current learning and teaching are under-examined.

Furthermore, where innovation is explored after the fact, it is focused on specific applications of technology, originating from a need to transition teaching models abruptly for ERT. This research, whilst insightful and explored in the review of the literature, reflects innovation that happened ‘on-the-fly'. There is little to no examination of how these examples of TEL might benefit or disadvantage teaching and learning after the pandemic although the authors speculate on what might be retained. This gap underpins the belief that conceptualisations of TEL should not be conflated with conceptualisations of ERT, further complicating the discernment of what should remain part of ERT and what should carry on (Broadbent et al., 2023).

It is worth noting that the term *innovation* appears prolifically across ERT literature, with varying degrees of critical explication. Within the body of research, innovation commonly refers to ERT practice that extends beyond cursory forms of transferring face-to-face teaching to an online environment or from unsuccessful or unsustainable experiments with technology for learning.

However, there is a wider application of the term *innovation*, which equates digital education in and of itself with innovation (Koroleva & Andreeva, 2024). When viewed in this way, ERT represented a moment when everyone shifted swiftly from awareness of this *innovation* to adopting the innovation out of necessity (Koroleva & Andreeva, 2024).

These applications of innovation are the subject of analysis in the later sections of this paper, particularly in relation to discourse. However, at least on a surface level, we can view ERT as a period in which experimentation with technology for learning was necessary, potentially *opening up* new forms of TEL practice. This section will refer to innovation in relation to examples of TEL practice, particularly during the pandemic, in the way in which they are referred to across the literature itself. There is often little explication of innovation within the research, which poses problems that I interrogate through my findings and discussion.

At the conclusion of the pandemic, JISC, a UK-based organisation that supports tertiary education in the use of technology, disseminated a survey of ERT, *Beyond Blended* (Beetham & MacNeill, 2023). This survey found that students' satisfaction with their education during that period was mixed and, although online learning allowed most students to continue their studies, it was not wholly conducive to a positive learning experience.

Whilst a survey of Omani students' attitudes reflected the same mixed results (Al-Amrani & Al-Ghaithi, 2023), a study of language students in the UK found that students were dissatisfied overall and expressed a loss of self in studying online (Ju-Zaveroni & Lee, 2023). These results indicate the difficulty in generalising student experience and sentiment during that time given the number of factors that might have influenced these perspectives.

Research has also highlighted how ERT disadvantaged some students whilst advantaging others, casting increased attention on digital inequity, and the digital divide as well as accessibility concerns that became more apparent in digital learning environments (Belluigi et al, 2022). Further complicating distinguishing 'what worked' during that period pedagogically is the entanglement of teaching and learning with the wider social impact of the

pandemic, including psychological stress, concerns about the transmissibility of the virus, and increased isolation (Beetham & MacNeill, 2023).

Clarifying what happened within HEIs in relation to wider social upheaval resurfaces that ERT was part of a wider social crisis that impacted the psyche of students and teachers alike (Hall, 2024). In separating that time from the present, ERT has generally been positioned as an anomaly to established teaching and learning (Hill & Smith, 2023; Pishchukhina et al, 2024).

Unsatisfying and underdeveloped shifts to online learning, overworked staff, and poorer student experience were all associated with digital delivery models during this period (Beetham & MacNeill, 2023; Broadbent et al, 2023). The literature highlights this tension, which is both unique to the pandemic and reflective of the wider dichotomy of technology within higher education.

Despite the difficulty in untangling ERT from business as usual, post-pandemic research has explored what elements of ERT may have acted as a catalyst for change to teaching practice (Al-Amrani & Al-Ghaithi, 2023; Bond et al, 2023; Broadbent et al., 2023; Cejnar et al, 2023; Ju-Zaveroni & Lee, 2023; Robson et al, 2022) as well as changes to the perception of academic labour (Hall, 2024; Hristova, 2024; Ivancheva & Courtois, 2024; Lahiri-Roy & Whitburn, 2023; Sai et al, 2024), the perception of space, including in-person versus virtual learning (Danvers & Wells, 2024; Gravett, 2022; Otrel-Cass et al, 2024) and the nature of the relationship between educators and learners (Danvers & Wells, 2024).

Even when viewed as an anomaly, the pandemic increased the visibility of TEL, including potential affordances and limitations of technology for learning (Broadbent et al, 2023). Experimentation with technology for learning increased (Colreavy-Donnelly et al., 2022), although, in the initial stages of the pandemic, keeping as many factors constant as possible provided some relief from the

speed and significance of change (Beetham & MacNeill, 2023) and some ERT practices were viewed as ‘quick fixes’ (Jones-Devitt & Austen, 2022).

More critical interpretations of this same event position institutional responses as imprecise, reactive and exclusionary to many stakeholders (Lahiri-Roy & Whitburn, 2023). Changes to practice derived from necessity rather than intrinsic motivation, compounded by an increasingly complex pastoral role, expanding the already heavy burden on higher education staff (Hristova, 2024). In a further delineation of experiences and responsibilities during that period, the increased duty of care for students was borne predominantly by female academics (Sai et al., 2024).

The pandemic exposed longstanding tensions within established HEI knowledge structures, particularly in relation to the agreed responsibilities of academic staff and professional services staff, as well as faculty autonomy versus centralisation (Hristova, 2024). This period elicited increased awareness of staff mental health and psychological safety, with an ethics of care sitting in contrast to neoliberal and new managerial approaches to institutional leadership (Sai et al, 2022) that persisted despite this awareness.

Increasing pressure to perform in a target-driven environment—framed by metrics rather than dedication to transformative teaching— resulted in academic exhaustion and malaise directly associated with increased distrust of leadership which has manifested in small forms of resistance (Jones, 2025). Technology has been central to this divide.

Although technology ostensibly made academics’ lives easier, if not viable, during the pandemic, thus potentially mitigating anxiety and stress, it has also been weaponised, with a correspondingly deleterious effect on staff mental health through the facilitation of increased managerialism, datafication and

reporting, and quantification of labour and accountability (Hall, 2024; Sai et al., 2024).

Despite these challenges, the response of HEIs during this period attests to the ability of higher education to rapidly effect change at all institutional levels, made manifest through technology (Broadbent et al., 2023). A rapid sectoral response conveys the potential for increased agility within higher education, sparking anticipation for more longstanding change within the sector, and tapping into the speculative and futuristic nature of TEL: its 'not-yetness' (Ross, 2024).

2.4.1 Lessons from the pandemic: Innovations with TEL

Retrospectives within the sector acknowledge the pandemic as a unique and unprecedented chapter within the history of higher education. Although admirable experimentation with learning and teaching derived from that period, isolating pedagogical practices from the context of wider social crisis challenges fully formed evaluation of ERT (Broadbent et al, 2023; Papageorgiou et al., 2024). A review of the literature seeks to establish the scale and longevity of changes to teaching practice resulting from the pandemic.

Although research exploring ERT pedagogical *innovations* was published during the pandemic, post-pandemic literature potentially provides more clear-eyed assessment of examples of ERT experimentation, including the benefit of observing which practices should continue after the fact and which should be consigned to teaching in a crisis. Those examples that provide analysis of the viability of ERT experimentation into the post-pandemic period have been included in my review. I have already discussed the problematic use of the term innovation which will be challenged and reconceptualised in my findings and discussion.

A study by Bond et al, (2023) focuses on the changes made to delivery of anatomy teaching at a British university during the pandemic and the ways in which the use of technology carries on past the end of the pandemic. Although many of the alterations made during ERT were considered temporary fixes, certain pandemic practices, like virtual dissection, were deemed an improvement on previous delivery models. Despite this, overall online learning was perceived as damaging relationships with students and hampered the ability of lecturers to identify struggling students.

Language learning poses some specific challenges in supporting students, particularly in an online environment. A case study of shifts in digital pedagogy to support foreign language learners in a UK university highlights how technology was used to reconfigure assessments (Ju-Zaveroni & Lee, 2023). An e-portfolio facilitated personalised approaches to cataloguing learning, in which learners were able to be creative with their assignments, and the establishment of a class wiki fostered social learning. In one case, a student created a series of YouTube videos as part of a vlog to track her progression in speaking Korean. The authors point out that this format allowed her to extend her learning beyond the classroom and into public forums, changing what would otherwise be a closed community of the classroom.

In one study, Microsoft Sways were used to address the shortening of lectures as they moved online, creating a flipped learning approach (Chaudhury, 2023). Sway is a Microsoft application that supports various content formats including video and image embedding and flip cards. Sways were sent to students in the form of stories and case studies in advance of their lectures and required them to prepare to discuss these stories in their lecture. The Sways then became part of a repository of content that could be repurposed quickly across cohorts.

These studies indicate that, although many innovations arose from necessity, they reflect a shift in established approaches to teaching, with an emphasis on wider incorporation of flipped learning across disciplines (Robson et al., 2022).

New pedagogical approaches during this period not only attempted to find short-term solutions to issues of engagement as learning moved online but also sought to develop creative and alternative approaches to disciplinary-specific delivery that were created with the intention of providing richer learning experiences beyond the pandemic. One such example is the use of Virtual Reality (VR) to reconstruct Joyce's Dublin for learners studying the famously challenging novel, Ulysses (Colreavy-Donelly, 2022).

This tool allowed learners to navigate the streets of Dublin, accompanying each of the characters and accessing their interior monologues in an unstructured way. The tool's creators found that this distinctive and visceral approach to Joyce's novel increased engagement and fostered deep discussion. Furthermore, the disaggregation of characters' monologues, learners were exposed to the novel in ways that diverged from a traditionally linear approach.

Despite some research identifying ERT *innovations,* other research positions these practices as small-scale adaptations to pre-pandemic practices (Bond et al, 2023; Walker & Voce, 2023). An Australian study of UK lecturer practices during and after the pandemic highlights that many educators have foreseen a general return to business-as-usual although 82% of the lecturers surveyed expected to keep at least one pandemic practice for good (Broadbent et al., 2023). These findings reveal incremental shifts with a desire to retain core practices. Such findings are not intended to convey that change or innovation did not happen. One of the objectives of this research is to identify how the research and TEL practitioners' experiences align with or diverge from the way that innovation during the pandemic is conceptualised.

Assessment provoked the most significant design challenge for higher education (Broadbent et al., 2023). Attempts to shift in-person assessment online— for example, proctored exams—underscored the flaws in established assessment practices. An easing of the standard assessment processes within institutions facilitated changes to assessment during this period (Broadbent et al., 2023).

A focus on the duty of care to students recognised the stress induced by high-stakes assessments and the potential incursion of privacy of invigilated exams, along with an awareness that the pandemic exacted a significant personal and emotional toll on students (Bartolic et al, 2021). Consequently, alternative forms of assessment and scaffolded and continuous assessment increased (Broadbent et al., 2023).

On the other hand, concerns about increased plagiarism associated with online exams have raised educators' concerns and this has continued into the post-pandemic period, with issues relating to academic integrity (O'Dea & Zhou, 2022). Unsurprisingly, during this period, HEIs renewed their focus on authenticity of assessment. This was an inevitable byproduct of the necessary reconfiguration of assessment during ERT (Broadbent et al, 2023).

Given its conceptualisation, *authenticity* is highlighted as a problematic if commonly used term in HEIs. Aligned with conceptualisations around employability, authenticity has translated into an intensifying focus on preparing students for the real world (Villarroel et al, 2018). In her work, McArthur (2023) points out that the conflation of the real world with the world of work has become a common frame of reference for higher education, to its peril.

Authenticity framed in this way risks reductionist approaches to assessment that overlook wider transformative objectives for learners (McArthur, 2023). Such approaches also provoke discussions of what the real world might comprise,

with an insinuation that HEIs sit outside of and separate to the real world. The pandemic has refuted the concept of academia's isolation from wider social, economic and political dimensions that characterise the 'real world.'

Challenges to assessment continue to test HEIs in the post-pandemic period, with generative AI posing new questions regarding effective and authentic assessment (Papageorgiou et al., 2024), along with a desire in some quarters to revert to invigilated exams. I will explore this further in the generative AI section of this literature review.

2.4.2 A sense of location

A sub-section of post-pandemic literature investigates the changing perception of the student experience in relation to the physical campus. As restrictions loosened on most UK campuses in the latter half of 2022, the return to in-person teaching was inconsistent and incremental. Student attendance, particularly for lectures, remained low in the early post-pandemic period (Danvers & Wells, 2024).

According to Gravett (2022), the university has traditionally been a closed space, encapsulated in the campus, as a delineated and highly conceptualised sphere: as with other components of higher education, the pandemic has fragmented the concept of location within teaching and learning, proffering examination of what it means to attend university.

The 'homeification' of learning, a core component of the learning experience during the pandemic, has also changed students' perceptions of the *where* of their learning (Danvers & Wells, 2024) and institutions find it difficult to navigate the balance between physical and digital space, including how to manage peer-to-peer learning, the university lecture, and the allure of the campus that is difficult to articulate but is heavily conceptualised and promoted in university discourse nonetheless.

Whilst learning at home during university lockdowns created disparities in student experience, with some students finding studying at home difficult and distracting (Beetham & MacNeill, 2023), research indicates that learners have become accustomed to navigating different learning spaces that span diverse locations and that incorporate formal and informal space (Danvers & Wells, 2024). However, O'Dea and Zhou (2022) have identified that appropriate behaviour for online learning has yet to be codified. This spurs conversation about how learning should 'translate' across spaces, which behaviours might be universal, and which might be specific.

It is worth noting that virtual working also impacted HE workers, unsettling their ways of working with colleagues and dismantling boundaries to open up new collaborative opportunities and vulnerabilities (Watermeyer et al, 2023). Papageourgiou et al (2024) emphasise that this disintegration of physical and virtual spaces will increasingly impact how institutions design teaching and learning. They believe that learning will become progressively more hybrid and delineations between the physical and virtual campuses will consequently, become more contentious.

2.4.3 Interpretations of TEL

The pandemic has fueled a significant interest and investment in digital learning that has continued after the pandemic receded (Al-Amrani & Al-Ghaithi, 2023; Walker & Voce, 2023). The emphasis at most institutions on digital transformation both encompasses and diverges from TEL to include wider considerations, like digital infrastructure and integration of systems (Walker & Voce, 2023). This distinction has become more acute in post-pandemic higher education as institutions recognise the importance of a digital ecosystem which supports the use of learning technologies but does not necessarily equate with digital education and learning and teaching with technology.

Walker & Voce (2023) investigate which practices from ERT are being carried forward within institutions, from the perspective of heads of TEL departments. Their interviews with TEL professionals combined with and informed by UCISA survey data indicate a concerted and increased investment in technology and roles to support that technology—in the form of TEL professionals—but not necessarily the investment in staff professional development to foster acceptance and associated required competencies.

Walker and Voce (2023) identify a general sentiment that the pandemic increased the use of blended learning, to such a point that it has become invisible and unarticulated. This is reaffirmed by Hill and Smith (2023) who argue that everything is now blended in some capacity. Whilst some modalities that were speculated to continue past ERT have died away—for example, hyflex learning—many innovations have continued and become imperceivable in the continued push to blended learning, along a spectrum of digital and non-digital.

Clark (2023) applies Critical Discourse Analysis of several policy papers published within the UK higher education sector to identify the rhetoric of educational technology during the post-pandemic period. His analysis includes two publications by JISC – *Learning and Teaching Reimagined* (2020) and *Digital at the Core* (2020) – along with one publication from Office for Students, *Gravity Assist* (2021) and another from Universities UK, *Lessons from the Pandemic* (2021). In his analysis, technological determinism has led to positioning technology as in service to an expanding and exploitative neoliberal agenda that has debilitated UK higher education and has worsened since the pandemic.

Clark's (2023) findings identify three core themes proffered by the sector in relation to TEL: transformation, social justice, and economic reimagination. In his critique of transformation discourse, Clark questions the underlying belief that technology will fix a broken system, not insomuch because higher

education is perfect but more so that technology can solve the myriad problems facing the sector.

Clark notes the increasing prominence given to data as a means of evaluation, with perceptions that technology will provide comprehensive data that can be aligned to institutional and sectoral metrics. In tandem with this, collecting student data has become more normalised and the associated increased dependency on technological corporations more legitimised. This component of increased datafication as a part of strategic decision-making is justified by both the supposed transformational effect of technology and the economic imperative that has become more urgent as institutions emerge from the pandemic.

Covert collection of student and staff data sits in stark contrast with—and yet is further legitimised through—a social justice agenda in which higher education has ostensibly become more accessible to a wider cross-section of students. Data collection, Clark argues, is seen as a necessary mechanism for more effective and targeted student support, to identify necessary interventions for students who struggle with attainment; consequently, accessibility discourse and widening participation normalises incursions into privacy.

Technology purportedly transforms delivery models and widens access through choice, where different modalities are part of a push to personalise learning to suit the preferences and needs of a diverse student population (Clark, 2023; Hill & Smith, 2023). Tethered to this, the desire to further personalise learning – a conceptually slippery term – legitimises the collection of increasingly comprehensive student data and is positioned as empowering students to tailor learning to their individual context. Clark (2023) highlights how, even as far back as JISC's *Learning and Teaching Reimagined* in 2020, artificial intelligence is presented as the promising, next catalyst for further personalisation of learning.

Despite the inclusion of documents published at the beginning of the pandemic, these themes continue to resonate in the current landscape of higher education (Clark, 2023).

2.4.4 Digital skills in relation to TEL

A sub-section of the literature focuses on the way in which the pandemic exposed sector-wide lack of digital skills in teaching and learning overall as well as in a disciplinary-specific context (O'Dea & Zhou, 2023; Webb & Layton, 2023).

As highlighted in a previous section of this chapter, many educators decided to retain a small percentage of their online practices, including discussion forums and self-paced activities to complement on-campus teaching as well as more considered development of instructional videos (Broadbent et al., 2023). This would seem to support a narrative that there has been some overall—if incremental—progress in educators' digital skills because of ERT (Walker & Voce, 2023).

Arguments that students' digital skills increased during the pandemic are tempered by research that reveals a more complex landscape. According to a study undertaken in a Chilean higher education institution by Charbonneau-Gowdy et al. (2023) for some students, online learning provided more control and convenience over how and when they learned but this was contrasted with concerns that ERT was insufficient to provide them with the necessary knowledge and skills to secure a job in an increasingly uncertain job market. Furthermore, the transactional distance between learners and educators created an atmosphere of distrust that has been compounded by the arrival of generative AI.

Beetham and MacNeill (2023) present two conflicting but overlapping themes in attempting to encapsulate student experience during the pandemic: an

enjoyment of the flexibility and convenience afforded by learning online and a sense of isolation and lack of engagement wrought by both the nature of online learning and wider social considerations of confinement during lockdown.

The inconsistent digital capabilities of academics and institutions during ERT exposed the urgency of addressing digital illiteracy and lack of digital skills in the post-pandemic period. The arrival of generative AI has amplified these concerns.

2.5 Generative AI arrives and chaos (again) ensues

Arriving within months of a sector-wide return to campus, generative AI has elicited further disruption to higher education practices (Jensen et al, 2025). The timing of generative AI's arrival has compelling implications, just after the pandemic and during a period of significant post-pandemic fatigue within academia (Watermeyer et al., 2024).

In their study, Jin et al, (2025) posit that generative AI has the potential to transform teaching and to facilitate innovation in practice. Its potential also fosters uncertainty: generative AI compounds the larger challenges facing the sector and has contributed to recalibrating the post-pandemic role of technology in teaching and learning. In contrast to the cohesive response to the pandemic through a sectoral transition to online teaching and learning, generative AI has confounded institutional processes, exposing diverging initial responses – from an outright ban of generative AI in some institutions to encouragement to experiment and investigate appropriate uses in others (An et al., 2025).

Generative AI is likely to continue to develop, expand, and become more entrenched within and beyond higher education, with implications for how educators will educate as well as what will constitute teaching and learning. If post-pandemic research has not provided compelling *reflection-on-action*,

generative AI has presented significant research into *reflection-for-action*, with a raft of literature published in recent months and highlighting initial, emerging applications of Generative AI in teaching and learning within higher education (Abbas et al, 2024; Moorhouse & Kohnke, 2024; Pesovski et al, 2024; Zhao et al, 2024).

Reflection-for-action looks backward and forward (Schön, 1987), examining what has transpired but also anticipating what might occur as a result. At present, the bulk of generative AI literature has focused on prognostication and speculation, with only more recent research delving into applications of use. However, as the body of research builds, there is ample opportunity to look back to early generative AI applications to guide future use.

2.5.1 Generative AI and learning

Research into generative AI applications in teaching and learning is nascent in comparison to studies gauging attitudes to generative AI. The literature provided a mixture of case studies of applications of generative AI as well as learner perceptions of generative AI as an aid in their learning. Alongside this, some research intends to support educators, by mapping generative AI use against existing pedagogical frameworks; for example, Zimmerman's Self-Regulated Learning framework (Chang et al, 2023) and Bloom's Taxonomy (Koh et al, 2023).

At best, generative AI may increase efficiency in learning, providing cognitive offloading of simpler tasks so that learners can focus on more complex tasks. Essien et al. (2024) found that business school students used generative AI to free up mental capacity for higher order skills through the offloading of simpler tasks. In addition, the same study highlighted that generative AI could, in a limited capacity, support critical thinking skills.

There is little consensus on how to balance the potential benefit of cognitive offloading with the prospective danger of losing opportunities to develop critical thinking and problem-solving skills independently (Atchley et al., 2024). Zhao et al. (2024) draw attention to the use of generative AI in writing and the potential loss of learning through cognitive offloading where its capability to increase efficiency comes at the cost of reducing the development of critical thinking.

A survey of students in Pakistan higher education highlighted that ChatGPT is most often used to combat the stress of a heavy workload (Abbas et al., 2024). Regardless of any immediate support generative AI may offer students in the short-term, the authors also identified that students who used ChatGPT were more likely to procrastinate and less likely to retain what they have learned. Consequently, although generative AI may offer short-term assistance by mitigating anxiety, it does not instil sustainable capability to self-manage learning.

A study by Knoth et al (2024) found that many learners demonstrated a tendency to anthropomorphise generative AI, reflecting a view that these tools operate as more knowing conversational partners. Positioning generative AI tools in this way elicited briefer and lower-quality prompts, indicating that prompt engineering is an essential but undeveloped skill amongst learners.

Koh et al. (2023) argue that generative AI cannot foster critical thinking without educator intervention, particularly as generative AI is applied in the higher order thinking skills identified in Bloom's taxonomy. They evoke the integral role of the instructor in shaping learners' understanding and application of generative AI through a dialogic form of teaching and learning. A study by Delcker et al (2024) indicates that the perceived ease of access and use of generative AI by learners may hinder the critical appraisal and application of tools.

Educators have a key role to play in formulating learners' critical frameworks for using generative AI appropriately (Kurtz et al, 2024). However, many educators feel that they have not received enough guidance from their institution regarding appropriate use of generative AI and consequently, believe they are ill-equipped to impart these skills to learners (Lee et al, 2024). Instructional designers are recommended to consider demonstrating how different AI tools can be used to support effective learning as generative AI becomes more prolific in curricula (Delcker et al, 2024).

Several studies have highlighted generative AI's potential to provide comprehensive personalised learning (Pesovski et al., 2024; Yusuf et al., 2024) although application is currently emergent. Despite being ill-defined and under-conceptualised, personalisation of learning has been a longstanding ambition within higher education, with perceptions that technology has the capacity to realise ambitions around personalisation (Clark, 2023; FitzGerald et al., 2018). As highlighted earlier in this chapter, personalisation is vaguely defined. I will interrogate the term personalisation later in this research. In relation to generative AI specifically, personalisation includes potentially adaptive and responsive curriculum design models that reflect the goals and capabilities of the learner (Padovano & Cardamone, 2024).

One of the most evident ways in which generative AI purportedly personalises learning is through instant and targeted feedback that extends beyond testing content knowledge (Pesovski et al, 2024). Generative AI may act as a tool to elicit judgement of learning at an individual level increasing engagement and attainment (Pesovski et al, 2024). Although still largely unexplored, ChatGPT potentially supports self-regulated learning through targeted reflective questions (Chang et al., 2023).

Whilst this research highlights the prospective ways in which learners and educators might put generative AI to best use, there is not yet a substantial

enough body of literature on which to draw to make significant conclusions. Regardless, HEIs are currently in a period in which active pedagogical experimentation with generative AI should be encouraged (Kurtz et al, 2024), in part so that it can inform research and application. Such experimentation will be underpinned by studies such as those included in this review, which highlight the nuance with which generative AI tools may be effective from a learner and pedagogical perspective.

2.5.2 Generative AI, academic integrity, and assessment

Although generative AI purportedly has the potential to enhance and innovate teaching and learning (Jensen et al, 2025), this is balanced against concerns of overreliance and overuse (Lee et al, 2024). Furthermore, HEIs worry about generative AI's potential to disrupt the core values and principles of higher education, mirroring wider themes of digital disruption (Jensen et al, 2024).

Academic integrity grapples with generative AI in the context of teaching and learning (Rasul et al, 2023; Sullivan et al., 2023) as cases of plagiarism and academic misconduct have purportedly exploded since the pandemic, compounded by a shift to digital assessment that accelerated during lockdown (Broadbent et al., 2023). These developments have potentially hampered attempts to digitally innovate assessment, with some educators adopting an avoidance stance to generative AI use, reflected in a return to invigilated examinations to combat misconduct (Sullivan et al, 2023).

Written forms of assessment are particularly vulnerable to AI-based plagiarism (Mamo et al., 2024; Zhao et al, 2024) and efforts to combat inappropriate use of generative AI in assessments, particularly with AI detection tools, have thus far proved fruitless. However, as noted in the previous section of this literature review, a return to invigilated exams potentially impedes efforts to provide richer, more authentic forms of assessment that better prepare students for life after university (Koh et al., 2023).

The issue of plagiarism is pressing and has potentially exacerbated issues of trust between lecturers and students. A study by Yusuf et al. (2024) reveals that approximately 20% of students surveyed stated that they would use generative AI to plagiarise in future. Essay-based assessments are unsurprisingly most likely to have been completed with the assistance of generative AI (Kolade et al, 2024). Evidence suggests that instructors have become more sceptical of the authenticity of assessment submissions (Perkins et al, 2023), consequently stricter in their marking, and more judgmental when they see both badly written and well-written submissions from students (Farazouli et al, 2023).

This mistrust is bi-directional: students are concerned that the ways in which they use generative AI will expose them to accusations of academic misconduct (Zhao et al., 2024). Such concerns may result in reluctance by some learners to use generative AI, even when encouraged to do so by instructors out of concern that they are being tricked into misconduct.

These logistical hindrances to academic integrity in assessment cascade into philosophical debates about the purpose of assessment, the value of a university qualification and increasingly, how both assessment and university qualifications might prepare students for the world of work. Digital forms of assessment may offer benefits to students, including reflecting real-world applications of digital skills and fostering confidence in using technology in different contexts (Bearman et al., 2022). Generative AI amplifies the need to think about how assessments prepare students to use digital tools effectively and ethically.

Although generative AI has challenged assessment on a general level, it has also initiated a positive provocation for redesign of assessment (Lee et al., 2024). Incorporation of generative AI may foster greater authenticity in assessment by acting as a More Knowing Other (MKO), in which targeted

diagnostic feedback provides learners with expansive opportunity to apply, test, and regulate knowledge through multiple means of formative assessment (Rasul et al, 2023).

Whilst there is a general recognition that an outright ban of generative AI tools is not sustainable or appropriate in a teaching and learning context, there is little understanding of how these tools may be used in assessment. This uncertainty reflects the wider nascence of generative AI applications weighted in complex decisions about how to identify and tap into the benefits of generative AI whilst not undermining the learning experience of students or diminishing the value of assessment as an evaluation of learning (Moorhouse & Kohnke, 2024).

Although authenticity has become conflated with employability as the core objective of assessment (McArthur, 2023), generative AI may help to rethink established approaches to and perspectives on assessment that extend beyond regurgitation of information to demonstration or explication of how a learner reached a particular conclusion or outcome (Kolade et al, 2024). This shift focuses on the process rather than the product of learning and requires reflection on the part of the learner that extends beyond and adds significance to any output.

Generative AI also offers an opportunity to rethink the intentions of assessment. The high-stakes final exam has been identified as a substandard measure of student attainment in most contexts, and the potential benefits of continuous assessment have already been investigated and are already used in some disciplines (Papageorgiou et al., 2024). However, continuous assessment can be difficult to support with large class sizes due to increased demands on academics' time.

There is scope for generative AI tools to support continuous assessment as tools become more reliable, and as they become better at operating as More

Knowing Others (Rasul et al, 2023). They may foster individualised and more immediate feedback for learners, that could encourage the use of continuous assessment. On the other hand, generative AI's ability to support these components of an educator's role only reinforces concerns that academics may become redundant or that the pedagogical elements of an academic role may become automated (Watermeyer et al, 2023).

2.5.3 Privatisation and surveillance

Within HEIs, a technological ecosystem has evolved, encompassing operational aspects of the university, including enrolment, assessment, learning management systems, and learning technologies. Supporting this ecosystem has become increasingly challenging and time-consuming for HEIs; complicated and entangled technological infrastructures have resulted in outsourcing resources and curating a growing list of technology suppliers, with the pandemic only exacerbating this imbalanced relationship (Williamson & Komljenovic, 2022). As procurement of technologies for learning has become more complex, university strategies have become increasingly focused on investment in digital infrastructure and EdTech providers have reaped the rewards.

The EdTech market continues to evolve rapidly and its hold on HEIs represents a wider shift to a rentier economy based on access to and gatekeeping of tools (Komljenovic et al., 2024). Associated with this, universities invest in technology but often find that the increased labour to support and use these tools outstrips its perceived value despite claims that technology can increase universities' efficiency (Komljenovic et al., 2024).

Generative AI has expanded the EdTech market, adding complexity and a tyranny of choice. As AI has become increasingly foundational to EdTech products, there is heightened concern about whether underlying algorithms are reliable, fostering concerns around trustworthiness (Kousa & Niemi, 2022). The

ethical implications and the corresponding impact on students are grounds for further investigation.

Educational licensing of generative AI tools is the most recent challenge posed for HEIs in relation to digital procurement. In their editorial piece, Concannon et al. (2023) speculate that generative AI will expand the presence of EdTech providers, increasing the privatisation and marketisation of education.

These issues translate into commercial opportunities for private corporations to benefit from higher education's dependency on vetted licenses for learners and staff. Digital inequity became a hallmark during the pandemic, highlighting that many students did not have access to necessary tools and technology to support their learning. Generative AI may reinscribe this inequity through its paid and free licensing structures, resulting in varying quality levels for users based on affordability (Rasul et al, 2023).

Although this research was published just as generative AI tools were becoming more ubiquitous, there are already indications that generative AI will further impact established tensions circulating between EdTech and higher education:

> In relation to generative AI and AI processes, one participant noted significant debate about the impact on and adjustment of HE practices (e.g. teaching and assessment) and the absence of discussion about who owns these technologies and future monetisation models. (Komljenovic et al., 2024, 29)

The ways in which generative AI providers might operate within higher education remain nebulous in relation to capture and curation of student data. The increased presence of private EdTech companies in academia has already nurtured the assetisation of learning technology, in which user data is owned and monetised by private for-profit providers (Jones-Devitt & Austen, 2022; Williamson & Komljenovic, 2022). How generative AI might extend and

complicate that assetisation is yet to be delineated (Kousa & Niemi, 2022). Such concerns signal back to the increasing rentier economy, amplified and accelerated by the pandemic (Clark, 2023).

2.5.4 Generative AI and academic tasks

An analysis of 50 US universities highlighted that institutional guidance was generally more receptive to instructors using generative AI for teaching when compared to students using generative AI for learning (An et al, 2025). Generative AI has the capacity to reshape instructors' practice for the better, aiding in lesson planning and suggesting alternate approaches to meeting learning outcomes (Kumar et al, 2024; van den Berg & du Plessis, 2023).

As with wider technology discourse, generative AI is positioned as solving issues stemming from the lack of resources that plague higher education. A survey of the literature reveals that applications of generative AI in learning are a more significant area of exploration when compared to using generative AI for course design, but a growing body of research is investigating how generative AI may be used to support the development of course content.

The ability to brainstorm and ideate with ChatGPT in a pedagogical context could unleash new creative approaches to course design (Moorhouse & Kohnke, 2024). In their study of how human-AI collaboration could produce adaptive and targeted curricula, Padovano and Cardamone (2024) investigate the contributions of generative AI to shaping competency-based curricula in engineering. They argue that generative AI can facilitate quick, iterative updates to the curricula to reflect changes in the workplace and maintain qualification relevancy. Furthermore, increased use of generative AI for curriculum development could counter the staffing constraints that might hinder the design and development of new curricula and updating of existing programmes.

The potential affordances of generative AI for teaching are counterbalanced by anxiety over the way in which generative AI might supplant instructors and devalue academic labour (Watermeyer et al, 2024). A sentiment analysis of academics' posts on social media platform X reveals concerns that generative AI poses a direct threat to educators (Mamo et al., 2024) as increased automation of pedagogical processes leads to the whittling away of academic work.

Despite these concerns, the reliability of generative AI limits its ability to fully supplant components of curriculum design and development. For example, generative AI's algorithms have not yet captured a representative cross-section of the population to foster inclusivity in its output. In their investigation of ethical applications of AI by EdTech companies, Kousa and Niemi's (2022) interviews with AI providers highlight that current algorithms are primarily based on the average learner and consequently, do not incorporate diverse cultures, barriers to learning or demographics.

Finally, purposeful design and re-design of curriculum might comprise discernment of what elements of learning could and should be effectively outsourced to generative AI. For example, guiding students on how to use generative AI appropriately, including imparting AI literacy in learners, will be the responsibility of educators (Koh et al, 2023; Knoth et al., 2024). Wider discussions about how educators become more digitally literate to impart those skills to learners are aligned with wider pedagogical questions elicited by the arrival of generative AI.

Teaching with generative AI remains generally untested terrain (Gonsalves & Acar, 2025) and generates anxiety in academics who may feel uncertain about the repercussions of its incorporation into teaching and learning from a pedagogical perspective. As with technology in teaching and learning more generally, many academics will adopt a wait-and-see approach to using

generative AI in the classroom. Even where institutions give instructors the freedom to decide how and when to use generative AI based on their context, the ability to do this effectively may extend beyond the capabilities of individual instructors as incorporating generative AI requires technological knowledge and the ability to connect that knowledge with disciplinary knowledge (Wang et al., 2024).

2.6 TEL professionals: Challenging the boundaries of knowledge structures

Preoccupied with both translations of ERT into current discourse and practice and generative AI's emerging impact on teaching and learning, TEL professionals form the third component of this literature review. TEL professionals span sectors (North et al, 2021); however, TEL professionals in higher education provide specific examples of how TEL is conceptualised and practised. Consequently, the research is limited to this specific sector.

2.6.1 TEL roles are nebulous

TEL professionals comprise an assemblage of roles that straddle pedagogy, professional services, and technology, reflecting the ambiguity of their contributions within the wider knowledge structures of HEIs. Learning technologist, learning designer, e-learning content creator, online programme manager and digital project manager represent a comprehensive—if not exhaustive—list of titles held by TEL professionals across and within institutions.

In his work exploring the many identities of a learning technologist, Dickerson (2024) lists no less than twenty common titles held by those whose remit is technology for learning in an academic environment. Alternatively referred to as Third Space professionals (Whitchurch, 2008) and 'new professionals' (Oliver, 2010) these roles are evolving and nebulous, operating within liminal spaces that test the dichotomy of academic and non-academic roles (Whitchurch, 2018; White et al., 2020).

As these roles are ill-defined, they engender scope for role development (Oliver, 2010; Heggart & Dickson-Deane, 2022) but also elicit anxiety for both the role holder and those with whom they interact (Livingston & Ling, 2022). When examined through the lens of traditional knowledge structures within HEIs, TEL professionals may fall under one of several categories of Third Space workers as highlighted by Whitchurch (2008), based on how they extend across boundaries:

Categories of identity	Characteristics
Bounded professionals	Work within clear structural boundaries
Cross-boundary professionals	Actively use boundaries for strategic advantage and institutional capacity building
Unbounded professionals	Disregard boundaries to focus on broadly-based projects
Blended professionals	Dedicated appointments spanning professional and academic domains

Table 2.1. ADAPTED FROM WHITCHURCH (2008): CATEGORIES OF IDENTITY FOR THIRD SPACE WORKERS

Along with other Third Space professionals, including academic developers, student support workers, and careers advisors, TEL workers not only challenge the delineation between academic and non-academic, but they also threaten academic sanctity as they are indicative of the unbundling of the academic role (Whitchurch et al, 2018).

In addition to the assortment of roles that comprise TEL, different TEL-related roles may comprise diverse remits across institutions (Ellaway et al., 2006). Two of the most prevalent TEL roles, learning technologist and learning or instructional designer, may undertake some combination of backend Virtual Learning Environment support, staff digital upskilling, curriculum design, data analytics, and media and content creation. Consequently, learning technologists and learning designers may be required to have some combination of technical

skills, project management skills, and relationship management skills, with levels of proficiency falling across a spectrum (Ellaway et al., 2006).

Reflecting the amorphous nature of the profession and the embeddedness of learning technologies across higher education, the Association for Learning Technology (ALT), the UK-based professional community for those working with learning technology, states: “We believe that you don’t necessarily need to be called ‘Learning Technologist’ to be one” (ALT, retrieved 2024). Such statements highlight not only the ambiguity of learning technology-related roles but also indicate the disaggregated nature of learning technologies within higher education.

Given their ability to potentially shape their roles, TEL professionals experience both marginalisation and empowerment, as they resist compartmentalisation (Han et al., 2023; Oliver, 2010), and are potentially located in professional services, centres for teaching and learning, faculties and schools. Role ambiguity has limited the credibility and respectability of TEL professionals beyond their own community, particularly as they operate within a prestige economy (Watermeyer et al., 2021a).

Within prestige economies, academics are motivated by alignment with their disciplinary identity and see greater value in imparting disciplinary knowledge – through teaching and research activity – than in income generation (Blackmore & Kandiko, 2011). These motivations may exacerbate the tension between academics and TEL professionals, particularly where academics perceive technology as ideologically tethered to income generation and cost-cutting initiatives mandated by leadership.

When operating within a prestige economy, TEL professionals may impart knowledge within the pedagogical domain but be viewed by academic peers as operating outside of this domain. This perspective underpins the imbalanced

relationship between academics and TEL professionals. For example, in their study of learning technologists in healthcare education, Han et al. (2023) contend that power differentials place learning technologists in the roles of servants to academic masters. Consequently, TEL professionals often come to collaboration with academics as negotiators and must develop associated skills as part of their ability to effect change.

In addition to potentially devaluing other contributions within a university ecosystem, the prestige economy can create distrust of centralised mechanisms of control, represented by Third Space roles that may sit outside of disciplinary camps, depending on university structures (Livingston & Ling, 2022; Tay et al, 2023). TEL professionals may be particularly vulnerable to these tensions as they provide pedagogical knowledge without necessarily holding the credentials that would give them recognition as domain experts (Han et al, 2023).

Mirroring the pervasiveness and growing complexity of technology within academia, TEL professionals' requisite knowledge has expanded (White et al., 2020). A study of learning technologists at City University London highlights the significant increase in technological knowledge and skills expected of learning technologists now when compared to their identified knowledge and skills in the JISC survey of new specialist roles in HE published in 2001 (Fox & Sumner, 2014).

Taking on new responsibilities and knowledge specialisms is seen as pivotal to being successful in developing intra-institutional relationships, a key component of the learning technologist role (Heggart, 2021). On a related note, North et al. (2021) highlight how expectations of instructional designers across all sectors have changed dramatically over the last ten years, reflecting more emphasis on pedagogical theory and an expanding list of technological affordances that require a wide-ranging skillset.

Historically, TEL roles were not located at senior or strategic level, but this has changed in recent years as technology has become more integral to institutional operating plans and teaching and learning (Watermeyer et al., 2021a). Although TEL professionals are beginning to become more involved in decision-making, they generally continue to lack authority to advocate for change (Jumat et al., 2023). Furthermore, although TEL professionals are well placed to advise on how to make delivery models more accessible and ethical, they are frequently shut out of these institutional-level discussions (Lachheb et al., 2023).

TEL professionals continue to struggle to achieve visibility, even after recognition of their 'heroic' efforts during ERT (Ng et al., 2023). Despite continuing to contend with lack of exposure and recognition, these roles have gradually disrupted traditional academic structures within HEIs due to their dislocation and boundary crossing (Han et al, 2023; Heggart, 2021; Livingston & Ling, 2021; White et al., 2021). Consequently, TEL professionals' successes during the pandemic may have exacerbated tensions with academics as the relationship became more balanced and institutions depended on TEL professionals to sustain delivery of teaching.

The rise of Third Space professionals is reflective of a sustained period of disturbance and uncertainty within higher education, with the pandemic accelerating and exposing the increasing blurring of boundaries (Livingston & Ling, 2021). In their Australian-based study of learning designers, Tay et al. (2023) note how the lack of understanding of what learning designers do creates uncertainty on the part of academics as to how and when to draw on their skillset even as the pandemic highlighted and clarified what contributions they can make.

Livingston and Ling (2021) interrogate how boundary crossing is perceived as both empowering and restrictive to Third Space professionals. A lack of recognition of Third Space professionals within university policies and pay structures has resulted in further opaqueness around their contributions. Lack of clarity around categorisation has cascaded into a lack of authority or respect for many such higher education workers (Jumat et al., 2023; Tay et al., 2023). This can also result in distrust of TEL workers who seek to engage with academics, particularly where the TEL professional sits outside of the faculty or disciplinary domain.

