Digital Decisions in UK Higher Education

How Leaders and influencers perceive and manage digital access

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Abstract

Universities in the UK, where they are regulated by the Office for Students are required to show how they support a 'whole university approach' to support students from widening participation backgrounds through their Access and Participation Plans (APPs) and manage any risks that they may foresee via the Equal Opportunity Risk Register (EOPP). This is in part a commitment from the sector to broaden its reach and encourage more 'non-traditional' students into degree level education as well as a requirement from the regulator to be able to charge the highest-level fees. Despite the ubiquitous nature of educational technology, there seems to be little recognition of this widening participation approach across digital education teams.

This qualitative study provides rich accounts from a diverse range of leaders and influencers from across the UK, who have shared their views of the implementation of digital education according to their perception of the needs of their users. It brings together the voices of senior leaders, including heads of professional services and external service providers and explores their perception of the digital education needs of non-traditional students.

Taking a socio-technical critical perspective, it outlines the issues that occur as a result of a lack of communication between those on the ground and those responsible for providing effective digital access, including the confusion that arises from viewing educational technology as a 'means to an end' (Selwyn, 2010), without acknowledging the social factors involved. It also reflects on how the lack of a common understanding of digital access results in a haphazard attention to the needs of non-traditional students.

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And finally, Jim. Thank you for everything. You told me I could do it and I did.

Author's declaration: This thesis is my own work and has not been submitted in substantially the same form for the award of a higher degree elsewhere.

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Chapter 1: Introduction

1.1 Setting the Scene - An Overview of this Body of Work

In the Dearing report of 1997, it stated clearly that widening participation was to become a focal point in changing who has access to higher education (Scott, 1998). This was part of the then New Labour government's policy to open the doors of elite institutions and to make it their mission to see 50% of the population have access to a degree level education. Of course, increasing participation meant that changes needed to be made in terms of the practice and policies that surrounded institutions to allow all students from all backgrounds to have an equal chance of success. These changes revolved around supporting students from diverse backgrounds which developed into various incentive schemes like Aim Higher (now abolished) which targeted disadvantaged state schools (Passy, 2012) as well as other schemes like scholarships, bursaries and offers to students who were the first in their families to get into a university. These schemes carried on over the years and developed into mentorship programmes and success stories of students raising their social mobility and therefore their life chances through these efforts.

Widening participation departments are now present in every institution with either an individual or team responsible for monitoring and reporting to the Office of Students (in England) or for other nations in the UK, reporting to their respective national bodies responsible for widening participation oversight. As is the case for most initiatives in higher education, targets and measures are in place to ensure accountability and justification for the use of subsidies from the public purse. But as higher education evolved, and as the internet became an essential aspect of the student experience, issues of digital inequality were raised as devices and access to the internet became more of a right, than a luxury. In the years since the Dearing report, it was no longer enough to gain access to university. The limited support that was provided was no longer a match for the speed of developments in online communications such as social media, the smartphone in 2007 as well as other educational technology.

Traditional students who had attended university were those who had left home, as a rite of passage and tradition amongst the generations of their family who had followed the same route. They had privileges of support from those before them as well as resources to match their needs (Donnelly and Gamsu, 2018). As digital trends and internet access in the home was becoming more accessible, it meant that these students were building up their internet knowledge and skills, whilst other more non-traditional students, were being further disadvantaged, creating what has become known as the digital divide (Helsper, 2012).

The digital divide was not just an outcome in the field of education but for society around the world. The digital divide was mentioned as an issue for poorer countries who did not have the resources to support their citizens in building the Knowledge Economy in the way that the richer western countries had done (Department for Innovation, Business and Skills, 2016), but even within richer countries, access to the internet was not equal. For many years, researchers have identified issues for people who are excluded from the benefits of digital access for their banking, shopping and even their health. Digital Inclusion is a research area rich in stories of poorer parts of society for whom buying a computer and having a smartphone are luxuries. During the pandemic and the lockdowns of 2020, the digital divide was exposed as students were forced to attend their courses online and expected to spend hours in video calls. What occurred next was a common experience, as teaching staff and students alike complained of their insufficient internet connections and the poor experience of sitting and staring at a screen of black boxes, frustrated that students would not turn on their cameras (Aebersold, 2020). It transpired that not everyone had the space or access to reliable internet in their own homes or even a device with a camera. The lockdowns, as a result of the recent pandemic, had highlighted the reliance that many had placed on institutional resources leading to comments and publications appearing regarding ‘digital poverty’ in the UK (JISC, 2021a).

With that in mind, traditional support and development for educational systems has typically sat in isolation within the Professional Services IT functions who have always been responsible for the bells and whistles of the internet. The kind of support they provided was not grounded in pedagogy but in the instrumental view of providing literal access via the necessary hardware. They looked after network connections and devices in their institutions, and it followed that their solutions were often to offer laptops to students who did not have a suitable device. But now, the milieu of higher education and the messiness that it brings (Selwyn and Facer, 2013), involved IT departments crossing into the realm of the social aspects of education and essential widening participation issues (WP). WP teams did not know about how IT systems worked or how to use them effectively and IT did not know about WP issues. IT specialists were concerned with fixing problems using digital solutions and were not generally aware of the impacts of digital poverty on students. Likewise, WP teams are not necessarily familiar with the vagaries of network connections, IT protocols and setting up systems. The result being both of these functions consider the systems they provide to be independent of who is using them or even how they were designed. Viewing educational technology as merely impartial tools for the job of education.