On the other hand, TEL professionals, as boundary crossers, may traverse competing domains (Buckley et al, 2024). This is particularly advantageous within complex organisations like HEIs in which knowledge structures are often fractured and dispersed (Trowler, 2014). These delineations, particularly where they fall along faculty or school lines, have been increasingly challenged as knowledge structures have become more fluid (Whitchurch et al, 2018). Within sociomaterial approaches, boundaries are recognised as ways of compartmentalising and navigating the world (Fenwick et al, 2011): as boundary crossers, TEL professionals challenge these boundaries as neat delineations of practice.

Whilst the breaking of boundaries creates tensions and malaise across most quarters of the university, TEL professionals are accustomed to fluidity and better prepared to contend with future attempts to dismantle these fault lines. TEL professionals operate within a specific field of practice in which they inscribe and reinscribe their own rules. A study by Oliver (2002) of learning technologists within UK HEIs reveals a subversive component to the role, in which decisions at various levels can and should be challenged.

TEL professionals work within a liminal space, negotiating conflict (Hannon, 2013) and consequently immersing themselves in more than one discourse.

They find themselves empowered and restrained in equal turns, depending on how successfully they navigate these in-between spaces. TEL professionals accumulate multiple perspectives across institutional hierarchies and siloes (White et al., 2020), potentially offering rich insight into higher education practices; however, these perspectives are often ignored (Hannon, 2013).

Ellaway et al. (2006) argue that learning technologists could exert significant influence in decisions about how to use technology in learning and teaching, yet they are frequently overlooked due to the absence of precision of what the learning technologist role entails. Even so, learning technologists must often contend with re-educating colleagues on the limitations of technology even as they are frequently disregarded in procurement decisions (Watermeyer et al., 2021a). This results in institutions forcing TEL professionals to support the use of 'shiny new tools' that do not necessarily solve the problems they intend to address.

Technology for learning has been associated, rightly or wrongly, with material changes to pedagogical frameworks, including constructivist approaches to learning that shift the academic role from Sage on the Stage to Guide on the Side (Davey et al., 2019). All of this contributes to a sense that the academic role has become unbundled and siphoned off to other roles within HEIs. Furthermore, this puts the academic in the potentially uncomfortable role of learner rather than teacher (Jumat et al., 2023). Belluigi et al (2022) acknowledge that, during the pandemic, academics became vulnerable as they enlisted the help of learning technology colleagues, highlighting the upheaval of academic faultlines within HEIs.

Whilst invested in the design and delivery of learning, TEL professionals are disconnected from learners in a way that is not necessarily true for other Third Space workers, including careers counsellors, academic support teams, and library staff, despite having a significant impact on students' learning experience

(Davey et al., 2019). This separation can create issues with trying to understand the impact of their work, and TEL workers, particularly when they are undertaking learning design, are dependent on instructors to understand the context and learner composition for which they are designing. In this capacity, even though they lack visibility for learners, learning designers and other design professionals act as mediators between instructor and student (Lee, 2021).

TEL professionals must contend with and temper significant rhetoric as part of their role, including unsupported beliefs that technology can solve multiple problems within higher education. TEL purportedly makes learning more open and accessible (Belluigi et al., 2022; Lee, 2021), more efficient (Godsk, 2022), and more innovative (Lee, 2021). In her interviews with learning designers at Canada's open Athabasca University (AU), Lee (2021) reveals that learning designers are often balancing competing interests and discourses, with challenges around operationalising and translating the concept of innovation into their own practices.

For example, AU's design of a fully online course with open and rolling enrolment has purportedly allowed for innovation in its delivery model to achieve more flexibility for students; however, it has also made it difficult to provide opportunities for collaboration and social constructivist components of learning due to its design. These trade-offs re-emphasise the role of TEL professionals as negotiators, navigating change, fluidity, uncertainty and ambiguity.

TEL professionals have gradually become more involved in generating and disseminating research, however, according to her analysis of REF e-learning case study submissions in 2014, Jordan (2020) highlights scope for learning technologists to become more centrally involved in measuring impact and incorporating research into practice. For example, learning technologists can

collaborate across institutions in much the same way as academics through communities of practice like the ALT.

In their study of learning designers' participation in the professional learning network @TELadvisors on Twitter (now X), Ng et al. (2023) highlight the capacity for learning designers to span academic and non-academic networks as Third Space professionals; despite this, learning designers are apparently less active in this network than academics, highlighting a lost opportunity to contribute to professional networks. There is scope for TEL professionals to showcase and share their contributions to teaching and learning in much the same way as academics and would benefit from further collaboration across institutions, including sharing best practices and experiences.

Their lack of visibility in the research and professional development community may be attributed to TEL professionals generally holding a non-academic contract, in which research is not a core component of their role. Consequently, they also contend with a lack of ringfenced time for research and professional development. Such support for these activities might improve TEL professionals' social capital and ability to influence teaching and learning for the better.

2.6.2 TEL roles during the pandemic

The current body of research does not provide significant insight into the experiences of TEL professionals during the pandemic. Regardless, a few studies investigated the pandemic and post-pandemic period from the perspective of learning technologists and learning designers.

Despite being accustomed to fluidity, TEL professionals experienced unprecedented shifts in their remit in early 2020 (Gachago et al, 2023). The pandemic upended existing structures within HEIs, highlighting the tension between centralisation and disciplinary-specific practices. This cleavage

demonstrates the difficulty TEL professionals experience and how different their level of control was during ERT and continues to be in the post-pandemic period, depending on whether they sit within a faculty or whether they are under the helm of central and professional services.

During the pandemic, TEL workers experienced new levels of autonomy and authority as the best advisors on how to transfer learning online quickly. Because their skillset was in demand, they suddenly found that they had more capital and more ability to feed into strategic decision-making (Watermeyer et al., 2021a). Arguably, their contributions morphed as institutions moved from quick fixes in the early stages of the pandemic—classified as reproduction—to more considered approaches to digital learning (Jones-Devitt & Austen, 2022).

Learning designers and those TEL professionals with a learning design function were particularly exposed to sudden changes to both the scope and pace of their work. Whereas pre-pandemic, learning designers were often working with specific faculties and would design over a period of months, the pandemic required rapid design and sometimes, a wider remit to service the entire institution (Gachago et al, 2024).

In addition to highlighting that previous design frameworks were ill-equipped to deal with ERT, the pandemic amplified specific design concerns (Gachago et al, 2024). For example, as highlighted in the previous sections of this literature review, the pandemic exposed the increasing use of student data (Clark, 2023). TEL professionals, it is argued, are well placed to emphasise a more ethical approach to teaching and learning, underpinned by technology, including advising on the appropriateness of using and analysing this data (Laccheb et al, 2023).

Learning designers may be uniquely placed to ensure that empathetic design shapes the future of curriculum development (Gachago et al, 2024).

Furthermore, the pandemic has highlighted the complexity of designing well when context is fluid and uncertain: the pandemic has also potentially weakened the binary of in-person and online learning (Gachago et al, 2024). Consequently, teaching practice must become more contingent and adaptable. This aligns with Walker and Voce's (2023) post-pandemic interviews with TEL professionals discussed in the first section of this literature review: as learning becomes variations of blend, the complexity of design considerations increases.

A case study by Lister et al (2020) at the Open University found that learning technology staff felt less confident than both teaching and support staff in how to support students with disabilities; this may be attributed to the lack of contact learning technology workers generally have with students. However, the authors also noted the increasingly pivotal role of learning technologies and empathetic learning design in ensuring accessibility and inclusivity within higher education.

Coming out of the pandemic, many TEL professionals have taken on the role of advisor for the incorporation of UDL into the curriculum. As such, they have a key part to play in observing how technology impacts learners and educators from the perspective of equal access and use. Belluigi et al (2022) view Third Space professionals, including TEL workers, as key changemakers and potential activists, resisting institutional discourse where it may run counter to what it purports.

2.7 Summary: overview of the literature and gaps

This section has provided an overview and analysis of the literature across the three core themes aligned to my research questions: how post-pandemic higher education has responded to, rejected or sustained practices established during ERT; generative AI and its associated potential benefits and harms in teaching and learning; and the challenges and advantages TEL professionals experience as they operate within the ambiguity of the Third Space.

A review of the literature reveals that, although ERT has been examined in the post-pandemic period, the bulk of this research has focused on disciplinary success stories in teaching and learning during that period, and—with the exception of assessment—little exploration of how that period has been conceptualised and framed in the current landscape of higher education. Furthermore, post-pandemic research has not adequately accounted for the ways in which the arrival of generative AI has complicated these conceptualisations and how ERT and generative AI operate in tandem to shape teaching and learning.

Several studies discuss ERT innovation with little explication of what innovation with technologies for learning might comprise and with little problematisation of the term (Broadbent et al, 2023; Walker & Voce, 2023). Two investigations in this review—Jin et al (2025)'s exploration of generative AI in teaching and Bond et al (2023)'s exploration of post-pandemic anatomy teaching—have applied or alluded to the Diffusion of Innovation as a framework, in which ERT facilitated opportunities for experimentation and trialability to ascertain practices that might spread more widely.

Consequently, if innovation is viewed as the ability to experiment and trial new approaches, how has the wider context of teaching and learning potentially facilitated or hindered this in practice despite using innovation as a discursive call to action? Better understanding this interplay in the post-pandemic period might clarify how innovation and transformation are used in discourse and in practice and what the affordances or constraints of technologies themselves might contribute to this understanding. Recalling that, when discussing the wider context of higher education, neoliberal and new managerial approaches have encouraged conservativism (Wright et al, 2021), tensions inevitably arise in the face of innovation discourse.

TEL professionals also remain under-represented in both post-pandemic and generative AI research despite having a key role to play in how these two events have shaped and continue to shape pedagogy and the purpose of higher education. Understanding how their practices have been constrained or liberated in relation to these two moments would provide valuable insight into how current TEL practice is evolving across institutions and how teaching and learning with technology might be better supported to address both pedagogical practice and wider discussions of the purpose of the university.

Now that I have presented the current body of research across three distinctive strands, I will explicate my research design and methods. In the next chapter, I will begin with my methodology, including how CDA underpins my research and how I have developed an approach that addresses and incorporates the distinctive strands of the current research explored in this chapter.

Chapter 3: Research design

This research is concerned with sociomaterial aspects of TEL, whereby technology and its users are entangled (Sørensen, 2009) and TEL as a practice extends beyond the intentions of use to reflect contingency and continuous discursive meditation and reshaping of technologies and practice. Language and narrative are fundamental to understanding how TEL is perceived within higher education at various levels of authority and practice, from leadership through to individual higher education workers. TEL discourse and practice operate in tandem just as specific technologies for learning and their users interact through practice, to shape and reshape the meaning of TEL.

My research questions have two intentions: firstly, to disclose the way in which discourse and practice currently shape and are shaped by technologies for learning. Secondly, through identifying the ways in which TEL is conceptualised and practiced, I intend to encourage practitioners of TEL as well as those who are instrumental in shaping TEL discourse, towards more deliberation about the unplanned and adapted uses of technologies for learning that shape TEL to counter simplistic TEL narratives.

This section presents my philosophical underpinning of my research and my research design and lays out why I chose a specific form of Critical Discourse Analysis to frame this study, both as the theoretical framework and as the foundation for the methodology.

3.1 Philosophical underpinnings of my research

Underpinning this research is the assumption that knowledge is emergent and contingent, continuously shaped and reshaped through the entanglement of technologies and users of technologies (Fenwick et al, 2011). By adopting a sociomaterial lens, I focus on the way in which individuals constitute knowledge based on their *imaginaries,* or ways in which they perceive the world, including through the objects they use and their interpretations of those objects

(Sørenson, 2009). Knowledge is relational, produced, and reconstituted through these entanglements.

This philosophical position assumes that individuals do not control tools and technologies nor do technologies control human endeavour and this exchange is relational (Barad, 2003). Objects and individuals are interconnected, and their interactions manifest as assemblages of meaning that can be constituted and reconstituted (Fenwick et al, 2011).

Despite this dialogical relationship, my research started with establishing the discourse of TEL at institutional level. This is not intended to privilege university strategic discourse; rather, this is to acknowledge that institutions provide insight into organisational norms that influence specific conceptualisations of TEL. Hence, RQ1 provides the foundation on which to establish and locate the overarching discourses of TEL in which individual TEL professionals operate.

Once this question is addressed, I progress to establishing how these conceptualisations are interpreted by individual TEL professionals, how they influence TEL practice and how practitioners, through their practice, attempt to adapt or reshape these conceptualisations. I do not seek to establish any universal truths in gathering the perspectives of research participants in this phase of the research; rather, I am focused on how TEL practitioners respond to these conceptualisations and reconstitute individual knowledge (RQ2).

Although TEL professionals operate within the knowledge structures of their respective organisations, their methods for incorporating or reshaping institutional TEL discourse provides them with agency in how they might constitute their own counter discourses, through working with others. Consequently, TEL professionals will have multiple discourses that arise from their associations with their organisations, their relationships with others, and their interplay with tools and technologies.

Knowledge is constructed through these interactions and assemblages that are changeable and subject to interpretation. Such an epistemological stance leaves researchers open to accusations of relativism, or 'anything goes.' This is particularly evident when considering how individuals operate in relation to discourse. However, agency need not be an either/or: knowledge is both foundational and fluid. As stated by Bleiker:

> One can theorise discourses and still retain a concept of human agency and […] one can advance a positive notion of human agency that is neither grounded in a stable foundation nor dependent upon a presupposed notion of the subject (27)

The assumption is that, as participants in their own institutional discourses and practices, TEL professionals are both beholden to knowledge structures and challenge and reconfigure those structures, as boundary crossing Third Space professionals. What these tensions reveal forms the response to RQ3.

The objective in answering these questions is to challenge assumptions, particularly around discourse, and to potentially open up practice, through recommendations that are informed by the research findings. The tension between discourse and practice remains central to this research and may be experienced differently by TEL practitioners but may still be discerned through overarching themes.

As reality and knowledge are relational, qualitative methods align with answering the 'how' – in this research, on how individuals and institutions perceive and position TEL. Although sociomaterialism identifies technologies as integral to shaping knowledge, language is a human endeavour. Consequently, this research acknowledges that language, whether produced collectively at institutional level or individually through practice, will contribute to how technologies are conceptualised and used.

Given the significance of language to this research, Critical Discourse Analysis was identified as the best method to address the conceptualisation of TEL as elucidated by institutions and individual TEL professionals. Furthermore, capturing the way in which TEL professionals view and articulate their relationships with technology in conjunction with and in spite of institutional discourse was a key objective of this research.

Many forms of CDA would have led me to rely too heavily on discourse and to marginalise practice. These methods would not have facilitated untangling the tensions that arise within TEL discourse and practice. Dispositive CDA is one of few methods that can effectively unite discursive and non-discursive components in relation to technologies. I will elaborate on why throughout this chapter.

There is no intention to identify sweeping statements about best practice: rather, the research focuses on those tensions that exist between discourse and practice and how they result in forms *and variations* of practice. The narratives of practice that comprise part of the findings provide insight into how TEL professionals view their practice both collectively and individually in relation to the technologies that are core to conceptualisation and practice.

I will now expand on my use of Critical Discourse Analysis to structure my research design – specifically the form of CDA called dispositive analysis which accounts for the frequently marginalised role of technologies as objects to discourse and practice.

3.2 Critical discourse analysis (CDA)

Critical discourse analysis (CDA) scrutinises power structures underpinning language, drawing attention to normalisation of particular social practices at the exclusion of others (Fairclough, 2001). Extending beyond surface perspectives of language for communication, discourse casts language as a tool of influence

in service to hegemonies of power (Hayes, 2015) providing legitimacy to specific beliefs, through ideology. The critical component of CDA challenges assumptions that are presented through discourse, primarily its ability to condone practices that underpin specific objectives (Wodak & Meyer, 2009).

Although originating in the field of linguistics, CDA has extended into socio-cultural applications, making it an attractive methodology for multiple disciplines, particularly where critique of existing social hierarchies and practices are a focal point (Blommaert & Bulcaen, 2005). Early practitioners of CDA investigated dimensions of linguistic analysis, including utterances, grammar and cohesion, as explicated by noted linguist Michael Halliday and built upon, most notably, by Norman Fairclough (Fairclough, 1992; Kress, 1990). Subsequent applications of CDA have extended beyond the realm of purely linguistic analysis into domains of economic, social, and historical analysis, giving it an interventionist and politically conscious edge (Rogers, 2004). Consequently, CDA, when applied in this way, is a powerful tool for investigations of injustice (Fairclough et al, 2011).

CDA is wider than the sum of its parts: interpretations of its three key pillars—criticality, discourse and analysis—have created diverse applications across research contexts. With roots in the Frankfurt School of critical theory (Rogers, 2004), the critical component of CDA interrogates commonly accepted practices and questions their validity in the face of other potential social outcomes. Across its numerous applications, critique remains a core component of CDA: the researcher must attempt to distance herself from the data, zoning out to the wider context in which that data sits (Reisigl & Wodak, 2009) to then zone in again with a critical awareness of the wider landscape in which specific practices operate.

In addition to disparate approaches to CDA, some notable CDA practitioners have shifted from one application to another over the course of their career:

leading CDA researcher Fairclough exemplifies this, moving from linguistically grounded to socially grounded CDA in recent years (Waugh et al., 2016). CDA sits at the intersection of history, power, and ideology, collectively controlling and influencing social practices and positioning approaches that lie outside of the fabric of established discourse as acts of resistance (Wodak, 2001). It amalgamates power structures at the macro, meso and micro levels, with the institution representing the domain of focus for social action (Fairclough, 2010).

Although institutions have their own mechanisms for discourse, CDA considers how these meso-level discourses reflect the wider social shifts in discourse at a macro level (Blommaert, 2010). Not surprisingly, the arena of higher education provides fertile ground for applications of CDA. Increasingly neoliberal configurations of higher education, that are reflective of a wider systemic and social shift to neoliberalism, have normalised new managerialist discourse, manifested through a culture of performativity (Peters & Tesar, 2017). This shift is representative of what Fairclough (2010) refers to as a discursive event in which shifts in language reflect wider currents of hegemonic change.

HEIs provide ample opportunity to explore discourse in the sense that Foucault envisioned, where knowledge structures are both deeply embedded and constantly shifting to reflect power shifts that are both contained and outside of their respective perimeters (Dorner et al, 2023). As complex institutions that both reflect and impact wider social dimensions, HEIs provide ample ground for reflection on the way in which discourse is used and repurposed to suit diverging interests.

3.2.1 Applications of CDA

Fairclough examined the impact of neoliberalism on UK higher education, including the increasing use of marketised language by HEIs, as enacted through university job ads for academics and prospectuses for students (Fairclough, 1993). He notes that the language of academia has been

superseded by the language of service, increasingly normalising the conceptualisation of students as customers.

More recent applications of CDA in an educational context have centred on the role of technological discourse in facilitating the marketisation of higher education. Munro (2018) applied CDA to thirteen teaching and learning strategies issued by governmental and non-governmental organisations across the UK to reveal that technology is seen as advancing the marketisation of HEIs through increased efficiency, quality, diffusion and choice. She examines how technology is positioned as a solution to myriad issues within higher education and cloaks wider impediments to the sector, including the converging pressures on resources through slashed funding and increasing student numbers.

Neoliberal discourses within higher education are not limited to the UK. A study of Student Life pages at the University of Denmark highlights how marketised language conveys a university experience that downplays academic pressures and emphasises enjoyment and social opportunities (Svendsen & Svendsen, 2017). This language reflects the continuing shift in the relationship of universities to students and what is conceptualised by the student experience. Within this discourse, students are viewed as consumers to be wooed replacing language that conveys the selectivity of academia and signalling back to Fairclough's language of service. A further study by Jensen et al. (2024) examines educational inequality discourse in Norway within the ideological framing of neoliberal incursions into the public sector, highlighting how this discourse reinscribes rather than challenges the distribution of resources and corresponding advantages for some over others.

These studies reflect the global shift in neoliberal discourse that has heavily influenced academia, made more compelling by the fact that Nordic countries have traditionally resisted neoliberalism in favour of social democratic approaches to education (Dovemark et al, 2018). Neoliberalism has framed

discourse in academia along gender lines as well: the propagation of meritocracy, through what is considered objectively measured ‘academic excellence’ obscures the inequality of access to senior posts by women (Clarke et al., 2024). The authors conducted CDA on the transcripts produced from semi-structured interviews with male and female senior leaders, identified as those who influence and shape discourse within their respective institutions, across Russell Group universities.

Discourse in academia also reveals tensions between different discourses. A study by Wodak & Fairclough (2010) investigates how the adoption of the Bologna Declaration has distinguished two European higher education systems – Austria and Romania – through the lens of conflicting interpretations and applications of the accord. These tensions reflect various levels of power and authority in both countries, where a regional attempt to systemise education is recontextualised—and perhaps, resisted—at a local level.

Critical Discourse Analysis maintains its relevance as a powerful methodological tool across contexts. A search in Scopus highlights the breadth of application of CDA across research areas in the last year. A study by Sánchez Ramos (2024) investigates the identity construction of volunteer translators within NGOs, particularly as they struggle to gain recognition in relation to professional translators. She cites Fairclough’s approach to CDA, whereby discourse is a component of wider social processes and practices. Through interviews with current and former volunteer translators, Sánchez Ramos presents two concurrent constructions of identity within this set of practitioners: social construction and professional construction and how they intersect.

In contrast to exploring different identity constructions within a community of practice, a corpus-assisted study by Pei and Cheng (2024) compares discursive approaches to 5G between the British and Chinese press. Combining qualitative analysis of text across both media through CDA, the authors also use a

quantitative-based method of corpus analysis through the identification of patterns within text. For example, the frequent association, or concordance, between the Chinese 5G provider Huawei and ‘security’ within the UK press corpus indicates scepticism and distrust. In contrast, the Chinese press more often associates Huawei with the term ‘giant’ reflecting positive attitudes to 5G and its key provider.

In their study of corporal punishment in US schools, Dhaliwal et al. (2024) also incorporate quantitative and qualitative methods in their application of CDA. Statistical data complements the analysis of policy documents outlining how corporal punishment can be administered across the 15 states where it remains legal. The quantitative data highlights how minorities are more likely to be corporally punished whilst analysis of the policy documents presents the justification for administering punishment, namely through the lenses of morality, delinquency, and authority.

The authors argue that delinquency discourse both propagates and rationalises the disproportionate number of minority students who are punished. The authors also discuss how the discourse of corporal punishment has promulgated the shaping of moral character, creating tensions in how much authority educational institutions should have over children in comparison to their parents.

3.2.2 Dispositive CDA

CDA’s reach across disciplines and methodologies has left it open to criticism. Chilton (2005) argues that CDA fails to move beyond the stage of description because it does not extend into explanations of why particular language and terminology is used. Furthermore, CDA may not adequately consider individuals’ contributions to discourse, or the impact discourse has on the individual. Analytic approaches to CDA vary considerably and are determined

by the researcher, potentially reflecting underlying ideologies that then frame the analysis (Mullet, 2018).

Rogers (2004) argues that CDA is incomplete in that it ignores the other, non-linguistic elements of discourse. CDA practitioners like Gee have attempted to address this limitation by distinguishing between small-d “discourse” and big-D “Discourse” where the latter encompasses the linguistic and non-linguistic components of discourse, including actions and practices (Rowe, 2004).

Van Leeuwen (2009) adopts a Foucauldian definition of discourse when describing how the language of a particular practice is not severed from actions associated with it but rather focuses on specific elements of that practice over others to frame the narrative and to serve the interests of those who are empowered to create and disseminate discourse. The association between practice and the language of practice is integral to understanding how discourses are shaped both by practice and by other discourses that may view and define that practice differently. These attempts to address non-discursive elements have underpinned a specific form of CDA called dispositive CDA.

Dispositive CDA, alternatively referred to as dispositive analysis or Foucauldian analysis, extends the lens of analysis beyond the purely discursive. Dispositive analysis recognises that discourse operates in a wider system in conjunction with non-discursive components of practice; it examines how these discursive and non-discursive practices intersect (Jäger & Maier, 2009). As my research has focused on the assemblage of discursive and non-discursive components within HEIs that leads to conceptualisations and associated practices of TEL, dispositive CDA provides the best approach to data collection and analysis.

Dispositif, or dispositive in English, is a term that evades direct translation but has been interpreted as an arrangement through the assemblage of elements (Raffnsøe et al., 2016) or an apparatus of power (Frost, 2015). For Foucault, the

dispositive is related to the use of discourse and conceptually organises the relations between discourses (Raffnsøe et al., 2016). Much of his work on the dispositive is found in his lectures from the mid to late 1970s and is used to frame specific discourses including military and penal apparatuses. The dispositive frames or bounds the limitations of acceptable outcomes which are, in turn, managed or reflected through discourse (Foucault, 2009).

Deleuze (1992) responds to and adopts Foucault's *dispositif*, defining it as an apparatus associated with power structures but highlights its transient and porous nature, whereby these apparatuses can become reconstituted. This explanation echoes Foucault's perception that apparatuses can be constituted and reconstituted over time and as they intersect with each other. They are malleable and subject to change.

Foucault's use of the dispositive has been operationalised through dispositional analysis, particularly in relation to organisational research. This strand is related to Foucault's application of the dispositive in military, legal and technical contexts (Raffnsøe et al., 2016) and is closely associated with governance. Dispositional analysis focuses on the tensions between discursive elements that is the scene of struggle for a dispositive: the core concern is the negotiation of discourses that co-exist, mingle and collide in an organisational setting (Villadsen, 2021). Echoing Foucault's dispositive, these negotiations harken back to the assemblage and re-assemblage of elements.

In their work on organisational research, Alvesson and Deetz (2021) highlight the issue of discursive closure in which, to achieve consensus and organisational unity, opposition and conflict are concealed. In relation to organisational context, Foucauldian analysis frequently frames policy-as-discourse within its specific context and, consequently, reveals the differential in how and to what degree actors within that context can contribute to the constructed discourse (Bacchi, 2000) despite promulgating a sense of unity.

Dispositive CDA focuses on the normalisation component of discourse and its reliance on knowledge to justify actions (Mourad, 2017). Incorporating Foucault's perspective of discourse as a power/knowledge dialectic, dispositive analysis operationalises discourse through the investigation of actions associated with that discourse, and the materialisation of that interchange through discursive shifts over time (Jäger & Maier, 2016). Foucauldian discourse aims to ensure that we do not, in critiquing language, supplant one ideology with another (Graham, 2012). Rather, it provokes questions around why specific words were chosen instead of the myriad other possible enunciations (Graham, 2012).

The model below clarifies how Jäger and Maier have used Foucauldian concepts to frame a particular approach to CDA that zooms in and out and investigates the convergence and divergence of discourse and practice. The dispositive triangle reflects the exchange between discursive and non-discursive components in addition to materialisations. Materialisations, the most vaguely defined component of the triangle, are those objects that embody discourse through the tensions of discursive and non-discursive components (Caborn, 2007):

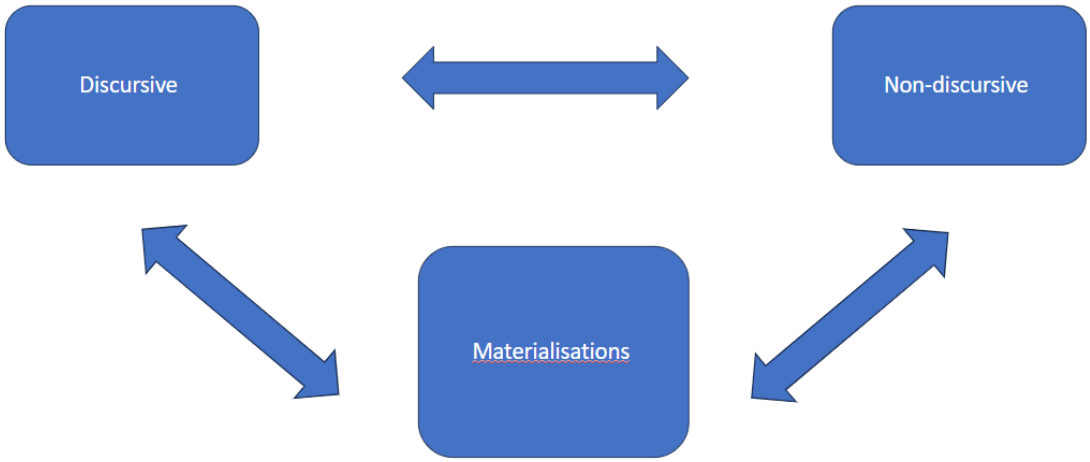

Figure 3.1. ADAPTED FROM JÄGER & MAIER (2009): THEORETICAL AND METHODOLOGICAL ASPECTS OF FOUCAULDIAN CRITICAL DISCOURSE ANALYSIS AND DISPOSITIVE ANALYSIS

This dispositive structure, which is an elaboration of Foucault's concept of dispositive in relation to revealing power structures, has provided a foundation for the objectives of this research: to determine how the conceptualisations of ERT have impacted on the practices of TEL professionals and how that has materialised in existing knowledge structures that must also address generative AI. Foucault's dispositive, encapsulated in the dispositive triangle, can be distilled as the relations of power within systems that are both vocalised and non-vocalised (Bussolini, 2010).

Despite recognition as a powerful approach to discourse, dispositive CDA remains relatively rare as a methodological approach when compared to other forms of CDA. A review of the literature reveals a handful of research studies that have applied dispositive analysis, most of them undertaken in the last five years. One criticism of the dispositive triangle centres around materialisations, which are often under-defined but distilled as physical outputs (Caborn, 2007). This lack of specificity may deter researchers from using dispositive CDA.

Research into the link between the use of Extended DNA (EDNA) technology and racial profiling applies the dispositive triangle to interrogate EDNA as a tool, the associated discourse around EDNA, and applications of EDNA within

forensic investigations (Bartram et al., 2022). A study by Eckardt (2022) looks at the conflicting dispositives of childbirth, including how what is natural is systematised – and controlled - through discourse.

In another application of dispositive CDA, Google's complex and shady relationship with copyright elicits an investigation of ethical, legal and utilitarian dispositives that are framed within specific apparatuses, articulations and assemblages (Whelan, 2017). Although this study amalgamates Foucauldian discourse with neo-Gramscian concepts, the author acknowledges the advantages of dispositive analysis in simplifying - but still respecting – complexity.

Although sitting well outside applications of discourse within higher education, Whelan's study highlights how Google promulgates a wider Silicon Valley 'read/write' narrative, in which knowledge is free for consumption and reconstitution. Such narratives not only serve Google's economic interests but also cast doubt on conceptualisations of knowledge as protected and valued.

These diverging approaches to dispositive analysis highlight its translatability across fields of study and contexts. Much as CDA opens itself up to various interpretations and applications, dispositive analysis can be applied to any condition in which discourse is examined in the wider system in which it operates.

3.2.3 Why dispositive CDA?

I was drawn to dispositive CDA because its structure provided a clear but flexible framework with which to address my research questions. In addition to having its foundations in discourse analysis, dispositive analysis allowed me to capture and analyse discursive and non-discursive elements across clear, delineated stages. Furthermore, dispositive CDA addresses some of the limitations with other forms of discourse analysis, particularly the

marginalisation of practice and materialisations that are recognised as attributing agency to individuals in their contribution to knowledge production (Barad, 2003).

The conceptualisation and practice of TEL is shaped by and shapes the technologies that are central to TEL. Including materialisations as part of the triangle is a means of reinserting technologies as objects into analysis of discourse. This addresses the issue of the marginalisation of material or matter:

> Discourse matters. Culture matters. There is an important sense that the only thing that doesn't seem to matter anymore is matter (Barad, 2006, 132).

Dispositive CDA aligns with the relational ontology underpinning my research and the sociomaterial determination to bring objects, including technologies, into the entanglements that generate and reconstitute meaning:

> Foucault clearly assumes the co-existence of discourse and objects. They are related elements of the dispositive. The dispositive as a whole comprises the net that is spun between these elements and connects them (Jäger & Maier, 2009, 41).

When undertaking my research design, other methodologies were considered including a phenomenological approach to eliciting TEL professionals' perspectives and a case study. Phenomenological approaches have the benefit of focusing on individual experiences, eliciting a rich collection of perspectives based on the subject's situatedness (Cohen et al, 2018). Whilst this approach would have complemented a narrative approach to the data, particularly when focusing on the practices of TEL professionals, it would not have adequately supported the incorporation of these experiences and their reaction and resistance to institutional narratives.

I also considered a case study design for my research. Case studies are a common methodological approach to answering ‘how’ questions in research (Yin, 2018). Given my interest in interrogating organisational culture, disseminated through discourse, case studies would have offered an appropriate approach. However, this approach would not have facilitated tying discursive to non-discursive practices so clearly as the methodology presented nor would case studies have adequately directed the focus to both sectoral conceptualisations of TEL and ‘on-the-ground' practices of TEL workers.

As sociomaterialism has been used as a lens for this research, it is important to address the discursive vs non-discursive binary within CDA and the research design, as sociomaterialism rejects such binaries (Fenwick et al, 2011). This binary is tempered by the constant assemblages of discursive and non-discursive elements along with the materialisations that round out the dispositive triangle. Dispositive analysis has attempted to overcome these binaries by identifying the dialectic of discursive, non-discursive, and materialisations. Discourse, materialisations, and practice invariably overlap, operating dynamically and dialectically.

In some ways my design has reasserted this binary by starting with identifying institutional discourses before moving to identifying tensions with practice. However, it is worth clarifying that this reassertion is established as a methodological device, to delineate the stages of research with the ultimate synthesis of analysis of these components. This research does not declare that discourse and practice operate in separate realms. Rather, challenging and unpackaging this tension is a core objective of my research.

The dispositive triangle provided an opportunity to triangulate the data, a powerful form of validation within qualitative research (Flick, 2004).

Dispositive CDA positions individuals as linking discourse and social reality (Wodak & Meyer, 2009). Reality, in this research, is not intended to convey some established, uncoverable truth, but rather arises through social relations and assemblages, which encompasses technologies, individuals and institutions.

3.3 Overview of the research process

My research design has adopted a specific form of CDA that extends beyond critical analysis of discourse to include non-discursive components and associated materialisations which comprise dispositives (Jäger & Maier, 2009). Consequently, Critical Discourse Analysis as analysis of written documents has been combined with other research methods and is not the sole output of my research design.

There is no objective to favour or establish discourse over practice. There is a general acknowledgement that institutional discourse attempts to normalise practices within institutions, but this does not mean that TEL practitioners or other individuals operating within these institutions have no ability to shape, mediate and navigate discourse. My design seeks to avoid viewing discourses as pure representations of practice but rather establishes them as 'other actors' shaping that discourse in addition to individuals and objects.

In applying CDA, I followed the three-step process outlined by Fairclough starting with description, moving to interpretation through deep analysis of the text gathered, and finally, into explanation. Only through moving to explanation, can CDA identify and articulate the ideology underlying discourse (Blommaert, 2010). Explanation then moved into interpretation – in this case, the interpretation of how TEL professionals mediate this discourse through their practice based on their own observations and perspectives of that practice.

The figure below outlines how I addressed each of the three components of the dispositive triangle in my own research:

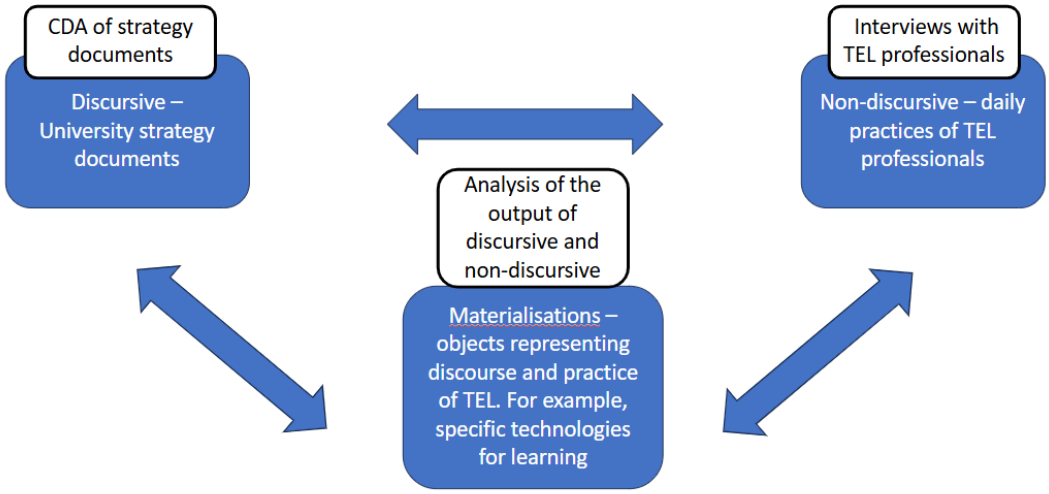

Figure 3.2. THE DISPOSITIVE TRIANGLE MAPPED WITH THE COMPONENTS OF MY RESEARCH

Firstly, I assessed the use of language across institutions, through CDA of university strategies. I interrogated the way in which narratives are formulated at an institutional level and how these narratives were anchored within an ideology that sustains them (Mourad, 2017).

This process was followed by analysing non-discursive components through the lens of TEL practice. To identify non-discursive practices as part of the cycle of dispositive, ethnographic interviews and observations are recommended but not required, and the means of capturing non-discursive practice remains open as part of a flexible methodological toolkit (Jäger & Maier, 2009). The appeal of ethnographic approaches lies in how the researcher may directly observe non-discursive practices. Given the nature of this research, my objectives, the need to protect participant identities, and the inability to assign myself the role of observer, I conducted semi-structured interviews instead.

The attempt to capture non-discursive practice through discursive means presents methodological challenges. In line with the research as a whole, interviews were not designed with the purpose of identifying overarching truths:

instead, I sought to better understand how individual TEL practitioners interpret and are impacted by conceptualisations of TEL and how much control they believe they have over those conceptualisations, including whether they accept or reject those conceptualisations. The interviews were intended to allow TEL professionals to reflect on this process through their own context and perspective. Within practice, there exist tacit components of work that are difficult to observe and which benefit from the reflection I intended to draw upon: the participants could articulate the reasons why they might decide to incorporate or reject specific aspects of TEL discourse as part of their practice.

In the role of interviewer and researcher, I operated as a contributor to analysing the reflections of practitioners on their work, the way in which discourse impacts that practice and how managing discourse might empower practitioners and those with whom they work, namely academics. Interviews encouraged reflection, both on the part of the participant and on the part of myself, as researcher.

Gathering data through interviews allowed me to investigate how the actions of this specific group of professionals either confirmed or challenged the institutional discourse of TEL. Investigating discourse at both institutional and local levels provided an opportunity to gather insight into the impact of each on the other and how discourse operates at multiple levels within HEIs (Dorner et al. 2023). By incorporating interviews with TEL professionals and analysing them in relation to discourse at institutional level, I addressed some of the identified limitations of CDA; namely the claim by Rogers (2004), that CDA alone does not go far enough to establish its influence and influencers in the wider social system in which it operates.

In taking a sociomaterial approach to my research, I respond to the complexity surrounding conceptualisations and practices of TEL, and to discern the implications of divergences and convergences between the two. As

sociomaterial approaches de-centre individuals and challenge insular, delineated contexts in favour of interactions and assemblages (Fenwick et al, 2011), this has shaped my approach to the data gathering. Individual perspectives gathered through the data in Stage 2 are not diminished but are analysed with the objective of establishing how TEL professionals can provide insight into the ways in which they navigate these assemblages.

Although it cannot be assumed that TEL professionals' opinions have been ignored at leadership level, as highlighted by my review of the literature, their contributions are frequently marginalised within institutions, with their roles lacking the prestige of academic posts. The lack of research into the perspectives of TEL professionals, particularly in relation to ERT and generative AI, where their contributions are notable and significant, supports this position.

The interviews were structured to elicit information from TEL professionals that extends beyond 'the party line.' This is a challenge for the interviewer, particularly in having participants step outside of the discursive arena in which they operate to view their practices in a different way. In other words, it requires the interviewer to 'make the familiar strange' (Rainford, 2021).

Interviews focused on eliciting narratives from participants, with examples of how their practices have reinscribed and been reinscribed by the institutional discourse of TEL. Participants were encouraged to consider their practice, how discourses arise from that practice and how they might contrast institutional narratives of TEL.

Narrative interviewing frames conversations with participants within social structures and analysis is guided by the participants' use of language and the meaning conveyed by stories or experiences. The goal of the interviewer is to encourage participants to provide stories and, even where interviews lack a

clear narrative, the interviewer might string together episodes to evaluate and convey meaning from the data (Brinkmann & Kvale, 2015).

These narratives of practice were evaluated alongside the discursive strands of TEL that are identified in the CDA of strategy documents to pinpoint collisions and coalescences or, as dispositive CDA highlights, the interactions that make discourse both powerful and fluid.

One of the key considerations in my research design concerned when and how I should analyse two sets of data. I deliberated over whether to collect data first across both stages and then undertake analysis or to undertake analysis of the strategies in one stage before progressing to data collection and analysis in the second stage.

I subsequently decided to undertake analysis in two stages, completing an initial collection and analysis of strategy documents in Stage 1 before moving to collection and analysis of Stage 2 data. I have outlined the overall steps taken for collection and analysis below:

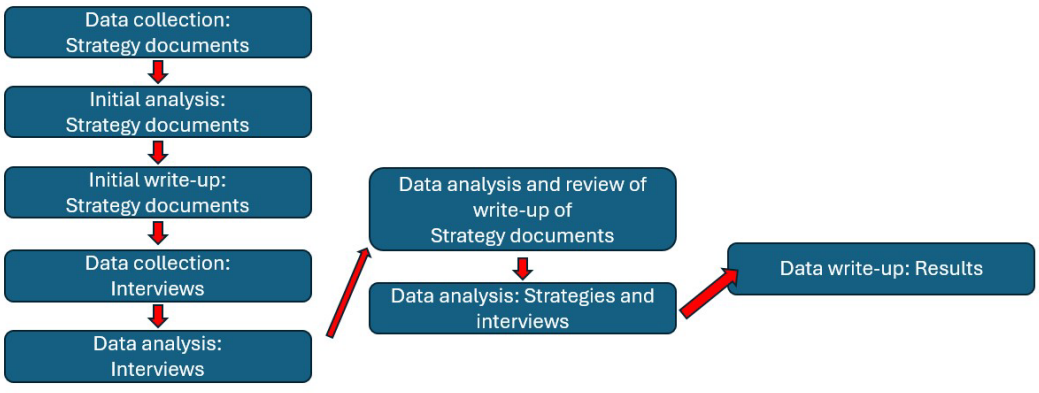

Figure 3.3. A MAP OF THE ANALYSIS PROCESS

In answering RQ1, CDA of institutional strategies was conducted using an analytical framework of guiding questions proposed by Jäger and Maier (2009). The questions span six key areas, establishing the description of each document's use of discourse:

Context	Why was the article selected? Why is it typical? Summarise
Surface of the text	How is the article structured and presented? What are the topics covered and how do they relate to each other?
Rhetorical means	What is the form of argumentation? What logic does it follow? What allusions are used? What actors are mentioned and how are they portrayed? What references are included?
Content and ideological statements	What concept of society is presupposed? What concept of technology is presupposed? What perspective regarding the future is presented? **(My addition: What conception of the past is presented?)**
Other peculiarities	Is there anything else to note?
Overall message and discourse position	What position does this take?

Table 3.1. JÄGER AND MAIER (2009): GUIDING QUESTIONS RECOMMENDED FOR ANALYSIS

These questions were used as a starting point for analysis through organisation of coding and themes. Themes were identified through several cycles of review of the documents, generating codes that then informed several iterations of mapping to identify themes. The mapping process included several cycles of revision and reorganisation of themes.

In answering RQ2 and RQ3, Thematic Analysis (Braun & Clarke, 2022) was used to analyse data collected through semi-structured interviews with TEL professionals, shaped by contemplation of the questions presented in the table above for each analysed document along with the subsequent theming of CDA documents. This second stage of the research which aligns with the non-discursive components of the dispositive triangle.

Thematic Analysis offers a flexible and recursive approach to qualitative research analysis. It encourages researcher reflexivity on personal, functional

and disciplinary levels (Braun & Clarke, 2022). Furthermore, Thematic Analysis allowed me to use both inductive and deductive theme generation, balancing the awareness of key themes that had already been identified in Stage 1 of the data collection and analysis and new themes that arose through the interview process.

Interpretation is a key component in Thematic Analysis and is achieved through becoming increasingly familiar with the data (Braun & Clarke, 2022). I undertook several stages of coding and analysis, using a reflective log for each stage that identified changes in interpretation from one stage to the next as I familiarised myself with the data. The identified codes became consolidated into themes based on recurring ideas that arose in analysis across the data. I incorporated the use of sketchnotes or depictions of the key themes identified within each interview as a means of focusing on the narrative strands that surfaced and circling back to themes that arose in Stage 1's CDA of university strategies.

One potential danger of Thematic Analysis is completing the coding stage too soon. I followed the guidance put forward by Braun & Clarke (2022) in assessing whether enough coding stages have been conducted by evaluating the code labels for "diversity of meaning". In other words, I reached a stage where I had clear themes that shaped the research findings and discussion.

After coding was completed, themes were consolidated with the CDA conducted for RQ1 to bring together a dispositive triangle of discursive practice, non-discursive practice and materialisations. Identification of materialisations was the final aspect of analysis and focused on practical and evident ways in which discursive and non-discursive components influenced institutional activity of TEL, with physical outputs. Synthesising the findings of CDA with these themes allowed me to integrate the language of TEL at institutional level with

the everyday practices employed by TEL professionals. This process identified thematic divergences or similarities across data sets that addressed RQ3.

I will now expand on both the data gathering and data analysis processes.

3.4 Stage 1: Discourse in institutional documents

I will elaborate on the first stage of research, including how I identified pertinent documents and how I undertook my analysis.

3.4.1 Data gathering: Stage 1

As explicated in applications of CDA section of this chapter, within higher education, HEIs have become increasingly competitive and marketised; consequently, they produce and disseminate significant content that could potentially offer insight into institutional discourse.

Examples include blogs, microsites, brochures and news articles, all of which are readily available online and provide insight into organisational priorities and culture. Policy documents and strategies comprise another more formal communication category and provide insight into institutional approaches to learning and teaching.

I considered different sources of communication from HEIs as part of my analysis. Blog posts and articles were reviewed for consideration but mainly offered surface interpretations, with little post-pandemic reflection. This indicates their ephemeral nature, capturing a perspective within a fixed and brief period. These pieces of content are also primarily directed outward, with a significant slant towards external audiences. Furthermore, these forms of communication are apparently disconnected from senior level discourse. Operating within a Foucauldian framework, institutional discourse is, in the first instance, constituted at leadership level. For these reasons, policy documents and strategies were deemed more applicable when considering conceptualisations of TEL.

In further scrutinising policies and strategies, I excluded policy documents because, although indicative of institutional priorities, the language of institutional policy documents limits insight into institutional culture. Strategy documents, in comparison, offer both institutional objectives and how those objectives are promulgated through narrative. Policy documents published by universities tend to be more inward-looking and do not provide the same level of access. They evoke more formal, less emotive language, when compared to policy documents published outside of HEIs, including organisations like JISC and Universities UK. For this reason, I focused on university strategies.

Universities in the UK are required to produce strategies to secure funding, including a five-year plan (Rolfe, 2003). Beyond this directive, institutional strategies fulfil several purposes. They present objectives and priorities for a specific period into the future; an initial investigation of 35 higher education strategies identified that, most commonly, a strategy is published at the beginning of a decade to shape that subsequent period. Beyond fulfilling the requirements of funders, strategies are directed towards staff. They lay out—if not in specific terms—what is expected to meet determined and articulated commitments. In doing so, they promulgate what is valued by the institution, extending beyond academic-professional service distinctions and disciplinary and faculty-specific discourses.

Less ostensibly, university strategies operate as promotional opportunities, appealing to an external market. Often glossy and polished, they include numerous, colourful images of students and staff, university facilities, and highlights of recent achievements (Salmon, 2024). Many of the strategies included in my initial search were provided as microsites or downloadable PDF brochures, operating similarly to marketing brochures. This secondary audience highlights the increasingly marketised nature of university communications that may traverse internal and external audiences (Rolfe, 2003).

Several previous studies of university strategies reveal the power dynamic that underpins their production. An exploratory study of university strategies within England revealed that although strategies may seek to incorporate various stakeholder perspectives, they are ultimately managerial in nature (Salmon, 2024). A content analysis of UK and South African universities explored the frequency of terms around equality and equity, noting the lack of both terms across strategies (Czerniewicz & Rother, 2018). Consequently, and in keeping with discourse analysis, strategies reveal as much by the exclusion of terms as they do by inclusion.

As technology has become more entrenched in university infrastructure, digital strategies, which may be separate or a sub-component of the wider strategy, have become more commonplace. An investigation into UK digital strategies by Flavin and Quintero (2018) uses content analysis to explore how innovation is positioned within discourse. Their research reveals that whilst disruptive innovation is proposed within the sector, there is little evidence within strategy, that HEIs wish to disrupt, preferring sustained innovation or smaller, incremental change.

For the CDA process, data was collated and uploaded to Atlas.ti, a qualitative analysis software. Internet searches of strategies from UK HEIs were conducted, and documents were filtered based on their publication date. An initial search highlights that many UK strategies were published around 2020 and focus on the next five or ten years. I concentrated on strategies that have been published since autumn 2022, when a significant return to campus began; additionally, I have included strategies that have been refreshed or revised since that time.

To begin my data collection, I conducted a search on Google with the search terms “university strategy” AND “United Kingdom.” I drew up a complete list of

UK universities and began to search each university in random order to ensure geographic coverage.

I also ensured that both pre- and post-1992 institutions were included to highlight what is often perceived as a research-intensive and teaching-intensive split amongst these institutions. Post-1992 universities comprise former polytechnics awarded university status in 1992 during the Robbins expansion of higher education (Boliver, 2015). These universities tend to have a smaller commitment to research and focus on vocational qualifications. I attempted to include university strategies from each of the four devolved nations of the UK but, due to the limitations of the results of my search, I was only able to secure representation of England and Scotland.

I sifted results by publication date, limiting myself to strategies that were either published from 2022 or were updated after 2022 to reflect the impact of the pandemic. As highlighted above, many university strategies were published in 2020 and cover a period of approximately ten years although several strategies cover smaller periods of approximately five years, and several universities published strategies dating from 2022.

Given these parameters, my final analysis includes eight strategies listed below.

University	Title	Year published	Years covered	Institution background
Oxford University	Digital Education Strategy	2023	2023-2027	Public research, Russell Group, ancient
University of Manchester	Flexible Learning Strategy	2022	2022-2026	Public research, Russell Group

University of Dundee including the Digital Strategy	Strategy 2022-2027 Transforming our university to be a truly digital community (lead-in) Enabling our strategy on digital	2022	2022-2027	Public research
St Andrews University	Strategy 2022-2027	2022	2022-2027	Public research, ancient
UEA	Strategy 2030	2024	2024-2030	Public research university
University of Portsmouth	Digital Success Plan 2021-2025	Updated September 2023	2023-2025	Public university; Post-1992
UCL	Strategy 2022-2027	2022	2022-2027	Public research university, Russell Group

Table 1.2. AN OVERVIEW OF THE UNIVERSITIES INCLUDED IN THE CDA STAGE 1 ANALYSIS

The results reflected the diversity of approaches to strategies across institutions. University of Dundee, for example, has published an overarching strategy complemented by several enabling strategies. I have included the two key enabling strategies corresponding to digital, but the first operates only as a lead-in and was not part of the findings although it was reviewed to understand any further context.

The positioning of digital strategies in universities is an interesting byproduct of this analysis. JISC led an initiative in 2020 to create a digital strategy template for universities, recognising the growing influence of digital technologies on all aspects of university operations and governance.

JISC's impact evaluation of this initiative highlighted that HEIs continue to take disparate approaches to technological strategy, with some institutions creating separate strategies, whilst others integrate digital across the components of their core strategy (JISC, 2023). The pandemic has been cited as a key influencer in how HEIs approach digital, based fundamentally on how well-developed their digital processes were at the time of COVID:

> Some universities have integrated digital strategies into their corporate strategy and have a well-established sense of direction. Other universities will want to use the enforced change of the pandemic as a prompt to develop a new digital strategy, to ensure they have clarity on what they will or will not do in the coming years. (Skelton, 2023, 24)

This shift prompts questions in my own research regarding how digital-specific strategies might evidence conceptualisations of TEL: the risk is that digital strategies tether TEL to other technological concerns around infrastructure such as IT systems, integrations with student enrolment systems, and procurement.

Furthermore, where digital strategies are conceived in isolation of teaching and learning, this may foster a belief that technology is disconnected from pedagogical ambitions. To address this, I have taken pains to focus on digital strategies that focus on technology specifically for teaching and learning, and I have evaluated the overarching or corresponding general university strategy in tandem.

3.4.2 Data analysis: Stage 1

After completing data collection for stage 1, I undertook an analysis of the strategy documents to identify key themes and created an initial write-up of my observations, not with the intention of finalising my analysis, but to ensure that I had identified themes that I could consider - if not wholly address - in my interviews. My process of analysis in Stage 1 is presented as follows:

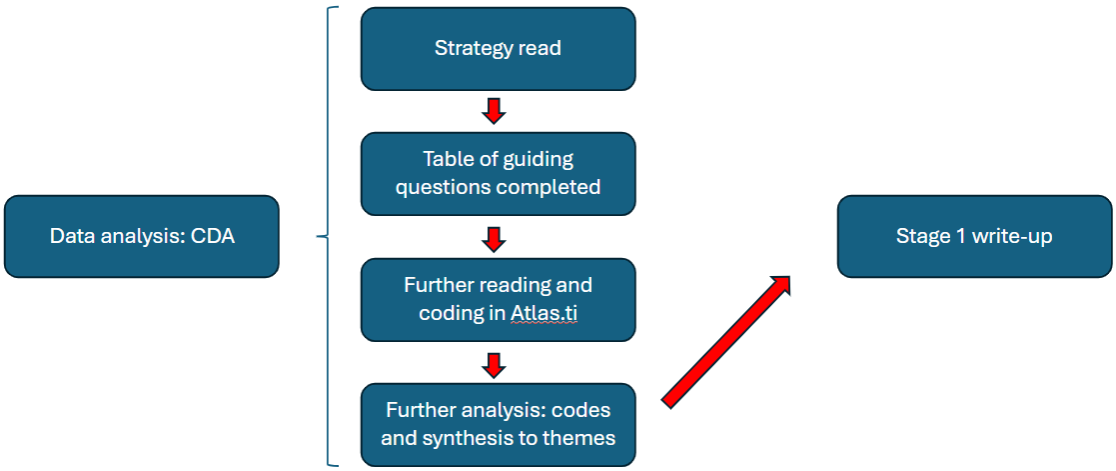

Figure 3.4. A MAP OF THE ANALYSIS PROCESS IN STAGE 1

I used the guiding questions provided by Jäger and Maier as laid out in the overview of the research to frame the analysis in the first instance, and this became a springboard for thematic analysis of the documents. For each strategy document, I populated the guiding questions table in Notion, a mapping software. I have provided an example of how this table of guiding questions was completed for each strategy document; in this case, for UCL:

Context	Why was the article selected? Why is it typical? Summarise.	UCL is a Russell Group university. The strategy was published to cover 2022-2027. It is typical to other strategies and is an overarching strategy, not just digital.
Surface of the text	How is the article structured and presented? What are the topics covered and how do they relate to each other?	It opens with the vision, mission and values then moves to **Academic Initiatives** and **Enabling Priorities.** Grand Challenges are part of the

		academic initiatives along with Planning for the future and Targeting investment. KPIs are used to measure initiatives including a new programme architecture and a new Teaching and Assessment framework.
Rhetorical means	What is the form of argumentation? What logic does it follow? What allusions are used? What actors are mentioned and how are they portrayed? What references are included?	It talks about rankings and staying in that elite. Creativity, commitment, and capability. The structure of the university is over-complex and needs to be simplified/joined up. Efficiency a key motivator. Internal and external stakeholders. Connected to the 20-year strategy UCL 2034
Content and ideological statements	What concept of society is presupposed? What concept of technology is presupposed? What perspective regarding the future is presented? **(My addition: What conception of the past is presented?)**	Address staff workload (connected to research of the pandemic). Increased competition. Need to cut costs. Difficult society. Seeking an open and collaborative environment. Describe themselves as a radical and critical-thinking community. Focus on quality. Structure is important (vs flexibility vs local pedagogies)
Other peculiarities		Local decision making still supported BUT external threat requires cross-disciplinary work and 'problem solving.'
Overall message and discourse position	What position does this take?	From complex to simple. Efficiency is necessary. Rapid innovation of the pandemic seen as an opportunity. Still mainly associating online learning with lifelong learning. Ostensibly UCL claims it does not want to make big changes and is worried

		about financial insecurity but in reality, there are significant changes proposed.

Table 3.3. EXAMPLE OF COMPLETED TABLE FOR STRATEGY DOCUMENTS USING GUIDING QUESTIONS

Following completion of the guiding questions, I read the strategy documents several times, undertaking rounds of coding which were then consolidated into themes. Quotes were highlighted and coded on Atlas.ti and were then gathered under identified themes on the Notion board.

I then wrote an initial findings and discussion paper at the conclusion of this stage and before beginning Stage 2. This allowed me to compose my thoughts about this stage before moving onto the next stage of research. My write-up was stored until after the completion of data collection in Stage 2 to which I will now turn.

3.5 Stage 2: Interviews with TEL professionals

After completion of data collection and an initial analysis of university strategies in Stage 1, I undertook the second stage of data collection and analysis, to address my research questions regarding TEL practice: interviews with TEL professionals.

3.5.1 Data gathering: Stage 2

For the second stage of data gathering, participants were interviewed via Teams. Semi-structured interviews were shaped by both discovery in the CDA process and a list of anticipated questions (see Appendix C). Transcriptions were edited for accuracy against recordings and uploaded to Atlas.ti for analysis and recordings were then destroyed.

Sampling was purposive, with specific parameters so as to limit my recruitment pool to TEL professionals across the UK. Interview participants included TEL professionals across UK higher education. As highlighted in the literature, job titles within TEL are generally broad and include learning technologist, learning

designer, online learning manager, digital education officer, or TEL manager. The specific remit of these roles can vary depending on the institutional structure: this means that each potential participant was evaluated for suitability based on their title as well as the core remit of their role. TEL staff may be sitting centrally or in specific faculties. I intended to recruit and interview approximately twelve UK-based TEL professionals to gain sufficient depth and breadth of data. I intended to and was successful in recruiting participants who were positioned centrally and in faculties, and with a various titles and points of focus within the practice of TEL.

Participants were recruited through LinkedIn and the Association for Learning Technology (ALT) mailing list. ALT is a professional association for TEL professionals based in the UK but with international membership. As a member, I had access to the ALT mailing list in which TEL practitioners pose questions in a forum style to other members and where research studies focusing on TEL have previously disseminated calls for participants. Seven of the twelve participants were recruited through an ALT forum post, four were recruited through LinkedIn and one participant was recruited through Lancaster University's communication channels. I have provided the advert text used in my LinkedIn and ALT posts (Appendix D).

The table below provides general information about each participant, with pseudonyms, including their role and whether they are centralised or faculty or school-based. These are high-level titles to protect the identities of the participants:

Anna	Female, faculty-based learning technologist
Michael	Male, centralised digital systems manager
Aaron	Male, centralised digital learning design project manager
Brian	Male, centralised learning design team leader
Sylvie	Female, centralised lecturer in Technology Enhanced Learning
Marnie	Female, faculty-based learning technologist
Connor	Male, faculty-based educational technologist
Jack	Male, faculty-based learning technologist
Jo	Female, centralised academic developer with a digital learning focus
Ranjith	Male, centralised learning technologist
Lana	Female, faculty-based learning technologist
Meredith	Female, centralised academic developer

Table 3.4. AN OVERVIEW OF THE RESEARCH PARTICIPANTS FOR STAGE 2 WITH PSEUDONYMS

Once I'd made initial contact with each participant by email, as participants were self-selecting, I first ascertained and confirmed their suitability to be interviewed by asking some general questions about their role, although generally the participant gave some professional background as part of their initial email reaching out to me and expressing interest. I then provided the consent form (Appendix A) as well as a participant information sheet (Appendix B) outlining the purpose of the study and how participant data would be collected and used to address the research questions. The interviews were recorded and transcribed on Teams, through my Lancaster University account to ensure secure transmission and storage of data.

The interviews commenced two months after the final edit of this Stage 1 initial write-up and spanned approximately four weeks. Interviews ranged in length from 45 to 60 minutes except for one interview which was recorded over two sessions due to issues with internet bandwidth.

A full list of interview questions is provided (Appendix C). The interviews were semi-structured, with the core questions used as a guide with follow-up questions based on participant responses. For this reason, the interview questions were not prescriptive and diverged, in certain cases, based on the role and remit of the participants. In some cases, new questions were asked to clarify or expand on a point made by the participant.

The themes identified in Stage 1 informed, to a limited but notable extent, some of the questions posed within the interviews in Stage 2. I did not wish for the findings of Stage 1 to influence the interviews to a point where my analysis of the transcripts was unduly influenced by Stage 1; rather, the initial analysis was intended to inform some key themes and to identify how they might link, underpin or mitigate TEL practice.

3.5.2 Data analysis: Stage 2

After the interviews were complete, the interview transcripts were checked against the recordings of each interview, with only high-level observations made at that point and marked as comments. Once the initial check of the transcripts was completed against the recording, I uploaded the transcripts to Atlas.ti but they were not initially analysed there. I decided to take a different approach to analysis of the interviews from the process followed in Stage 1.

3.5.2.1 Sketchnoting

Once uploaded to Atlas.ti, interview transcripts were checked for accuracy against the recording. Following this and before analysing the transcripts, I replayed the recordings. As I listened, I created a sketchnote for each interview on a whiteboard sheet that I secured to my wall. Following this, I displayed the sketchnote on my office wall as I reviewed the transcripts, followed by several cycles of coding and synthesising into key themes. The process is outlined further below:

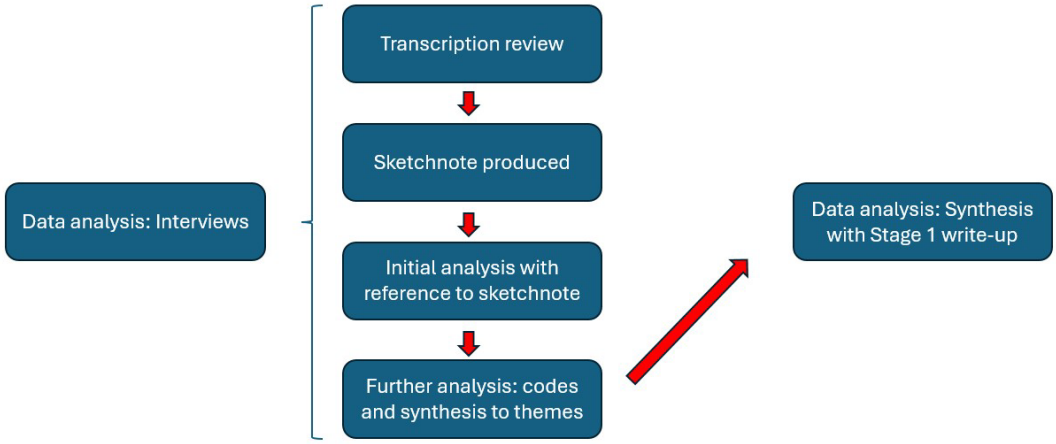

Figure 3.5. A MAP OF THE ANALYSIS PROCESS IN STAGE 2

Sketchnoting is a term that was coined by designer Michael Rohde in 2006 and is an amalgamation of the two key activities it comprises – notes and sketches. Sketchnoting is an increasingly popular educational tool, linked to other forms of notetaking and content retention, such as mind mapping and Cornell Notes. Whereas mind mapping and Cornell Notes are focused on organising concepts, primarily through text, sketchnoting provides more scope to experiment through representation. Zheng et al (2021) identify four key elements of sketchnoting: content, layout, structure, and visual style.

Content can be any combination of text and image: this includes icons, symbols and drawings, created by the note taker to consolidate key ideas (Dimeo, 2016). Although primarily handwritten, a raft of digital sketchnoting tools exist. Layout and structure indicate how the content is arranged on the page, and its level of detail and visual style may range from basic to more complex representation. The text and images are used in combination to convey meaning (Mills, 2019).

There is a small but growing body of literature investigating the impact of sketchnoting on learning and teaching in higher education. A study by Tidy et

al. (2022) investigated the use of sketchnoting with first-year forensics students at university to aid retention. In that study, the average grade in the module rose from 62% to 66% and 43% of students in the experimental cohort maintained that they would continue to use sketchnoting as a revision tool.

A study by Gansemer-Topf (2021) researched the impact of using sketchnoting in an undergraduate ecology course. In this case, the use of sketchnoting was intended to address the need for learners to develop skills in communicating scientific ideas visually, particularly through models and diagrams. The results of pre- and post-surveys revealed that students valued sketchnoting to communicate concepts but did not necessarily feel that it enhanced learning.

Singh and Guleria (2023) investigated student attitudes to sketchnoting across three separate BA courses – Psychology, Clinical Psychology and Education – and found that just under half of those surveyed found the process of sketchnoting relaxing and therapeutic and were drawn to sketchnoting as an alternative to traditional forms of notetaking.

Sketchnoting has been helpful in fostering teachers' reflective practice and can act as an alternative, creative approach to teaching students (Csachová & Kidonová, 2022). When integrated into learning, sketchnoting can simultaneously foster both holistic, divergent thinking and analytic, convergent thinking (Paepcke-Hjeltness et al., 2017).

Sketchnoting is underpinned by dual coding theory (Clark & Paivio, 1991), which argues that although people process information through separate visual and verbal channels, powerful associations can be created through the process of carefully integrating text and image. Although the included studies demonstrate positive attitudes to sketchnoting, further research is warranted to investigate how the use of sketchnoting may impact students' understanding of learning material.

In addition to acting as a learning tool, sketchnoting is also used within Human Computer Interaction (HCI) research. HCI research investigates how people interact with computers to better inform the design of technologies and was initiated as a response to computers' increasing ubiquity as they moved from large mainframes housed in research laboratories to personal computers. As computing has changed, and particularly with the advent of the internet, the nature of HCI research has shifted from a focus on automation to web tools, web design and applications (Lazar et al., 2017).

HCI research methods have evolved accordingly, and sketchnoting has become a recent tool to support richer data collection through semi-structured interviews. A study by Hwang et al (2022) investigated the use of Sketching Dialogue, in which sketchnoting functions as an interactive and participatory activity undertaken by the interviewer and the participant. They highlight that using sketchnoting can provide a means of clarifying misunderstandings between participant and researcher and eliciting longer and deeper conversations.

Although sketchnoting does not require artistic skill, it can be difficult to master as it requires simultaneous listening, synthesising and drawing (Dimeo, 2016). This was confirmed by my own experience with sketchnoting as a novice: I felt uncomfortable with the process initially and spent a bit of time practicing sketchnoting a few icons and symbols before beginning. Like my own experience, there is some indication that students' concern about their artistic ability can create hindrances to using and continuing to use sketchnotes even though this is not the core purpose of sketchnotes (Tidy et al., 2022).

My lack of artistic skills compounded my initial discomfort with sketchnoting; however, this became less of a barrier as I became more comfortable with the process. As a learning technologist, I debated using a digital form of

sketchnoting. I experimented with and was drawn to several digital sketchnoting tools but ultimately decided to hand sketch. To develop a foundation of knowledge and comfort with sketchnoting, I used Rodenhiser's *Beginner's Guide to Sketchnoting* (2023) as a reference. The guide was particularly useful in giving me ideas for icons with opportunities to practice drawing specific icons in the book's practice sections.

My discomfort with the sketchnoting process was somewhat by design. I wanted to 'make the familiar strange' and counter the comfort of analysing text in the way in which I have normally conducted research. In other words, I wished to use creative approaches that stretched me as a researcher, to defamiliarise myself with the process of data analysis and the data itself and to forge new connections with the data. This process of defamiliarisation can be particularly useful in research such as my own where I identify as an insider researcher (Mannay & Creaghan, 2016).

I also felt that it was important to capture the experiences of TEL professionals in the Stage 2 interviews in a way that diverged sufficiently from that of Stage 1, where all analysis was done through coding strategy documents on Atlas.ti. This allowed me to bracket off that stage of the research and focus on Stage 2 before returning to Stage 1 to synthesise the findings across both stages.

As discussed earlier when laying out the dispositive triangle framing this research, the standard way to capture the non-discursive practices of TEL professionals is through direct observation. However, several circumstances precluded this. The nature of work within HE for TEL professionals has changed: many of the participants highlighted the hybrid nature of their role in which the bulk of activity is done online and remotely, away from observation. Furthermore, HEIs are protective environments. Seeking access to TEL professionals across different institutions would have likely encountered

obstacles and potentially put participants in uncomfortable and exposed positions in relation to their respective institutions.

Interviews are inherently discursive. In the process of explaining their practice, non-discursive components become discourse. Regardless, I believe that TEL professionals being asked to vocalise their own practices produces results that diverge from the institutional discourse of TEL and provides an opportunity to make the tacit explicit both to themselves and to me as the researcher. In essence, the task of analysing non-discursive practice "is to reconstruct the knowledge that enables and accompanies that practice" (Jäger & Maier, 2009, 58).

However, I also recognised that TEL professionals operate within the discourse of their institution and are subject to the same biases in framing their practice as I am in analysing them. Rather than viewing this as problematic, I saw this as an inevitable result of the dialectic between discursive, non-discursive and materialisations that comprise the dispositive triangle. The way in which participants framed and described their practice *in relation to discourse* was pivotal to answering RQ2 and RQ3 and participants' situatedness shapes their practice and the narratives that arise from that practice.

By positioning the Stage 2 process as the creation of an overarching narrative, I incorporated each participants' experiences as fragments of that overall narrative rather than individual, overarching truths. Their individual process of vocalising practice formed part of my analysis. I viewed my own role as organiser of the narrative, with interrogation of the language used by participants but also with awareness of my own perspectives on practice and how I reflect on and vocalise my practice in relation to the institutional discourses I resist or reflect. My field notes incorporated my perspective on practice in relation to these narratives.

In relation to this data, I viewed myself as a constructor of these different pieces of the narrative puzzle. I used the Stage 1 findings as a reference point for how TEL practice responds to discourse on an individual and collective level.

In framing my research around their dispositive triangle, I followed the guidance of Jäger and Maier (2015) in which they have highlighted that approaches to dispositive should not become codified. They argue for a bricolage approach that is flexible and context-driven, allowing for “a systematic incitement for researchers to develop their own analytic strategies, depending on the research question and type of materials at hand” (134). This flexibility encourages creative approaches to research that may surface new perspectives, particularly after completing one full phase of data collection and analysis.

The sketchnoting process allowed me to immerse myself in each participant’s narrative, capturing their individual experiences. Acting as an enforced point of reflection before progressing to synthesis of experiences, the process respected each participant’s unique experience of TEL whilst also identifying commonalities. In essence, these artefacts became not only part of the data analysis but also a way of retaining the distinctive perspectives of each participant, which stayed with me even as analysis converged experiences into themes.

Finally, sketchnoting may address what Jäger and Maier (2015) see as a key shortcoming of Foucault in his explication of discourse: the oversight and devaluation of physical production and artefacts. They operated as physical representations of individual TEL practitioner experiences as well as visual field notes to which I referred in conjunction with other documentation produced during the analysis process.

Each sketchnote was produced on a whiteboard sheet affixed to my wall, and I populated each sheet as I listened, replaying a few sections for further

clarification but otherwise listening to each interview recording without pause. A few examples of the resulting sketchnotes are presented below:

Figure 3.6. EXAMPLES OF SKETCHNOTES CREATED FOR EACH RESEARCH PARTICIPANT

3.5.2.2 Coding and themes

Upon completion of sketchnoting, I moved to analysis of transcripts. Throughout this process, I took notes of my observations and emotions based on the challenges I faced with coding and eventually grouping those codes into overarching themes. As discussed in the overview of the research process, Thematic Analysis by Braun and Clarke (2022) guided my approach to coding and consolidation into themes.

In the first rounds of coding, when accessing each participants' transcript, I re-pinned his or her sketchnote to the wall as a reminder of their narrative. I reread each transcript several times, identifying patterns and using the Atlas.ti colour coding system to create an initial round of codes. As I grouped codes into themes, I created several maps to organise these themes along with any identified links to the themes that I identified in the Phase 1 analysis at a high level.

One key observation made through the coding process was my desire to undertake inductive coding, allowing the data to guide my codes and themes whilst also acknowledging that the data from Stage 1 would help me to identify the tensions between themes identified in that stage with the dataset in Stage 2. In undertaking a narrative approach to interviewing participants, I appointed myself the constructor of truth of these narratives: in other words, I interpreted the stories related to me by TEL professionals rather than providing a summary of the narratives provided.

I also recognised that I had already established themes from my first round of analysis and wished to consider how these codes and themes responded to, challenged or coalesced with those themes. I grappled with the tension between inductive and deductive coding throughout, particularly as I was aware that my own experiences as a TEL professional working in higher education influenced my observations.

I used the tensions that practitioners identified in relation to their institution as a starting point. This stage elicited codes including: ‘back to normal’, ‘empowering academics’, ‘strategy vs reality.’ Generative AI produced several initial codes including: ‘generative AI for efficiencies’, ‘experimentation’, and ‘unsettling teaching and learning.’

As an insider researcher, I viewed my status as a TEL professional as beneficial to the analysis process. I felt personally invested in the findings from the perspective of understanding the limitations and opportunities of TEL practice and identifying enough commonality across individual experiences to provide some recommendations that might inform my own practice as well as that of other TEL professionals. I also identified variances in perspective, for example, when considering the role of generative AI in TEL practice or how innovation is conceptualised.

Consequently, the analysis of findings in Stage 2 were a significant endeavour. I returned to my codes after periods of time away. I revisited and revised my thematic maps regularly and went through several iterations to reach my final themes. In the run up to this, I evaluated my codes several times, in several cases re-assigning or re-organising codes.

My goal was to move from surface analysis to latent coding, eliciting deeper meaning from the data and positioning me as an active and creative interpreter of meaning (Byrne, 2022). On at least two occasions, I listed snippets of recordings to remind myself of what the participant had vocalised as I sometimes found that the data did not represent my own recollections of the interview itself.

At several points, I separated participants by their position on the spectrum of technology to pedagogy to try to ascertain what differences could be identified based on these positions, if any. I also separated participants by centralisation

versus school or faculty to establish any divergences. In the end, these different slants in the analysis allowed me to consider different perspectives on the data and to re-affirm my final themes.

3.6 Bringing the analysis together

Once I had consolidated data from Stage 2 into themes, I returned to my Stage 1 write-up. I did not undertake a full write-up for Stage 2. Instead, the Stage 1 write-up became a foundation for a write-up of my overall findings. Incorporating the full write-up from Stage 1 into an overall analysis across both stages was incremental and went through various stages of development. This was a process in which Stages 1 and 2 were synthesised and in which my mapping of themes was revisited and revised several times.

I synthesised my analysis iteratively, reacting to my findings from Stage 1, considering where tensions between Stages 1 and 2 were located and drawing on the themes that came through the convergence of analysis in both stages. This was one of the most time-consuming aspects of the research process and I re-organised my overarching themes several times, influenced by continuous appraisal of the findings and identifying different ways in which themes potentially intersected or diverged.

Through this process of synthesis, themes were grouped across facets of change, a key theme identified in both the research undertaken to set the context for my study in Chapter 1 and the themes firstly identified in Stage 1 analysis and then reaffirmed or rejected in Stage 2. Using change as an overarching starting point, allowed me to consider the facets of change enacted through practice in relation to overarching discourse, be that through reification or mediation, translation and rejection.

3.7 Ethical considerations

Ethical approval for this project was sought and approved by Lancaster University.

I have approached my research with a consciousness of my own beliefs and conceptualisations of TEL. As a learning technologist and former learning designer, my practices have been shaped by conceptualisations of discourse at an institutional and sectoral level. I am aware that my own assumptions and biases are a component of the research that should be acknowledged and managed but not rejected.

Whilst I am aware of my position as an insider, I am also conscious of my position as an outsider. Although I have previously worked in higher education, I am currently working elsewhere in the public sector. I am aware that, in scrutinising institutions, I am doing so through the lens of my own experiences within the sector but also without direct exposure to the impact of strategy on practice. I believe that individual TEL professionals also reflect the culture of their institution and present their practice through the lens of their institutional culture. As a TEL professional who sits outside of their respective institutions, I may practice TEL, but that practice can be shaped by different attitudes and terminologies to their own as writ through the institution and the relationships and assemblages within those institutions that shape TEL practice.

Qualitative research recognises researcher subjectivity (Bourke, 2014; Cohen et al., 2018). Researcher positionality operates as a strength, particularly in evaluating the macro-level discourse against ‘on-the-ground' practices of TEL colleagues. In identifying as an insider to the TEL community, I risked assuming commonality with the participants and perhaps consequently overlooking the different perspectives and experiences that I am attempting to discern. I attempted to mitigate this through regular field notes and reflective writing on which I will expand in the next section.

As an outsider, I also risked missing components of the conflict between discourse and practice that are afforded to those directly involved. Conversely, my insider status allowed me to identify with the participants, understand the challenges and opportunities they presented, and evaluate these findings through the lens of my own experiences.

3.7.1 Trustworthiness of my research

One identified concern with Thematic Analysis revolves around representational ethics, or the harm created in misrepresenting the experiences related to us as researchers in the process of making meaning from their stories (Braun & Clarke, 2022). This risk was allayed in several ways: firstly, I was honest and clear with participants that my analysis would involve telling an overarching story from several participants' experiences, not providing individual case studies.

Furthermore, by using sketchnoting, I retained individual stories throughout the analysis process to remain respectful of individuals' perspectives whilst undergoing the process of identifying themes that would be both familiar and unfamiliar to individuals' experiences when viewed in isolation. Such approaches align with the mitigation presented by Braun and Clarke (2022) to this potential ethical risk.

In establishing trustworthiness, I was guided by the four criteria of Lincoln and Guba (1985) in qualitative research: credibility, transferability, dependability and confirmability. I have been guided by their suggestions to achieve each component of trustworthiness as follows:

Credibility

Prolonged engagement was undertaken, by reflecting on my own position as a TEL professional, through extensive analysis of the interview transcripts,

including sketchnoting, and investigating similar studies as part of my literature review as well as identifying how other TEL practitioners have engaged in research on their own community. This was balanced against becoming immersed in individuals' contexts or becoming overly familiar in interviews whilst fostering rapport. Identifying myself as a TEL professional and revealing that this has driven my research was balanced against assuming that I could immerse myself in individual practices or lead respondents towards opinions or ideas that shape my own practice.

Triangulation of data was used by segmenting my findings across two approaches: one through CDA of documents and another through interviews with TEL professionals. These findings were compared to identify themes but were also used as 'checks and balances.'

Member checking was used, as I sent the findings and discussion in draft form to a couple of participants to gain their perspective on how they were represented in the findings.

Transferability

My findings are contextual and may not allow for wide generalisability. This does not mean that my findings cannot be applied to other contexts and I have used what Geertz (1978) refers to as thick description to present the culture in which respondents practice, in my introduction, my literature review and throughout my findings and discussion sections. In part, Stage 1 has set the scene for the culture of TEL in higher education and works in tandem with the findings in Stage 2.

Dependability

I have kept a comprehensive record of my research, from the initial proposal and problem formation through to analysis, transcripts, field notes and various iterations of the mapping process underpinning my analysis. This includes notes

on why I made changes to the mapping and themes, listed as my justifications to ensure that I could refer to those decisions at later points in my analysis and write-up. This ensured I could provide an audit of my process in addition to discussing my decisions with my supervisor as a sounding board.

Confirmability

I have conducted this research in good faith, understanding that pure objectivity is not possible nor necessarily desirable in social research. To evidence this, I have continually revisited my own biases and reflected on my analysis, through notes and journal entries at each stage of the research but particularly as I've analysed the data. This includes careful notation of my decisions when analysing the findings.

3.7.2 Protection of research participants

Through the interview process, I asked participants to critique current practices within their institutions, resulting in potentially negative perspectives of the senior leadership of their institution. With that in mind, I ensured that I protected the identities of participants and that all data was anonymised and not identifiable in relation to any individual institution. As mentioned above, in two cases, I have shared my findings with the participants to gauge their perspective on how their experiences are represented and analysed in the research.

Throughout the course of my research, I maintained a reflective journal, that sits separately from my data analysis. I used this journal to record my observations of the process of research and how it affected my assumptions as a TEL professional. I wrote on a weekly basis as a form of meditative reflection that sat separately from my analysis and allowed me to focus my thoughts on the research process and ensure that, during periods in which I felt I had made less progress, I still had a point of reflection on the research. This journal acted

mainly as a repository for my own reflections and does not appear with the other data collected during the research.

3.8 Summary

This chapter has presented my research design, including my methodology, and both stages of data collection and analysis. Capturing narratives of TEL through discourse and practice has been framed by a CDA methodology, specifically dispositive analysis. These two stages have formed the basis for my findings and discussion section, which will be presented over the next two chapters.

Chapter 4: Findings and discussion: Change and innovation

4.1 Core themes and structure

This section presents the key findings and points of discussion resulting from two stages of research outlined in the previous chapter. Themes were derived from these findings and expanded upon in response to the existing literature outlined in Chapter 2. Before exploring these themes in more detail, I will provide a brief overview of the themes identified and how they are organised.

As highlighted in the literature and explorations of discourse presented earlier in this thesis, HEIs are experiencing unprecedented change that echoes wider social change. Generative AI is one example through which systemic change extends beyond academia, provoking wider considerations than teaching and learning. In viewing technology through a sociomaterial lens, technological change within education is not positioned in isolation but is part of larger social disruption. The earlier chapters of this research have highlighted some of the wider contextual challenges and opportunities within UK higher education and TEL.

Conceptually, HEIs have viewed change as simultaneously beyond their control and an opportunity to reflect on how technology could be used to the best effect (Kumar et al, 2024). In analysing the way in which change is conceptualised, I identified two core themes within institutional discourse that shaped TEL narratives in this period: innovation and transformation.

As established in the review of the literature, new TEL practices emerged during the pandemic (Broadbent et al, 2023; Chaudhury, 2023; Robson et al, 2022). Whether these activities were, in fact, innovative is ambiguous and challenges conceptualisations of innovation. Regardless, a strand of innovation

discourse pervades, in which ERT facilitated experimentation and creativity in teaching and learning. Whilst discourse positions innovation as a proactive means of improving existing teaching models, it is also positioned as necessitated by external threats: HEIs must innovate or risk irrelevance in the face of technological change. Furthermore, even as the term innovation is ubiquitous in discourse, the operationalisation of innovation is opaque and context-driven, opening it up to different interpretations.