Access and Participation Plans (APPs) and Widening Participation are high on the agenda for UK HE and are a requirement for Higher Education Providers (HEPs) in England in order to be able to charge the highest-level fee. The Office for Students (OfS) have recently reviewed the effectiveness of their use and redesigned them after consultation, to include an Equality of Opportunity Risk Register or EORR (Office for Students, 2023a). However, there is little guidance or recognition of the importance of use of educational technology on the students experience or indication how their levels of digital access can be improved as part of widening access initiatives. This seems to have been omitted, despite the APPs requirement to offer a 'Whole Provider Approach' where institutions: "*Should detail how you are taking a whole provider approach to addressing the risks to equality of opportunity and how you have paid due regard to your obligations under the Equality Act 2010*.

Where relevant, you can include an explanation about how the access and participation strategies align with your other strategies to achieve published equality objectives."

(Excerpt from the OfS APP template, Appendix 1).

Despite this, the concept of equitable opportunity for digital access for non-traditional students has not entered into APPs on any scale, despite the pandemic related OfS survey in 2020, stating that students working from home were severely disrupted due to 'digital poverty', shining a light on the dependency that students placed on the available digital resources in their institutions and prompting the Digital Teaching and Learning Review, otherwise referred to as the Gravity Assist Report, (Barber, 2021) in which it defined students being in digital poverty as: *"without access to one of the core items of digital infrastructure, which are:*

- *appropriate hardware*
- *appropriate software*
- *reliable access to the internet*
- *technical support and repair when required*
- *a trained teacher or instructor*
- *an appropriate study space"* (Office for Students, 2020)

Whilst this definition was cited as "Digital Poverty" as a pre-cursor to the review, the outcome of the report used the same definition but referenced students as being without suitable "Digital Access" (Barber, 2021, p. 10) claiming these are a combination of the essentials for a student to benefit fully from digital teaching and that: *"Delivering on digital access is likely to become a more important part of meeting ambitions to improve access and participation for students from disadvantaged backgrounds"* (Barber, 2021, p. 12).

Later in the Blended Learning Review (Orr et al., 2022), which outlined how the themes in their report could relate to the OfS Conditions of Regulation, elements of the digital access definition are repeatedly referred to, albeit scattered across different sections of the report, by means of explaining what is meant by various terms. For example, for Condition B2 'Physical and Digital Learning Resources' they include (in part iii) “the

appropriate content and delivery of a course (not limited to) appropriate hardware, software and digital infrastructure" and in later sections qualify 'support' to mean 'digital learning and teaching'. There are also references to compliance concerns over higher education providers (HEPs) not having appropriate study spaces. Despite these attempts to recognise the importance of equality of digital opportunity and support from a policy and regulatory perspective, it seems that there is a disconnect between interpretations of delivery, access, and participation, reaffirming the technocratic view that technology is literally performing that role of access and is detached from any social factors or concerns of students from non-traditional backgrounds (Johnston et al., 2018).

1.2 Making an Original Contribution to Knowledge

This thesis establishes the following contribution:

1) Extensive literature exists regarding the possible benefits of technology for students and staff, as observed by experts in digital education. Additionally, there is significant research discussing the potential drawbacks for non-traditional students and their educational experiences, with some references to the concept of digital inclusion. There is a lack of literature that accurately describes the actual experiences of university staff members who are in leadership positions or have an impact on the use of educational technology. This study contributes a comprehensive collection of narratives providing rich, honest accounts from various leaders in educational positions within higher education across the UK. To the best of my knowledge, no other studies bring together insights into the honest opinions of staff members in various positions regarding the reality of implementation and utilisation of educational technology across the UK higher education sector and particularly their perspectives on their own responsibilities in promoting access to digital education.
2) The insights from this study are that:
    a. Decisions must be made based on the reality of use of the educational technology across functions (student services, academic colleagues,

support services, Library, and IT etc) and are not the remit of technical Professional Services teams in isolation. This requires connections across departments and services so that the context of educational technology use is considered based on the reality of use.

b. A 'means-end' ways of thinking about technology as a separate function to education does not work. In the Issues Chapter there are examples of how viewing technology in an instrumental way can lead to performative solutions and where there are meaningful connections across teams and services, the students' digital access is effective.