The findings and discussion will interrogate how innovation is positioned in discourse and practice, to ascertain how it is currently used and how it might be repurposed to facilitate rather than hinder TEL professionals' collaboration with academics.

Beyond opportunities to innovate and improve, the pandemic and generative AI have changed and continue to change the nature of teaching and learning, potentially at a fundamental level. Concepts of the digital university, space and place, and curriculum development have shifted (Beetham & MacNeill, 2023; Gravett, 2022), but, as with innovation discourse, transformation may not be as extensive in practice as discourse would have us believe.

Consequently, change has been the overarching theme of this research and is broken down and analysed as mapped below:

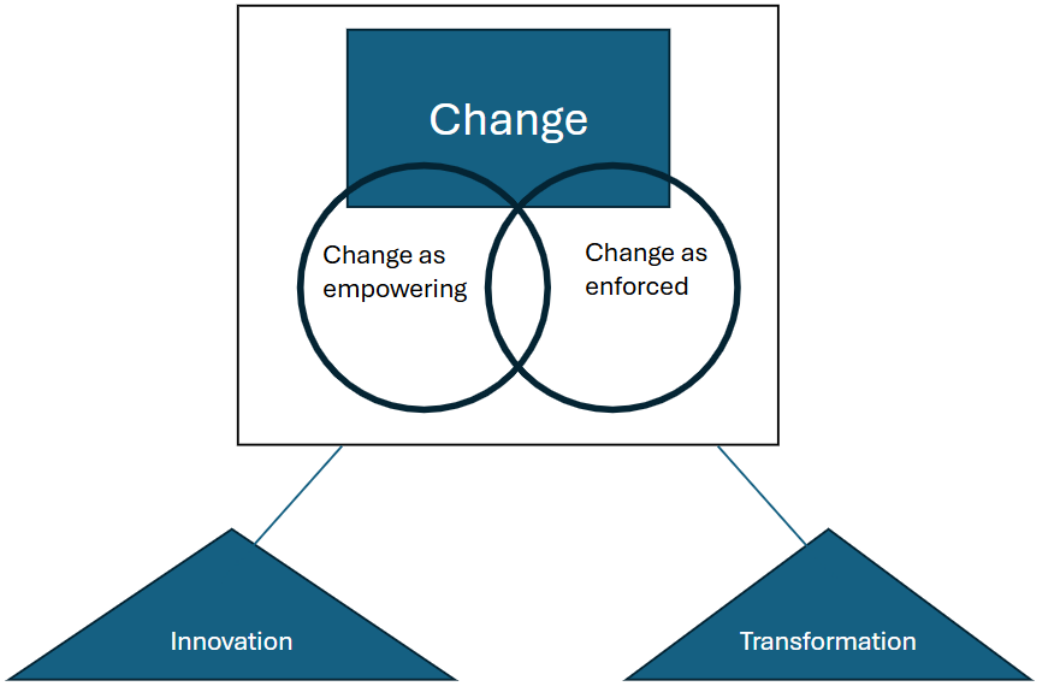

Figure 3. MAP OF OVERARCHING AND SUBTHEMES

An overarching narrative of change shapes conceptualisations of TEL, with the pandemic and generative AI representing change that has been inflicted upon HEIs and reconstituted within discourse. Operating within this narrative, TEL professionals have shaped their practice as they work within —but also challenge —the parameters of discourse, particularly as discourse is transmitted through institutional strategy. This includes mediating conceptualisations of TEL between leadership and academics and shaping the priorities of TEL strategy to suit context.

TEL practices have evolved in tandem with technological developments and increased applications of technology within HEIs. In conjunction with these evolutions, conceptualisations of TEL have been shaped by viewing technology as a solution to problems and an instigator of problems. TEL professionals balance these competing narratives and ambiguous areas of practice by leveraging the benefits of operating within the Third Space, which can obscure and diminish their contributions but also allow them to subvert and shape discursive strands of TEL.

I will now delve deeper into these themes and how they have manifested in discourse and practice, starting with the overarching theme of change before exploring change in relation to innovation and transformation.

4.2 Navigating change

Although interpretations and applications of Emergency Remote Teaching (ERT) varied to an extent, from institution to institution, HEIs underwent a universal, shared experience of sudden, significant change in the wake of the COVID-19 pandemic (Bartolic et al, 2021). In contrast, HEIs have failed to harmonise post-pandemic reflections of ERT to shape a cohesive and universal narrative of that time. This incongruousness directly impacts TEL practice.

4.2.1 Discourse of change: Upheaval and opportunity

On the one hand, discourse elevates ERT experimentation to agitate for continued innovation and transformation. Within this discourse, ERT, although enforced, allowed for experimentation with technology at a speed and scale that was unprecedented (Beetham & MacNeill, 2023). Sustaining the mindset and determination that characterised ERT has challenged HEIs as they emerged from the pandemic. Post-pandemic discourse has amplified a narrative in which technology is core to sectoral success and is aligned with knowledge production and dissemination as well as idealised futures:

> Our community has the potential to lead in a complex world, using technology to advance knowledge, connection and creativity. (University of Dundee, 2022, 2)

When positioned in this way, ERT discourse catalyses positive change, through an exhortation to continue the momentum experienced *during* the pandemic as a means of addressing unprecedented challenges *after* the pandemic.

Alternatively, and equally core to institutional discourse is the concept of crisis, in which the pandemic triggered a significant physical, financial and emotional burden on the sector that persists post-pandemic:

> The long tail of COVID lingers, the climate emergency begs ever more urgent intervention, digital technology signals profound changes for the way we live and work, and major constitutional and cultural questions are being asked in this country and others. (St Andrews University, 2022, 2)

As highlighted by this statement, and in contrast to the statement by University of Dundee, digital technology has expedited a challenging form of change that must be addressed by the sector, within a wider sphere of large-scale crisis, uncertainty and anxiety. When viewed through this lens, the pandemic is positioned as a wake-up call for the sector rather than an opportunity to tap into new approaches to teaching and learning.

Although not explicitly discussed in detail across strategies due to its emergence at the time of publication, generative AI is indicative of the swift and significant impact of digital technology on HEIs. The above statement by St. Andrews seemingly addresses the impact of generative AI to teaching and learning thus far—if implicitly—by highlighting both the speed and scope of change enacted by technology.

The sector observes generative AI developments with a mixture of admiration, hope, scepticism and fear (Ivanov et al, 2024; Moorhouse & Kohnke, 2024; Watermeyer et al., 2024). Concerns surface, in part, because the proliferation of tools has outpaced the ability of HEIs to manage appropriate methods for educators and students to respond to them. Generative AI's impact on higher education remains opaque and unsettled. Unlike ERT, it evades a clear and delineated response, and its complexity indicates that this uncertainty will persist for the foreseeable future.

Within discourse, the pandemic and generative AI represent two pivotal moments, exposing higher education to unprecedented, accelerated change (Beetham & MacNeill, 2023):

> Progress with [...] objectives was incremental, until the COVID-19 pandemic forced more rapid change. (Oxford University, 2023, 1)

> The disruptive progress of technological change, especially in Artificial Intelligence (AI), is further transforming many aspects of research, teaching and administration. (UEA, 2024, 5)

In the face of these two significant events, HEIs attempt to control the TEL narrative by channelling enforced change into orchestrated, strategic change. Within this narrative, technology not only represents the means through which higher education can sustain itself: it facilitates new opportunities that, when pursued, empower the sector to lead rather than follow.

However, taking the mantle of leadership comes at a cost: higher education requires significant, fundamental, and potentially painful change to lead. Discourse designates the post-pandemic period as a rite of passage for the sector, in which reaping the rewards of transformation requires struggle and sacrifice:

> Crises bring discomfort, but they also bring ambition and hunger for change. (St Andrews University, 2022, 2)

Within this strand of post-pandemic discourse, the pandemic initiated a crisis from which the sector survived but did not necessarily thrive. Exhaustion from the pandemic has extended into cynicism wrought by larger, systemic challenges, including a streamlined operating environment and its corresponding negative impact on labour within higher education (Hall, 2024).

The pandemic has also forced institutions to ponder what it means to teach and learn (Gravett, 2022; Robson et al, 2022). Within this narrative strand, discourse promotes change that does not offer any clear benefit, only damage limitation:

> Like many organisations, we are experiencing significant financial headwinds which, without action, will erode our ability to invest in our academic aspirations. (UCL, 2022, 17)

Regardless, the narrative strands of imposed change and empowering change intersect and overlap demonstrating the complexity of discourse, how it is formulated and re-formulated based on the interlocutor and who is contributing to shaping or reconstituting its message.

4.2.2 TEL professionals navigating change

TEL professionals have been significantly impacted by this systemic and sectoral change, both directly and through the extent to which they can affect change with other institutional actors, particularly academics.

As demonstrated in the literature, TEL professionals, as Third Space workers (Whitchurch et al, 2018), often operate on the margins, directing and channelling change through subtle actions that may not reflect what their institution expects. Despite their pivotal role during both the pandemic and in the emerging conversations around appropriate use of generative AI in teaching and learning, TEL professionals' experiences remain underexplored in the research when compared to academics (Watermeyer et al, 2021a).

Technological change shapes the language and strategy of TEL (Clark, 2023) as well as the practices of TEL professionals. The pandemic and generative AI – distinguished from each other in character and response – reveal the thread of technological impact on society and the corresponding influence on higher education. TEL professionals mediate these different and shifting perspectives of technology as part of their practice (Han et al, 2023).

TEL professionals represent a faction of HE workers who, as part of their role, accept and embrace change, understanding that their ability to remain current in their practice precludes complacency (Fox & Sumner, 2014). Although accustomed to managing change within their practice, they also acknowledge resistance to change and broker with those who resist:

> As a learning technologist, you have to evolve and adapt and learn and be open-minded and unfortunately not everyone is like that. (Marnie)

In addition to contending with change, TEL professionals negotiate fault lines within their institutions and reconcile institutional ambition with the realities of their context (Han et al., 2023). This sometimes generates cynicism and a sense of revisiting the same conversations with little impact when leadership initiates change through strategy:

> There's been three digital strategies in the [last 8 ½ years] that have had a lot of money thrown at them in terms of developing them, and then nothing's actually happened as an output out the other side. (Meredith)

Consequently, whilst TEL professionals may embrace change as part of their role, they have become wary of change at leadership level that remains superficial and distracting from other priorities.

TEL professionals operate within the Third Space as representatives of change, evolving in relation to the changing role of the academic (Buckley et al., 2024; Fox & Sumner, 2014; White et al., 2020) which complicates the relationship between the two in the wake of strategic proselytisation for digital change. This is partly because TEL roles ostensibly represent institutional digital ambitions and may be viewed as proponents of and conduits for strategic change when engaging with wary academics. This is particularly true where a change in

practice associated with a change in TEL strategic direction requires additional time commitment and responsibilities:

> Some staff are eyes closed, ears closed: 'It's just another thing I can't deal with right now.' (Meredith)

Whilst embodying leadership's concept of what TEL practice should be, TEL professionals also seek to contain unrealistic expectations from senior leaders that technology will change higher education for the better, *prima facie*. Consequently, TEL professionals frequently resist acting as the messenger of digital ambition, preferring to mediate TEL discourse, particularly as their ability to undertake their role is dependent on academics (Jumat et al., 2023):

> There is this constant need to be led by an academic in terms of certain activities, processes pushing things forward. (Connor)

Regardless of changes at institutional, sectoral and social level, this balance remains a constant component of TEL practice. Within a landscape of increased uncertainty and precarity, TEL professionals are accustomed to having to adapt their role to accommodate change:

> It is that weird Third Space professional balance, I think we're contending with, we're continuously having to remind people what we're doing. (Brian)

4.2.3 Change in discourse, change in practice

Higher education has always been a locus for change, both enforced from outside and initiated from within. What distinguishes post-pandemic discourse is the normalisation of the unique circumstances of ERT whilst also unsettling traditional conceptualisations of teaching and learning. This period of discourse is emergent, fluid and subject to the changes that shape its narrative, particularly as generative AI continues to influence the discourse and practice of TEL.

Post-pandemic challenges have prompted soul-searching on the part of institutions to reassert themselves in a new landscape:

> We are experiencing a milestone moment for our university, as we collectively attempt to ambitiously redefine our strengths, our dreams, and our presence in the post-Covid-19 era. (University of Dundee, 2022, 4)

TEL professionals play a key role in shaping this narrative. They are established mediators of discourse both in their own practice and in shaping the practices of those with whom they work. However, they also have the capacity to contribute to more open discussions within their institutions about effective TEL practices.

The current body of post-pandemic TEL research has focused on determining what ERT practices might be retained, attempting to determine what was innovative and what was transformative. Through my analysis of the findings, I wish to address a key gap in the literature: addressing the way in which these terms are used to influence TEL practice, rather than to determine any overarching truths on *what* was innovative or transformative during that period.

This is because conceptualisations of TEL generally fail to account for the way in which technology can be unfaithful to their users (Latour, 1988; Sørensen, 2009): in other words, they often evade simple or romantic narratives. Human interactions with technology, whether learners, academics, or TEL professionals are fluid and relational, making determinations about specific uses of specific technologies a misleading exercise.

I will now explore the ways in which change has manifested across discourse and practice in specific ways that are both indicative of initiated change and enforced change through innovation and transformation discourse.

4.3: TEL innovation and transformation: Change by design and responsive change

Within post-pandemic discourse, invocation to innovative practice has become a central concern and has become discursively entangled with transformation. Although used somewhat interchangeably, innovation is more indicative of a change to existing practice whilst transformation seeks to enact systemic and foundational change (O'Dea, 2024). Innovation and transformation within institutional discourse are primarily anticipatory in nature: changing and uprooting current approaches purportedly protects the sector from external forces that represent change for the worse whilst also positioning HEIs as forward-thinking.

These discourses encapsulate the desire to control the dynamic of change: they recast HEIs from being subject to external change to leaders of change that may reverberate outward. HEIs that appear to innovate and transform are empowered to shape their future; those that do not are at the whim of external forces. Consequently, technology, innovation, and transformation intersect within institutional discourse.

Digital approaches are perceived as integral to the future direction of teaching and learning, reflected by commonly proclaimed statements of the current landscape of higher education that 'everything is blended' (Beetham & MacNeill, 2023; Walker & Voce, 2023). However, there is little explication about what digital approaches might entail. Within this discourse, technology acts as the means of innovation and transformation even as technology also unsettles existing relationships, knowledge structures, and teaching and learning practice.

Competition has fostered and been fostered by an individualist approach that is part of neoliberal configurations of the sector. This competitiveness has been compounded by the pandemic highlighting extensive variations in digital

maturity across institutions (Skelton, 2023) and is indicative of an unwelcome form of transformation which has been foisted upon the sector and which HEIs seek to contain and redirect.

I will now explore the ways in which technology is used as a conduit for sectoral ambition, conceptualised through innovation and transformation. These discourses seek to empower universities to take control of their future even as the narrative acknowledges operating within a landscape of crisis. Furthermore, the liberal application and interpretation of what constitutes innovative and transformative practice may limit rather than open TEL practice.

4.4 Innovation: A continuation of ERT practice

Innovation discourse promotes enhancement of existing practice. Innovation captures an array of deterministically positive activities that shape research, partnerships and collaborations, and teaching and learning. Technology represents a common thread across these activities and has become integral to innovation discourse within higher education (Clark, 2023), particularly in relation to pedagogical innovation.

Innovation discourse leverages deterministic language when describing TEL (Lee, 2021). Solutionist discourse around technology – particularly technology for teaching and learning – has been a longstanding axiom within the sector but has gained traction in the post-pandemic period. Within this discourse, through incorporation of digital components into teaching and learning, innovation may be expected to arise organically (Lee, 2021).

Promoting commitment to and investment in digital teaching and learning stems from a belief that lack of digital capability within institutions leaves them vulnerable. The pandemic highlighted inconsistencies across institutions in relation to their ability to handle the sudden shift to online learning (Bartolic et al, 2021). According to a report from JISC in relation to HEI digital strategies:

> Varying investment in digital before COVID-19 meant that some universities were better prepared than others. (Skelton, 2023, 6)

Whilst the pandemic acted as a catalyst for some universities to prioritise technology, the post-pandemic period emphasises that these priorities are essential for institutions to survive. Technology has not only provided the conduit through which innovation within the sector can flourish; it will also dictate the direction of teaching and learning:

> Our innovative use of digital technologies will be critical to our future approach to education. (University of Dundee, 2022, 2)

The pandemic is positioned as facilitating this push to innovate through online learning:

> There will also be an exploration of the potential to evolve and develop our online education provision, taking advantage of the rapid innovation during the Covid-19 pandemic. (Oxford University, 2023, 18)

Within this discourse, *innovative* approaches to teaching and learning cast the pandemic as a period of unprecedented experimentation, demonstrating agility and enterprise (Mercer-Mapstone & Bovill, 2020). ERT required a new approach to teaching and learning that was systemically underpinned by technology (Colreavy-Donelly et al., 2022; Mercer-Mapstone & Bovill, 2020).

Post-pandemic discourse argues that higher education must recapture and sustain those innovative practices as a means of maintaining relevance in an uncertain landscape. When viewed more pragmatically, what also distinguished ERT innovation was the speed with which support mechanisms were put in place. Consequently, TEL professionals and colleagues were not impeded by the standard bureaucratic processes:

> COVID got everything approved mysteriously overnight, which was very helpful, but it was done because it was needed. (Michael)

Leveraging narratives of novel approaches during the pandemic as a means of promoting post-pandemic innovation does not make explicit what was categorised as innovative practice. As identified in some of the literature, distinguishing which characteristics of ERT should be retained is problematic as examples of good and bad practice existed in tandem (Ju-Zaveroni & Lee, 2023).

For example, although flipped classrooms and digital lectures were particularly successful in some contexts (Chaudhury, 2023; Robson et al, 2022), they were less well-received in others, making the judgment of innovative practice difficult for institutions to unpick. The 'problem' of what constitutes ERT innovation is highlighted by the fact that some of the post-pandemic research cited in this paper uses the term innovation freely and with little clarity about what it means (Broadbent et al, 2023; Walker & Voce, 2023).

Perhaps highlighting how problematic it is to evidence or pinpoint ERT innovation, discourse fails to unpick ERT practices in using it as a call to action. In some cases, discourse surmises that it would just require a continuation of what has already been put in place:

> Many programmes utilise innovative teaching techniques and practices, some of which have been hastened by the pandemic. (Oxford University, 2023, 10)

Because discourse glosses over these deleterious changes, it creates further resistance to TEL innovation within teaching and learning. Even as ERT sets the stage for innovative practice post-pandemic, TEL professionals recognise that expectations to innovate – particularly with technology – create further burdens for academic staff:

> As soon as we talk about technology and innovation there is often, there's very, very high expectations there. (Jo)

Whilst institutional discourse actively promotes innovation, how TEL innovation is operationalised remains vague and under interrogated, creating a gap between ambition and reality. This gap has surfaced tensions that obstruct rather than encourage TEL practice. One interview participant highlights how TEL innovation discourse, used to solidify a shared vision, ignores its complexity:

> I avoid the word innovation. [...] I avoid it because it's different for different people depending on their context, their experience. (Jo)

ERT has been positioned as a period of fruitful experimentation, in which institutions used technology in novel and expansive ways (Broadbent et al., 2023; Chaudhury, 2023). However, ERT also resulted in unsustainable work practices, long hours, burnout and concerns about safety and employment (Hristova, 2024).

Many academics view the pandemic as a moment in which disaster capitalism initiated more forceful managerialist approaches and consequently, the deterioration of academic agency (Hall, 2024; Watermeyer et al, 2021b). Under neoliberal regimes, institutions have increased their emphasis on accountability and productivity, with academic labour compartmentalised and attached to measurable outputs. Technology facilitates this exploitation of HE workers, particularly academics (Hall, 2024), through more substantive tracking and monitoring, regardless of any explicit primary purpose.

The divide between expectations set at institutional level through discourse and the reality of academic workload places pressure on TEL professionals to reconcile this divide, particularly as they are well-placed and expected to

translate TEL innovation in ways that support academics and foster engagement:

> I think I would much rather innovation be disciplinary. [...] I do not need English teachers to reinvent Turnitin. It's just not that interesting. Reinvent English teaching, reinvent the way we look at Shakespearean dreams. Do that. Do your job. (Lana)

TEL professionals balance the ambitions of institutions promulgated through strategic discourse with the realities and constraints that they witness in their own practice and the practices of others, namely academics. Innovation discourse has used ERT to demonstrate how significant, impactful change can be enacted quickly: however, it ignores the ways in which traditional mechanisms and knowledge structures have been dismantled to facilitate change. As these structures re-emerged and, in some cases, calcified, post-pandemic, what it means to innovate has become even more indecipherable.

I will now explore the core ways in which innovation is positioned within TEL discourse, most notably how innovation with technology can purportedly make teaching and learning more personalised and flexible as well as more efficient. I will also interrogate how these discourses of innovation have influenced and been influenced by TEL practice.

4.4.1 TEL innovation: Flexibility as personalising learning and alienating teaching

Innovation in teaching and learning has become increasingly fixated on customising learning experiences, facilitated by technology. Institutional discourse argues that technology allows universities to provide more flexibility for students, which has cascaded into calls to increasingly personalise learning experiences (Clark, 2022). This flexibility gained impetus during the pandemic:

> The university has made exceptionally positive progress during the pandemic in progressing inclusive and flexible teaching and assessment practices. A flexible and inclusive teaching approach preserves the high quality, personalised education that is our hallmark. (Oxford University, 2023, 5)

In pedagogical terms, personalisation assumes that learners identify different aspects of their learning as more or less salient (Verpoorten et al, 2009). Associated pedagogical theories like constructivism and self-regulated learning underpin the concept of personalisation, with an increased focus on the individual learner (Biesta, 2015). As pedagogical approaches within higher education have shifted to support constructivist approaches to learning, in parallel, an expansion of student intake associated with massification of HE, has led to changes in the teacher-learner dynamic and repositioning students as customers (Giannakis & Bullivant, 2015). In conceptual terms, personalised learning would seemingly free up capacity for educators and satisfy the self-directedness of learners.

Its operationalisation is problematic and personalisation as a discursive term invites complexity and confusion as it implies more than merely providing a programme as online, blended or in-person. Is personalisation about modality? Or does it imagine even more individualised approaches to learning (Pesovski et al, 2024; Yusuf et al, 2024)?

The underlying principles around personalisation appeal to educators: recognising students as individuals with diverse and different needs prioritises empathy for learners and indicates an opportunity to re-envision and improve established approaches to teaching (Gunawardena, 2024). These ambitions are tempered by confusion about how to implement and sustain personalisation, and how personalisation might differ from differentiation (Gunawardena, 2024). Gunawardena indicates that personalisation could be achieved through co-

creation of curriculum with students, a component often acknowledged in design approaches to pedagogy which are team based. However, co-creation with students does not necessarily address the needs of all learners as often the most involved students in the design process will also be the most engaged (Mercer-Mapstone & Bovill, 2019).

The massification of education is seemingly at odds with calls to further personalise learning (Prowse et al, 2020). A push to increase student numbers across institutions unsettles personal dynamics between educators and students which are core to teaching and learning (Scott, 2021).

Technology has been viewed as a means of accommodating larger student populations without sacrificing the personal, individualised component of education (Clark, 2023); however, the ways in which this might occur in practice remain vague. When the concept of personalisation is interrogated further, the promise of an individualised learning experience, underpinned by technology, remains mainly aspirational. Despite this, institutional discourse promulgates increased personalisation through digital means:

> New digital platforms and ways of learning will create a more personalised and inclusive approach. (University of Manchester, 8)

The implication that technology will personalise learning even as resources diminish and class sizes expand reaffirms accusations that strategic narratives promote a marketised view of learning, with a corresponding discourse of student-as-customer (Clark, 2024; Munro, 2018). Furthermore, personalised learning indicates that the curriculum may become further compartmentalised and unbundled, creating disorientating approaches to teaching and learning and a tyranny of choice (Roets et al, 2012) that may not necessarily serve the interests of some learners.

As technologies for learning have proliferated, accelerated by the pandemic, personalised learning that extends beyond modality has potentially become more achievable in practice as generative AI offers potential ways of customising learning (Kumar et al., 2024). Customised learning experiences—including presenting learners with different interactions based on identified strengths and weaknesses—might change the conceptualisation and practice of personalisation from a learner perspective (Pesovski et al., 2024); however, it ignores the corresponding impact on teaching.

Emerging research into generative AI has highlighted the potential for personalised learning to become increasingly granular; for example, AI learning coaches shaping individualised training through tailored responses for learners (Chang et al., 2023; Koh et al., 2023; Pesovski et al., 2024). Although promising, generative AI used in this way may amplify existing tensions between institutions seeking to take new and novel approaches to teaching with generative AI and the contributions of lecturers. One interview participant highlights this tension and his recognition of its legitimacy:

> People are thinking about these things in terms of replacement which I understand, I totally do, because at the end of the day it's all well and good me saying, you know, well, you're never going to be replaced. We'll always need the human being. But it's not me making the decisions. It's senior management and senior management would 1000% replace people. (Connor)

Although there have been some lecturers who have taken an active role in incorporating generative AI into their teaching, TEL professionals recognise the current general ambivalence of academics in using generative AI to support their teaching, either in addressing larger class sizes or through personalising learning.

This is associated with ongoing discussions about how generative AI should be incorporated into teaching and learning. As with other determinist discourses in relation to TEL, innovation discourse may sway the conversation about generative AI in a way that ultimately damages careful and considered approaches to its application and raises anxiety for academics (Lee et al, 2024; Watermeyer et al, 2023).

Regardless of concerns about technology replacing the educator, current applications of personalised learning are generally limited. In its current form, personalised learning in higher education is primarily driven by modes of delivery, with an emphasis on offering MOOCs and fully online or distance degrees. These modes tend to sit separately from traditional routes to higher education (Walker & Voce, 2023) and are even frequently categorised as 'non-traditional.'

The use of the term *traditional* will be briefly problematised here. McFarlane and Yeung (2023) designate the use of *tradition* within literature as a rhetorical device that operates as both a positive and negative term and, where used pejoratively, sits as a barrier to innovation. Here, the term *traditional* might be interpreted as a positive, envisioning face-to-face lectures and seminars but is indicative of how technology has been positioned as an interloper to some romanticised and nostalgic view of learning.

Within the marketisation of online and distance learning, there is an emphasis on learners' paucity of time and competing demands with an appeal to the *non-traditional learner*. As with the use of the term *tradition* in relation to higher eduation, the non-traditional learner might be distinguished from historically full-time learners, entering higher education directly from school. Consequently, non-traditional students, in turn, may include learners who would not typically be willing or able to attend a physical campus but may also include learners who feel the need to return to formal studies to change job roles or to progress

within a specific career path. These mostly or fully asynchronous online courses appeal to the changing nature of work, in which job roles and the necessary skillsets of workers shift quickly and dramatically.

Consequently, discourse positions flexible learning as responsive to diverse needs and demands of its student clientele:

> We will offer a world-leading education and student experience through a blend of traditional programmes, stackable qualifications, and micro-credentials, with flexibility and support to learn on campus, through blended learning or online. (University of Dundee, 2022, 9)

Flexibility, through these alternative modalities, reflects market-driven and financial incentivisation for institutions (Clark, 2024), with the objective of colonising new student markets and increasing access to a wider range of students (Lee, 2020). Whilst this discourse proposes to increase accessibility for learners, the university has also gained access to new avenues of revenue:

> Support is needed for those departments that are developing online courses and resources. The main reason given by these departments is the potential to reach a global international audience, notably to reach students in low- and middle-income countries, and professionals who are studying and working at the same time. Departments with established portfolios of online courses are interacting with audiences from up to 176 countries. (Oxford University, 2023, 8).

Whilst positioned as innovative, these forms of learning are not new. Online and distance learning pathways often sit separately from traditional delivery models: or, in financial terms, they are considered a separate income stream (White et al., 2023). On-campus student experience remains the standard and non-traditional, online and distance learners remain othered, as evidenced by the term *non-traditional*.

Such binaries undermine and obfuscate rather than support effective TEL practice. The push towards personalisation seemingly aligns with a post-pandemic initiative to overcome dichotomies of online and in-person teaching, and to capture the nuance of TEL, although it has also created complexity in categorising modes of learning (Nordmann et al, 2025). The modality-based categorisation of learning, aligned to increasing marketisation, potentially limits the flexibility to undertake teaching along a spectrum of incorporating technology, with variations of blend.

Blended learning involves the convergence of in-person and distance learning in which technology is incorporated based on sound pedagogical decisions (Istenič, 2024) with the percentage of digital versus traditional learning falling across a continuum. For TEL professionals, blended learning represents fruitful ground for context-driven and iterative improvement, encouraging academics to build digital skills in an incremental and experimental way.

Although the pandemic may not have fully sustained innovative TEL practices in teaching and learning in the way discourse indicates, it has provided the means for educators to think differently about the role of technology in teaching and learning (Walker & Voce, 2023). For example, one interview participant highlighted how, before the pandemic, the willingness of staff to engage in blended learning was limited and the VLE (Virtual Learning Environment) had been relegated to acting as a repository rather than a tool for digital teaching and learning:

> They might do a little bit of blended, you know, use the discussion board in or the journals in between class. But that was about all. (Sylvie)

For another interview participant, first-hand observation of strong blended pedagogy has been tempered by poor approaches to blended learning, creating an uneven student experience:

> You can have some innovative academics that will use a lot of technology and blend really well in one module, but in another module of the programme it's not being used or it's a regression of what they've had in that module. (Meredith)

Such observations cast doubt on the assertion in the literature that teaching is becoming increasingly blended (Beetham & MacNeill, 2023; Hill & Smith, 2023; Walker & Voce, 2023). These concerns around ‘uneven blend’ highlight that TEL practice may innovate when technology becomes seamlessly integrated in a context-driven way—for example, through varying interpretations of blended learning—rather than when it is dichotomised as an either/or:

> Technology just needs to disappear. (Lana)

The observations of TEL professionals highlight that, although discourse promulgates a narrative of innovation through greater personalisation of learning, there should be a more concerted focus on the personalisation of *teaching*, with support for educators to incorporate technology into their practice along a spectrum that bends to context, attitudes and comfort with technology (Han et al, 2023), and a willingness to work collaboratively rather than dictate blanketly that technology must be used to innovate.

Through the ability to make teaching more flexible and personalised, this may also cascade into effective learning:

> We're an institution of thousands of academics and the landscape that we're in and the climate we're in, where there's less of us, you need to persuade people to embrace the change and that what you're telling them is in their interest. But it's ultimately in the interest of students. (Michael)

Addressing the challenge of academic buy-in involves better understanding the perspectives and contexts of academics and educators, identifying the ways in which TEL can be tailored to support teaching within those contexts and spaces, and translating this into an improved learning experience for students.

Despite claims that technology will facilitate greater personalisation, this remains vaguely operationalised, mainly aspirational and often reinforces the dichotomy of traditional and online learning that it seeks to dismantle.

4.4.2 TEL innovation through efficiency

Although often equated with cost-cutting and threatening the continuity of both academics' and TEL professionals' practices, efficiency may be construed as a form of innovation, potentially improving processes or eliciting rethinking of current approaches (Flavin & Quintero, 2020; Munro, 2018). Through the lens of efficiency, technology is positioned as potentially improving teaching and learning by increasing productivity, a particularly urgent requirement as higher education staff find themselves overcommitted and time poor. As an example, technology for one institution initiates a discussion around mitigation of duplication of effort:

> One of the strongest themes in the consultation feedback was the need to invest in improving [...] the physical and digital infrastructure. To make this happen, we need to find ways to free up the resource we spend on complexity and duplication and redirect this into simpler, more effective ways of working. (UCL, 2022, 17)

Because it is frequently associated with cost-cutting and diminishing quality (Flavin & Quintero, 2018), efficiency has become a source of tension and frustration within institutions, supplemented by a belief that economic incentives sometimes outweigh a commitment to teaching and learning:

> If there's a way of saving money, I'm sure they would consider that without really making any consideration for how that would actually

> impact on student learning, not to mention the academics themselves. (Connor)

The pandemic facilitated opportunities for private EdTech companies to insinuate themselves further into HEIs, based on a belief that incumbent systems were not fit for purpose (Ivancheva & Courtois, 2024). In addition to procuring more technology to support teaching and learning, there has been an associated desire to automate many processes across higher education with technology as a means of cutting wasted resources.

As with terminology like innovation and personalisation, efficiency has been adopted by discourse to serve multiple purposes. In the post-pandemic period, cost-cutting has become increasingly viewed as justification for the increased precarity of academic and professional services roles within HEIs despite institutional discourse cloaking cost-cutting in positive terms (Watermeyer et al, 2021b). For example, UEA positions efficiency as a core part of an evolving managerial approach to leadership. It is externally driven and necessitated by the wider operating environment:

> We need to be more business-minded, efficient with our resources, and improve the quality of our operational delivery. (UEA, 2024, 18)

Within this discursive strand, larger macro pressures on HEIs have sharpened the institutional focus on efficiency to inform decision-making, including where and how to invest. Where investment in technology is viewed as an opportunity to automate components of academic labour, this reaffirms the fears of educators that they may be replaced (Hristova, 2024; Ivancheva & Courtois, 2024).

On the other hand, efficiency is positioned as integral to improving teaching and learning, with technology potentially freeing up academic labour from a growing list of responsibilities to focus on the core remits. This discursive strand is

internally driven and entangled with digital enhancement whereby technology results in more efficient practices:

> Digital enhancement will deliver highly effective, efficient, digitally-enabled ways of working for our students and staff. (University of Dundee, 2022, 7)

Such proclamations around digital enhancement delivering much-needed efficiency reaffirm solutionist discourse around technology; in this case, solving the problem of wasted resources. However, its operationalisation remains unclear, inviting concerns around the replacement of staff, ostensibly through improving processes. Furthermore, the rhetoric that technology facilitates consolidation of resources also conceals the perceived and actual time commitment to learn new digital tools on the part of academic and non-academic staff (Tay et al, 2023).

The proliferation of tools also exacerbates the training demands of staff and students. Whilst institutional discourse purports to invest in the technologies that will support staff and save duplication of labour, evidence has not authoritatively established the ability of these tools to empower academic and non-academic staff within HEIs (Clark, 2024).

TEL professionals have delicately managed both the externally driven and internally driven discursive strands of efficiency. Where efficiency is equated with cost-cutting and doing more with less, TEL professionals have experienced the increased casualisation and precarity of the higher education workforce both directly and tangentially through their management of relationships with academics.

Despite the demoralising impact of efficiency discourse when viewed through this lens, TEL professionals have managed to leverage efficiency discourse to gain traction with academics. One centrally-based participant highlights how he

positions efficiency as a means of generating buy-in for technology within his institution:

> What I do is to actually look for these efficiencies. Look for these benefits so that ultimately, the academic will buy in and the end result will be the student gets to experience that and to use that and hopefully makes their learning experience better. (Michael)

Another faculty-based TEL professional relates how her most impactful interactions with academics within her faculty occur when she has found a way to save time or reduce effort:

> I think in my role the biggest opportunity is when I can demonstrate my own expertise and the potential of digital education to simplify such a significant amount of the academic and student experience. (Lana)

By positioning technology in this way, she attempts to mitigate the added complexity of digitisation. Furthermore, by emphasising targeted efficiency for academics over the discourse of efficiency as innovation or enhancement, TEL professionals have found that they are better equipped to increase their social capital and to foster more trust with academics.

In mediating the use of innovation discourse, and particularly when viewed through the lens of efficiency, TEL professionals have found a means of changing the narrative to alleviate anxiety and to provide tangible results. One research participant evidenced the impact of her contributions to free academics from other commitments through appropriate, targeted applications of technology. Freeing up academics' time, in this case, has allowed her academic colleagues to focus on the kind of innovation she views as more worthwhile:

> I don't need everyone to innovate in teaching and learning technology. I just need them to feel like they've got enough room to innovate in their disciplines. (Lana)

Although an increase in academic labour has been characteristic of the general trajectory of higher education in the UK over a sustained period, ERT may have recalibrated the baseline commitment of academics as an increase in responsibilities elicited during that time has not diminished as institutions moved into the post-pandemic period.

This includes mounting expectations from leadership as well as shifting the boundaries of what academics and the TEL professionals who support academic activity should be expected to undertake:

> I think one of the biggest problems during the pandemic was the online-ness of everything. So, I think often academics were occupying more of a pastoral role, in part for students. You know, students would sometimes be throwing themselves into things with enthusiasm. They were also, you know, entertainment for students. I think boundaries were all over the shop. (Lana)

> We were exhausted during COVID and now it's kind of like, you know what? Give us a break. What do you actually want us to be able to do in terms of facilitating any of this sort of stuff? (Connor)

TEL professionals see innovation as a means of freeing up time for academics, understanding that the willingness of academics to work with them is fundamentally influenced by priorities and time commitments. The issue of freeing up time, however, oversimplifies the evolving nature of the academic role, particularly in the wake of the pandemic: TEL professionals may be equipped to identify time-saving approaches to work and institutions may devise

ways of offloading academic labour, but this does not allow for reflection on what the academic role encompasses in relation to these changes.

The arrival of generative AI has further complicated discussions around how academics can offload elements of their labour, and what elements they may want to offload versus those elements that are offloaded against their will by changes in institutional priorities (Watermeyer et al, 2023). Considerations of what can be automated, under the auspices of increasing efficiency, inform what is already dispersed and unbundled academic activity, potentially outsourcing more components of traditional academic labour to Third Space professionals. TEL workers may be better placed to support automation and offloading through technology, given their skillset; however, they may also find themselves at risk of having components of their role offloaded.

Although TEL professionals have not been given significant control over decisions about how and when to use generative AI, they have identified that the messaging of generative AI and the way it is presented to academics will make an impact on how it is used, particularly in relation to saving time and making teaching processes more efficient. For example, when integrated into VLEs, generative AI is positioned as an assistant, providing full support for digital components of teaching:

> You know, so it opens up that opportunity to really be what it is called an assistant, and it's probably the most useful AI tool I have seen. (Michael)

As these tools become more integrated into standard technologies, like VLEs, TEL professionals will inevitably have more input and can provide targeted guidance on how to use generative AI tools. Positioning these tools as timesaving will be instrumental in generating acceptance from resistant academics. However, Michael's position on the embedded AI assistant highlights the danger TEL professionals face in promoting these tools without full knowledge of the implications. Even as Michael has been positioned to

encourage academics to use these tools, he avoids discussing the AI assistant as anything other than an opportunity and seemingly fails to recognise its potential to replace learning technologists to support course design.

At least one research participant highlighted that increased investment in tools and technologies, including burgeoning generative AI tools, to produce efficiencies may only undermine these objectives:

> Tech stress is such an important part of this job, demystifying big platforms, bursting bubbles in tech sales. There's a reason that tech salespeople go to Vice Chancellors and Vice Deans and senior leadership because they do not have the expertise to say that is silly. We already have that in four different versions. We don't need a thing. Talk to experts. Your institution has them. (Lana)

Regardless of this expertise, institutions continue to marginalise TEL professionals in this kind of decision-making. For example, TEL professionals should be involved in providing effective, efficient and appropriate examples of generative AI use (Delcker et al., 2024). Regardless, TEL professionals admit that they remain on the periphery of decision-making including regarding applications of generative AI for teaching and learning.

Despite being disenfranchised at the current moment, several TEL professionals see a clear opportunity for a consultative role as generative AI becomes more embedded in institutions:

> I see the potential. I think it's going to be really good. I think this is just getting going, but see, in a year's time it will be doing so much more and it's not to replace the lecturer or the teaching teams. It'll actually to help them. (Michael)

However, operating in a consultative role requires support from institutions for TEL professionals to examine technologies for learning with a critical eye, balancing their allure with continued observation about the way in which users interact with these tools and the resulting practices that constitute and reconstitute TEL. Despite recognising the implications of generative AI to their work in future, there was little indication that TEL professionals are actively involved in consulting on effective uses of generative AI.

4.4.3 TEL innovation: The dream and the reality

Although discourse has consistently oversold the ability of technology to solve crises, ERT has been cited as evidence within institutional strategies of the ability of technology to sustain teaching and learning in otherwise unsustainable conditions. The arrival of generative AI has demonstrated that technological developments will continue to impose change on HEIs. Consequently, HEIs attempt to shape technological change to their advantage through innovation discourse as a means of controlling and influencing TEL practice.

Within discourse, TEL innovation represents an opportunity to take ownership of the direction of teaching and learning in UK higher education in the face of macro and sectoral challenges. The pandemic and generative AI have been positioned as narratives of change that can enhance current practices, increasing personalisation through flexible learning and generating efficiencies in a precarious financial environment. Such narratives attempt to position HEIs as leaders rather than followers in the evolving landscape of an increasingly digitalised and complex society (Birch et al, 2025).

Institutional discourse views generative AI as part of wider initiatives to innovate with technology. For example, one institution posits how AI will become a foundation for discipline-specific innovation:

> Our immediate priorities are innovation in the Life Sciences, to be joined by eco-innovation, and the creative industries, including AI and creative computing. (University of Dundee, 2022, 9)

However, conceptualisations of innovative uses of generative AI in teaching and learning remain speculative and invite more significant research into how they are incorporated in practice (Kurtz et al, 2024). Institutional directives on applications of generative AI in teaching and learning diverge, with those institutions that took an early and clear position on its use seeing more effective approaches to its management and integration with core activities:

> I've been pleasantly surprised at the very positive attitude that the university has taken. […] The approach has been a positive first. Like how can we use this as an opportunity? (Sylvie)

Whereas institutions that took a prohibitive stance or no clear stance at all have found themselves in more difficult terrain as they consider the ways in which generative AI might be used:

> There were some people who were saying they just felt too scared to try things because they didn't feel that the culture at the university was one that would allow them to do that, that they would be at risk. (Aaron)

TEL professionals' relationship to innovation discourse is complex. Many of the respondents voiced distrust and cynicism when the word *innovation* is applied to either existing or imagined futures of TEL. Yet, even as they questioned the use of the term, several of them referred to innovation as an aspiration for academics with whom they worked in relation to using technologies for learning:

> We've got a lot of you, you know, people who will be perfectly competent, will be able to post their lecture notes and collect assignments, but not do anything particularly innovative. (Ranjith)

Regardless, a common thread stems from TEL professionals seeing their role as assisting colleagues in moving beyond innovation discourse to incorporate technology in relevant and potentially smaller ways; they seek to quell the noise of innovation discourse. Harkening back to Whitchurch's (2008) concept of Third Space workers as boundary crossers, TEL professionals highlight how they can incorporate, reject, mediate and translate conceptualisations of innovation to suit their objectives.

Through this process of mediation, innovation within TEL practice becomes more closely associated with simplifying and easing the pressures on academics to achieve buy-in and trust and alleviating the heightened expectations associated with innovation discourse. Existing research has generally positioned efficiency discourse as a necessary cost-cutting exercise (Flavin & Quintero, 2018; Jones-Devitt & Austen, 2023) and this in reflected in institutional discourse. In contrast to the literature, TEL professionals have reshaped this discourse to suit their own objectives – as a means of gaining the trust of academics. When reframed in this way, efficiency has become a method of supporting overworked and jaded academics in small and often individual ways, freeing up physical and cognitive labour.

In using Jäger and Maier's dispositive triangle and analysing the findings, I have summarised the discourse and practice of innovation below:

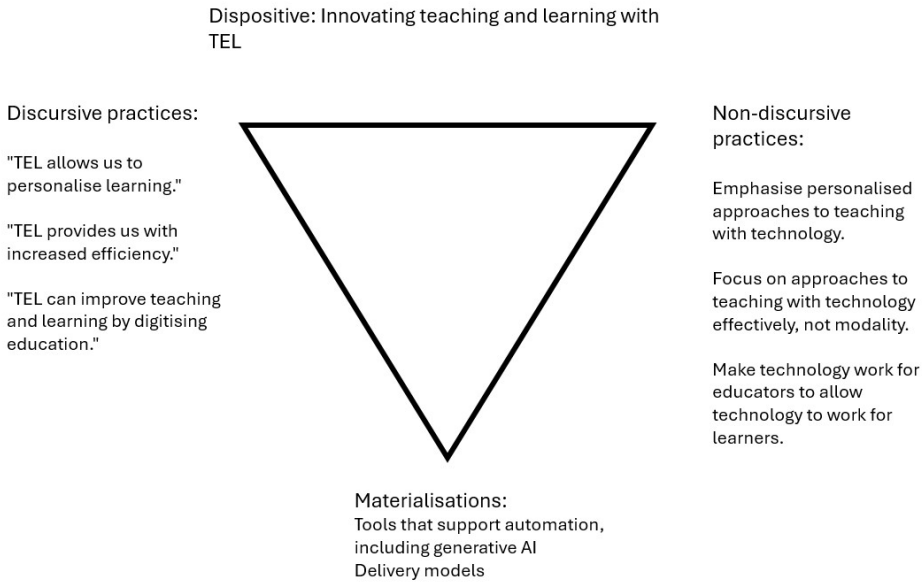

Figure 4. DISPOSITIVE OF INNOVATION DISCOURSE

TEL professionals mediate innovation discourse to support academics. This requires emphasising the usefulness of technology in saving time and in allowing academics to focus on potentially innovating in their discipline, providing them the freedom to determine how that innovation manifests based on their context. Furthermore, TEL professionals understand that downplaying solutionist discourse may allow them to gain traction with academics so that they can collaborate more effectively in promoting effective TEL practice across institutions.

Focusing on offering different learner modalities and options through personalisation clearly attempts to appeal to learners and reinforces a marketised view of students as customers. Such discourse may hamper TEL practice by alienating academics who might otherwise view technology enhanced learning along a spectrum of use based on individual circumstance and context. Although delivery models will continue to be central to considerations of TEL, TEL professionals seek to refocus teaching and learning on wider objectives, including accommodating diverse contexts.

Discourse highlights that the binary of online and face-to-face persists and the post-pandemic period has not necessarily broken down these binaries in the way that some of the research argues (Walker & Voce, 2023). This is despite calls to personalise learning with multiple blends of modality one example. In adopting a sociomaterial lens, the dismantling of these binaries remains an objective in shifting TEL practice.

TEL professionals prefer to focus on how technology can make meaningful contributions to improving issues that are often out of the purview of strategy, and which exist in the microcosms of faculties, schools or even individual academics. They perceive these improvements as opening doors to collaboration across institutions that would otherwise be closed. This dialectic of innovation discourse impacts the way in which delivery models might be formulated in future and potentially emphasises automation with technology over pedagogical creativity, in the first instance. The way in which automation is incorporated into pedagogical activity needs to be balanced against the infringement of academic imagination and experimentation.

In adopting a sociomaterial lens, it is important to reinsert the unpredictability of technologies for learning in their use and interpretation by myriad users (Fenwick, 2011). Consequently, TEL practice cannot be scripted in the way it currently stands in institutional discourse, nor can conceptualisations neatly summarise or confidently predict how TEL practice will unfold. Innovation remains discursively elusive, but the findings highlight that innovation has become relational and mediated as it is inserted into TEL practice as a means of inviting academics to new approaches to TEL. This highlights the situatedness of TEL innovation and a turn away from neatly identifying TEL innovation as a litmus test for change.

In the next chapter, I now turn to the second discursive dimension of change: transformation. Whereas TEL innovation has opined for enhancements to

current practice, transformation discourse extends into a reinvention of TEL that aligns with a wider reconfiguration and reconceptualisation of teaching and learning in the digital age.

Chapter 5: Findings and discussion: TEL transformation

5.1 Transformation of teaching and learning: redefining who we are and what we do

Transformation discourse extends beyond perceived improvements to teaching and learning: it commits to change at systemic and foundational levels, essentially rewriting entrenched practices within institutions (O'Dea, 2024). As with any narrative of change, understanding how transformation might occur, what should transform, and what should be retained, requires more detailed consideration than transformation discourse on its surface can elucidate.

The COVID-19 pandemic initiated sudden and significant change: ways of working, established methods of teaching and learning, and relationships between staff and students were rewritten (Beetham & MacNeill, 2023; Broadbent et al, 2023; Watermeyer et al, 2021b). However, although models of learning changed, changes to practice were reactive, uneven, sometimes superficial, and frequently perceived as temporary accommodation – not new practice (Barlotic et al, 2021).

As discussed in the previous section, the pandemic has provided a narrative of improving established practice, re-thinking ways of working, and promoting diverse ways of teaching and learning. However, there has been less willingness to embrace and retain ERT ways of working into the post-pandemic period (Beetham & MacNeill, 2023) than discourse might intimate, for reasons explored in the previous chapter. In addition to unpicking positive and negative strands of ERT practice, there are wider discussions about what systemic changes should be maintained in the post-pandemic world, with a fear that individual self-care of higher education workers was abandoned to steady the

ship of business-as-usual (Sai et al, 2024) and that this continues into the present.

The first section of the findings highlighted that innovation has been repurposed in practice, to temper solutionist TEL discourse that is reinforced by innovation discourse although it is still used by some practitioners in an uninterrogated way: TEL professionals seek to relieve the anxiety of academics who feel pressured to achieve innovation without any clarity around what that entails. Transformation discourse would seemingly propel these narratives even further. In considering the relationship between transformation and innovation, and the fact that innovation has not been achieved to the level indicated by discourse, it seems unlikely that higher education could possibly achieve transformation given that the burden is higher.

Yet, transformation may operate in isolation. Transformation discourse surfaces questions around the purpose of the university, its relationship to technology, and how to define the university campus and experience, particularly in relation to technological disruption. Discourse interrogates the culture of HEIs and approaches to teaching and learning, with an attendant commitment to not just improve practices but to also redefine them (O'Dea, 2024). As technology provokes existential crisis within the sector, discourse reconceptualises technological upheaval, with a focus on leveraging the affordances of technology to digitise teaching and learning.

As an extension of TEL narratives, the arrival of generative AI has provided a potential conduit for HEIs to further transform, if only they can more clearly establish and distinguish its affordances for teaching and learning. A narrative of crisis runs concomitant to a narrative of opportunity, signalling the concern that generative AI will transform higher education with or without its consent (Lee et al, 2024) seemingly remains prescient.

Within discourse, transformation is most closely aligned with transforming teaching and learning in nebulous ways, with an underlying assumption that it will benefit students foremost (Clark, 2024). For example, University of Portsmouth (2023) commits to “develop a blended and connected ecosystem and culture that support inspirational teaching and transformational learning for all our students” (4) whilst University of Dundee (2022) “will experiment and encourage learning to unleash the potential of digital information and technologies to transform our research, education and engagement” (2).

In these examples, if HEIs could adjust their practices in specific ways, transformation arises seemingly inevitably and fluidly. The use of the term *unleash* infers that transformation is being held back by the lack of digitisation. The ease with which transformation might occur belies its complexity.

Although overly simplistic in its narrative, transformation discourse has resulted in palpable institutional action, particularly in the form of curriculum transformation projects and a more concerted shift to design approaches to curriculum development that gained traction during the pandemic (Walker & Voce, 2023). TEL professionals have been actively involved in and impacted by these projects. By viewing both institutional ambition and academic reception of transformation projects, they have been able to observe how discourse and practice diverge:

> With such a big project, there's loads of grand ambitions [but] I think different departments have definitely kind of pulled in different directions. (Ranjith)

Whether these activities represent true transformation will be addressed in this section, particularly as these initiatives create opportunities for TEL professionals but also complicate and confound practice, building expectations around technology that, as with innovation discourse, deter rather than encourage academics to engage.

I will now explore the ways in which transformation has shaped discourse and practice within higher education post-pandemic.

5.2.1 Transforming the culture of the university: digital-first and digital skills

The pandemic has elicited existential questions about the purpose of the university, including how to teach and learn in a digitised environment, how to demonstrate a digital culture across complex and highly structured institutions, and how to prepare learners for an increasingly digital workplace.

Transformation as a narrative within higher education precedes the COVID-19 pandemic but ERT resurrected and amplified calls to transform as institutions demonstrated the ability to dismantle established processes and structures quickly. When viewed through the lens of transformation, change is necessary, urgent, and directly connected to wider, social implications for technological change. According to a scoping review by Håkansson Lindqvist et al. (2024):

> Digitalisation and lifelong learning are common themes in the discussion of the transformation of higher education. [...] Further, the role of Higher Education (HE) is important in a changing society. This has led to ideas for transforming the role of higher education both in national educational systems and on a global level. (1)

Such statements indicate how transformation operates on multiple levels and extends into philosophical questions about the contributions higher education should make to society at a local, national and global level. How they might shape the global future becomes more challenging as the wider social questions to which they must respond become increasingly complex.

Underlying this responsibility is an assumption that higher education must digitise to remain relevant and reflective of social change (Clark, 2024; Skelton, 2023). The interweaving of digital transformation within discourse highlights

institutional preoccupation with how to manage, potentially control, but, at the very least, channel technology to its benefit:

> We are adapting and shaping the digitally-transformed world so as to better meet the expectations of our students, staff and wider society. (University of Dundee, 2022, 3)

Such statements indicate that technology is requisite for transformation and that technology transforms inwards by dictating ways of working and outwards by emphasising that HEIs may transform society using technology as a medium for knowledge dissemination. The pandemic evidenced the capacity to transform institutions, seemingly overnight. How this lesson should be applied in the post-pandemic context has generated friction within these institutions. This includes uncertainty around what it might mean to be a digital university.

HEIs aspire to be foundationally and systemically digital, and this is reflected in discourse that promulgates the digital university. Through promotion of a digital-first identity, HEIs broadcast their technological ambitions:

> A digital culture opens new avenues for research, education, sustainable approaches, and growth. (St Andrews University, 2022, 10)

University of Dundee attests to adopting a digital-first culture:

> [We will] use a ‘digital first’ approach to delivering solutions for research, education and engagement rather than simply digitising existing practices. (University of Dundee, 2022, 7)

Such discourse is premised on a belief that incorporating digital into current teaching and learning is insufficient. It asserts that TEL extends beyond enhancement, or incremental additions of technology into practice, requiring

reinvention. This reinvention includes changing practices but also the culture of teaching and learning:

> We will create a digital identity, culture, and capacity. (St Andrews University, 2022, 17)

Although already integral to universities—including and extending beyond teaching and learning—technology has been promoted as the primary means of transforming higher education (Clark, 2023) with inadequate interrogation of its affordances. The digital university champions and instigates change on its own terms, leveraging technology to rewrite existing teaching and learning practices (Barnett, 2022). Ostensibly empowering and overwhelmingly positive in tone, this discourse seeks to future-proof the university even as the future becomes increasingly difficult to predict.

HEIs have seized on this discourse as a means of promoting their digital expertise and the breadth and depth of digital skills across respective institutions. The narrative of a digital university operates in parallel with disparities in digital maturity across institutions made evident during the pandemic (Skelton, 2023). Competition amongst universities, particularly in the increasingly hostile operating environment of UK higher education, has fueled active promotion of digital culture. These disparities have brought negative attention to those institutions that failed to grapple with the swift move to online teaching and learning due to the historic lack of development of digital capabilities and knowledge (Skelton, 2023).

As touched on in the previous section, generative AI has further complicated institutional approaches to technology. Institutional guidance is complex and grounded in leveraging opportunities whilst mitigating harm. Guidance must account for distinctions between permitted uses for learners and educators, and academics versus non-academic higher education staff (An et al, 2025; Wang et al, 2024). Positioned as potentially transformational across sectors, HEIs are

keen to make best use of generative AI's capabilities whilst ensuring overreliance or unethical or inappropriate applications don't devalue higher education. The nuances inherent to such decision-making have amplified sectoral anxiety. Some institutions postponed making any decision, in an apparent attempt to follow others rather than lead, creating further confusion for staff and students during that initial period of generative AI adoption: that uncertainty has continued in some quarters.

Whilst some TEL professionals observed clear and early responses from their institutions in relation to generative AI, other interview participants experienced the opposite. One research participant indicates that she has barely had any discussion with colleagues about generative AI in her faculty, reflecting wider lack of guidance from her institution:

> I don't think there's been enough advice given or training sessions or anything like that. (Anna)

In some cases, TEL professionals have observed lack of action based on an inability to dedicate time and resource to addressing generative AI which has continued well after the initial response:

> I think we're still, in our institution, obviously we're trying to be proactive, but I don't think there's enough resource, and really anybody that can dedicate any real time to, you know, figuring out what we're going to do. (Connor)

Such observations raise questions around how TEL professionals might be placed to advise academics and other peers how to use generative AI tools. Although Delcker et al (2024) acknowledge the pivotal role instructional designers will play in incorporating generative AI, the interviewees generally felt that their insight and active involvement was not sought at this point in time:

> I don’t even hear many conversations about it. (Anna)

> Nobody’s turned around and said ‘Look, you guys need to lead on this because you’re TEL and generative AI is clearly TEL.’ (Ranjith)

Even where responses have been clearer, applications of generative AI remain underexplored, creating hesitancy in experimenting and, in some cases, regression of TEL (Gonsalves & Acar, 2025; Wang et al, 2024). The arrival of generative AI reveals that, whilst HEIs may champion a digital identity, the implementation of that identity remains underdeveloped. TEL professionals call attention to the divide between digital ambitions and reality on the ground, particularly as institutions are comprised of faculties and schools that adopt their own, distinct culture and concomitant ways of working:

> It was noted by the digital education team that the central concept of digital education was very far removed from the practical experience of digital education in each of the faculties. (Lana)

Given this devolved structure, which produces multiple assemblages and practice and associated discourses, TEL professionals highlight that a united digital identity remains elusive for HEIs, as identity is manifested on various levels, and particularly as faculties and schools remain instrumental in shaping professional identity, not just with academics but also with the non-academic staff that work within them:

> I would say each faculty sees themselves as a mini institution. (Marnie)

One participant discusses how this is emblematic of approaches to TEL but also reflective of wider power struggles around identity:

> It's not so much just in TEL, I think it's possibly like a wider cultural thing around departments having their own autonomy. (Ranjith)

TEL professionals must navigate these divides (Livingston & Ling, 2022; Tay et al, 2023). The practices of teaching and learning within faculties and their associated relationships and attitudes to teaching and learning (Trowler, 2014)—including TEL—determine the contributions of TEL professionals more than any institutional drive. This is regardless of whether the TEL professionals are based within a faculty or a central team, although centralised TEL staff often contend with higher barriers to engage with academics than their faculty counterparts.

One centralised research participant explains how her conversations with schools and faculties differ from her centralised forms of engagement:

> When I'm having conversations with colleagues in the colleges and schools—and I try more and more to have conversations at college level where I can because that's quite a strategic way of doing it—often you need to drill down further because the messaging doesn't reach further down. It gets distorted. (Jo)

Given these multiple and competing identities, creating a new, cohesive approach to teaching and learning that might address wider, social, technological change, including the impact of generative AI, remains elusive.

One of the biggest issues with carving out clear effective and appropriate uses of generative AI in teaching and learning is its context-driven nature. This has created a divide – for example, between humanities-based disciplines in which essay writing is a core activity when compared to other disciplines (Zhao et al, 2024). Institutions must tease out how one cohesive digital identity arises from these differences, particularly when considering how discourse might translate into practice.

By embracing and broadcasting digital credentials, HEIs attempt to deflect from the inconsistent level of digital skills across their institutions and to allay concerns about their ability to produce digitally competent graduates. Within neoliberal configurations of HE, reports of the lack of graduates' digital skills pervade and potentially diminish the value of a university qualification (Barnett, 2022). Generative AI has amplified rather than sparked these concerns (Jin et al, 2025; Rasul et al, 2023):

> The biggest talk at the moment is what do students need to know in order to get a job? (Brian)

In response to concerns such as these, university discourse states:

> We will ensure students and staff gain confidence in digital learning environments and develop our practice in new and existing digital technologies, such as artificial intelligence (AI), virtual reality (VR) and augmented reality (AR). (University of Dundee, 2022, 4)

As HEIs emerged from the pandemic, they have sought to understand their relationship with technology, their learners and the wider society in which they operate. Discourse has primarily put forth the argument that digital skills must be developed internally so that they can be fostered in learners who might then apply those same skills externally (Cejnar et al, 2023):

> Seizing the opportunities of the digital age requires us to ensure we develop skills and support on-going learning in step with technological advancements. (St Andrews University, 2022, 14)

Although universities must address inconsistent digital skillsets within their institutions and how this might impact their learners, a focus on digital upskilling has become fixated on employability (Cejnar et al, 2023). Viewing HEIs primarily as producers of digitally competent graduates is both misplaced and

reductionist (McArthur, 2023); despite this, institutions have committed themselves to responding to these neoliberal configurations of higher education. Within discourse, HEIs have positioned themselves as responsive to and influenced by external demands:

> Future developments in the digital world will continue to inform how and what is taught at Oxford University. (Oxford University, 2023, 2)

Teaching digital skills requires some base level of knowledge on the part of educators (Walker & Voce, 2023). Evidence demonstrates that when instructors engage with students more actively in digital modes, students achieve greater digital skills acquisition (Carabregu-Vokshi, 2024).

Although ERT increased familiarity with specific tools, particularly lecture capture software, there is a suggestion that the basic level of knowledge of technology to support teaching increased during that time (Walker & Voce, 2023). Familiarity with tools may have broadly improved; however, the pandemic exposed inconsistent digital knowledge of academics across institutions with a corresponding impact on student experience (Farrell, 2022). This inconsistency persists even as post-pandemic narratives might indicate that higher education staff have ‘done digital.’

During the pandemic, TEL professionals attempted to address this gap through a mixture of consultancy and training. Workshops and training sessions persist but TEL professionals comprehend that sustained and significant digital upskilling is larger and more transdisciplinary than can be addressed through targeted and localised training:

> There's been some mixes of sessions that have perhaps been aimed at certain kinds of digital skills development, but I think they're more like patchwork. (Jack)

Although there has been conflation between the use of technologies for learning and the use of technologies more generally, digital pedagogy requires a minimum level of digital competencies of academics (Ju-Zaveroni & Lee, 2023). Furthermore, as digital tools like Copilot in Microsoft products blur the boundaries between technologies for learning and general technologies, this becomes a less useful distinction, particularly when addressing digital upskilling.

The gap between discourse and practice highlights the challenges TEL professionals face as institutions attempt to promote a digital culture, bolstered by the supposed sector-wide digital upskilling that unfolded during the pandemic. Digital upskilling conversations have been revisited with the arrival of generative AI, particularly in relation to employability of graduates (Watermeyer et al, 2023).

Generative AI has added a sense of urgency to upskilling staff (Ivanov et al, 2024). As highlighted earlier in this section, generative AI will elicit discussions about applications across specific disciplinary contexts. TEL professionals are accustomed to addressing the application of technology within these diverse contexts. They are poised to make significant contributions to ways in which teaching and learning might be transformed by generative AI in a considered, effective and ethical way.

Such context-driven consultation is core to TEL practice:

> It's to try and help people in their own disciplines and departments feel empowered to do the best they can and that's the kind of – I'd say the culture – there. And so, then we fit in where we can around that. So, it's a very much a partner thing rather than we are leading this. (Lana)

As clear institutional responses remain lacking, TEL professionals are cognisant of the gap between aspiration and reality. One participant highlighted the issues

around digital upskilling of staff and the associated impact of providing students with skills that will make them more employable:

> The staff don't know how to use the tools, so how are they meant to be supporting students? How do students use technology to get the job? (Brian)

Brian's frustration highlights the issues with promoting a digital culture without the foundation of digital skills within the HE workforce. At the same time, Brian's focus on equating students' digital skills with employability reinforces the focus on marketable skills over digital literacy.

Generative AI has confounded rather than changed the narrative of a digital-first culture and the associated tensions with practices across HEIs. The post-pandemic period has amplified the need to understand how a digital culture might be translated across faculties and disciplines and how it might address individual attitudes and approaches to TEL.

5.2.2 Transforming space and place: Where is our campus?

The digital-first university challenges conceptualisations of physical space – most notably the university campus and its associated connotations (Beetham & MacNeill, 2023; Gravett, 2022). Embracing a digital-first identity indicates that digital will be the standard and any other approach a deviation. However, since the pandemic and in sharp contrast to promulgating a digital-first culture, HEIs have generally initiated a return to campus (Beetham & MacNeill, 2023) with a corresponding push to reinstate in-person teaching and learning that demonstrates that institutions are, at the very least, conflicted by the implications of a digital-first identity:

> [Since the pandemic] our institution has gone to a very, very, firmly and heavily in-person, teaching emphasis. (Lana)

HEIs have not reconciled this internal conflict in discourse. On the one hand, the digital university is porous and open (Johnston et al, 2019), whilst the traditional university is delineated and closed. University identity has historically been anchored to its location, even as the concept of university space is problematic (Barnett, 2022). Location remains a key characteristic of higher education, on which institutions wish to draw on and celebrate and to which they are also indebted:

> Founded for the region, by the region, we are proud of our role in the East of England. (UEA, 2024, 6)

Since the pandemic, many institutions have focused on a return to campus as a means of recapturing this facet of their identity whilst also regaining control and oversight of delivery models (Beetham & MacNeill, 2023).

The return to pre-pandemic practices indicates discomfort with the shift to online learning during the pandemic despite language that vocally emphasises digital-first as the way forward. For example, even where digital learning's value is recognised, it is framed defensively, indicating the need to stave off the threat of digital replacement of traditional teaching:

> Technology-enhanced initiatives should complement and not replace our traditional strengths in small-group, in-person teaching. (Oxford University, 2023, 3)

This discomfort has elicited a corrective shift that discourages rather than fosters a digital culture, creating a backlash against TEL:

> They have to act like what they perceive a university is, which is: we have to get you in lecture theatres, we have to get you in in-person seminars. (Aaron)

As part of this ambivalence, ERT has been manipulated within discourse to amplify the dichotomy between the physical and digital campuses. The narrative of ERT as a period of innovative practice operates alongside a counternarrative in which ERT hindered important social and peer-to-peer learning with negative consequences for learners and staff (Beetham & MacNeill, 2023). Although both experiences are evidenced, discourse has struggled to reconcile these perspectives cohesively.

Simplistic narratives of ERT – particularly those that wish to dismiss ERT as an anomaly – have limited considered discussions about what components of digital learning to abandon and what components to progress. One outcome of this lack of discussion is the reaffirmation of the physical campus as the standard model with an added emphasis on the value of in-person teaching and learning:

> Let's just get people on campus to feel as if it is a university. Just make sure that there are people around the whole time. (Aaron)

Consequently, these two narratives of ERT work against each other: the one promoting the continuation of ERT experimentation with technology and the other casting the pandemic as an aberration that has undermined the traditional conceptualisation of higher education.

This tension has had a deleterious effect on TEL practice, and it has restricted educators from approaching teaching in the way that works best for them:

> Our institution really just went ‘No, you can't teach online anymore’, and everyone went: ‘but it was so useful.’ (Lana)

Such actions by universities sit in contrast to the findings of Walker & Voce (2023), as established through UCISA data and responses from heads of e-learning who argue that the current moment is rife with possibility to experiment with learning technology based on continued momentum from the pandemic.

The backlash to digital teaching and learning has generated frustration on the part of TEL professionals and academics who actively engaged with TEL during the pandemic. The return to campus initiative has, in some cases, been communicated so forcefully that digital learning has become an anathema and TEL practice has consequently become subversive:

> We do know that there are people who are pushing it and are doing their own thing, they're just doing it under the radar. (Aaron)

The development of TEL within higher education is consequently at odds with conceptualisations of the *traditional* university (Barnett, 2022). This includes what is deemed 'traditional teaching and learning' as touched on earlier in this study, to include face-to-face teaching and a vibrant, active campus that contains the staff, educators and learners. It focuses the materialisation of teaching and learning on the physical infrastructure: the building, the equipment, the lecture theatres and campus juxtaposing it with digital materialisations.

In addition to creating barriers to promoting better TEL practice, mixed messages from leadership, through discourse, have negatively impacted TEL workers' social capital. TEL workers' demoralisation revolves around the lost opportunity to capture and sustain experimentation with teaching with technology (Watermeyer et al. 2021a) that came to fruition during ERT:

> I think there was a real missed opportunity to learn lessons from teaching during lockdown because I think there was some really good stuff that went on and I think lecturers really thought about how to keep students' attention, how to chunk things. [...] There's a lot of good practise that developed. And then there was an institutional drive to come back on campus. And that was just kind of 'OK, we'll go back to what we used to do then.' (Sylvie)

The sense of purpose that motivated academics during the pandemic has been tempered by the mixed messages by institutional leadership and a desire for many to forget that period altogether.

> Some lessons have been learned and retained and then in other areas it maybe drifted back a little bit. (Meredith)

Such binaries of physical and digital campuses are detrimental to the effective and balanced use of TEL. The language of TEL in the post-pandemic world has propagated the fusion of physical and digital:

> We will deliver digital and campus experiences, blended seamlessly through the development of a Digitally Enabled Campus. (University of Dundee, 2022, 2)

Although a return to campus need not mean that institutions abandon effective approaches to TEL, the discourse of the traditional university and the physical campus have hampered attempts to promote blended learning. As explored in the section on innovation, this is partly attributed to quality control regimes that wish to clarify to market-sensitive students the breakdown of their digital and physical attendance.

Whilst organisations like the Office for Students, as presented through their regulatory framework for Blended Learning (2022), have positive intentions to ensure the quality of blended learning, including mitigating against the use of technology to cut corners or costs, such regulations indicate a need to police blended learning that may run contrary to clear delineations in face-to-face and online learning.

Although such regulations, including clarity about the breakdown between the two, increase transparency for students, they become progressively difficult to

quantify as learning becomes more blended. Whilst it is understandable that learners should know the composition of their programme, compartmentalisation along physical and digital lines has become more challenging (Nordmann et al, 2024).

Digital forms of teaching and learning are core to embedding a digital culture, with discourse championing blended learning:

> [We will] fully realise the concept of blended and connected (B&C) learning as part of UoP's pedagogic identity. (University of Portsmouth, 2023, 12)

However, blended learning as an institutional practice remains uneven and underdeveloped, as HEIs are comprised of many cultures:

> There's definitely different cultures across the university, different tensions in different parts of the university. (Jo)

There is scope for TEL professionals, if given enough license and support, to help reframe and challenge these binaries (Gravett, 2022; Papageourgiou et al, 2024) and cross disciplinary territories (Trowler, 2014). However, this will require considerable course correction from institutional leadership and more opportunity for blended forms of learning that may be harder to categorise. Furthermore, hybrid approaches to space will add complexity to curriculum design and pedagogical decision-making (Papageourgiou et al, 2024): TEL professionals are well-placed to contribute.

Many TEL professionals view the return to campus initiative as well-intentioned but also deeply damaging to fostering a true digital culture. TEL professionals see this narrative as limiting their ability to cultivate positive and impactful relationships which might progress the digital culture that institutions purport to

desire. On a more personal level, TEL professionals view the dichotomy of on-campus and online as a regression in their individual practice:

> It was kind of like, deflation, if that's the right word. Yeah. It's kind of like, oh, OK, we've been, you know, kind of running on adrenaline. And we've been doing this really good stuff. And then it was quite disappointing when we went back on campus. (Sylvie)

The level of demoralisation experienced by TEL professionals in the post-pandemic period has not been adequately explored within existing literature. The mixed messages TEL professionals navigate around 'back to campus' initiatives challenge their ability to effect positive change. Such tensions have hindered TEL practitioners in palpable ways, making TEL practice subversive or of minimal interest.

Furthermore, the way in which space is conceptualised in higher education in the post-pandemic period remains highly contentious and underscores a significant gap between discourse and practice. Discussions around how to leverage digital and in-person teaching and learning will undoubtedly continue to provoke debate and deliberation within HEIs.

5.2.3 Transformation projects: Ripping up the playbook

Although transformation discourse has limited TEL professionals' practice, it has also provided new opportunities. Transformation projects, sometimes referred to as curriculum transformation projects, have become a mechanism for systemic change in the post-pandemic period. Institutions view transformation as a key part of their drive to reinvent higher education in the present and future. For example, St. Andrews (2022) proposes to:

> seize the opportunities which digital transformation can bring to our activities and ways of thinking, extending our ambition for our future as a leading global university. (11)

In the lead-in to its strategy, University of Dundee proclaims that it will "[transform] our university to be a truly digital community" (2) Curriculum transformation projects, which are ongoing or at the planning phase at several institutions as highlighted through my discussion with research participants, represent the clearest example of institutionally led transformation; in this case, institutional improvement through the transformation of teaching and learning. The ambition for transformation of teaching and learning, through digital means, is made explicit in several of the analysed strategies:

> [the] purpose of the Digital Success Plan for teaching and learning: Enhance, transform, inspire. (University of Portsmouth, 2023, 4)

> This Strategy will play a key role in the prioritisation of funded projects within the Digital Transformation Programme. (Oxford University, 2023, 1)

Unlike innovation, which intends to build on existing practice, transformation projects propose rewriting the foundations of teaching and learning. Although many of these institutional projects commenced pre-pandemic, ERT has acted as a springboard to 'rethink' the curriculum using existing transformation projects that were often delayed by the pandemic. Furthermore, sustained concerns that assessment practices do not prepare graduates for 'the real world' (Rasul et al, 2023; Villarroel et al, 2018) further propel transformation projects

Higher education staff have become accustomed to changes in leadership and the enactment of a corresponding raft of strategic initiatives that reflect transient priorities. This has created scepticism of the longevity of these initiatives and their purported impact. As one participant laments:

> Right now, I am sick of launching project after innovation, after development, which has not been properly thought through, and it falls flat. (Lana)

Change initiative fatigue has instigated resistance at faculty-level, fuelled by and exacerbating delineations of power within institutions. Such resistance highlights the divide between institutional ambition in strategy and its enactment across complex institutions (Johnson & Smyth, 2011). These divisions translate into uneven practice in which faculties and schools frequently operate in isolation and ignore, avoid or subvert institutional priorities (Livingston & Ling, 2022):

> They're like their own little cottage industries, little silos. (Brian)

Additional expectations for academics, including through transformation projects, have directly impacted TEL professionals' ability to establish meaningful forms of engagement (Watermeyer et al, 2021a). As highlighted in the previous section on innovation discourse, assumptions that digital forms of teaching and learning foster positive and significant change have compounded problems rather than solved them:

> It drives a lot of I find or feel at least feel competitiveness rather than anything else, and that just creates more problems than it's worth. (Connor)

Despite inevitable resistance across institutions, curriculum transformation provides TEL professionals with an opportunity to leverage strategic initiatives and to recalibrate their relationships with academics. Furthermore, with a desire to regain social capital, TEL professionals see the potential, through involvement in these projects, to demonstrate their pedagogical knowledge, creating a renewed focus on skillsets that have been relegated in the post-

pandemic period. For centralised TEL staff, these projects offer the added benefit of potentially opening new entry points into faculty practices:

> The worry being centrally-based TEL is sometimes we're quite isolated from the reality of operations, so I think that's the strong opportunity now. (Meredith)

Institutional transformation projects have been positioned as a catalyst for tapping into the affordances of technology and a means of recapturing some of the spirit of ERT innovation. Although such positioning overlooks ineffective ERT practices, HEIs have used the pandemic to good effect in positioning transformation as timely and necessary, focusing on the industriousness if not the execution of that period:

> For all its hardships, the pandemic has [...] shown us new ways to teach and foster lifelong learning. (Oxford University, 2023, 2)

The arrival of generative AI has added urgency to undertake transformation of established practice and potentially convinced traditionally cynical quarters of HEIs to engage. Furthermore, as generative AI becomes more widely embedded in Virtual Learning Environments (VLEs), institutions look for ways to use these tools to the best effect. Several of the ongoing transformation projects discussed with research participants aligned with VLE upgrades that incorporate generative AI tools for educators and learning designers.

These particular transformation projects require TEL input, encompassing both technological and pedagogical knowledge and their overlap. From the TEL perspective, there is potential to address two key concerns: the uneven student experience and, by association, the lack of educators' confidence in developing blended learning:

> You've got staff in a position to actually say: ‘I'm not going to convert or I'm not going to do it the same way I did it before. I'm going into enhancement or changing my teaching practise and actually do some new things’. To think about new things [...] It's actually then taking that leap and actually changing it, you know, and so we're trying to use the [VLE’s] AI [design] tool [for that purpose]. (Michael)

Generative AI has raised awareness of the need to analyse the ways in which teaching and learning should incorporate technology effectively and ethically (Lee et al, 2024) with VLE upgrades creating a catalyst for wider discussions about teaching and learning with technology, including how new built-in generative AI tools can be used to best effect.

TEL professionals recognise that an institutional push to transform teaching and learning, as with any other initiative that seeks to achieve consensus or consistency, will inevitably be translated differently across faculties and schools, adding barriers to a one-institution approach (Livingston & Ling, 2022). Pandemic fatigue has continued unabated into the post-pandemic period, and amplified cynicism and insularity amongst some faculties and schools, obstructing TEL professionals’ efforts to enlist academics in the continuation of good practice:

> It's another thing that people have to do. Another thing they have to embed into their teaching practise without getting any additional time or any additional support. (Jo)

ERT has been used as both carrot and stick for these transformation projects. Institutions position the pandemic as a ‘wake-up call’ for the sector, with assumptions that the system is broken (Clark, 2023) and in need of a solution. On the other hand, these projects attempt to motivate academics to feel freedom to revisit and reflect on their established approaches to teaching.

Within discourse, ERT provides a blueprint for transforming teaching and learning into the current landscape. Although used as a call-to-arms, this discourse conveniently omits circumstances that separate the period of ERT from standard practice, including the loosening of processes which had to be dismantled to effect the rapid change required (Broadbent et al., 2023; Farrell, 2022). These changes elicited more freedom to experiment in teaching and learning as rules and regulations loosened. As the pandemic receded, the factors that allowed for this experimentation did as well.

The pandemic has been positioned as bisecting teaching and learning into before and after, in which the post-pandemic period requires potentially more difficult decisions necessitated by wider social change:

> Rethinking our ways of working seemed necessary when we began the consultation process at the start of the 2021-22 academic year. Against a backdrop of rising inflation, financial uncertainty and geopolitical instability, it is now urgent. (UCL, 2022, 3)

Such statements communicate the exigency of change as well as its inevitability. Curriculum transformation is reactive, and anchored in a necessary response to external forces, including the pandemic – but also wider social, political and economic pressures and a sense that the landscape will become more challenging.

A core concern of curriculum transformation is assessment. Beyond attempts to improve assessment, wider existential questions around the purpose of assessment circulate, and are entangled with conceptualisations of the purpose of the university. Generative AI has increased the urgency to transform existing teaching and learning practices (Kolade et al., 2024; Zhao et al., 2024), particularly assessment. HEIs have experienced the strain of generative AI and increased concerns around plagiarism (Farazouli et al, 2023; Lee et al, 2024; Sullivan & Kelly, 2023).

Generative AI's impact on assessment aligns with wider challenges circulating within higher education to produce and accredit competencies – including the digital competencies - of graduates. The pandemic highlighted an opportunity to rethink assessment, including shifting from higher-stakes proctored exams to continuous assessment (Broadbent et al., 2023; Papageourgiou et al, 2024), as a means of not only addressing the concerns of employers but also the feedback from learners. Institutional discourse reflects this commitment:

> We can move forward on long-standing concerns from students about over-assessment, a high-stakes end-of-year exam period and the lack of new teaching. (UCL, 2022, 12)

Assessment benefits from reconsiderations of both format and approach, something that was necessitated by the pandemic and has been reiterated with the arrival of generative AI (Papageourgiou et al., 2024). However, even where generative AI is recognised as a catalyst for rethinking assessment there is also a recognition that assessment needed to change regardless:

> The feeling I get from talking to most staff is that, yeah, it's a bit of a pain because I have to rethink my assessment, but actually they were sort of doing that anyway. (Ranjith)

Curriculum transformation projects provoke cross-disciplinary discussions of assessment including what, how and why we are assessing. This reflective process includes wider debate around the purpose of assessment, particularly in relation to the prolific but under-interrogated objective of authenticity (McArthur, 2023). Authenticity frequently equates with work-based assessment in which learners prepare to become work-ready graduates (Villarroel et al, 2018). The pandemic has reinforced the potential for technology-based learning and assessment, including a push for more experiential learning in which learners prepare for an increasingly automated workplace (Cejnar et al., 2023).

TEL professionals have identified significant opportunities to shape the way in which assessments might change for the better, extending beyond assumptions that technology will improve or innovate assessment, and that authenticity is limited to work-readiness. Their unique skillset can redirect focus towards making assessment more valuable as a tool for teaching and learning, with the help of technology when and where warranted. In line with this, TEL professionals can bring their integrated knowledge of technology and pedagogy to good effect:

> There's lots of different areas where, you know, they're still doing a kind of exams or still doing whatever [...] rather than kind of a rethinking. And so within TEL, there are definitely some inroads we have made and can make in that space. (Ranjith)

In contrast to Clark's (2023) positing that transformation discourse pervasively harms the sector, my findings reveal that TEL practitioners, although guarded about yet another change initiative, are optimistic about transformation projects and view them as an opportunity to engage with academics.

Furthermore, these projects may be a springboard for discussions around effective, authentic and ethical assessment that will continue to unfold beyond the parameters and timelines of the projects themselves. The literature has highlighted some hesitancy in shifting to digital forms of assessment in any significant way (Broadbent et al, 2023). Despite this, TEL practitioners perceive ample opportunities to support academics in finding ways to rethink assessment that is reflective of teaching and learning in the post-pandemic period.

In this way, TEL professionals have identified alignment with the goals of organisational discourse. How they adapt this discourse to their own practice remains emergent but full of opportunity.

5.2.4 Transforming our approach: Design approaches to pedagogy

Design-based approaches to teaching and learning have gained currency and have become entangled with TEL conceptualisations and practice. Framing pedagogy as a design process aligns with a constructivist, learner-centred view of teaching that is contingent and context-driven, iterative, and comprised of trial and error (Gachago et al, 2024).

Design approaches to the curriculum also appeal to proponents of cost-cutting and increasing efficiency (Godsk, 2022). Within design approaches, curriculum development is re-envisioned as a production line, in which digital assets are created, repurposed, and reconfigured, for consistency, replicability, as well as potentially, efficiency.

Learning design has become a core part of pedagogical parlance in HEIs; in relation to this, learning design roles have become increasingly common within the sector (Heggart, 2021). The expanding visibility of learning design—based on Design Thinking that promotes team-based, dialogic approaches to curriculum development—has coincided with the progressive digitisation of education (Gachago et al, 2024). Underpinning design approaches to teaching and learning is the assumption that the affordances of technology have added complexity to pedagogy, consequently requiring more consideration of what might work best within a given context (Laurillard, 2013).