c. Digital experts perceive their roles and responsibilities towards widening participation agendas differently where they are more detached from the student and staff experience of technology in educational settings. The consequence of this is they abdicate their responsibility of its impact for those students (Selwyn, 2017), and that the initiatives directed from 'on high' are not effective solutions without context and knowledge of who their students are. This has led to 'information thinking', the incorrect belief that problems can be solved by technology generating data (Delanty and Harris, 2021). Despite the wealth of data gathered about our students in UK higher education, this study has shown there is a lack of context for those in positions of influence which has an impact on the students' outcomes. The effects of this are unseen as there is no formal process for monitoring or evaluation in digital education, despite the equivalent for other areas of accountability such as the APP requirement.

d. Much of the digital education activity in support of digital access is of a haphazard nature, dependent on who is involved and their insights into the needs of their students (if this is known). Due to the ubiquitous nature of digital education and the impact of not having appropriate levels of access, it is unfair to non-traditional students to leave this to chance. It important that there should be accountability, just like there is for widening participation activities through APPs. The lack of understanding between

digital accessibility and digital access is stark and has a significant impact on students and staff.

1.3 How the Sector Approaches Digital Access

The pandemic brought to light the significant disadvantages associated with inadequate digital access in education, with a particular emphasis on issues of digital accessibility rather than mere access. IT and digital education professionals often neglect the social elements that lead to a digital divide. They typically assume that providing web access and creating universally accessible products and services is sufficient, considering the addressing of contextual and social issues outside their scope. In their view, they have already provided equal primary digital access, and any unforeseen problems stemming from this are not their responsibility.

Where the responsibility of IT or digital education teams has been to provide access to tools, seeing tools as neutral means they can justify the omission from any APP. Whereas the literature is littered with digital inclusion references with concerns over digital accessibility, the literature on digital access is concerned with levels (Helsper, 2012; van Deursen and Helsper, 2015; van Dijk, 2013). This highlights the need to look at not just at the situated use, but the social, cultural, and political effects or impacts. These can indicate if students are either being disadvantaged by their lack of experience in their personal use of the web or they are disadvantaged in other ways, by the effects of their use, surveillance, monitoring, profiling, bias etc. It seems that the research and knowledge, including agreed definitions, sit in different spaces across institutions and so any broader evaluation of what is being used and how, is not linked to any official evaluation, monitoring or budgeting plans, for example in APPs.

Digital education has benefits, this is not a study to try and diminish the value that digital technology brings, but those who are responsible for introducing digital education tools into higher education do need to recognise what is actually being provided and the impact for non-traditional students. This study has shown that to provide the support and

access necessary for all student groups there needs to be suitable monitoring and evaluation of the level of digital access and participation based on the contextual understanding of their students. Groups working with students or for students, should recognise that they *all* have a responsibility to ensure that access is not exclusive but inclusive and what they do in their roles does impact the students experience and could have unintended consequences for those students who do not fit the traditional student model.

When I started to explore this topic, I did so because I was finding it increasingly difficult to find anyone who knew anything about Commuter Students, a group of students who feature highly on the intersectional disadvantage scale. Reports of numbers, conditions of access, how they worked around university systems was not clear and, in some cases, despite gathering data on a regular basis (to report to OfS for example) many departments in institutions were unable to provide me with any indication that they knew who these students were. With that in mind, I wondered how we provide the appropriate hardware, software, spaces, and skills that were an expectation (and in some cases a requirement) and how those involved in supporting teaching with digital education tools knew what was actually happening with the technology they were providing and the impact that it had.

1.4 Research Questions

1.4.1 Policy Level:

RQ 1: In what ways do digital experts understand the requirements of widening participation in the context of digital education?

1.4.2 Institutional Responsibility:

RQ 2: How do digital experts describe their role in the university in relation to digital practice?

1.4.3 Local Decisions:

RQ3: In what ways, if at all, does widening participation/digital policy inform digital experts practice and decision making?

1.5 Study Organisation

My view is of a socio-technical critical qualitative perspective, using an interpretive study to identify the views and experiences of digital leaders and influencers whose decisions impact on the digital access and participation of students. This is framed as a critical digital inquiry (Selwyn, 2013) using concepts based on science and technology studies and in particular the social construction of technology (SCOT) (Bijker et al., 1987; Delanty and Harris, 2021; Selwyn, 2010) which provides a theoretical framework as a structure for this thesis with a focus on context. The work is divided into three areas to help provide a platform to share the richness of the accounts from the participants: Policy, Stories, and Issues.

Using semi-structured interviews and from documents from institutions and the Office of Students, I will identify digital experts' experiences and views of non-traditional students as well as those of their institution through their access and participation plans, learning and teaching strategies and guidance from the OfS on blended learning access.

The purpose of this study is to apply a critical lens to present the perspectives of these leaders in how they decide to implement digital education and how these decisions are linked to digital access and participation.

1.6 What is Outside the Scope of this Study?

This study does not include those outside of digital education teams or influence, such as those in leadership roles in Widening Participation teams or debates on how policy making at a senior institutional level for digital education is determined. Details about

the merits or disadvantages about Access and Participation plans or the efficacy of the Office for Students is also beyond the scope of this study.