Transformation projects offer TEL professionals an opportunity to engage with academics in productive ways and encourage a foundational reflection on how to improve teaching and learning through design. However, even where transformation projects are not in progress, institutions are encouraging design-based approaches as courses go through the process of validation and re-validation, as is the case with one interview participant at her institution and their adoption of a specific learning design framework as a way of shaping these conversations:

> One of the things is to think deliberately about the course design. It seems like it's a good moment to capture people and have a good discussion about what they're trying to achieve. (Sylvie)

Although institutional discourse heavily promotes the transformational component of design approaches, steeping it in a mystique of novelty, learning design is not new and has existed —either explicitly or implicitly—within most HEIs for a considerable time. Despite the longstanding existence of learning design and systematic design approaches, the pandemic brought renewed attention to the benefits of design, particularly as teaching needed to rapidly prepare for online delivery. However, ERT also highlighted that existing frameworks were insufficient in that context (Gachago et al, 2024). Consequently, design methods were reshaped and refined during this period (Farrell, 2022).

Learning design's currency has continued into the post-pandemic period and, as HEIs grapple with change on multiple fronts, discourse positions design as a means of control and containment in the face of complexity:

> The pandemic has demonstrated that working digitally is more important than ever before. We are now ready to enter a new era, building on our proven adaptability and commitment to designing for change. (University of Dundee, 2)

Institutional discourse positions design approaches to the curriculum as forward-thinking and necessary, promising that design will not only improve the quality of teaching and learning but will also tap into the advantages of technology and create more efficient processes. For example, the University of Portsmouth proposes that it can:

> mitigate insufficient capacity to redesign all courses as part of the Blended and Connected [curriculum transformation by adopting] a clear,

> evidence-based team approach to pedagogic change: use of UoP's version of established, scalable approaches to Learning Design. (University of Portsmouth, 2023, 8)

Such approaches redefine teaching from an individual practice to a team-based, collaborative process that involves different specialists, beyond the academic.

According to institutional discourse, increased complexity has necessitated more extensive collaboration, opening individual approaches to teaching to wider deliberation and discussion. Collaborative and multi-voiced design, it is argued, will ensure consistent and high-quality programmes:

> Curricula are based on best practices (including international perspectives), greater use of Technology- Enhanced Learning is incorporated where appropriate, and a team-based approach is developed for the delivery of our courses. (UEA, 2024, 17)

Design approaches draw on multiple and diverse skillsets to address the added complexity of technology to teaching and learning (Laurillard, 2013):

> The Flexible Learning strategy shifts the ownership of course creation towards design and delivery of teaching and assessment by a specialist team. (University of Manchester, 2022, 10)

Several institutions included in this research highlight new frameworks, including University of Portsmouth's EnABLe and University of Manchester's 4Ps although these frameworks seem less explicative of the process of design and more of an ethos in which design is a core component. In other words, these design frameworks will seemingly allow for transformation of teaching and learning but do not provide evidence for how they will achieve these ambitions.

Whilst design approaches ostensibly address the growing burden on academics, they also may be perceived as threatening academic agency. They contribute to unbundling the academic role, underpinned by a belief that technology has made teaching too complex an activity for the academic to undertake without a design framework and a team of experts (Davey et al, 2019):

> Not all world-leading researchers can be experts in pedagogy, design, assessment and digital media creation. (University of Manchester, 2022, 10)

Interestingly, although Davey et al's (2019) case study of a team-based learning design unit at University of Melbourne touches on the way in which these approaches require a change of perspective for academics, there is little indication that these changes have created tensions.

As learning design has become more common in institutions, pedagogy has become more dispersed (White et al, 2020; Zeivots et al, 2024). Design processes may also create additional labour, despite proclamations through discourse that design processes, presented in a similar vein to an assembly line, will allow HEIs to "design once in a team, deploy many times" (University of Portsmouth, 7). Although there is some evidence to support the efficiency of design processes, particularly where content can be repurposed, such statements minimise the additional time required for purposeful design that is often front-loaded (Godsk, 2022).

Where academics and TEL professionals collaborate, increasing time pressures on academics can often prolong the design process when the time committed to engaging in design workshops and storyboarding, or the development of a programme, conflict with other priorities. This gap between aspiration and reality is elaborated on by Michael, whose institution officially adopted a design

framework during COVID, but with a subsequent downturn in actual application across faculties:

> They're so jaded or so overworked that they would love to adhere to the best practise approaches that they learned about during COVID. They just don't the time. (Michael)

An increased investment in learning design has resulted in a shift in some TEL professionals' remits. For example, University of Portsmouth has committed to increasing its number of learning design posts, including an emphasis on learning design over online course management roles:

> The university has seen a shift in focus from technology to pedagogy, from Online Course Developers (OCDs) and similar roles to Learning Designers (LDs), who are now well established in the majority of faculties and DSGS. The university has offered opportunities for OCDs to upskill and take up LD roles, primarily through the 30-credit L7 module Teach Well: principles to practice, currently in its second iteration. (University of Portsmouth, 2023, 9)

Whilst this shift is not necessarily a sectoral phenomenon for TEL professionals, there is evidence that techno-pedagogical skillsets, rather than purely technological knowledge, will become more universally accepted as core to TEL practice.

Whilst design approaches have given TEL professionals more traction to become involved in pedagogical discussions with academics, as with transformation projects, there are still barriers to engaging effectively with academics. Given misconceptions that TEL professionals offer technological support in isolation of pedagogical best practice, there is often a belief that they will automatically push to digitise all components of teaching (Watermeyer et al, 2021a). As one interview participant, who is faculty based, relates:

> They don't really want me. I'm not made to feel unwelcome but no one really, really wants to change the way they teach. (Anna)

Furthermore, despite being promulgated within strategic discourse and achieving wider visibility during the pandemic, design approaches can be unfamiliar for academics (Davey et al., 2019) and the process of opening up one's practice to external critique can create discomfort, particularly if academics view TEL professionals' expertise as purely technologically grounded (Jumat et al, 2023).

Furthermore, whilst discourse promotes design approaches to curriculum transformation, TEL professionals experience uncertainty and lack of direction from leadership when operationalising design within their institutions. As one research participant, with a learning design manager remit, states:

> So, we're in a very strange limbo place where a lot of the activity that we ask our learning designers to do and the objectives that we set for them in many ways are our best guess of what we think is required to support the university. (Brian)

The divide between discourse and practice at leadership level is highlighted by the way in which design is presented as reconceptualising space and place. University of Dundee has positioned design approaches as conducive to creating a fluidity between online and in-person experiences: "Our approach to learning design will encourage the integration of campus and digital capabilities to produce excellent programmes offering flexible delivery." (University of Dundee, 2022, 15). As discussed in the previous section of transformation discourse, this discourse runs counter to a push to return to campus and a concomitant delineation between in-person and digital teaching and learning.

Design approaches may assist in overcoming dichotomisation of the physical campus and the virtual campus and traditional versus non-traditional teaching

and learning. However, a focus on design approaches in institutional discourse also obscures mixed messages disseminated at leadership level and distances leadership's direct involvement and influence in promoting design approaches. Such conflict with messaging highlights the bigger challenge TEL professionals face in translating concept into practice:

> I've been involved in grassroot efforts, putting on sort of like shared interest groups and building community, some quite successful communities of practise. But what we haven't had is sort of leadership coming the other way, sort of mandating that, you know, you must do this. (Ranjith)

Given the lack of leadership support in translating rhetoric into implementation, TEL professionals require constantly evolving and expanding techno-pedagogical skills. They also require the ability to negotiate their position in relation to academics and leadership to effect change on their terms (Whitchurch, 2024). TEL professionals see their skillsets as increasingly diversifying and potentially expanding (Fox & Sumner, 2014), particularly as they become involved in transformation projects and curriculum design and re-design. The uncertainty and nebulousness of their role have facilitated this:

> It's not what it says on the tin, and you know you're brought in for a specific activity, but then it expands quite dramatically in some senses and morphs so I would say I'm involved in academic development, for example, so training teachers in terms of the use of digital technologies. I'm also a developer. I'm developing out e-learning interventions, online courses, games, video productions, immersive learning. (Connor)

Connor's statement highlights how TEL professionals may not be directly involved in design but, given the fluidity of their remit, they are likely to take or receive some responsibility for design, particularly as it supports digital transformation.

As higher education continues to address and incorporate generative AI into teaching and learning, design approaches will be expected to support ongoing and iterative approaches to curriculum development (Chang et al, 2023). This aligns with the belief, espoused in discourse, that design approaches can assist higher education in navigating an increasingly complex network of technology, which in turn requires contingent practice in teaching and learning. At its core, learning design requires deliberation of teaching, focused on decisions about content, modality and context: this deliberation needs to be both granular and holistic.

Such approaches provide TEL professionals with an opportunity to extend their impact beyond the parameters of transformation projects. They also challenge the core skills of TEL professionals as Third Spacers, navigating tensions, brokering for consensus and balancing the conceptualisations of TEL that both facilitate and hinder engagement with academics that is so crucial to their practice.

Although discourse indicates that learning design knowledge is specialist, studies like Davey et al (2019) intimate that there is scope to upskill academics to develop a learning design skillset. However, as many TEL professionals value making contributions to learning design as part of their role, this might lead to concerns on their part that they will train others to replace them. My own findings have not unearthed any desire for TEL professionals with this remit to shift this knowledge to academics.

5.2.5 Transforming the TEL role: “We’re more than tech support”

Institutional expectations that technology will transform the university, through fostering a digital culture, often produce TEL roles that are emblematic hires. Many institutions operationalise their digital ambitions through the creation of TEL posts. This is evidenced by an increase in TEL roles across institutions

since the pandemic, albeit primarily in the form of temporary contracts (Walker & Voce, 2023). As one participant states:

> When I was brought on it was probably in response to this teaching and learning strategy that the college put out and we needed to change the way we taught and become a bit more innovative and stuff. But really it was just, you know, an exercise to tick a box. (Anna)

Consequently, TEL professionals frequently contend with their role being over-conceptualised, with expectations that they can innovate organically and in isolation. This assumption contrasts with the lack of social capital TEL professionals tend to have in comparison to academic colleagues, made worse by a post-pandemic backlash to TEL (Watermeyer et al, 2021a).

As discussed earlier in this chapter, not only do institutional transformation projects and the promotion of design approaches to curriculum development allow TEL professionals to reinsert themselves into conversations about teaching and learning—including assessment—they also play to the strengths of TEL professionals as negotiators and brokers, bridging the gap between institutional ambition and the reality of academics' context.

Despite this, TEL professionals face palpable challenges. As tensions between leadership and academics intensify in connection with rounds of redundancies and increasing workloads, academics interpret transformation as uprooting established practice, increasing distrust of central services and institutional-level decision-making (Hristova, 2024). As with innovation discourse, academics see this as another expectation to rewrite processes, and a variation on the theme of 'doing more with less':

> I think people have disengaged a bit. And again, it's not to be critical because there's less staff, there's more students. (Michael)

> The wider context of higher education right now means people are really concerned about funding, about their role, and so they're going to pare back on what they're willing to do and focus on their core remit. What they think is important. (Jo)

Promulgations to transform the curriculum at leadership level feel disconnected from the day-to-day reality of lecturers. Additionally, technology has been viewed as impinging on academic practice and the added social capital that TEL professionals garnered during the pandemic may be perceived to have come at the expense of academic capital reflecting the associated increased precarity of academic labour (Belluigi et al, 2022; Hristova, 2024; Tay et al, 2022; Watermeyer et al, 2021).

Within discourse, the pandemic is positioned as an exemplary moment within higher education, in which HEIs demonstrated agility and responsiveness, through increased collaboration and by playing to higher education's strengths, particularly in formulating knowledge-sharing communities of practice. Strategic language reflects the desire to:

> [build] on lessons from the pandemic, when colleagues came to understand both the advantages and disadvantages of a digitally supported education. (Oxford University, 2023, 1)

TEL professionals' experiences resonate with this narrative of lessons learned:

> There's a lot of people who picked up good practise during COVID. They learned from us, they learned from the central service, but they also learned from each other. (Michael)

For TEL professionals, this period changed the nature of their practice as they became pivotal to the implementation of an immediate shift to online learning

(Farrell, 2022; Watermeyer et al, 2021a). Initial stages of the pandemic were focused on transitioning and translating face-to-face learning to digital forms:

> Initially there was a lot of reactionary sort of support: you know someone asks a question and needs something you know like 'I to be able to upload my video' or whatever it is. (Ranjith)

Later phases allowed TEL professionals to promote more considered and methodical approaches to online learning, giving them greater agency in shaping the direction of teaching and learning beyond the momentary (Jones-Devitt & Austen, 2022):

> We were keen to try and push the pedagogical. (Ranjith)

> So, I think the initial thrust was more assessment based just because of the time of year it was. And then kind of alongside that came the 'well, how do we teach online?' (Meredith)

Across these varying phases of ERT, TEL professionals had ample opportunity to act as consultants and facilitators, in collaboration with actors across institutions who would otherwise be distanced from them. Although they contended with many of the challenges associated with that period, including exhaustion, overwork, and wider social and economic uncertainty, TEL professionals also experienced a significant increase in their visibility (Livingston & Ling, 2022; Watermeyer et al., 2021a).

The pandemic allowed TEL professionals to demonstrate and foster their pedagogical skills, a component of their role that is frequently diminished and overlooked when operating in the Third Space:

> Academics take from other academics. It's about rivalry there as well. What they've done. I can do it. Or I really like that approach. Whereas

> you or I could probably spend hours doing training and tell them this and they'll not do it. (Michael)

Often relegated to tech support or conflated with information technology, TEL professionals wish to avoid being positioned as reactive to specific technical issues or removed from pedagogical aspects of technology. Misconceptions of the TEL role challenge professional identity formation:

> One of the things that I find a bit frustrating is because we're TEL we're seen as techie people, and I've never considered myself as a techie person. I'm about the learning, the teaching, the people, etc. So, I do get frustrated at, I suppose being labelled a problem solver or a fix it, because that's not what I'm about. (Meredith)

ERT somewhat recalibrated this dynamic, giving TEL professionals' knowledge an immediacy that increased respect for their contributions amongst academics (Jumat et al, 2023; Livingston & Ling, 2022). Often closed out of pedagogical discussions because they are not academics, TEL professionals found – through their increased visibility – that they could clarify misconceptions that their primary contributions were solely around tech support (Watermeyer et al, 2021a). Even so, Jumat et al (2023) place emphasis on TEL professionals' ability to identify the affordances of technology whereas pedagogical knowledge is merely something they should explore further, implying that this skillset is secondary.

One participant highlights the rich diversity of her responsibilities during that period, including how to guide academics away from merely translating in-person delivery to a digital medium, which tapped into her pedagogical and technological knowledge:

> It was very, very hands-on with both running introductory workshops, but then also individual support online for using online tools and getting

> people to think about online engagement, not just delivering the same as they would in the classroom. (Sylvie)

Through showcasing their skillset, TEL professionals could engage with academics on a wider, more significant scale (Jumat et al., 2023).

> The pandemic changed my role in that, before the pandemic, we could not get anybody interested in using [the VLE]. They might do a little bit of blended, you know, use the discussion board in or the journals in between class. But that was about all. And then it was [suddenly] very full-on, supporting colleagues. (Sylvie)

For TEL professionals, one of the richest rewards of ERT came from new ways of working with colleagues rather than any appeal to a specific tool or technology. Although training staff to use digital learning tools is a key component of TEL professionals' roles, many of them bemoan a sustained institutional focus on how to use tools as opposed to when they should be used:

> [They] are still very much focused on tools and technologies and the functional aspects and don't seem to get that they need to look at the pedagogical and integration of those tools and technologies. (Jo)

This deterministic belief that the procurement of specific tools or technologies will transform higher education has not abated even as TEL professionals have seen mixed messages at leadership level confound their ability to engage with academics.

As institutions continue to increase procurement of digital tools as part of becoming a digital-first university, there is little attention paid to the experiences and perspectives of end users (Williamson & Hogan, 2021) nor is there consideration of the ways in which technologies and users can influence each other to open up new TEL practices. The conflict experienced by TEL

professionals highlights a faulty process in which leadership pays lip service to implementing new tools and technologies, but the messaging falls to TEL professionals to cascade down into faculties and schools.

While TEL professionals are uniquely placed to see this gap between the procurement of a tool, representing a new tool in the institutional digital-first arsenal and its actual use (Han et al., 2023), they lack the incumbent social capital to direct changes to implementation processes. TEL professionals are accustomed to finding themselves cut out of institutional teaching and learning conversations and initiatives (Han et al., 2023), including the procurement of tools. The pandemic offered an unprecedented opportunity to become more directly involved in teaching and learning discussions and consequently more visible:

> We suddenly had everyone actually talking and kind of listening to us, working with us and needing a lot of support. (Ranjith)

However, as the pandemic receded, and higher education reflected on what should be retained from ERT, the language of the pandemic, particularly as reflected within institutional strategy, departed more significantly from on-the-ground experiences of staff. TEL professionals have particularly struggled with this departure, seeing a significant decrease in their visibility and social capital and, looking back, a lack of appreciation for their efforts during this time:

> There's a complete lack of knowledge and understanding around all of the work that actually was done in the background to keep everything up and running. (Connor)

As touched on in earlier sections of this discussion, since the pandemic's end, TEL workers have contended with a post-pandemic regression of TEL practices that has negatively impacted their roles. Institutional discourse ostensibly promotes the continuation of ERT collaboration, proclaiming that there is a "shift

from support *for* academics to support *with* academics well underway, with a focus on pedagogy over content or technology" (University of Portsmouth, 2023, 6, my emphasis). The experiences of TEL professionals counter this discourse of increased collaboration to an extent, particularly as ERT practices have been jettisoned:

> We are just going back to what we used to do, and no one has really taken their experiences on board. (Anna)

As the pandemic ended and their social capital waned, TEL professionals have proactively sought to re-engage with academics beyond jockeying for ways to collaborate that may feel forced or of secondary concern. The desire to jettison certain pandemic practices has been discouraging for TEL professionals as they have had to renegotiate their relationship with academics.

Although TEL professionals have seen a significant change in their ability to effect change since the pandemic ended, they are also cognisant of the wider impact on all roles within higher education since the pandemic. ERT necessitated a significant increase in workload for staff (Erlam et al., 2021); however, this burden has not decreased since the pandemic ended and has become thematic of the tensions between staff and leadership within institutions:

> During the pandemic, people were expected to do a lot, way beyond what they were employed to do and that has continued and that hasn't paused at all. (Jo)

Academics face increased precarity and casualisation, fostering distrust of leadership and compounded by intimations that technology can outsource components of academic labour (Ivancheva & Courtois, 2024). Furthermore, technology has laid the foundations for monitoring academic staff. Academics' fears have been amplified by generative AI's growing capabilities to monitor and

undermine their work (Watermeyer et al., 2024). TEL professionals recognise the need to temper these tensions and present academics with clear benefits to collaboration.

TEL professionals see their contributions clearly: where academics and TEL professionals do not collaborate effectively, student experience suffers (Han et al., 2023). Although shaped at institutional level and transmitted through university strategy, TEL conceptualisations cascade down into individual attitudes and perspectives and influence the ways in which academic and non-academic staff engage with technology. TEL professionals position themselves as working beyond these boundaries to reconcile concept with practice.

Although TEL professionals do not want to be viewed primarily as tech support, they are aware that making themselves visible and responsive to academics should extend beyond project work, including large-scale transformation projects. They are focused on the daily, incremental interactions in which TEL can address issues for academics, particularly around technical issues that may increase time and complexity to academics' work:

> I'm used to kind of having to solve everybody's problems with everything. It meant that I could say to the whole faculty: ask me anything. I'll give it a go, and if I don't know, I'll find you someone who will help. And it meant that if you know at every point somebody is going to have a problem and they're just going to go, I wish there was someone I could ask, making sure that person was always me. (Lana)

Although Lana has found ways of making herself useful to the faculty as a means of gaining trust and respect, she risks becoming the 'jack of all trades' reactive tech support that TEL professionals seek to avoid. Consequently, TEL professionals find that they must precariously balance opening up their skillset to support colleagues in ways that they do not see as their core remit in the

hope that it will benefit their social capital. For Lana, this has been successful but is not without risk.

Curriculum transformation projects offer visible opportunities to reconceptualise approaches to TEL. However, TEL professionals appreciate that they must foster trust with academics, demonstrating their value through small-scale interactions, alleviating tech stress. Incrementally, the daily interactions can develop from reactive troubleshooting tech support to a consultative role. Without establishing a demonstrable benefit to academics, laying the groundwork through this kind of targeted support, transformation projects risk achieving superficial results.

By leveraging their tech support role in the short-term, they may achieve greater acceptance from academics to participate in deeper discussions around digital pedagogy in the long-term. Furthermore, by engaging with academics in targeted, albeit less institutionally visible ways, TEL professionals can better understand individual contexts which position them as digital education consultants rather than proselytisers of digital transformation:

> I guess just trying to meet them where they are and try to meet that demand. (Jo)

> I am a huge advocate for and really trying to encourage others where I can to be able to draw an accurate picture of the area or the remit. (Meredith)

Such approaches to TEL reflect a sociomaterial understanding of technology as offering affordances based on individuals' contexts and attitudes to that technology (Orlikowski, 2007). As institutions continue to cut staff across the sector as of mid-2025, with no respite in sight, TEL professionals contend with working with academics in a high-pressured environment. Despite leadership

promoting positive, transformational change, negative change can feel more immediate and palpable:

> You've got academics who, it's not that they're necessarily they know there's a thing over there and they're not interested. They might be interested, but they haven't got that time either because they don't have the administrative support to get on and do the teaching and the creative stuff. (Brian)

The time constraints of academics remain a key concern for TEL professionals:

> I think a big challenge is just the time for colleagues so not time for me, but time for colleagues. There are so many competing priorities. How do we have the right offer for the people at a time that they need it? (Sylvie)

TEL professionals seek to help alleviate those pressures – both through using technology to offload academic labour and in the hopes that relieving those constraints will provide opportunity to collaborate on significant changes to teaching and learning, as promulgated through curriculum transformation:

> The time demands on the staff are more, the workload and the stresses are more. I think the more automation you can have in kind of designing your courses or putting your courses online, the better. So, I think that will become a key part of the role. (Meredith)

However, as increased automation becomes a potential solution to overburdened staff, there becomes a risk that the creative and specialist components of academic and TEL roles may be offloaded in unforeseen ways. Anticipating how automation may impact roles and remits becomes more difficult as the pace of technological change – particularly changes resulting from implementation of generative AI tools – escalates (Watermeyer et al, 2024). This is an evolving challenge for TEL professionals. For example, where

embedded generative AI tools create automation of course design in VLEs, this seemingly provides much-needed relief but may also change and limit the TEL professional remit.

Whilst the increasing financial constraints have increased the burden on academic staff, TEL professionals have also experienced a surge in expectations and priorities because of sectoral challenges. This means that they must also consider what to prioritise and how to achieve their objectives, understanding that they are often asked to respond to requests outside of their remit:

> Whatever problem emerges, it tends to find a home in our department and that tends to end up finding a home with me. (Aaron)

> I think in the TEL role, you're so careful about what you commit to because you know you can be pulled into anything at any point, and obviously the more you commit to, the more that these things can also fall down because you just end up with a bottleneck and you can't get everything done. (Jack)

As institutions continue to slash departments and consolidate faculties, the fault lines within institutions continue to shift, new cultures are formed, and TEL professionals must acclimate and identify the advantages that these changes present to their practice. Regardless of whether TEL professionals are centralised or faculty-based, they must navigate the fault lines and dispersed commitments that come to them, partly because they cannot find a home elsewhere.

One interviewee discussed the way in which the amalgamation of his faculty with another due to an institutional restructuring would also mean no corresponding increase in TEL staff. Regardless of this, he regards this enabling his professional development and presenting new opportunities to engage:

> So, I think the challenge is definitely moving to a bigger faculty and – you know – what can we offer that's qualitatively meaningful? [...] You know a useful thing for the whole faculty, and I suppose the opportunity on the flip side of that is what can we learn from these other programmes that we're going to work with? What are the academic staff going to be like? Are they going to introduce us to interesting new technologies that we can suddenly employ? (Jack)

As TEL professionals find themselves with increasingly diverse demands and navigating increasingly challenging environments, they maintain that they are always learning, seeking to develop new skills, and to identify the way in which their contributions will achieve the most value for themselves, academics and students. Furthermore, as academic and professional boundaries continue to dissolve, there may be an increase in TEL professionals operating across those boundaries, including securing academic posts and leadership positions.

Regardless of where TEL professionals sit along the spectrum of technological and pedagogical knowledge, they universally see themselves as supporting the improvement of teaching and learning:

> I'm about the learner. I'm about the learner journey and the learner experience, and when it's a poor experience that it does really frustrate me. (Meredith)

Furthermore, despite the bleak outlook for higher education, TEL professionals express unabated pride in working in the sector:

> I just want to support the staff and students we have now. I want to enjoy where we are as a university. I want to enjoy working for a university. What a wonderful thing to do. What a great place to be. What a great job. (Lana)

5.2.6 TEL transformation: discourse and practice

Transformation discourse has been considered through the lens of sociomaterialism; consequently, I have recentred the entanglement of individuals and technologies into the frame of transformation discourse. Sociomaterialism combats the tendency to view material objects—including technologies for learning—as background and separable within meaning making (Fenwick et al, 2011).

Transformation discourse has problematically centred technology as the means to change teaching and learning for the better with little interrogation of how this should be enacted. Furthermore, it reinforces the binary of traditional teaching and learning and the imagined (digital) future of teaching and learning: it plays up the *enhancement* of Technology Enhanced Learning presented in the introduction of this research, the inevitability of improvement (Kirkwood & Price, 2013). Furthermore, the tension between transformation discourse and a promulgation of returning to campus reinforces the binary of online and face-to-face learning also emphasised in the discourse of personalisation discussed in the previous chapter.

As evidenced in the findings, discourse tends to situate TEL in a contained bubble of transformation, in which it solves problems and generates upheaval to existing practices, seemingly in isolation the interactions that provide context and meaning. By ignoring the dialectic of human and technology, transformation discourse alienates those it seeks to enlist.

When considered in contrast to conceptualisations of the *traditional* university, transformation discourse assumes significant, structural change is necessary and that this change must address the sustained and worsening crisis facing higher education: technology and the digitisation of the university are core components of this discourse. Although discourse purports to embrace the digitisation of teaching and learning, with ERT providing anecdotes for ways in

which technology has improved education, a push to return to campus as a reaction to ERT has diluted these aspirations.

As with innovation discourse and practice, in using Jäger and Maier's dispositive triangle and analysing the findings, I have summarised the discourse and practice of transformation below:

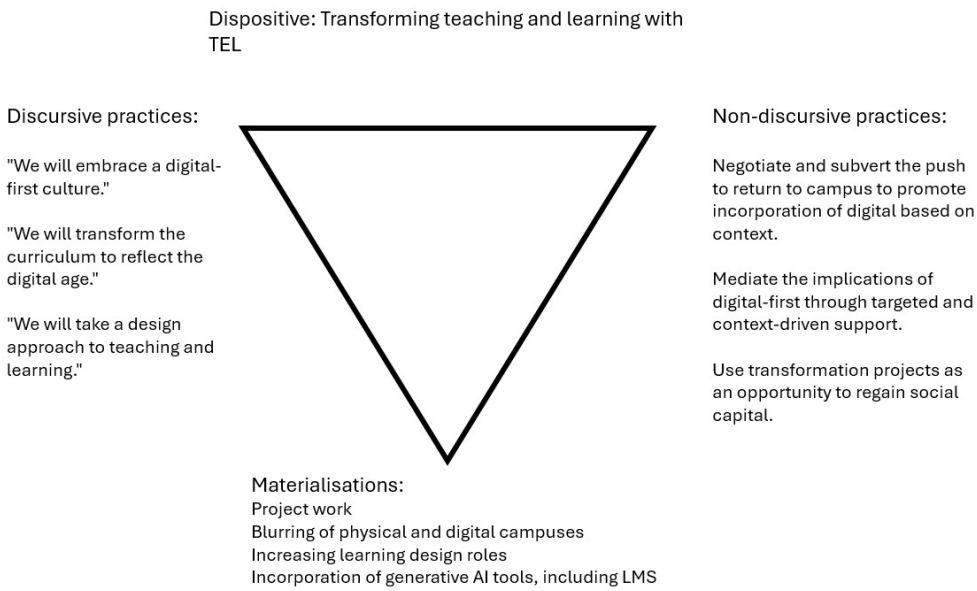

Figure 5.1. DISPOSITIVE TRIANGLE OF TRANSFORMATION DISCOURSE

Institutional ambition to become 'digital-first' reaffirms the rhetoric of TEL, in which technology is seen as the solution to myriad problems without proper interrogation or deconstruction. The promotion of design approaches to curricula and an ostensible commitment to digital-first through the appointment of or reallocation of resources towards more TEL and instructional design-based roles seemingly evidences these ambitions.

However, the experiences of TEL professionals indicate that these activities cloak a lack of clear direction or commitment on the part of leadership. Despite exhortations to become digital-first, many institutions lack a cohesive response to uneven digital skills evidenced across institutions, by staff and students alike. Digital-first discourse also fails to recognise the complexity of HEIs, including

the diverse cultures that need to be traversed across disciplinary and faculty fault lines to truly embed an overarching TEL culture.

Transformation projects, which have increased or been reignited in the post-pandemic period, have offered an opportunity for TEL professionals to recapture the social capital they enjoyed during the pandemic. Whilst transformation projects arise from discourse that progresses both solutionist narratives of technology and the rhetoric of a broken educational system in need of digital solutions (Clark, 2023), TEL professionals generally view these projects favourably as they open up new opportunities to shape TEL practice.

Despite the positive reception to these projects, post-pandemic conceptualisations of TEL, promulgated in strategic language as offering opportunities to transform teaching and learning, often exacerbate tensions between academics and TEL professionals. Post-pandemic fatigue compounds these tensions, as academics attempt to manage competing demands.

Although some of the current research touches on the reluctance of academics to use technology when it is seen as an additional ask (Tay et al, 2023) there has been no significant exploration about how the wider post-pandemic challenges to academic agency and labour have impacted TEL practice and the ability of TEL professionals to influence teaching and learning.

Even studies such as Walker & Voce's (2023), which explore post-pandemic teaching and learning from TEL professionals' perspectives, do not explore these obstacles to TEL practice and instead show cautious optimism for the future of TEL. This optimism is not misplaced. The TEL professionals I interviewed expressed hope for their future even as uncertainty and diminishing post-pandemic social capital pervade. Rather, my findings highlight how significantly the constraints and fatigue experienced by academics influence the

TEL practice and TEL practitioners, requiring careful calculation of how these wider shifts should be accommodated or overcome.

TEL professionals are well-placed to contribute to transformation projects given their skillset. They are also pivotal to fostering positive relationships with academics and translating transformation into targeted methods of freeing up academic labour that recognise different approaches to TEL. In using their brokering and bridging skills, TEL professionals may overcome tensions and foster longer standing opportunities to collaborate with academics.

As discourse promotes new cultures, new curriculum, and new approaches to teaching and learning, TEL professionals have negotiated and reconciled these discursive strands. TEL professionals have experienced a backlash, associated with a counter-narrative to transformation, catalysed by the pandemic, in which a return to campus and traditional teaching and learning has been elevated at the expense of TEL practice.

Despite these challenges, TEL professionals see emerging opportunities to make contributions to teaching and learning that extend beyond tech support. They are uniquely placed to channel conversations away from a focus on modality and specific tools and towards more considered approaches, including a renewed focus on learning design and the spectrum of blended learning, to enact and maintain effective uses of technology in teaching and learning.

Finally, TEL professionals must balance the nebulousness of their role and the associated disparate commitments that come with working within the Third Space. As the structures in which they work shift, there is potential for them to continue to shape their roles and to impact teaching and learning across their respective institutions.

Proffering their diverse skillset must be balanced against being consigned to administrative and technical support functions or having roles that evolve into a collection of tasks or odd jobs. As the sector evolves, TEL professionals will need to be mindful of these challenges and ready to once again navigate, subvert and reshape the shifting context in which they work.

Chapter 6: Conclusion

This thesis presents an analysis of the ways in which discourse has shaped TEL narratives and how TEL professionals have managed and translated discourse within their practice. In adopting a sociomaterial lens, I have recentred TEL discourse to encompass the assemblages comprised of individuals, technologies, and discourses that constitute TEL practice. Even as they have lost social capital in the post-pandemic period, TEL professionals have the capacity to shape their practice and to consequently produce new discourses.

I will now reintroduce the research questions and overall findings and present the core contributions of this study to current research, including how this study has addressed gaps, and recommendations resulting from the findings and discussion points.

6.1 Research questions

This study has addressed the following research questions:

RQ1: How has technology enhanced learning (TEL) been conceptualised in post-pandemic UK higher education institutions?

1.1 How have ERT practices influenced conceptualisations of TEL?

1.2 How has generative AI influenced conceptualisations of TEL?

Institutions have conceptualised TEL in solutionist terms, primarily as a conduit for innovation and transformation of teaching and learning. ERT offered opportunities to experiment with technology in teaching and learning and exposed institutions to significant and rapid change. More people became exposed to online learning which, in some cases, led to new approaches that were either sustained or not. Regardless of how well or poorly people adapted to ERT, conceptualisations of TEL shifted as technologies for learning became more ubiquitous and more foundational to business as usual.

In the post-pandemic period, institutional discourse has used ERT narratives to encourage continued changes to practice, with little interrogation or reflection.

Generative AI has sustained sectoral attention, further driving the narrative of technology as a conduit for innovation and transformation. Its emergent nature makes it ideal for appropriation in TEL discourse, including idealistic and romanticised conceptualisations, given its not-yetness.

In contrast to solutionist discourse, a counternarrative argues that technology has threatened the longevity of higher education and established approaches to teaching and learning, exposing a dated and broken system: consequently, the discourse of change fosters the binary of opportunity and threat. TEL is conceptualised as necessary to ensure the sustainability of institutions in an increasingly challenging operating environment. The speed of technological change has increased this threat.

Generative AI exemplifies the speed and magnitude of change initiated by technology according to discourse: how this plays out in practice remains emergent. Regardless of whether technology is positioned as a conduit or a threat, these narratives marginalise the interplay between technology and the users of those technologies—including TEL professionals and academics, the primary focus of this study.

Increased precarity, made manifest during the pandemic, has injected conceptualisations of TEL with an inevitability to digital education, digital infrastructures, and digital ways of working, often encapsulated in the term *digital-first*. Generative AI has compounded the perceived precarity of institutions but is further conceptualised as an opportunity to enhance or upend existing forms of teaching and learning. For example, personalised learning has been positioned as a potential area of innovation for teaching and learning and technology, facilitated by technology. However, personalisation in its current form is primarily limited to offering different modalities that *reinforce* binaries of online vs face-to-face and traditional vs non-traditional.

According to discourse, institutions are addressing these opportunities and challenges by rethinking their approach: the promotion of transformation projects and design approaches to pedagogy offer potential ways in which institutions can use technology for learning more effectively.

RQ2: How have these conceptualisations impacted TEL professionals' practices?

2.1 How do these conceptualisations positively impact TEL professionals' practices?

2.2 How do these conceptualisations negatively impact TEL professionals' practices?

TEL professionals perceive these conceptualisations of TEL as both helpful and harmful to their practice. Such conceptualisations unsurprisingly do not properly account for the context-driven nature of TEL practice including the way in which TEL professionals work within or across disciplines and with academics whose attitudes to TEL range. Nor do these conceptualisations reflect the complexity of interactions between individuals and technology that may fall outside of predicted or expected outcomes. These experiences reflect the way in which technologies, individuals and discourses are entangled in assemblages that can be reconfigured.

The pandemic broadened the scope of TEL professionals' practice and their contributions to teaching and learning. Essentially, conceptualisations of TEL in this period supported increasing the agency of TEL professionals and opening up new dimensions of practice. This research has not been occupied with identifying better or worse examples of TEL practice during ERT; rather this research has sought to identify how TEL practice has undergone new assemblages and how this might offer insight into TEL practice in its current post-pandemic form.

TEL professionals are often viewed as representatives of institutional TEL discourse and consequently find themselves excluded from conversations with academics, particularly in a post-pandemic period of 'online learning fatigue' and increased precarity within institutions. Where TEL is conceptualised as increasing efficiency, for example, suspicion on the part of academics of being replaced by technology hinders collaboration for TEL professionals. Generative AI has only increased this suspicion.

TEL professionals have demonstrated mixed reactions to innovation discourse. For the most part, innovation discourse elicits scepticism about the value it adds to effective collaborations with academics and further raises academics' suspicions of the expectations underpinning that discourse. However, TEL professionals also use the term innovation when identifying better or worse practice on the part of academics, thus reinforcing the very discourse they challenge.

In other cases, TEL professionals have reshaped the use of the term *innovation* to mean consultation and support for academics in the use of technology, essentially freeing them up to focus on teaching. However, with this approach comes a potential danger that they will be relegated to reactive tech problem solvers rather than active participants in shaping TEL practice.

TEL professionals have acknowledged that some TEL conceptualisations work in their favour: transformation projects may offer new incentives for academics to engage, beyond intermittent and reactive tech support. TEL professionals suspect that their contributions to redesigning assessment, particularly in the wake of generative AI, may provide a reinstatement of the social capital they achieved during the pandemic.

RQ3: How do conceptualisations of TEL and TEL professionals' practices intersect or diverge?

Although conceptualisations of TEL champion the pandemic as a turning point in digital education that must be sustained, TEL professionals have seen their contributions dwindle in the post-pandemic period. Furthermore, despite institutional promotion of digital-first and design approaches, most TEL professionals highlighted that they have seen much of the work undertaken during the pandemic undone. This shift has limited TEL professionals' contributions has resulted in demoralisation.

Digital-first remains largely conceptual as institutions have undermined this discourse by promoting a return to campus to such an extent that experimentation with technology for teaching and learning is implicitly—or even explicitly—discouraged. Compounding this, academics feel less compelled than ever to sustain positive TEL practices or to experiment with technology for learning in the face of job precarity and mounting requirements to do more with less.

Although institutional approaches to generative AI have varied, TEL professionals generally feel that their practice aligns with their institutions' approaches, as generative AI's impact on higher education remains uncertain and emergent. Opportunities to experiment with generative AI balanced with an awareness of its potential dangers have been largely supported and encouraged through institutional discourse. Surprisingly, TEL professionals have not been significantly involved in generative AI experimentation, but this is expected to change as these tools become more widely embedded.

Although the discourse of efficiency innovation has negative connotations—particularly in relation to new managerial approaches that promote cost-cutting—TEL professionals have, to a certain extent, embraced efficiency and mediated its meaning to reflect their individual contexts in a drive to prove their usefulness to academics. Rather than equating efficiency with saving money, they have promoted a discourse of efficiency as saving time.

TEL professionals are largely supportive of transformation projects, particularly as they offer an institutional-mandated opportunity to engage with academics. However, this enthusiasm is laced with some sense of cynicism as TEL professionals have witnessed endless change projects over the years, with little substantial success.

6.2 Contributions to research

The findings of this research elucidate the interplay and entanglement of discourse and practice and the concomitant friction that arises within TEL. The results across both stages of my research highlight that although institutional discourse attempts to foment a cohesive narrative of TEL to foster consistency and collaboration, as well as action in the face of adversity, these efforts are challenged by the realities of the wider sectoral context and the complexity of technology for teaching and learning. TEL professionals' insights have been integral to my discussion points, highlighting that prevailing TEL narratives – although intending to do otherwise – undermine fruitful and effective uses of technology for teaching and learning.

This study does not recommend limiting the use of discourse, which is a fundamental component of higher education and wider social dynamics. Discourse is a core component of practice. Rather, I have interrogated the limitations of discourse as well as the ways in which discourse can be adapted to positively impact TEL practice. Using a sociomaterial lens combined with dispositive analysis has allowed me to focus on the relationships formed between individuals and technology, and the ways in which these assemblages shape and are shaped by discourse. Reinserting technology into meaning making and knowledge production is not intended to marginalise individuals: it is intended to correct positioning technology as solution or threat without wider considerations of its interplay with humans, through and because of practice.

The findings and discussion highlight the need for more pragmatism and less idealisation of TEL in discourse. Instilling more trust in TEL professionals at leadership level could encourage more productive uses of TEL that extend beyond technological romanticisation. Although this research has provoked discussion around the effective and ethical use of technology for teaching and learning, this area of focus remains fluid and further and continuous research is warranted to investigate how discourse and practice may shift, particularly as generative AI becomes more integral to practice.

In addition to this critical contribution to TEL research, this study advances educational theory in several ways which I will detail below.

6.2.1 Methodological contribution

Critical Discourse Analysis is an established and effective tool for examining language and ideology. I have extended the application of CDA to a specific, evolving period in TEL development to elicit new insights into how language has framed TEL in relation to the pandemic and generative AI. Although CDA has been used extensively within educational research, and specifically in relation to TEL, my application of dispositive CDA diverges from common CDA applications. Interrogating the relationship between discursive and non-discursive components through multi-stage research has allowed me to consider both the use of discourse and its implications.

As evidenced in my methodology section, dispositive analysis is surprisingly under-utilised in TEL research, particularly as it provides rich grounds for understanding not only the narrative of TEL but also how that narrative manifests on the ground. This study may offer some guidance for other researchers who wish to explore this specific form of CDA in educational research, particularly as its application remains open to varied approaches.