1.7 Roles in Digital Education

Across the sector there are a range of roles for those involved in digital education. These roles can influence the implementation and application of digital education tools and resources, although they are not necessarily official leadership roles. The roles could also include those who are using tools they have been provided with and need to know how they work in order to make them useful to their needs. Therefore, throughout this study the term 'Digital Expert' is used to refer to those who are using digital education technology as an expert in their context or domain of expertise.

Typical roles can be 'Heads of XXX,' Senior administrative roles, and Academic Teaching Staff roles. In addition, the influence from those in non-education based departments can also have a huge impact on the availability and use of technology in educational settings (Selwyn, 2010), these are 'Heads of' based in IT departments. In addition to these roles, which are usually based in either Professional Services or Academic career pathways, there is an increasing move towards 'third space' professionals (Whitchurch, 2009), those in-between admin and education. These have been discussed in more detail in the Methods Chapter of this study.

The value of social networks cannot be underestimated and form an important asset within these roles. Across this thesis I have referred to the quality of the social connections of the participants and their impact on decisions. This was guided by the fact that for many of the participants, being in a leadership role was not the deciding factor in their ability to make effective decisions. Their perspectives were formed not just from their job descriptions but through their ability to gain access to information through their networks. Building on some of the key literature around meaningful social connections (Granovetter, 1973) I wanted to show how it was not just who they were in their roles but who they were in the communities that they were operating in that

provided them with a real understanding of the reality of the day to day use of digital education. This was important to help categorise and identify how valuable these professional and personal networks were. (Hauser et al., 2016). Due to the limitations of space, the focus of these connections was limited to how the participants reported issues of trust, levels of connections and familiarity with functions outside of their day to day responsibility (Fongtanakit, 2013; Ganguly et al., 2019). Partly related to their roles and decisions was also their connections to professional networks across the sector.

1.8 Who I am as a Researcher

Although I was born into a middle-class white family in the Home Counties, I have roots through both my parents of working-class families. My mother's family, lived in rented accommodation and her uncles and aunts were in service both before and after the Second World War. On my father's side, my grandfather was a Milk Man who was promoted after the Second World War to Depot Manager, and it was then that he was able to buy a house and technically move into 'middle-class.' I was brought up to believe that we are all born equally and that no matter who you are you should always treat people with respect, regardless of your income or perceived status. I think it is important that my values are made clear in order to be transparent and maintain objectivity (Banks, 1998), however, I am aware that there will be subjective and objective elements and will therefore not be 'neutral' (Banks, 1998).

I went to a local state school, and left with a couple of qualifications, subsequently dropping out of college halfway through A 'Levels and left to get a job. I was, much later, the first in my family to gain a higher education degree and took a non-traditional route to get there. All my degrees have been online, and I have only experienced a physical campus in a university for my undergraduate and master's qualifications by working in one. I did not start furthering my education until I had had my children and returned to education through a 'women returners' access opportunity at my local Further Education college. It was from that that I was able to kickstart my education pathway into full-time employment as a Further Education Lecturer and then onto higher education in digital education development roles. Although I have never thought about it, I was able to have

another chance at education through a widening participation scheme. I have experienced, through my work at universities the feelings of not belonging, not just because of my gender, although that has been a common experience but also through how I have been perceived by those in my workplace. I do recognise however, that I do not have the same experiences or circumstances as many of the participants in this study. It is for this reason that I want to apply the principles of social justice to the study and to be transparent about the values, ethics and fairness that social justice carries (Atkins and Duckworth, 2020).

My perspective is from the use of educational technology with over 20 years' experience in post-secondary education. As a Lecturer, Programme Leader and then a Digital Educational Developer and as a senior leader in higher education I have been actively involved institutionally as well as with commercial organisations and associations related to the development and application of educational technology. However, increasingly I have seen a trend away from the benefits to students and staff and more to economic interests of third-party providers. This has been magnified since the COVID pandemic in 2020.

Whilst I am always curious about the recent technologies for education, I have become concerned about the lack of any real understanding of who was using these systems and how. From my experiences I had the view that digital education decisions had been made from an instrumental view rather than who was using them. This was based on accounts of others experiences about the application and use of technology as well as my own experiences of Virtual Learning Environments (VLEs), iPad use and mobile app developments and workplace conversations in higher education institutions. My views have also been formed by my work on digital literacies and the lack of engagement in using technology in classes. My assumptions were that those making these decisions were unaware of the social and political impacts of the use of digital education platforms and products.

It was important to me that my project applied a socio-technically informed critical theoretical approach. This was because within the broad field of Science and Technology Studies (STS), an interdisciplinary field that looks at how science, technology and society interact, sits the Social Construction of Technology (SCOT) which looks at the social, cultural and political factors that can impact the use of technology. This choice was made because of my interest in how decisions are made for non-traditional students' digital experiences, through the eyes of those in positions of power. Although these factors are considered in context, they are not viewed through a critical lens. Critical Theory can show and go against systemic biases and power imbalances, mostly in the areas of gender, race, and class. In the context of digital experts and their decisions, this theoretical framework applies SCOT to highlight the social factors that can influence proposed educational technology use with critical theory to provide the tools to critique the power structures, control and socioeconomic impacts of these decisions. The aim is to find a route to take action to change, rather than just highlight that disadvantage can occur (Bonner, 2011; Delanty and Harris, 2021).