Adopting a sociomaterial lens has ensured that my research is framed by my epistemological and ontological assumptions. Meaning is fluid and emergent and derives from the assemblages of technologies, users of those technologies, particularly TEL professionals, and the associated ways in which they shape discourses. This lens is not used to de-centre individual experiences or contexts, nor is it to state that there are no underlying structures or stability. Rather, it is to identify how TEL has been shaped and reshaped by discourse to encompass the social and contingent dimension of practice.

This may appear to assume that these practices cannot, in turn, shape discourse. On the contrary, TEL professionals, through their practice, are already mediating and generating new assemblages of meaning and associated discourses. They have the potential to shift those structures that exist in their current form, including the underpinning neoliberal ideology that influences technological narratives in the sector and more widely.

6.2.2 Contributions to Third Space research

This study contributes to growing research into Third Space professionals in higher education, particularly in relation to TEL. Third Space workers reflect the growing fragmentation of traditional knowledge structures within higher education. This research has focused on change and the evolution of professionalism within higher education, particularly in relation to the delineation between academic and non-academic terrains, which have become more fluid. The expanding contributions of Third Space workers in higher education demonstrate how structural change operates in tandem with changes facilitated by technology and wider social pressures within the sector.

By examining the ways in which institutional discourse may limit or empower them, I have presented the perspectives of TEL professionals and how they navigate change within their respective institutions. My research guides TEL professionals foremost in identifying the ways in which discourse can enhance

social capital whilst also avoiding the pitfalls of TEL discourse, in which technology is positioned as both an opportunity and threat, an initiator of positive change and a catalyst for reactive change.

TEL is s social practice: by gathering individual perspectives through semi-structured interviews, I have shaped an overarching narrative through which TEL professionals can potentially learn and adapt. This is not intended to operate as a roadmap but rather an opening of different applications of practice that may or may not resonate with practitioners in their own context. TEL professionals have key roles to play in future developments for the sector as technology becomes more complex, more ethically nuanced, and more prolific, consequently increasing the contingent nature of teaching practice.

TEL professionals are not the only practitioners of TEL: however, they offer a unique and informed perspective of how TEL practices may navigate and influence discourse. As TEL discourse promotes transformation, TEL professionals are well-placed to shape approaches to transform teaching and learning. They also contend with transformation of their own role in relation to wider HEI structures and they understand the limitations of technology for learning as much as they do its affordances.

At its core, this research is underpinned by sociomaterial approaches to technology, in which material components intersect with human practice. Although my focus has been on TEL practice through the lens of TEL professionals, this extends to academics and other users of technology for learning in HEIs. The research has evidenced that technology and its end users are constantly influencing each other and are inextricably interconnected.

6.2.3 Gaps in the literature

As highlighted by my literature review, although some research has been conducted that offers reflection on the pandemic and its corresponding impact

on higher education, most post-pandemic research focuses on specific tools or discipline-specific experimentation.

Whilst beneficial to understand focused successes, there has not been ample opportunity to consider how these approaches to TEL have persisted in the post-pandemic period and how they might influence conceptualisations of TEL in a sustained crisis such as the sector is currently experiencing and will likely continue to experience over the next few years. Also missing from the current body of research is significant investigation of TEL professionals' perspectives of the pandemic. Despite a raft of research into ERT both during and after the pandemic, there has been a lack of critical exploration around how these commensurate practices have shaped conceptualisations of TEL and how generative AI might sustain or dismantle these conceptualisations.

Where research has investigated attitudes and applications of generative AI in teaching and learning, the focus has been on student, instructor, and institutional perspectives. As with post-pandemic research, there has been no notable investigation of TEL professionals' perspectives despite the likelihood that TEL professionals will provide targeted guidance, consultancy, and input on curriculum design in response to generative AI if they are not already doing so.

TEL professionals will invariably be called upon to support, in some capacity, careful and effective incorporation of generative AI to enhance learning. Even as TEL professionals rarely work directly with learners, the way in which generative AI is integrated within the curriculum will be crucial to ensuring that students are developing appropriate skillsets that encompass both disciplinary-specific applications and transversal competencies.

6.2.4 Addressing the gaps

This research has addressed several notable gaps in the body of research literature:

Gap	Way in which this study has responded
A focused analysis of the impact of ERT on TEL discourse and practice	Applying CDA of TEL discourse as it relates to ERT and the corresponding evidence of impact on practice through semi-structured interviews
A TEL perspective on generative AI and its impact on teaching and learning	Providing an evaluation of TEL professionals' perspectives of generative AI and their evolving contributions to shaping its incorporation into teaching and learning
The integration of ERT and generative AI into a critical analysis of TEL discourse	Synthesising ERT and generative AI as thematically complementary and overlapping in impact on TEL discourse and practice

Table 6.1. AN OVERVIEW OF GAPS IDENTIFIED AND HOW THEY ARE ADDRESSED

In conducting this research, I bring together what have otherwise been disparate strands. Integrating conceptualisations of ERT, the emergence of generative AI and the evolving practices of TEL professionals is not an arbitrary endeavour. These separate areas of research inform each other to derive a better understanding of how ERT has been positioned to frame change within the sector in the post-pandemic period, particularly as it relates to TEL practices.

This study views ERT and generative AI as a single narrative strand when considering TEL discourse. How this shapes the practice of TEL professionals and how these practices might mitigate or reinforce these conceptualisations addresses a notable gap in the research.

In presenting this study's contributions to current research, I would emphasise that the research has not solely sought to fill gaps in research but to make meaningful recommendations for practitioners within higher education and to surface tensions that often remain underexamined both in research and in strategic and operational discussions within institutions.

6.3 Recommendations

TEL professionals have informed this research, and, in turn, this study supports them in their future development. I have set out several recommendations below, including for higher education leadership, for TEL workers, and for academics. In providing these recommendations, I have not identified an ideal alternative approach to TEL practice: this research has primarily been focused on identifying the current landscape of TEL practice and how it contends with discourse resulting from ERT and generative AI. The findings have assisted in uncovering ways in which TEL practice could be better supported and fostered at multiple levels. As this research has adopted a sociomaterial lens, attempting to carve out a uniform, overarching 'best practice' goes against the contingent, fluid and complex nature of TEL discourse and practice.

Consequently, elements of these recommendations may be more or less salient for TEL professionals, academics and leadership. This is not to consider context as a closed-off space but rather to acknowledge that teaching and learning with technology is *messy* (Fenwick et al., 2011). TEL professionals have the ability to shape practice and discourse but not isolation: TEL is a social practice and discourse arises from the interactions of individuals with others through assemblages. I have identified some of the key actors with whom TEL professionals work to form recommendations that recognise the collective nature of practice.

6.3.1 Recommendations for leadership

Leadership is pivotal in formulating discourse, with the intention of shaping and influencing practice across all levels of respective institutions. Furthermore, university leaders seek to foster a collective identity through discourse, but these intentions are often challenged in practice, given the large and complex nature of institutions.

This study guides leadership with how to include TEL professionals in conversations about the direction of technology in teaching and learning. The use of generative AI, addressing digital literacy, the procurement of tools that truly benefit the users, and the best ways of achieving effective blended learning are all examples of decision-making that are often undertaken at the exclusion of TEL professionals. Recruitment of TEL professionals is frequently motivated by a wish to demonstrate an investment in technology for teaching and learning; however, TEL professionals' knowledge remains under-utilised when they are not actively involved in conversations about digital teaching and learning.

Such missed opportunities highlight the divergence of objective and operationalisation of TEL within many institutions. This may be associated with a lack of recognition that TEL professionals rely on institutional narratives to support them in engaging effectively with academics but also that TEL professionals may contribute to realising digital ambitions at leadership level. Even where leadership actively promulgates TEL through strategy documents, there is little material support for or collaboration with TEL workers to achieve beneficial change at that level.

The tendency to idealise TEL within institutional discourse has hindered rather than fostered a positive approach to technology for learning or digital education. By associating TEL with innovation and transformation, leadership has created anxiety and tension for academics who might otherwise be willing to experiment with technology to improve teaching and learning in their context. Consequently, institutions should minimise positioning technology in solutionist terms.

This study has established the increased presence of EdTech companies in HEIs, with the expanding procurement of tools to support digital teaching and learning. This has led to a focus on training staff to use specific tools that have

often not been evaluated in relation to the needs of end users. Involving TEL professionals more actively in procurement of technologies for learning may mitigate the disconnect between Ed Tech marketing teams and educators and learners.

Institutional discourse seeks to motivate and shape the future priorities of higher education, through strategy and policy documents as well as communication from leadership. Discourse should continue to shape these TEL narratives but should also form clearer links between institutional aspirations and how these aspirations will evolve. This is particularly important as institutions continue to grapple with how they will operationalise generative AI in teaching and learning, balancing guidance with disciplinary autonomy.

Furthermore, leadership must become more cognisant of the way in which narratives can undermine institutional intentions: for example, the return to campus initiative running counter to carving out a digital-first culture. TEL professionals can help to reconcile these narratives through their own perspectives and experiences.

6.3.2 Recommendations for TEL professionals

TEL professionals are accustomed to navigating the tensions between idealisation of technology for learning and TEL practice. Furthermore, as Third Space professionals, they are aware that changes in leadership approaches to TEL will not solve issues with engagement with academics. TEL professionals are habituated to shaping their own practices regardless of – or despite – institutional discourse. The determination of TEL professionals to drive their own professional practice should persist, particularly as delineations between academic and non-academic roles continue, and as pressure mounts on academics to increasingly do more with less.

TEL professionals have developed a heightened ability to identify ways of engaging with academics out of necessity. They should continue to direct their attention to those opportunities that are context-driven and based on supporting academics on an individual basis, even as these approaches can be time consuming and potentially disheartening when faced with sustained resistance or disregard.

Even as transformation projects and an emphasis on learning design approaches to teaching and learning, along with increased procurement of technology and tools seemingly encourage increased engagement, they will not, on their own, motivate change. TEL professionals already understand that institutional investment in specific roles or technologies alone cannot drive change; nor can discourse that promulgates an overarching digital culture without consideration of how that culture translates across different disciplines, schools, and individuals. HEIs are a collective of different cultures, attitudes and practices, including how TEL is perceived and actioned. Furthermore, different assemblages shape and reshape practice and its associated discourse.

Transformation projects have provided a means of engaging with academics in new ways. TEL professionals should persist in identifying and leveraging opportunities to engage with the disengaged. This requires persistence and a continued willingness to interrogate the context that drives different attitudes and approaches to TEL.

6.3.3 Recommendations for academics

Academics face heightened challenges, compounded during the pandemic, and perpetuated in the post-pandemic period. Generative AI has increased anxiety for some academics who may already find keeping current with technology an added burden.

Turning to TEL professionals to support academic labour may challenge levels of hierarchy and autonomy, particularly where technology is seen as a low or peripheral priority. Although TEL professionals have expertise in pedagogical aspects of teaching and learning, they may also offer support in minimising digital labour and technology-related burdens.

TEL professionals can identify effective ways of working, supported by technology, that may directly benefit academics. This in turn frees academics' time to focus on teaching. As HEIs contend with further cuts to resources, this has become increasingly vital.

Turning to TEL workers for assistance may force some academics to reach beyond their comfort zone and these collaborations invariably provoke questions of academic agency. Working with TEL professionals, however, may achieve greater efficiency and a new perspective on what works within established practice. Although TEL professionals may challenge boundaries within institutions, particularly between academic and professional services, they are also accustomed to redrawing boundaries in ways that might benefit both academics and learners.

6.4 Limitations of the research

This research has focused on the experiences and perspectives of TEL professionals. Although this research has addressed gaps in the literature in relation to TEL professionals' contributions in the post-pandemic period, further research into the discourse and practice of TEL would benefit from exploring the ways in which academics' perspectives differ from those of TEL professionals. Understanding these perspectives would provide beneficial insight for TEL professionals in how to work effectively with academics.

Given this research was conducted a few years after the pandemic, I was limited in how many institutional strategies I could include in my analysis. As

strategies are published over the next few years, a longitudinal investigation may be warranted to identify how discourse may change over this time, particularly as several transformation projects that are currently in progress reach their conclusion.

As evidenced by my review of the current literature, TEL is fast-moving, particularly in relation to generative AI, and research mechanisms are sometimes ill-equipped to keep pace with these developments. I face the same limitations in my own research, but this should not preclude further investigation of developments in TEL. The relationship between technology as a physical object, or its materialisation and the associated social dimensions of technology use, explicated in this study through discursive and non-discursive practices, emphasises the sociomaterial aspect of TEL, which offers sustained themes that transcend new applications or tools or new investigations of what those tools can accomplish.

TEL is premised on fluidity and, as changes to generative AI increase the speed with which technology influences and pervades teaching and learning, any speculation as to the direction of travel is limited. Higher education contends with increasing uncertainty and the landscape in which it operates may change dramatically even in the coming months, if not years, of its evolution.

6.5 What comes next?

The sector has experienced unprecedented changes over the last few years, as it grappled with the digital pivot during COVID-19 and as it emerged from the pandemic with conflicting interpretations of what lessons should be learned, what components of practice should be retained and what should be rejected. Generative AI has only complicated these reflections and amplified concerns that technology will usurp the domain of higher education.

TEL has become discursively entangled with strategic narratives within UK higher education, but the narrative has changed over the course of the last few years, as the pandemic shepherded in a sectoral shift to online delivery through ERT. To a certain extent, the narrative thread has continued with generative AI, particularly in relation to discussions around digital literacy, digital upskilling, and digital competencies. However, equating one with the other would oversimplify TEL discourse.

There have been tensions between conceptualisations of a digital university, that embraces change and channels crisis into innovation, inspiration and transformation and the traditional university, in which student experience and the relationship between learners and educators maintain core values in the wake of upheaval. To state that higher education only now faces a crisis of confidence would be misleading.

Higher education has always reflected inwardly and outwardly on its purpose, mirroring and challenging wider social values. Challenges wrought by technology are just one component of HEIs' relationship to the wider world. At its core, technology in teaching and learning, much like technology in general terms, is a human endeavour. It is shaped by and shapes human interaction.

Despite technology being a longstanding part of teaching and learning, the way in which TEL has been conceptualised has changed. ERT and generative AI provide anecdotes, case studies and exemplars with which discourse can shape and attempt to influence practice across institutions. The success of discourse to shape practice remains contentious. Just as universities look inwards and outwards, strategies both communicate to the wider world and attempt to shape and normalise practices within.

TEL professionals should not influence approaches to technology in teaching and learning in institutions in isolation. However, TEL professionals do provide insight into the tensions that arise between discourse and practice of TEL because they are positioned at the crossroads. As conceptualisations of TEL have changed, TEL professionals have also seen their roles shift, adapt, and recalibrate. Not only do TEL professionals need to mediate conceptualisations to shape their practice, but they are dependent on how those conceptualisations are mediated through faculties, schools, and individual academics.

As Third Space professionals, TEL workers must also adapt how they manage relationships with others, particularly with leadership and with academics. Depending on whether they are centralised or faculty-based, they may find themselves caught between the aspirations of leadership and the pragmatics of what can be accomplished 'on the ground.' Giving TEL professionals the ability to inform back to leadership and to shape conceptualisations of TEL through these experiences may not only allow them to recapture the social capital lost after the pandemic but also create more nuanced approaches and attitudes to TEL across institutions.

Through the intersection of TEL discourse and practice, this study has attempted to identify the materialisations of TEL, how practice responds to and shapes discourse, and how discourse may hinder or facilitate TEL professionals' practice. The materialisation of TEL brings these two components of TEL together to inform new approaches that do not rely on solutionist and idealistic propositions.

References

Abbas, M., Jam, F. A., & Khan, T. I. (2024). Is it harmful or helpful? Examining the causes and consequences of generative AI usage among university students. *International Journal of Educational Technology in Higher Education*, *21*(1), Article 10. https://doi.org/10.1186/s41239-024-00444-7

Adler, S. (1991). The reflective practitioner and the curriculum of teacher education. *Journal of Education for teaching*, 17(2), 139-150. https://doi.org/10.1080/0260747910170203

Al-Amrani, N. S., & Al-Ghaithi, A. (2023). Enhancing blended learning quality: Perspectives of Omani university students during and beyond the COVID-19 pandemic. *Language Teaching Research Quarterly*, 34, 63-81. https://doi.org/10.32038/ltrq.2023.34.05

Allan, J. (2013). *Social theory and education research: Understanding Foucault, Habermas, Bourdieu and Derrida* (M. Murphy, Ed.). Routledge.

Alvesson, M., & Deetz, S. A. (2021). Developing critical sensitivity in social research. In *Doing Critical Research*. SAGE Publications Ltd, https://doi.org/10.4135/9781529682649

An, Y., Yu, J. H., & James, S. (2025). Investigating the higher education institutions' guidelines and policies regarding the use of generative AI in teaching, learning, research, and administration. *International Journal of Educational Technology in Higher Education*, *22*, Article 10. https://doi.org/10.1186/s41239-025-00507-3

Arribas-Ayllon, M., & Walkerdine, V. (2017). Foucauldian discourse analysis. *The Sage Handbook of Qualitative Research in Psychology*, *2*, 110-123. Sage.

Association for Learning Technology. (n.d.). *Association for Learning Technology.* https://www.alt.ac.uk/

Atchley, P., Pannell, H., Wofford, K., Hopkins, M., & Atchley, R. A. (2024). Human and AI collaboration in the higher education environment: opportunities and concerns. *Cognitive Research: Principles and Implications*, *9*(1), 20. https://doi.org/10.1186/s41235-024-00547-9

Bacchi, C. (2000). Policy as discourse: What does it mean? Where does it get us? *Discourse: Studies in the Cultural Politics of Education*, *21*(1), 45-57. https://doi.org/10.1080/01596300050005493

Bailey, R. (2024). Educational technology, higher education discourses and the lived experience of lecturers as users: Exploring the metaphors. *Metaphor and the Social World*, *14*(2), 215–232. https://doi.org/10.1075/msw.24009.bai

Barad, K. (2003). Posthumanist Performativity: Toward an Understanding of How Matter Comes to Matter. *Signs: Journal of Women in Culture and Society*, 28(3), 801–831. https://doi.org/10.1086/345321

Bartolic, S. K., Boud, D., Agapito, J., Verpoorten, D., Williams, S., Lutze-Mann, L., Matzat, U., Moreno, M., Polly, P., Tai, J., Marsh, H.L., Lin, L., Burgess, J., Habtu, S., Rodrigo, M., Roth, M., Heap, T., & Guppy, N. (2021). A multi-institutional assessment of changes in higher education teaching and learning in the face of COVID-19. Educational Review, 74(3), 517–533. https://doi.org/10.1080/00131911.2021.1955830

Barnett, R. 1. (2022). *The philosophy of higher education: A critical introduction*. New York: Routledge.

Bartram, I., Plümecke, T., & Schultz, S. (2022). Genetic Racial Profiling: Extended DNA Analyses and Entangled Processes of Discrimination. *Science & Technology Studies*, 35(3), 44–69. https://doi.org/10.23987/sts.101384

Bayne, S. (2014). What's the matter with 'technology-enhanced learning'? Learning, Media and Technology, 40(1), 5–20. https://doi.org/10.1080/17439884.2014.915851

Bayne, S. (2020). *The manifesto for teaching online*. The MIT Press.

Bearman, M., & Ajjawi, R. (2023). Learning to work with the black box: Pedagogy for a world with artificial intelligence. *British Journal of Educational Technology*, *54*(5), 1160–1173. https://doi.org/10.1111/bjet.13337

Bearman, M., Nieminen, J. H., & Ajjawi, R. (2022). Designing assessment in a digital world: an organising framework. *Assessment & Evaluation in Higher Education*, *48*(3), 291–304. https://doi.org/10.1080/02602938.2022.2069674

Beetham, H., & MacNeill, S. (2023). *Beyond blended: Post-pandemic curriculum and learning design: Lessons from the higher education sector*. JISC. https://repository.jisc.ac.uk/9227/1/beyond-blended-post-pandemic-curriculum-and-learning-design-report.pdf

Belluigi, D.Z., Czerniewicz, L., Gachago, D. et al. (2022). 'Deeply and deliciously unsettled'? Mis-reading discourses of equity in the early stages of Covid19. *High Education*. https://doi.org/10.1007/s10734-022-00847-3

Biesta, G. (2013). Interrupting the Politics of Learning. *Power and Education*, *5*(1), 4–15. https://doi.org/10.2304/power.2013.5.1.4

Biesta, G. (2015). What is education for? On good education, teacher judgement, and educational professionalism. *European Journal of education*, 50(1), 75-87. https://doi.org/10.1111/ejed.12109

Birch, K., Komljenovic, J., & Sellar, S. (2025). Architectures of assetization: Legacy infrastructures and the configuration of datafication in UK higher education. *New Media & Society*, *27*(4), 1868-1887. https://doi.org/10.1177/14614448251314400

Blackmore, P., & Kandiko, C. B. (2011). Motivation in academic life: a prestige economy. *Research in Post-Compulsory Education*, *16*(4), 399–411. https://doi.org/10.1080/13596748.2011.626971

Bleiker, R. (2003). Discourse and Human Agency. *Contemporary Political Theory*, *2*(1), 25–47. https://doi.org/10.1057/palgrave.cpt.9300073

Blommaert, J. (2005). Discourse: A critical introduction. Cambridge University Press.

Blommaert, J., & Bulcaen, C. (2010). Critical Discourse Analysis. Annual Review of Anthropology, 29, 447–466. http://www.jstor.org/stable/223428

Bond, A. P., Kelsey, A., & Aitken, G. (2023). The future of anatomy teaching post-pandemic: An academic viewpoint. *Anatomical Sciences Education*, *16*(6), 1121-1133. https://doi.org/10.1002/ase.2308

Boliver, V. (2015). Are there distinctive clusters of higher and lower status universities in the UK? *Oxford Review of Education*, *41*(5), 608–627.https://doi.org/10.1080/03054985.2015.1082905

Bourke. (2014). Positionality: Reflecting on the research process. *Qualitative Report*, 19(33), 1–9. https://doi.org/10.46743/2160-3715/2014.1026

Braun, & Clarke, Victoria. (2022). Thematic Analysis: A Practical Guide (1st edition.). SAGE Publications Ltd.

Brinkmann, S., & Kvale, S. (2015). *InterViews: learning the craft of qualitative research interviewing* (Third edition.). Sage Publications, Inc.

Broadbent, J., Ajjawi, R., Bearman, M., Boud, D., & Dawson, P. (2023). Beyond emergency remote teaching: Did the pandemic lead to lasting change in university courses? *International Journal of Educational Technology in Higher Education*, 20(1), 58. https://doi.org/10.1186/s41239-023-00428-z

Buckley, C., Syska, A. and Heggie, L. (2024) 'Grounded in liquidity: writing and identity in third space'. *London Review of Education*, 22 (1), 26. DOI: https://doi.org/10.14324/LRE.22.1.26.

Bussolini, J. (2010). What is a dispositive? *Foucault Studies*, 10(10), 85-107. https://doi.org/10.22439/fs.v0i10.3120

Byrne, D. (2022). A worked example of Braun and Clarke's approach to reflexive thematic analysis. *Qual Quant* 56, 1391–1412. https://doi.org/10.1007/s11135-021-01182-y

Caborn, J. (2007). On the methodology of dispositive analysis. Critical approaches to discourse analysis across disciplines, 1(1), 115-123. https://www.lancaster.ac.uk/fass/journals/cadaad/wp-content/uploads/2015/01/Volume-1_Caborn.pdf

Carabregu-Vokshi, Mjellma, et al. (2024). 21st century digital skills of higher education students during Covid-19-is it possible to enhance digital skills of higher education students through E-Learning? *Education and Information Technologies.* Gale Academic OneFile. https://doi.org/10.1007/s10639-023-12232-3

Castañeda, L., & Selwyn, N. (2018). More than tools? Making sense of the ongoing digitizations of higher education. *International Journal of Educational Technology in Higher Education*, *15*(1), Article 22. https://doi.org/10.1186/s41239-018-0109-y

Cejnar, L., Valiente Reidl, E., & Fletcher, J. (2023). Designing higher education experiential learning for the post-pandemic hybrid workforce. *The Law Teacher*, *57*(1), 92–95. https://doi.org/10.1080/03069400.2023.2172245

Chang, D.H.; Lin, M.P.-C., Hajian, S., & Wang, Q.Q. (2023). Educational Design Principles of Using AI Chatbot That Supports Self-Regulated Learning in Education: Goal Setting, Feedback, and Personalization. *Sustainability, 15*, 12921. https://doi.org/10.3390/su151712921

Charbonneau-Gowdy, P., Salinas, D., Oyanedel, J. C., & Magaña, H. (2023). Designing the'new normal': Key insights from the pandemic for transforming online learning going forward. *Contemporary Educational Technology, 15*(3), ep446. https://doi.org/10.30935/cedtech/13389

Chaudhury, P. (2023). Asynchronous learning design—Lessons for the post-pandemic world of higher education. *The Journal of Economic Education*, *54*(2), 214–223. https://doi.org/10.1080/00220485.2023.2174233

Chilton, P. (2005). Missing links in mainstream CDA. In *Discourse approaches to politics, society and culture*.

Clark, D. (2023). The construction of legitimacy: a critical discourse analysis of the rhetoric of educational technology in post-pandemic higher education. *Learning, Media and Technology*, *49*(3), 414–427. https://doi.org/10.1080/17439884.2022.2163500

Clark, J. M., & Paivio, A. (1991). Dual coding theory and education. *Educational Psychology Review*, *3*(3), 149–210. https://doi.org/10.1007/BF01320076

Clarke, H. (2025, October 21). Will my uni fees rise next year? Whiat is V-level? Your questions answered. BBC. https://www.bbc.co.uk/news/articles/crred9ljqz7o

Clarke, J., Hurst, C., & Tomlinson, J. (2024). Maintaining the meritocracy myth: A critical discourse analytic study of leaders' talk about merit and gender in academia. *Organization Studies, 45*(5), 635–660. https://doi.org/10.1177/01708406241236610

Cohen, L., Manion, L., & Morrison, K. (2018). *Research methods in education*. Routledge.

Colreavy-Donnelly, S., Ryan, A., O'Connor, S., Caraffini, F., Kuhn, S., & Hasshu, S. (2022). A proposed VR platform for supporting blended learning post COVID-19. *Education Sciences*, *12*(7), 435. https://doi.org/10.3390/educsci12070435

Concannon, F., Costello, E., Farrell, O., Farrelly, T., & Wolf, L. G. (2023). There's an AI for that: Rhetoric, reality, and reflections on EdTech in the dawn of GenAI. *Irish Journal of Technology Enhanced Learning*, *7*(1). https://doi.org/10.22554/ijtel.v7i1.116

Csachová, S., & Kidonová, D. (2022). Exploring potential of sketchnoting as a tool for constructing learners' knowledge in geography. *European Journal of Educational Research*, *11*(2), 1151–1159. https://doi.org/10.12973/eu-jer.11.2.1151

Czerniewicz, L., & Rother, K. (2018). Institutional educational technology policy and strategy documents: An inequality gaze. *Research in Comparative and International Education*, *13*(1), 27–45. https://doi.org/10.1177/1745499918761708

Danvers, E., & Wells, A. (2025). The homeification of learning in higher education. *Higher Education Research & Development*, *44*(1), 33-48. https://doi.org/10.1080/07294360.2024.2429441

Davey, B., Elliott, K., & Bora, M. (2019). Negotiating pedagogical challenges in the shift from face-to-face to fully online learning: A case study of collaborative design solutions by learning designers and subject matter experts. *Journal of university teaching & learning practice*, *16*(1), 3. https://doi.org/10.53761/1.16.1.3

Delcker, J., Heil, J., Ifenthaler, D., Seufert, S., & Spirgi, L. (2024). First-year students AI-competence as a predictor for intended and de facto use of AI-tools for supporting learning processes in higher education. *International Journal of Educational Technology in Higher Education*, *21*(1), Article 18. https://doi.org/10.1186/s41239-024-00452-7

Deleuze, G. (1992). What is a dispositif. *Michel Foucault: Philosopher*, 159, 168.

Dhaliwal, T. K., Graham, J., Chiang, Y.-C., & Johnson, A. S. (2024). Spare the rod, spoil the child? A Critical Discourse Analysis of state corporal punishment

policies and practices. *Educational Evaluation and Policy Analysis, 46*(2), 249-275. https://doi.org/10.3102/01623737231213040

Dickerson, E. (2024). The many identities of a learning technologist. In *The artistry of teaching in higher education: Practical ideas for developing creative academic practice*. Taylor & Francis Group.

Dimeo, R. (2016). Sketchnoting: an analog skill in the digital age. *Computers & Society, 46*(3), 9–16. https://doi.org/10.1145/3024949.3024951

Dorner, L. M., Kim, S., Bonney, E. N., & Montes, I. C. (2023). Using critical discourse analysis to challenge and change educational practice and policy. In *Handbook of Critical Education Research* (pp. 356-376). Routledge.

Dovemark, M., Kosunen, S., Kauko, J., Magnúsdóttir, B., Hansen, P., & Rasmussen, P. (2018). Deregulation, privatisation and marketisation of Nordic comprehensive education: social changes reflected in schooling. *Education Inquiry, 9*(1), 122–141. https://doi.org/10.1080/20004508.2018.1429768

Eckardt, S. (2022). The unknown birth – interpretation processes of women giving birth. *Austria Z Soziol 47*, 83–101. https://doi.org/10.1007/s11614-022-00475-2.

Ellaway, R., Begg, M., Dewhurst, D., & Macleod, H. (2006). In a glass darkly: Identity, agency and the role of the learning technologist in shaping the learning environment. *E-Learning and Digital Media, 3*(1), 75-87. https://doi.org/10.2304/elea.2006.3.1.75

Erlam, G. D., Garrett, N., Gasteiger, N., Lau, K., Hoare, K., Agarwal, S., & Haxell, A. (2021). What really matters: Experiences of Emergency Remote Teaching in

university teaching and learning during the COVID-19 pandemic. *Frontiers in Education (Lausanne)*, *6*. https://doi.org/10.3389/feduc.2021.639842

Essien, A., Bukoye, O. T., O'Dea, X., & Kremantzis, M. (2024). The influence of AI text generators on critical thinking skills in UK business schools. *Studies in Higher Education*, *49*(5), 865–882. https://doi.org/10.1080/03075079.2024.2316881

Fairclough, N. (1992a). *Discourse and social change*. Polity press.

Fairclough, N. (1992b). Discourse and text: Linguistic and intertextual analysis within discourse analysis. *Discourse & Society*, *3*(2), 193–217. https://doi.org/10.1177/0957926592003002004

Fairclough, N. (1993). Critical discourse analysis and the marketization of public discourse: The universities. *Discourse & society, 4*(2), 133-168.

Fairclough, N. (2001). Critical discourse analysis as a method in social scientific research. In *Methods of critical discourse analysis* / (2nd ed., pp. 122–136). Sage.

Fairclough, N. (2010). *Critical discourse analysis: The critical study of language*. Taylor & Francis Group.

Fairclough, N., Mulderrig, J., & Wodak, R. (2011). Critical discourse analysis. In van, D. T. A. (Ed.). (2011). *Discourse studies: A multidisciplinary introduction*. SAGE Publications, Limited.

Farazouli, A., Cerratto-Pargman, T., Bolander-Laksov, K., & McGrath, C. (2023). Hello GPT! Goodbye home examination? An exploratory study of AI chatbots impact on university teachers' assessment practices. *Assessment & Evaluation*

in Higher Education, 49(3), 363–375. https://doi.org/10.1080/02602938.2023.2241676

Farrell, O. (2022). Learning design in the time of COVID-19: The digital learning design unit story. *Open Praxis, 14*(2). https://doi.10.55982/openpraxis.14.2.485

Feenberg, A. (2002). *Transforming technology: A critical theory revisited* (New ed., pp. xi–xi). Oxford University Press. https://doi.org/10.1093/oso/9780195146158.001.0001

FitzGerald, E., Kucirkova, N., Jones, A., Cross, S., Ferguson, R., Herodotou, C., Hillaire, G., & Scanlon, E. (2018). Dimensions of personalisation in technology-enhanced learning: A framework and implications for design. *British Journal of Educational Technology*, *49*(1), 165-181. https://doi.org/10.1111/bjet.12534

Flavin, M., & Quintero, V. (2018). UK higher education institutions' technology-enhanced learning strategies from the perspective of disruptive innovation. *Research in Learning Technology, 26*. https://doi.org/10.25304/rlt.v26.1987

Flick, U. (2004). Triangulation in qualitative research. *A companion to qualitative research*, *3*, 178-183.

Foucault, M., Senellart, M., Ewald, F., Fontana, A., Davidson, A. I., & Burchell, G. (2009). *Security, territory, population lectures at the College de France, 1977-78* (Pbk. ed.). Palgrave Macmillan.

Fox, O., & Sumner, N. (2014). Analyzing the roles, activities, and skills of learning technologists: A case study from City University London. *American Journal of Distance Education*, *28*(2), 92–102. https://doi.org/10.1080/08923647.2014.897465

Fraser, D. (2025, March 16). What does the future hold for Scottish universities? *BBC News*. https://www.bbc.co.uk/news/articles/cddynyz9q6po

Frost, T. (2019). The dispositif between Foucault and Agamben. *Law, Culture and the Humanities*, *15*(1), 151–171. https://doi.org/10.1177/1743872115571697

Gachago, D., Bali, M. & Pallitt, N. (2024). Equity-oriented learning design: An entangled future. *Postdigital Science and Education 6*, 173–193. https://doi.org/10.1007/s42438-023-00420-w

Gansemer-Topf, A. M., Paepcke-Hjeltness, V., Russell, A. E., & Schiltz, J. (2021). "Drawing" your own conclusions: Sketchnoting as a pedagogical tool for teaching ecology. *Innovative Higher Education.*, *46*(3), 303–319. https://doi.org/10.1007/s10755-020-09542-6

Geertz, C. (1973). *Thick Description: Toward an Interpretive Theory of Culture*. Basic Books.

Giannakis, M., & Bullivant, N. (2015). The massification of higher education in the UK: Aspects of service quality. *Journal of Further and Higher Education, 40*(5), 630–648. https://doi.org/10.1080/0309877X.2014.1000280

Godsk, M. (2022). Learning Design as an efficient educational development methodology: conceptualization, assessment, and practice. In R. Sharpe, S. Bennett, & T. Varga-Atkins [Eds.]. *Handbook of Digital Higher Education* (pp 38-50). Edward Elgar Publishing Limited.

Gonsalves, C., & Acar, O. A. (2025). Identifying discourses of generative AI in higher education. In *Generative AI in Higher Education* (pp. 28-44). Edward Elgar Publishing.

Goodson, I. F. & Rudd, T. (2017). The limits of neoliberal education: Refraction, reinterpretation and reimagination, in Rudd, T. & Goodson, I. F. [Eds.]. *Negotiating neoliberalism: Developing alternative educational visions*. pp.1 - 12. Sense Publishers.

Glyn-Jones, T. & Lewis, R. (2025, February 2). Welsh universities are not going bust. BBC News. https://www.bbc.co.uk/news/articles/ceve8p4w1k0o

Graham, L.J. (2012). The product of text and other statements: Discourse analysis and the critical use of Foucault. In Cole, D. R., & Graham, L. J. (Eds.). (2012). *The power in / of language*. John Wiley & Sons, Incorporated.

Gravett, K. (2022). Different voices, different bodies: presence–absence in the digital university. *Learning, Media and Technology, 49*(3), 388–400. https://doi.org/10.1080/17439884.2022.2150637

Gunawardena, M., Bishop, P., & Aviruppola, K. (2024). Personalized learning: The simple, the complicated, the complex and the chaotic. *Teaching and Teacher Education*. https://doi.org/10.1016/j.tate.2023.104429

Håkansson Lindqvist, M., Mozelius, P., Jaldemark, J., & Cleveland Innes, M. (2024). Higher education transformation towards lifelong learning in a digital era–a scoping literature review. *International Journal of Lifelong Education, 43*(1), 24-38. https://doi.org/10.1080/02601370.2023.2279047

Hall, R. (2016). Technology-enhanced learning and co-operative practice against the neoliberal university. *Interactive Learning Environments, 24*(5), 1004–1015. https://doi.org/10.1080/10494820.2015.1128214

Hall, R. (2024). Beyond the limits of solidarity in the post-pandemic university. *Work Organisation, Labour & Globalisation, 18*(1), 13–30. https://www.jstor.org/stable/48774383

Han, S.P., Jumat, M.R. & Cleland, J.A. (2023). Interprofessional collaboration (or lack thereof) between faculty and learning technologists in the creation of digital learning. *BMC Medical Education 23*, 727. https://doi.org/10.1186/s12909-023-04728-w

Hannon, J. (2013). Incommensurate practices: Sociomaterial entanglements of learning technology implementation. *Journal of Computer Assisted Learning*, *29*(2), 168-178. https://doi.org/10.1111/j.1365-2729.2012.00480.x

Hawley, S. (2022). Doing sociomaterial studies: the circuit of agency. *Learning, Media and Technology*, *47*(4), 413–426. https://doi.org/10.1080/17439884.2021.1986064

Hayes, S. (2015). Counting on use of technology to enhance learning. In *Critical learning in digital networks* (pp. 15-36). Cham: Springer International Publishing.

Hayes, S., & Jandrić, P. (2014). Who is Really in Charge of Contemporary Education? People and technologies in, against and beyond the neoliberal university. *Open Review of Educational Research*, *1*(1), 193–210. https://doi.org/10.1080/23265507.2014.989899

Heggart, K. (2021). Formulated professional identity of learning designers and the role of open education in maintaining that identity. In *Handbook for online learning contexts: Digital, mobile and open: Policy and practice* (pp. 21-34). Cham: Springer International Publishing. https://doi.org/10.1007/978-3-030-67349-9_3

Heggart, K., & Dickson-Deane, C. (2022). What should learning designers learn? *Journal of Computing in Higher Education*, *34*(2), 281–296. https://doi.org/10.1007/s12528-021-09286-y

Hill, J., & Smith, K. (2023). Visions of blended learning: identifying the challenges and opportunities in shaping institutional approaches to blended learning in higher education. *Technology, pedagogy and education*, *32*(3), 289-303. https://doi.org/10.1080/1475939X.2023.2176916

Hristova, T. (2024). Academic workers in crisis. *Work Organisation, Labour & Globalisation, 18*(1), 7-12. https://www.jstor.org/stable/48774382

Hwang, E., Kirkham, R., Marshall, K., Kharrufa, A., & Olivier, P. (2022). Sketching dialogue: incorporating sketching in empathetic semi-structured interviews for human-computer interaction research. *Behaviour & Information Technology, 42*(13), 2226–2254. https://doi.org/10.1080/0144929X.2022.2113431

Imran, R., Fatima, A., Elbayoumi Salem, I., & Allil, K. (2023). Teaching and learning delivery modes in higher education: Looking back to move forward post-COVID-19 era. *The International Journal of Management Education*, *21*(2), Article 100805. https://doi.org/10.1016/j.ijme.2023.100805

Istenič, A. (2024). Blended learning in higher education: the integrated and distributed model and a thematic analysis. *Discover Education 3(*165). https://doi.org/10.1007/s44217-024-00239-y

Ivancheva, M., & Courtois, A. (2024). EdTech-mediated outsourcing and casualisation of academic labour. *Work Organisation, Labour & Globalisation*, *18*(1), 65-82. https://doi.org/10.13169/workorgalaboglob.18.1.0065

Ivanov, S., Soliman, M., Tuomi, A., Alkathiri, N. A., & Al-Alawi, A. N. (2024). Drivers of generative AI adoption in higher education through the lens of the theory of planned behaviour. *Technology in Society, 77*, 102521. https://doi.org/10.1016/j.techsoc.2024.102521

Jäger, S. & Maier, F. (2009). Theoretical and methodological aspects of Foucauldian critical discourse analysis and dispositive analysis. In eds, Wodak, R. & Meyer, M. *Methods of Critical Discourse Analysis*. Sage.

Jäger, S., & Maier, F. (2016). Analysing discourses and dispositives:a Foucauldian approach to theory and methodology. In Wodak, Ruth; Meyer, Michael (Ed.), *Methods of Critical Discourse Studies* (pp. 109 - 136). Sage.