In my project, I use these basic principles to question and highlight biases that are deeply rooted in my field of study for digital access and the impact on those using it, especially those from non-traditional backgrounds. Giroux stated that "Any critical theory both defines and is defined by the problems posed by the contexts it attempts to address" (Giroux, 2003, p. 5). By using Critical Theory's multidimensional lens, I look at how power relationships have shaped and are shaped by social aspects of systems in the past and the present. This way of looking at things is especially useful when looking away from the traditional and how education can support or question social norms.

By positioning my research within this theoretical framework, my project not only gets a strong theoretical base, but it also fits with the transformative spirit of critical theory. It doesn't just try to determine how decisions are made; it also tries to imagine and work towards what should change, without the flaws and unfairness that are apparent.

My concern for non-traditional students was informed partly by my teaching experiences across my career and by conversations as part of my professional role with students for my initial research in my original study in which I had prepared a research proposal into Commuter Students. I was unable to find out from a range of institutions about their Commuter Student numbers or members of staff responsible for their needs and I soon realised that there was a lack of knowledge about types of students and their engagement. Unable to recruit student for a variety of reasons, including a lack of data about this group and realising this was an intersectional problem. I reframed my study to find out from those involved in decision making on behalf of students, including those from non-traditional backgrounds including how they knew who their students were, and their consideration of disadvantaged students were using their systems.

1.9 Theoretical Framework

As previously touched upon, my understanding of critical theory in terms of technology in education is that it helps to explore the perspective that technology is not neutral and can create issues based on its inappropriate introduction. Postman talked of the introduction of technology as upsetting the ecosystem or environment as it changes things (Postman, 1993), in as much as it is designed for a specific purpose and can be implemented to suit various interests, and that the use and application of different forms of technology shapes the behaviours of those who are using it. In that way, the design of systems introduced into educational settings impact on how teaching and learning takes place. This brings together both social issues and political uses of the technology. The application of this theoretical framework to include SCOT and critical theory (in my view) can then be a way of highlighting the impact on use from disadvantaged groups and how these can be mitigated.

Critical Theory, which began with The Frankfurt School in the 1930s, changed the way people thought about society and philosophy. Theorists like Max Horkheimer, Theodor Adorno, and Herbert Marcuse, criticised the way society was set up, pointing out how mass culture and communication tools maintained social inequality. Their work made it clear how important it is to understand the social and political settings in which

information is created and shared (Bonner, 2011). It was later that critical theory was revised to bring it up to date in terms of the information society we are now in, as many of the concepts and ideas of the original critical scholars reflected the use of technology within their context, for example Habermas stated that technology was in the domain of "purposive-rational action and was therefore neutral" (Delanty and Harris, 2021, p. 93). The use of social media and the personalised use of technology in our society has shown this view to be outdated and there has been recognition of a need to develop it further by paying more attention to the individual and to recognise the social context of technology (Delanty and Harris, 2021; Feenberg, 2017; Giroux, 2003; Selwyn, 2023a, 2013).

The field of Science and Technical Studies is a broad and complex field of interdisciplinary research which seeks to identify how technology impacts society. It has contributed to a wealth of research of educational technology as it highlights the need to consider the relational aspects of the use of technology within any environment (Castañeda and Williamson, 2021). Within this field, SCOT offers a useful approach to unpick the social factors that can impact on the use of technology and helps to counter instrumentalist views of (educational) technology as being inconsequential to the learning environment. SCOT has been applied in this context to explore the interchange between the theoretical intentions and reality of use of digital education technology across the sector. SCOT provides a more nuanced approach as to how digital education technologies have been integrated and adopted in UK higher education shaped by the social, political and cultural factors (Bijker et al., 1987).

I am interested in using it because I believe that for many people technology is not easily understood and for some it is easier to take it on face value, Neil Selwyn called this a move away from a "means ends" way of thinking which I have taken to be instrumental approaches and to think more about the social or power structures that are reproduced by it (Selwyn, 2010). An example of this is the difficulty people have in understanding the importance of knowing how technology works to be able to use it effectively (digital literacies) and the effects of the resulting confusion when things do not work. They can immediately assume that it is their fault that they have done something wrong rather than

the technology. Other examples are when senior leadership are persuaded by the idea that a new tool or platform will 'revolutionise' teaching or will 'transform' education or solve a problem, as an incitement to purchase (Ideland et al., 2021). Through the lack of critical understanding what the 'thing' can do it is easier to take others word for it and accept that if it doesn't do those things then it is the people using it who are at fault. This instrumental view of educational technology detaches any human involvement or reaction to a technology and therefore the context of its use.

This framework can be used to show how the social issues impact and how those in power (via hegemonic structures) often dictate, referencing "What Works" as if humans have no impact at all (Bayne, 2015; Bayne et al., 2020; MacNeill and Beetham, 2022). Feenberg demonstrated this framework , describing it as a synthesis of Critical Theory and Science and Technology Studies (STS) that social groups have influence in "interpreting the meaning of technological artifacts" (Feenberg, 2017, p. 5). That is why I have produced rich accounts through the stories and issues of the participants to present their actual experiences as opposed to the proposed use (or what the systems are supposed to do) as well as broadening the application of the impact of the digital learning environment, not just a specific tool. In relation to the widening participation angle and a 'means to an ends' approach, a "What Works" think tank set up by the UK Government, The Centre for Transforming Access and Student Outcomes in Higher Education (TASO), produced guidance for the Office for Students as part of their 'quick review' into blended learning in the sector which is actually misleading. It has used out of date references and selectively used parts of their "evidence" to say "what works" when it clearly does not (TASO, 2023). That is why digger deeper into the 'actual' and providing evidence of the reality in higher education appeals to me.

I am aware of the background and philosophy of critical theory and the later work to revisit ideas of Critical Theory with a more modern view of technology via STS and Critical Digital Social Research, where digital is a theme in Critical Theory research and not a discipline (Apple, 2012; Feenberg, 2017; Feenberg and Feenberg, 2002; Fuchs, 2019; Harris, 2022). The Capitalist view of technology is instrumental, as early Critical Theorists viewed it as a form of 'Technik' (meaning instrumental/technique) (Delanty and Harris,

2021). In that it removes human behaviour from equation, by this I mean in terms of the function of the technology rather than the effect of its introduction based on the idea that people are not machines and may not use the technology as intended or it may shape their behaviour to produce something unintended. Although Critical Theory provides a strong framework to uncover inequalities and power in balances in access it has limitations. Specifically, as Delanty and Harris noted (2021) traditional uses of Critical Theory from the Frankfurt School, is primarily concerned with critique and problematisation, in particular how technology can become a tool for control, and interpreted differently by differing groups but also looks at how these can be mitigated or resisted. Bringing in a socio-technical approach takes us beyond this level of critique to explore practical solutions. I found Postman's critical questions (Postman, 1998) developed by Selwyn in his approach (Selwyn, 2023a, 2017) as a useful framework to think about the application and use of technology for education and so my application of the sociotechnical critical framework has been formed around perspectives of impact (what does it change), power (who benefits) and outcomes (what is the result) against the social factors (reality). To extend this, I am also interested in how we use that information to ensure that any negative aspects against certain groups are mitigated or at the very least taken into consideration (power and making a change).

I am interested in the use of these approaches in relation to educational technology and the impact that it has on the teaching and learning environment.

1.9.1 Context

Technology has an impact on education and by applying a socio-technical critical approach to the technology humanises it, which in turn exposes the negative effects on different groups in society, based on the context of its use (van Deursen and Helsper, 2015; van Dijk, 2013). This allows us to take this into account in any development of policy and/or practice. When staff involved in making decisions about the use of implementation of any educational technology, either ignore or are unaware that they may be negative impacts, particularly for already disadvantaged students, this critical socio-technical approach will enable a contextualised view of use and potentially

improve the experiences of those using it. Where students are not considered contextually, the effects can be hidden from this impact are not seen because these affects are not considered in any evaluation, or even support and so in the eyes of the 'institutions', they do not exist and never acknowledged (and therefore powerless) (Darvin, 2019).

1.9.2 Values

The socio-technical critical framework applied to educational technology implementation and use, can expose the values of the those making the policies and institutions in how they interpret them. If technology implementation is seen as separate, having no effect on education (aka 'neutral') then institutional values are ignored. Although applied in the interests of integrity, Proctoring software, as an example invades privacy, discriminates, exposes domestic circumstances, disabilities and causes unnecessary stress to students who are under pressure to sit their exams (Cristyne Hébert, 2023; Selwyn, 2023b). If policy makers are focussed on the economic benefits of the systems and not considering the social impacts and power imbalances, then any values of integrity, inclusivity and compassion are ignored.

1.9.3 Application

My approach is to apply this theoretical framework to think about impact of digital education on those represented in my study. Within their context, it was their perspectives of the use of technology including the implications or unintended consequences.

For Chapter 6: Issues, I applied the following framework:

1. What is the context? (Historical, current situation, who is involved and how, what assumptions have been made?)
2. What is the impact? (Who benefits? What are the harms? Unintended consequences etc. How are the rights of students impacted?)
3. What is the outcome of the issue? (How/what does this change how things are done?)

These are partly based on Selwyn's 'Critical Questions for EdTech' (Selwyn, 2017, 2010) and have been adapted by Selwyn from a long history of critical scholars including Postman, Apple, Feenberg and Biesta.

The application of a framework in this way allows for a critical theoretical lens to be placed over the social factors of use. The socio-technical lens provides a way of shining a light on the actual issues of use, and the critical theoretical lens provides a vehicle to move away from a performative acknowledgement into actionable insights.