Jeffreys, B. & Rhodes, H. (2024, 15 November). University cash crisis to get worse despite tuition fee rise, BBC told. BBC. https://www.bbc.co.uk/news/articles/c14lv7e61d3o

Jensen, J., Skrobanek, J., & Jobst, S. (2024). Janus-faced discourse in contemporary Norwegian policy framing for tackling educational inequality? A critical analysis of contemporary tensions and contradictions. *Policy Futures in Education, 0*(0). https://doi.org/10.1177/14782103241235720

Jensen, L.X., Buhl, A., Sharma, A. *et al.* (2025). Generative AI and higher education: a review of claims from the first months of ChatGPT. *High Education,* 89. https://doi.org/10.1007/s10734-024-01265-3

Jin, Y., Yan, L., Echeverria, V., Gašević, D., & Martinez-Maldonado, R. (2025). Generative AI in higher education: A global perspective of institutional adoption policies and guidelines. *Computers and Education.*, *8*. https://doi.org/10.1016/j.caeai.2024.100348

Johnson, A. (2024). Generative AI, UK Copyright and Open Licences: considerations for UK HEI copyright advice services. *F1000 Research*, *13*, 134. https://doi.org/10.12688/f1000research.143131.1

Johnson, M., & Smyth, K. (2011). Diversity, value and technology: exposing value pluralism in institutional strategy. *Campus-Wide Information Systems, 28*(4), 211-220. https://doi.org/10.1108/10650741111162699

Johnston, B., MacNeill, S., & Smyth, K. (2018). *Conceptualising the digital university : the intersection of policy, pedagogy and practice*. Palgrave Macmillan. https://ebookcentral.proquest.com/lib/lancaster/detail.action?docID=5637237

Jones, C. (2019). Capital, Neoliberalism and Educational Technology. *Postdigital Science and Education, 1*, 288–292. https://doi.org/10.1007/s42438-019-00042-1

Jones, D. R. (2025). Taking freedom back from the 'Performative University' special issue revisited: A dead end or a pathway to taking freedom forward? *Management Learning*, *56*(1), 90–98. https://doi.org/10.1177/13505076241280249

Jones-Devitt, S. & Austen, L. (2022). Researching the impact of learning through COVID-19 and beyond: Time for some critical and counterfactual thinking? In Sharpe, R., Bennett, S., & Varga-Atkins, T. (eds). *Handbook of Digital Higher Education* (1st ed.). Edward Elgar Publishing Limited. https://doi.org/10.4337/9781800888494

Jordan, K. (2020). Examining educational technology and research impact: The two roles of E-learning and related terms in the 2014 REF impact case studies. *Research in Learning Technology*, *28*. https://doi.org/10.17863/CAM.49188

Jumat, R., Loan-Ng, S., Mogali, S. R., Ng, K. B., Leong, B. Y., & Han, S. P. (2023). Twelve tips for co-production of online learning. *Medical Teacher, 45*(9), 966–971. https://doi.org/10.1080/0142159X.2023.2206533

Ju-Zaveroni, Y., & Lee, S. (2023). Online language learning in participatory culture: Digital pedagogy practices in the post-pandemic era. *Education Sciences*, *13*(12), 1217. https://doi.org/10.3390/educsci13121217

Khan, T. H., & MacEachen, E. (2021). Foucauldian discourse analysis: Moving beyond a social constructionist analytic. *International journal of qualitative methods, 20*, https://doi.org/10.1177/1609406921101800

Kirkwood, A., & Price, L. (2013). Examining some assumptions and limitations of research on the effects of emerging technologies for teaching and learning in higher education. *British Journal of Educational Technology, 44*(4), 536-543. https://doi.org/10.1111/bjet.12049

Knoth, N., Tolzin, A., Janson, A., & Leimeister, J. M. (2024). AI literacy and its implications for prompt engineering strategies. *Computers and Education: Artificial Intelligence*, *6*, 100225. https://doi.org/10.1016/j.caeai.2024.100225

Koh, J., Cowling, M., Jha, M., & Sim, K. N. (2023). The human teacher, the AI teacher and the AIED-Teacher relationship. *Journal of Higher Education Theory & Practice, 23*(17). https://doi.org/10.33423/jhetp.v23i17.6543

Kolade, O., Owoseni, A., & Egbetokun, A. (2024). Is AI changing learning and assessment as we know it? Evidence from a ChatGPT experiment and a conceptual framework. *Heliyon*, *10*(4), e25953. https://doi.org/10.1016/j.heliyon.2024.e25953

Komljenovic, J., Hansen, M., Sellar, S., & Birch, K. (2024). *Edtech in higher education: Empirical findings from the project 'Universities and Unicorns: Building Digital Assets in the Higher Education Industry'*. Centre for Global Higher Education, University of Oxford. https://kclpure.kcl.ac.uk/ws/portalfiles/portal/254266270/special-reportapril-2024.pdf

Köpeczi-Bócz, T. (2025). Enhancing University Education Quality through MOOCs: Effective Learning Strategy Combinations and Pedagogical Innovations. *International Journal of Emerging Technologies in Learning (Online)*, *20*(1), 4. https://doi.org/10.3991/ijet.v20i01.47815

Koroleva, D., & Andreeva, A. (2024). The conceptual framework of shock innovation in education: non-diffusive spread of innovations triggered with the pandemic. *Innovation: The European Journal of Social Science Research*, *37*(4), 984–998. https://doi.org/10.1080/13511610.2024.2323148

Kousa, P., & Niemi, H. (2022). AI ethics and learning: EdTech companies' challenges and solutions. *Interactive Learning Environments, 31*(10), 6735–6746. https://doi.org/10.1080/10494820.2022.2043908

Kress, G. (1990). Critical Discourse Analysis. *Annual Review of Applied Linguistics*, *11*, 84–99. https://doi.org/10.1017/S0267190500001975

Kumar, S., Rao, P., Singhania, S., Verma, S., & Kheterpal, M. (2024). Will artificial intelligence drive the advancements in higher education? A tri-phased exploration. *Technological Forecasting & Social Change*, *201*, Article 123258. https://doi.org/10.1016/j.techfore.2024.123258

Kurtz, G., Amzalag, M., Shaked, N., Zaguri, Y., Kohen-Vacs, D., Gal, E., Zailer, G., & Barak-Medina, E. (2024). Strategies for integrating generative AI into

higher education: Navigating challenges and leveraging opportunities. *Education Sciences, 14*(5), 503. https://doi.org/10.3390/educsci14050503

Lachheb, A., Abramenka-Lachheb, V., Moore, S., & Gray, C. (2023). The role of design ethics in maintaining students' privacy: A call to action to learning designers in higher education. *British Journal of Educational Technology*, 54, 1653–1670. https://doi.org/10.1111/bjet.13382

Lahiri-Roy, R., & Whitburn, B. (2023). Precarious inclusion: A collaborative account of casualisation and teaching leadership challenges at the post-pandemic university. *Qualitative Research Journal, 23*(5), 501-514. https://doi.org/10.1108/QRJ-12-2022-0160

Latour, B. (1988). *The pasteurization of France.* Harvard University Press.

Laurillard, D. (2013). *Rethinking university teaching: A conversational framework for the effective use of learning technologies*. Routledge.

Lazar, J., Feng, J. H., & Hochheiser, H. (2017). *Research methods in human-computer interaction* (2nd edition.). Elsevier Science & Technology.

Lee, D., Arnold, M., Srivastava, A., Plastow, K., Strelan, P., Ploeckl, F., Lekkas, D., & Palmer, E. (2024). The impact of generative AI on higher education teaching and learning: A study of educators' perspectives. *Computers and Education. Artificial Intelligence, 6*, Article 100221. https://doi.org/10.1016/j.caeai.2024.100221

Lee, K. (2021). Openness and innovation in online higher education: A historical review of the two discourses. *Open Learning: The Journal of Open, Distance and e-Learning*, *36*(2), 112-132. https://doi.org/10.1080/02680513.2020.1713737

Lincoln, Y. S., & Guba, E. G. (1985). *Naturalistic Inquiry*. Beverly Hills, CA: Sage Publications, Inc.

Lister, K., Pearson, V. K., Collins, T. D., & Davies, G. J. (2021). Evaluating inclusion in distance learning: a survey of university staff attitudes, practices and training needs. *Innovation: The European Journal of Social Science Research*, *34*(3), 321-339. https://doi.org/10.1080/13511610.2020.1828048

Livingston, K., & Ling, L. (2022). Third space workers in higher education in times of dislocated complexity. *European Journal of Education*, *57*(4), 646-658. https://doi.org/10.1111/ejed.12523

Macfarlane, B. (2024). The ideology of crisis in higher education. *Higher Education Quarterly, 78*(4), e12500. https://doi.org/10.1111/hequ.12500

Macfarlane, B., & Yeung, J. (2023). The (re)invention of tradition in higher education research: 1976-2021. *Studies in Higher Education, 49(2),* 382-393. https://doi.org/10.1080/03075079.2023.2237691

MacLean, P., & Scott, B. (2007). Learning design: Requirements, practice and prospects. *Campus-Wide Information Systems, 24*(3), 187-198. https://doi.org/10.1108/10650740710762220

Mahony, P., & Weiner, G. (2017). Neo-liberalism and the state of higher education in the UK. *Journal of Further and Higher Education, 43*(4), 560–572. https://doi.org/10.1080/0309877X.2017.1378314

Mamo, Y., Crompton, H., Burke, D., & Nickel, C. (2024). Higher education faculty perceptions of ChatGPT and the influencing factors: A sentiment

analysis of X. *TechTrends*, *68*(3), 520–534. https://doi.org/10.1007/s11528-024-00954-1

University of Manchester. (2022). *Flexible learning: Our strategy for the future*. https://documents.manchester.ac.uk/display.aspx?DocID=64389

Mannay, D., & Creaghan, J. (2016). Similarity and familiarity: Reflections on indigenous ethnography with mothers, daughters and school teachers on the margins of contemporary Wales. In *Gender Identity and Research Relationships* (Vol. 14, pp. 85–103). Emerald Group Publishing Limited. https://doi.org/10.1108/S1042-319220160000014017

McArthur, J. (2023). Rethinking authentic assessment: work, well-being, and society. *Higher education*, *85*(1), 85-101. https://doi.org/10.1007/s10734-022-00822-y

Mercer-Mapstone, L., & Bovill, C. (2020). Equity and diversity in institutional approaches to student–staff partnership schemes in higher education. *Studies in Higher Education*, *45*(12), 2541–2557. https://doi.org/10.1080/03075079.2019.1620721

Mills, E. (2019). *Art of Visual Notetaking: An interactive guide to visual communication and sketchnoting* (1st ed.). Walter Foster Publishing.

Mills, A., Bali, M., & Eaton, L. (2023). How do we respond to generative AI in education? Open educational practices give us a framework for an ongoing process. *Journal of Applied Teaching and learning*, *6*(1), 16-30. https://doi.org/10.37074/jalt.2023.6.1.34

Moorhouse, B. L., & Kohnke, L. (2024). The effects of generative AI on initial language teacher education: The perceptions of teacher educators. *System*, *122*, 103290. https://www.sciencedirect.com/science/article/pii/S0346251X24000721?via=ihub

Moorhouse, B. L., & Tiet, M. C. (2021). Attempting to implement pedagogy of care during the disruptions to teacher education caused by COVID-19: A collaborative self-study. *Studying Teacher Education*, *17*(2), 208–227. https://doi.org/10.1080/17425964.2021.1925644

Mourad, R. P. (2018). Social control and free inquiry: Consequences of Foucault for the pursuit of knowledge in higher education. *British Journal of Educational Studies, 66*(3), 321-340. https://doi.org/10.1080/00071005.2017.1379593

Mullet, D. R. (2018). A General critical discourse analysis framework for educational research. *Journal of Advanced Academics*, *29*(2), 116–142. https://doi.org/10.1177/1932202X18758260

Munro, M. (2018). The complicity of digital technologies in the marketisation of UK higher education: exploring the implications of a critical discourse analysis of thirteen national digital teaching and learning strategies. *International Journal of Educational Technology in Higher Education 15*, 11. https://doi.org/10.1186/s41239-018-0093-2

Murray, C., Strauss, D., Burn-Murdoch, J., & Lim, S. (2025). Is AI killing graduate jobs? *FT.Com.* Retrieved from https://www.proquest.com/trade-journals/is-ai-killing-graduate-jobs/docview/3242317699/se-2

Ng, L. E. R., Altena, S., & Hinze, M. (2023). Look who's talking: Professional conversations of learning designers on Twitter during COVID-19. *Australasian Journal of Educational Technology*, *39*(3), 91-113. https://doi.org/10.14742/ajet.8022

Nordmann E., Hronska B., & MacKay J. R. (2025). How do higher education staff understand the terms hybrid, hyflex and blended learning? Choice, modality and uncertainty. *Research in Learning Technology*, *33*. https://doi.org/10.25304/rlt.v33.3353

North, C., Shortt, M., Bowman, M. A., & Akinkuolie, B. (2021). How instructional design is operationalized in various industries for job-seeking learning designers: Engaging the talent development capability model. *TechTrends* **65**, 713–730. https://doi.org/10.1007/s11528-021-00636-2

O'Dea, X. (2024). Innovation and transformation in higher education. *Perspectives: Policy and Practice in Higher Education*, 28(2), 55–56. https://doi.org/10.1080/13603108.2024.2316462

O'Dea, X., & Zhou, X. (2023). Policy concern about university students' online professionalism in the post-pandemic era in UK context. *Policy futures in education, 21*(4), 372-386. https://doi.org/10.1177/14782103221088154

Office for Students (2022). *Blended learning and Office for Students regulation*. Retrieved from: https://www.officeforstudents.org.uk/media/7929/ofs-response-to-blended-learning-review-nosurvey.pdf

O'Hara, G. (2025). Where now for Britain's Universities? *The Political Quarterly*. https://doi.org/10.1111/1467-923X.13576

Oliveira, G., Grenha Teixeira, J., Torres, A., & Morais, C. (2021). An exploratory study on the emergency remote education experience of higher education students and teachers during the COVID-19 pandemic. *British Journal of Educational Technology, 52*(4), 1357-1376. https://doi.org/10.1111/bjet.13112

Oliver, M. (2002). What do learning technologists do? *Innovations in Education and Teaching International*, *39*(4), 245-252. https://doi.org/10.1080/13558000210161089

Orlikowski, W. J. (2007). Sociomaterial practices: Exploring technology at work. *Organization Studies*, *28*(9), 1435-1448. https://doi.org/10.1177/0170840607081138

Otrel-Cass, K., Costello, E., Lyngdorf, N.E.R. et al. (2024). Methods for dreaming about and reimagining digital education. *International Journal of Educational Technology in Higher Education 21*, 31 (2024). https://doi.org/10.1186/s41239-024-00463-4

Oxford University. (2023). *Digital Education Strategy: 2023-2027*. https://www.ctl.ox.ac.uk/digital-education-strategy-2023-27

Padovano, A., & Cardamone, M. (2024). Towards human-AI collaboration in the competency-based curriculum development process: The case of industrial engineering and management education. *Computers and Education: Artificial Intelligence, 7*, 100256. https://doi.org/10.1016/j.caeai.2024.100256

Paepcke-Hjeltness, V., Mina, M., & Cyamani, A. (2017). Sketchnoting: A new approach to developing visual communication ability, improving critical thinking and creative confidence for engineering and design students. *2017 IEEE Frontiers in Education Conference (FIE) /*, *2017-October*, 1–5. https://doi.org/10.1109/FIE.2017.8190659

Papageorgiou, V.; Meyer, E.; Ntonia, I. (2024). Designing holistic and multivoiced online learning: Higher education actors' pedagogical decisions and perspectives. *Education Sciences 14*, 504. https://doi.org/10.3390/educsci14050504

Passey, D. (2019), Technology-enhanced learning: Rethinking the term, the concept and its theoretical background. *British Journal of Educational Technology, 50,* 972-986. https://doi.org/10.1111/bjet.12783

Pei, J., Cheng, L. (2024). Representations of 5G in the Chinese and British press: A corpus-assisted critical discourse analysis. *Humanities and Social Sciences Communication 11*, 400, https://doi.org/10.1057/s41599-024-02896-8

Perkins, M., Roe, J., Postma, D. et al. (2024). Detection of GPT-4 generated text in higher education: Combining academic judgement and software to identify generative AI tool misuse. *Journal of Academic Ethics 22*, 89–113. https://doi.org/10.1007/s10805-023-09492-6

Pesovski, I., Santos, R., Henriques, R., & Trajkovik, V. (2024). Generative AI for customizable learning experiences. *Sustainability, 16*(7), 3034. https://doi.org/10.3390/su16073034

Peters, M. A., & Tesar, M. (2017). Philosophy and performance of neoliberal ideologies: History, politics and human subjects. In *Contesting Governing Ideologies* (pp. 2-18). Routledge.

Pishchukhina, O., Gordieieva, D., & Rainer, A. (2024). Delivering computing module for the large part-time software development class from pre-to post-pandemic: an online learning experience. *Journal of Systems and Software*, *210*, 111959. https://doi.org/10.1016/j.jss.2024.111959

Prowse, A., Ruiz Vargas, V., & Powell, S. (2020). Design considerations for personalised supported learning: implications for higher education. *Journal of Further and Higher Education, 45*(4), 497–510. https://doi.org/10.1080/0309877X.2020.1789915

Rainford, J. (2021). Using creative methods in qualitative interviews. In *Sage Research Methods Cases Part 1*. SAGE Publications, Ltd. https://doi.org/10.4135/9781529758115

Raffnsøe, S., Gudmand-Høyer, M., & Thaning, M. S. (2016). Foucault's dispositive: The perspicacity of dispositive analytics in organizational research. *Organization, 23*(2), 272–298. https://doi.org/10.1177/1350508414549885

Rasul, T., Nair, S., Kalendra, D., Robin, M., de Oliveira Santini, F., Ladeira, W. J., Sun, M., Day, I., Ahmad Rather, R., & Heathcote, L. (2023). The role of ChatGPT in higher education: Benefits, challenges, and future research directions. *Journal of Applied Teaching and learning*, *6*(1), 41-56. https://doi.org/10.37074/jalt.2023.6.1.29

Reisigl, M. & Wodak, R. (2009). The discourse-historical approach. In eds., Wodak, R. & Meyer, M. *Methods of Critical Discourse Analysis*. Sage.

Robson, L., Gardner, B., & Dommett, E. J. (2022). The post-pandemic lecture: Views from academic staff across the UK. *Education sciences*, *12*(2), 123. https://doi.org/10.3390/educsci12020123

Rodenhiser, A. (2023). *Beginner's guide to sketchnoting*. ATG Publishing.

Roets, A., Schwartz, B., & Guan, Y. (2012). The tyranny of choice: a cross-cultural investigation of maximizing-satisficing effects on well-being. *Judgment and Decision Making*, *7*(6), 689–704. https://doi.org/10.1017/s1930297500003247

Rogers. (2004). An introduction to critical discourse analysis in education. L. Erlbaum Associates.

Rolfe, H. (2003). University strategy in an age of uncertainty: the effect of higher education funding on old and new universities. *Higher Education Quarterly*, *57*(1), 24-47. https://doi.org/10.1111/1468-2273.00233

Ross, J. (2016). Speculative method in digital education research. *Learning, Media and Technology, 42*(2), 214–229. https://doi.org/10.1080/17439884.2016.1160927

Rowe, S. (2004). Discourse in activity and activity as discourse. In Rogers, R. An Introduction to Critical Discourse Analysis in Education (1st ed.). https://doi.org/10.4324/9781410609786 *An introduction to critical discourse analysis in education*, 79-96. Routledge.

Rudd, T., & O'Brien, S. (2019). The system crisis 2020: The end of neoliberal higher education in the UK? *Journal for Critical Education Policy Studies, 17*(3). http://www.jceps.com/archives/7039

Russell Group. (9 April 2025). Universities issue joint call for government action to support a secure future for HE. https://www.russellgroup.ac.uk/news/universities-issue-joint-call-government-action-support-secure-future-he

Sai, L., Gao, G., Mandalaki, E., Zhang, L. E., & Williams, J. (2024). Co-constructing new ways of working: relationality and care in post-pandemic academia. *Culture and Organization*, *30*(5), 523–538. https://doi.org/10.1080/14759551.2024.2323726

Salmon, M. (2024). Representation of the academic workforce in English university strategy-making: an exploratory study. *Higher Education*, 1-15. https://doi.org/10.1007/s10734-024-01203-3

Sánchez Ramos, M.d.M. (2024). Volunteer translators in non-governmental organizations: exploring their identity and power through discourse analysis. *Humanities and Social Sciences Communication 11*, 581. https://doi.org/10.1057/s41599-024-03103-4

Scott, P. (2021). *Retreat or resolution?* (1st ed.). Policy Press.

Schön, D. A. (1987). *Educating the reflective practitioner: Toward a new design for teaching and learning in the professions*. Jossey-Bass.

Selwyn, N. (2013). *Education in a digital world : global perspectives on technology and education* (1st ed.). Routledge. https://doi.org/10.4324/9780203108178

Shaw, R., & Blazek, M. (2024). Politics of rhythm and crisis in the slow death of higher education: implications for academic work and student support. *Critical Studies in Education*, *65*(3), 276–293. https://doi.org/10.1080/17508487.2023.2263048

Shore, C. (2024). Management consultants and university futures: Academic capitalism and the capture of UK public higher education. *Public Money & Management*, 1–10. https://doi.org/10.1080/09540962.2024.2364284

Simon, F. M. (2025). Rationalisation of the news: How AI reshapes and retools the gatekeeping processes of news organisations in the United Kingdom, United States and Germany. *New Media & Society*, *0*(0). https://doi.org/10.1177/14614448251336423

Singh, P. & Guleria, J. (2023). Attitude of Undergraduate students towards Sketchnoting activity in classroom. *Journal of E-Learning and Knowledge Society: Je-LKS /*, *19*(3), 87–91. https://doi.org/10.20368/1971-8829/1135858

Skelton, N. (2023). Digital strategies in UK higher education: making digital mainstream. JISC website. https://repository.jisc.ac.uk/9022/7/digital-strategies-in-uk-he-making-digital-mainstream.pdf

Sørensen, E. (2009). *The materiality of learning : technology and knowledge in educational practice* (1st ed.). Cambridge University Press.

St Andrews University. (2022). *University strategy: 2022-2027*. https://www.st-andrews.ac.uk/assets/university/about/documents/governance/university-strategy-2022-2027.pdf

Sullivan, M., Kelly, A., & McLaughlan, P. (2023). ChatGPT in higher education: Considerations for academic integrity and student learning. *Journal of Applied Learning and Teaching 6*(1). https://doi.org/10.37074/jalt.2023.6.1.17

Svendsen, J.T. & Svendsen, A.M. (2017). *Social life for sale!* A critical discourse analysis of the concept of student life on Danish university websites. *Discourse: Studies in the Cultural Politics of Education*, *39*(4), 642–663. https://doi.org/10.1080/01596306.2017.1301381

Tay, A. Z., Huijser, H., Dart, S., & Cathcart, A. (2023). Learning technology as contested terrain: Insights from teaching academics and learning designers in Australian higher education. *Australasian Journal of Educational Technology*, *39*(1), 56–70. https://doi.org/10.14742/ajet.8179

Tidy, H., Burnham, R., & Elkington, S. (2022). Using sketchnoting as a revision aid with forensic students. *Science & Justice*, *62*(6), 822-826. https://doi.org/10.1016/j.scijus.2022.04.008

Trowler, P. (2014). Academic tribes and territories: The theoretical trajectory. *Österreichische Zeitschrift für Geschichtswissenschaften*, *25*(3), 17-26. https://doi.org/10.25365/oezg-2014-25-3-2

University College London. (2022). *2022-2027 Strategic Plan*. https://www.ucl.ac.uk/strategic-plan-2022-27/

University of Dundee. (2022). *Enabling strategy on digital (2022-2027)*. https://www.dundee.ac.uk/strategy/enabling-strategies/digital

University of East Anglia. (2024). *University strategy: 2030*. https://assets.uea.ac.uk/f/185167/x/7b57440949/uea_strategy_2030.pdf

University of Portsmouth. (2021, updated 2023). *Digital Success Plan*. https://policies.docstore.port.ac.uk/policy-255.pdf

van den Berg, G. & du Plessis, E. (2023). ChatGPT and generative AI: Possibilities for its contribution to lesson planning, critical thinking and openness in teacher education. *Education Sciences*, *13*, 998. https://doi.org/10.3390/educsci13100998

van Dijk, Teun A. (1997). The study of discourse. *Discourse as structure and process 1(34)*: 703-52.

van Leeuwen, T. (2009). Discourse as recontextualisation of social practice: A guide. In R. Wodak & M. Meyer (Eds.), *Methods of Critical Discourse Analysis* (2nd ed). pp. 144–161. Sage.

Verpoorten, D., Glahn, C., Kravcik, M., Ternier, S., & Specht, M. (2009). Personalisation of learning in virtual learning environments. In *European Conference on Technology Enhanced Learning* (pp. 52-66). Berlin, Heidelberg: Springer Berlin Heidelberg. https://doi.org/10.1007/978-3-642-04636-0_7

Villadsen, K. (2021). 'The dispositive': Foucault's concept for organizational analysis? *Organization Studies, 42*(3), 473-494. https://doi.org/10.1177/0170840619883664

Villarroel, V., Bloxham, S., Bruna, D., Bruna, C., & Herrera-Seda, C. (2018). Authentic assessment: Creating a blueprint for course design. *Assessment & Evaluation in Higher Education, 43*(5), 840-854. https://doi.org/10.1080/02602938.2017.1412396

Walker, & Voce, J. (2023). Post-Pandemic learning technology developments in UK higher education: What does the UCISA evidence tell us? *Sustainability* (Basel, Switzerland), 15(17), 12831. https://doi.org/10.3390/su151712831

Wang, H., Dang, A., Wu, Z., & Mac, S. (2024). Generative AI in higher education: Seeing ChatGPT through universities' policies, resources, and guidelines. *Computers and Education*: *Artificial Intelligence, 7*, 100326. https://doi.org/10.1016/j.caeai.2024.100326

Watermeyer, R., Crick, T., & Knight, C. (2021a). Digital disruption in the time of COVID-19: learning technologists' accounts of institutional barriers to online learning, teaching and assessment in UK universities. *The International Journal*

for Academic Development., *27*(2), 148–162. https://doi.org/10.1080/1360144X.2021.1990064

Watermeyer, R., Knight, C., Crick, T., & Borras, M. (2023). 'Living at work': COVID-19, remote-working and the spatio-relational reorganisation of professional services in UK universities. *Higher Education, 85*(6), 1317-1336. https://doi.org/10.1007/s10734-022-00892-y

Watermeyer, R., Phipps, L., Lanclos, D. & Knight, C. (2024). Generative AI and the Automating of Academia. *Postdigital Science and Education 6*, 446–466. https://doi.org/10.1007/s42438-023-00440-6

Watermeyer, R., Shankar, K., Crick, T., Knight, C., McGaughey, F., Hardman, J., Suri, V.R, Chung, R., & Phelan, D. (2021b). 'Pandemia': a reckoning of UK universities' corporate response to COVID-19 and its academic fallout. *British Journal of Sociology of Education, 42*(5–6), 651–666. https://doi.org/10.1080/01425692.2021.1937058

Watson, D., Webb, R., & Cook, S. (2025). Pedagogical inertia and asynchronous specificity: a heuristic model of post-covid teaching in higher education. *Professional Development in Education*, 1–19. https://doi.org/10.1080/19415257.2025.2536264

Waugh, L. R., Catalano, T., Masaeed, K. A., Hong Do, T., & Renigar, P. G. (2016). Critical Discourse Analysis: Definition, Approaches, Relation to Pragmatics, Critique, and Trends. In J. L. Mey & A. Capone (Eds.), *Interdisciplinary Studies in Pragmatics, Culture and Society* (pp. 71–135). Springer International Publishing. https://doi.org/10.1007/978-3-319-12616-6_4

Webb, A., & Layton, J. (2023). ‘It’s not just about technology!': Creativity as a driving force for nurturing the development of skills for digital performance. *International Journal of Performance Arts and Digital Media, 19*(3), 386-404. https://doi.org/10.1080/14794713.2023.2223719

Whelan, G. (2019). Born political: A dispositive analysis of Google and copyright. *Business & Society, 58*(1), 42-73. https://doi.org/10.1177/0007650317717701

Whitchurch, C. (2008). Shifting identities and blurring boundaries: The emergence of Third Space professionals in UK higher education. *Higher Education Quarterly 62*(4): 377-396. https://discovery.ucl.ac.uk/id/eprint/10002035

Whitchurch, C. (2024). From ‘service’ to ‘partnership’: harnessing social capital in support of activity in third space environments. *Journal of Higher Education Policy and Management*, *46*(3), 243–256. https://doi.org/10.1080/1360080X.2024.2344132

Whitchurch, C., Bossu, C., & Brown, N. (2018). Being a higher education professional today: Working in a Third Space. In *Professional and Support Staff in Higher Education* (pp. 11–21). Springer Singapore. https://doi.org/10.1007/978-981-10-6858-4_31

Whitchurch, C., & Healy, G. (2024). The concept of third space as an enabler in complex higher education environments. *London Review of Education, 22*(1), 1–6. https://doi.org/10.14324/LRE.22.1.42

White, S., White, S., & Borthwick, K. (2021). Blended professionals, technology and online learning: Identifying a socio-technical third space in higher

education. *Higher Education Quarterly*, *75*(1), 161-174. https://doi.org/10.1111/hequ.12252

White, S., White, S., & Borthwick, K. (2020). MOOCs, learning designers and the unbundling of educator roles in higher education. *Australasian Journal of Educational Technology, 36*(5), 71-84. https://doi.org/10.14742/ajet.6111

Williamson, B., & Hogan, A. (2021). Pandemic privatisation in higher education: Edtech and university reform. *Education International Research.* https://eprints.qut.edu.au/216578/1/76301373.pdf

Williamson, B., & Komljenovic, J. (2022). Investing in imagined digital futures: the techno-financial 'futuring' of edtech investors in higher education. *Critical Studies in Education*, *64*(3), 234–249. https://doi.org/10.1080/17508487.2022.2081587

Wilson, J. P. (2008). Reflecting-on-the-future: a chronological consideration of reflective practice. *Reflective Practice, 9*(2), 177–184. https://doi-org.ezproxy.lancs.ac.uk/10.1080/14623940802005525

Wodak, R. (2001). What CDA is about–a summary of its history, important concepts and its developments. *Methods of critical discourse analysis, 1*, 1-13.

Wodak, R., & Fairclough, N. (2010). Recontextualizing European higher education policies: the cases of Austria and Romania. *Critical Discourse Studies, 7*(1), 19–40. https://doi.org/10.1080/17405900903453922

Wodak, R., & Meyer, M. (2009). *Methods of critical discourse analysis* (2nd ed.). Sage.

World Health Organisation (2023, May 5). WHO chief declares end to COVID-19 as a global health emergency. World Health Organisation. https://news.un.org/en/story/2023/05/1136367

Wright, K. A. M., Haastrup, T., Guerrina, R., & Wright, K. A. M. (2021). Ontological (in)security and Covid-19: reimagining crisis leadership in UK higher education. *Critical Studies on Security.*, *9*(2), 174–178. https://doi.org/10.1080/21624887.2021.1978648

Yin, R. K. (2018). *Case study research and applications: design and methods* (Sixth edition.). Sage.

Yusuf, A., Pervin, N., & Román-González, M. (2024). Generative AI and the future of higher education: A threat to academic integrity or reformation? Evidence from multicultural perspectives. *International Journal of Educational Technology in Higher Education*, *21*(1), 21. https://doi.org/10.1186/s41239-024-00453-6

Zeivots, S., Hopwood, N., Wardak, D., & Cram, A. (2024). Co-design practice in higher education: practice theory insights into collaborative curriculum development. *Higher Education Research & Development*, 1–15. https://doi.org/10.1080/07294360.2024.2410269

Zhang, X. (2024). How does neoliberalism influence the growing trend of higher education? *International Journal of Educational Reform, 0*(0). https://doi.org/10.1177/10567879241255316

Zhao, X., Cox, A. & Cai, L. (2024). ChatGPT and the digitisation of writing. *Humanities and Social Sciences Communication* **11**, 482. https://doi.org/10.1057/s41599-024-02904-x

Zheng, R., Fernández Camporro, M., Romat, H., Henry Riche, N., Bach, B., Chevalier, F., Hinckley, K., & Marquardt, N. (2021). Sketchnote components, design space dimensions, and strategies for effective visual tote taking. In *Proceedings of the 2021 CHI Conference on Human Factors in Computing Systems* (CHI '21). Association for Computing Machinery, New York, NY, USA, Article 466, 1–15. https://doi.org/10.1145/3411764.3445508

Word Length

This thesis is 49,018 words.

Appendix A

Technology enhanced learning in the age of post-pandemic higher education: Discourse and practice: Consent form

Email Address: s.farrell4@lancaster.ac.uk

	Please read and then tick each box	Tick Box
1.	I confirm that I have read and understand the participant information sheet for the above study. I have had the opportunity to consider the information, ask questions and have had these answered satisfactorily.	☐
2.	I understand that my participation is voluntary and that I am free to withdraw at any time during my participation in this study and within one week after I took part in the study, without giving any reason. If I withdraw within 1 week of taking part in the study, my data will be removed.	☐
3.	I understand that any information given by me may be used in future reports, academic articles, publications or presentations by the researcher/s, but my personal information will not be included, and I will not be identifiable.	☐
4.	I understand that my name/any information that can identify me will not appear in any reports, articles or presentation without my consent.	☐
5.	I understand that the data from any interviews that are audio-recorded and/or transcribed, will be protected on encrypted devices and kept secure	☐
6.	I understand that I may be asked to provide documents that influence or illustrate my practice, so long as they are written by me and do not identify other people, and that documents I provide will be kept securely.	☐

7. I understand that data will be kept according to University guidelines for a minimum of 10 years after the end of the study.	☐

Name of Participant:

Date:

Signature:

I confirm that the participant was given an opportunity to ask questions about the study, and all the questions asked by the participant have been answered correctly and to the best of my ability. I confirm that the individual has not been coerced into giving consent, and the consent has been given freely and voluntarily.

Signature of Researcher:

Date:

One copy of this form will be given to the participant and the original kept in the researcher's files at Lancaster University

Appendix B

Department of Educational Research
County South, Lancaster University, LA1 4YD, UK

Tel: +44 (0) 1524 592685

Technology enhanced learning in the age of post-pandemic higher education: Discourse and practice: Participant Information Sheet

My name is Shannon Farrell, and I am a PhD student in the Department of Educational Research at Lancaster University. I would like to invite you to take part in a research project: **Technology enhanced learning in the age of generative AI and post-pandemic higher education: Discourse and practice**

Before you decide if you wish to take part, you will need to understand why the research is being done and what it would involve for you. Please take time to read the following information carefully. Talk to others about the study if you wish. Ask me if there is anything that is not clear or if you would like more information. Take time to decide whether you wish to take part.

What is this study about?

Technology enhanced learning (TEL) has become integral to the strategy and practice of learning and teaching within UK higher education institutions; however, Emergency Remote Teaching (ERT) — or teaching that occurred fully or mostly online during the pandemic —has impacted on the conceptualisation of technology enhanced learning in the current post-pandemic period of recalibration. Generative AI's arrival has further complicated this conceptualisation.

This study is a two-part study of the discourse and practice of TEL at this critical point in time. How TEL is ostensibly positioned in HEI strategy documents may differ from on-the-ground practices. The first part of the study has analysed post-pandemic strategy documents published by HEIs and UK HE policy institutions to ascertain the language of TEL. This second stage will involve interviews with TEL professionals to establish the practice of TEL. This is where your contributions are sought.

Why have I been asked to take part?

You have been asked to participate as a TEL professional working within a UK higher education institution. TEL professionals are a disparate professional group with a variety of titles and remits but generally fall under the umbrella of advising on TEL in a teaching and learning context and/or contributing to the design and development of TEL learning resources, including blended and online programmes. Your job title may include learning technologist, learning designer, academic developer, or a similar job title. Ideally, you will have been in this role both during and after the pandemic, but this is not a requirement.

What will happen during the study?

If you agree to participate, I will send out an invitation for a virtual interview. The interview will take no more than one hour and approximately 45 minutes. We will start with general questions about your role and experience. We will then progress to specific questions around your role at your institution.

How do I give my consent to take part?

Firstly, you are asked to read this sheet fully and make sure you understand all parts of the study. If you have any questions, you can email me, Shannon Farrell, (**s.farrell4@lancaster.ac.uk**).

If you have no remaining questions, and are happy to take part, please fill in the attached consent form and send it back to Shannon Farrell, **s.farrell4@lancaster.ac.uk**. I will then be in touch to confirm further details.

What if I do not want to take part, or if I change my mind?

Participation in the study is entirely voluntary. If you do not wish to take part, you do not need to take any action.

You may wish to change your mind after initially agreeing to take part, and to withdraw from the study. If this is the case, please inform me as soon as you reach this decision. If you wish to stop part way through the interview, the interview will conclude, and all data collected up to that point will be destroyed.

You may decide after the interview that you are no longer happy for your information to be used. If you decide to withdraw after the study, and contact me within **one week** of the interview, your data will be destroyed and not used. After this point, the research analysis of the data will have commenced, and your data will remain in the study because it will, at that point, have been consolidated with other data.

Refusal to take part, changing your mind or withdrawing from the study will not involve a penalty of any kind and will have no bearing on our relationship or any institution associated with the study.

How will my information be stored and who will have access to it?

All information collected from you (interview responses and documents) will be stored in a dedicated, password-protected computer folder and will only be accessible to myself. Data (whether written or audio) will not be stored with any names or other identifying information, and any transcripts will not be accessible to anyone other than myself. If you want a copy of the information you provided after the study, please email me.

All information generated by the project will be stored in the secure computer folder, in line with the requirements of the Data Protection Act and Lancaster University Research Ethics Committee requirements.

Any publications or presentations arising from this project will not identify you by name, with pseudonyms being used instead. When presenting transcripts and other research data in publications or presentations, I shall also strive to limit the excerpts so that you are not easily identifiable. There is, however, always a very small risk that your participation in this study could be identifiable.

The data will be stored in line with Lancaster's data policy. Please feel free to read the policy before confirming your participation, should you wish.

What are the potential risks or benefits involved for me in the study?

There are no significant risks identified for those who participate in this study. No confidential or sensitive information will be collected. Although you will be asked about how your role is supported in your institution, all information that could identify you or your institution will be removed before the data is analysed, though I need to remind you once again that I cannot fully guarantee your anonymity as discussed in the previous section.

The benefits of participating are indirect, since it is not possible for me to offer any financial incentive or any expenses for participants for this project.

Who has reviewed this project?

Ethical approval for this study has been obtained from Department of Educational Research, Lancaster University.

Contact details for the researcher

Name: Shannon Farrell

Contact Details: s.farrell4@lancaster.ac.uk

Who else can I contact

If you are concerned an aspect of the study or if you have a complaint, you can contact my tutor:

Dr. Jan McArthur
Department of Educational Research,
County South, Lancaster University,
Lancaster, LA1 4YL, United Kingdom

Email: j.mcarthur@lancaster.ac.uk

Or you can contact someone within Lancaster that is unattached to the research

Dr. Melis Cin

Senior Lecturer, Education and Social Justice

Department of Educational Research

County South, Lancaster University

Lancaster LA1 4YL United Kingdom

m.cin@lancaster.ac.uk

+44 (0) 1524 593572

Appendix C

Interview questions

Scene setting

Can you tell me a bit about yourself and your role as a TEL professional in your institution? Are you centralised or faculty-based?

Institution

How does your institution approach Technology Enhanced Learning? Do they see TEL as solving problems? What problems? Do they see TEL as creating problems? What problems?

Do they view TEL as innovating current teaching and learning? In what way?

Does your institution have a design framework that they use?

Post-pandemic

In your institution, is the pandemic viewed as having a positive or negative impact on TEL? How has this impacted on your role? Do you have an example of where this has impacted on your practice?

How do you feel your institution approaches digital accessibility? Are you involved in digital accessibility and in what way?

What about digital upskilling and digital skills? How are you involved in digital skills?

What do you think it means to innovate with TEL?

Generative AI

Do you feel that GAI has changed your institution's view of TEL? In what way?

How has GAI and the way it is used in your institution impacted on your practice?

Can you tell me about a time when your institutions' view of GAI has impacted on your practice?

Can you tell me about a time when your opinion on the best approach to technology enhanced learning conflicted with decisions made at a higher level? How was that resolved?

How has the pandemic influenced current attitudes to TEL in your institution? Has this impacted the level of authority that you have?

Does your institution support blended and online learning? In what ways? Has this been influenced by the pandemic?

Does your institution have a design framework they use? For example, ABC? Or is that left up to individual faculties/departments?

How has GAI impacted teaching and learning in your institution?

What decisions has your institution made regarding GAI? Have you found those decisions difficult to navigate in your role? Can you provide examples of where you have wanted to approach GAI differently to what your institution has decided?

What impact do you feel that the pandemic has had on digital assessment? How involved are you in making decisions about digital assessment? What impact has GAI had on digital assessment?

Appendix D

My recruitment post in Association for Learning Technology:

Hello everyone:
I'm a learning technologist and PhD candidate at Lancaster University. I'm putting out a request within this network for participants to support my research into post-pandemic conceptualisations of technology enhanced learning in higher education. I'm looking for any TEL professionals (learning designers, learning technologists, academic developers with a TEL remit, etc) who are working in a UK-based university.

Your participation would involve about an hour for a virtual interview. If you're potentially willing, please email me directly and I'll provide more information about the research study. I'd also appreciate it if anyone with TEL connections could share this with any colleagues who might be interested. Thanks in advance!

Shannon Farrell
s.farrell4@lancaster.ac.uk

My post on LinkedIn

Shannon Farrell • You
Digital Learning Professional
1yr • Edited •

CALL FOR RESEARCH PARTICIPANTS
After several small-scale research projects, I'm at a crucial point in my PhD journey as I work towards completion of my thesis. With that in mind, I'm putting out a request to my network for participants to support my research into post-pandemic conceptualisations of technology enhanced learning in higher education. I'm looking for any TEL professionals (learning designers, learning technologists, academic developers with a TEL remit, etc) who are working in a UK-based university. Your participation would involve about an hour for a virtual interview. If you're potentially willing, please message me directly and I'll provide more information about the research study. I'd also appreciate it if anyone with TEL connections could share this with their network. Thanks!

Glossary and list of abbreviations

ALT	Association for Learning Technology
CDA	Critical Discourse Analysis
ERT	Emergency Remote Teaching
GAI	Generative AI
HEI	Higher Education Institution
JISC	Joint Information Systems Committee
TEL	Technology Enhanced Learning
UKISA	Universities and Colleges Information Systems Association
VLE	Virtual Learning Environment