1.10 Summary

This chapter introduces the context of the study and by defining references to various terminology, such as the frequently misused term digital access to be digital accessibility. It also highlights the background to the rationale for the study and explains how digital aspects of higher education are often seen as a separate entity to education per se and that the view of technology in educational settings is often thought of as simply a means to an end, rather than having any social impacts on the students' experience. This introduced the concept of tools as being neutral and how that impacts the implementation in some institutions in terms of how their use is intended and what that means for non-traditional students. I have tried to introduce how these disconnected roles are problematic for non-traditional students in the milieu of higher education (Selwyn, 2017, 2013, 2012).

It also clarified what is in scope and what is not and presents the research questions framed across levels: macro (policy level), meso (institutional level) and micro (local decisions). There is also an introduction to how the sector views digital access and includes some information about the kinds of roles that digital experts have in higher education and how they may not always relate directly to widening participation initiatives.

Throughout this chapter I have explained my perspective and approach to the study as my views will impact these and determine the questions, I used to gain information and evaluate it. Being a non-traditional student as well as having a deep understanding about the impact of educational technology I felt it was important to include contextual information to provide clarity over my decisions.

The chapter ends with an overview of my interpretation and use of critical theory and how I have applied it across the study, using it as a framework to provide insights into the data in the forthcoming chapters. The following chapters explore the context of the study from an external policy perspective (Chapter 2 – Policy Landscape) and the debates in the literature (Chapter 3). The Methods used are covered in Chapter 4, followed by an introduction to the Participants through their backgrounds and perspectives (Chapter 5). These rich accounts explore, with quotes and excerpts to illustrate Issues that have been raised (Chapter 6) and ends with Chapter 7 Discussion and Conclusions.

Chapter 2: Policy Landscape

2.1 Introduction

The purpose of this chapter is to set the context of the higher education landscape in the UK and specifically the areas of concern for those involved in digital education.

In the UK, the organisations that are responsible for funding and managing higher education for Scotland, Wales and Northern Ireland manage their systems differently to England as, the OfS, is the regulator and competition authority (Atherton et al., 2023). As the majority of the participants in this study were based in England, the main focus here will relate to the OfS and the changes that have occurred as these are the most impactful. For further information about the whole of the UK higher education landscape, the recent research briefing paper 'Higher education in the UK: Systems Policy approaches and challenges' provides an excellent overview (Atherton et al., 2023).

2.2 The Office for Students

The OfS is the English regulator for higher education. They are independent from the Government but are funded via the Secretary of State. Whether or not they can be truly independent is a matter of debate as concerns were raised almost immediately when they came into power over their dual role of regulator and law maker, as well as more recent concerns over their championing of the recent of Freedom of Speech Bill (Evans, 2018; Kernohan, 2022). In terms of regulatory requirements, Higher Education Providers (HEPs) are concerned with any directives issued by the Office for Students. They oversee funding and have oversight of quality assurance measures and were set up as an independent body championing the student voice, reinforcing the students as consumers or customers rhetoric (Mendes and Hammett, 2023), taking over the roles of both the Higher Education Funding Council for England (HEFCE) and the Office for Fair Access (OFFA) (Office for Students, 2018).

The OfS, grants HEPs degree awarding powers based on their adherence to a set of ‘Conditions’ which they expect to be upheld. This is referred to as the Quality Code and covers all aspects of higher education across the student journey, with severe penalties for non-compliance including, if necessary, the removal of degree awarding powers (Office for Students, 2018). As a result of the OfS replacing OFFA, they have a strong interest in Widening Participation (WP) and have made equality of opportunity a dominant theme in their mission. Since the Conservative-led Coalition in 2011, the Government has moved the sector of Higher Education to be a markets-based system, pitching institutions against each other to be in competition to attract students (Atherton et al., 2023). The aim being to improve their offer to the students.

The UK government's continued drive to marketise higher education has led to their promotion of the EdTech economy, particularly through encouraging "edupreneurs" and integrating EdTech companies into sector, creating significant unintended consequences. While ostensibly aimed at addressing "specific challenges facing the education sector" (Department for Education, 2019, p. 2), this approach has resulted in for-profit organisations driving their own agendas, often at odds with the actual needs of educational institutions.

The systems and data produced by these EdTech companies are increasingly being used to measure and evaluate the performance of higher education institutions. This shift has ethical implications, as it places profit-driven interests at the forefront of educational policy and practice, potentially undermining the societal and public good mission of universities.

The UK Government's requests for data, on the face if it for monitoring and evaluation purposes, have created opportunities for EdTech companies to profit from this information (Fourcade and Gordon, 2020). This has resulted in a form of surveillance governance where the OfS uses this data to influence and drive policy decisions. The power dynamics have shifted, giving technology companies unprecedented influence and blurring lines of responsibility and accountability.

Decisions that were once made by individual institutions with a contextual understanding of their impact are now increasingly influenced by business and economic perspectives rather than social ones. This "datafication" of policy decision-making, termed by Selwyn as "data-driven statecraft," is reshaping education based on system design rather than pedagogical principles (Selwyn, 2022, p. 4). In effect, the government is creating policies driven by for-profit EdTech interests that often conflict with the mission of higher education institutions to benefit society and serve the public good.

From my perspective, I am concerned about the integration of EdTech in this way as there is an imbalance of power, and it dismisses the unintended consequences of educational technology and its influence in the social practice of education. This highlights the need for a critical reassessment of the role of EdTech in shaping educational policy and practice. Many institutions set upon establishing or reaffirming their presence, erecting new buildings on their campuses, which included their virtual estates, seen as a key part of their attractiveness to students, not least because digital skills and capabilities were something that the UK Government was keen to promote in terms of the benefits to employers and, therefore the economy. (Baldwin and Feldman, 2021; Barosevcic et al., 2021; Davies et al., 2017; Department for Education, 2019).

The OfS has developed their own Quality Code as part of the “ongoing conditions of registration” which includes Student Resources (B2) and Student Outcomes (B3). Although not specifically mentioned as digital education or online learning, the Code does refer to aspects of digital access and the flexibility of choice, referring to online and blended learning as digital learning (The Office for Students, 2022a). Throughout the Regulatory Framework there are references to digital delivery and learning and as such this highlights the ubiquitous nature of educational technology across the student experience (Skelton, 2023; The Office for Students, 2022b). Due to the change in the focus of the OfS, specifically that their perspective of quality was not in line with the rest of the world, The Quality Assurance Agency (QAA) abdicated their responsibility for monitoring and upholding quality assurance standards and stepped down in March 2023 for English HEPs, although they maintained their oversight for the rest of the United

Kingdom (Office for Students, 2022). Historically, the QAA had set up and maintained the Quality Code which had been the basis of the conditions of degree awarding powers (DAP) and was monitored by the QAA through the Institutional Review.

2.3 Access and Participation Plans (APPs)

As previously mentioned, the OfS Regulatory Framework is positioned to have a strong theme of Widening Participation. As part of their role of championing the student voice, non-traditional and marginalised students have a heavy focus through the activity of the OfS and in particular in the first of their regulatory objectives "to support students to access, succeed and progress from higher education" (Department for Education, 2019). This is a theme across the Framework which has been reinforced through the recently updated APPs, a requirement if a HEP wishes to charge the top band of £9250 student fees. These are monitored by OfS through the Director of Fair Access (based in the OfS) who is responsible for ensuring that these commitments are adhered to and effective. It should be noted that during the pandemic, the UPP Foundation launched a project to support students returning to their university campuses and accommodation by offering a 'Digital Manifesto' which included the suggestion that universities could produce a Digital Access and Participation Plan to ensure that the digital education benefits of the pandemic could be applied, although this did not gain traction and was not supported by the OfS (UPP Foundation and Student Futures Commission, 2021).

APPs refer to the "Whole Institution Approach" to ensure the success of marginalised students and were recently revised to include a focus on risks through a new Equality Risk Register (Office for Students, 2023a). This has not been without some controversy and the recent consultation has seen challenges to their approach and the potential unintended consequences of their view of what constitutes risk (Fryer, 2023; Team Wonkhe, 2023).

In terms of digital education, there are some key drivers that have impacted HEPs include the Regulatory Framework which was updated in 2022 to include Conditions pertaining to blended learning as well as the introduction of the Digital Accessibility Regulations

2018 (The Office for Students, 2022a). The Digital Accessibility Regulations require any public body to ensure their online information is accessible with fines for non-compliance. In terms of funding, in The Review of Post-18 Education and Funding, known as the Augar Review (Augar, 2019) there were a series of recommendations in relation to Maintenance Grants and a fund to enable students to choose where they study and how, through the Lifelong Learning Entitlement. The aim is to provide students with the flexibility to use their loan to choose where and how they study which implies increased modularised courses, involving the use of Virtual Learning Environment's (VLE), and links to widening participation finances as a means of funding what has been called "the biggest shake up of post-compulsory funding since 2012" (Kernohan, 2023). This is of concern to digital experts because of the implications of flexible learning and, that most student information systems are not configured to work on a module-by-module basis but for programmes and therefore require institutions to review the way that their systems register students. For those digital experts who are not directly answerable to IT departments, this may not be something they will be involved in, but increasingly IT departments not only look after university business IT systems but also Digital Education teams. At the very least, digital experts would be aware of this new development as it is integral to programme design and delivery.

Not all of the Augar Reviews' recommendations were implemented, but what this has signalled is a stronger emphasis on students as consumers through student choice. This is especially a focus for the English Regulator who have a strong theme of widening participation and value for money. On their website, (https://www.officeforstudents.org.uk/) they state their focus is based on four primary objectives: *"All students, from all backgrounds, and with the ability and desire to undertake higher education:*

1. Are supported to access, succeed in, and progress from, higher education.

2. Receive a high-quality academic experience, and their interests are protected while they study or in the event of provider, campus or course closure.

3. Are able to progress into employment or further study, and their qualifications hold their value over time.

4. Receive value for money."(The Office for Students, 2022a).

2.4 Measuring Quality

Other policy level directives that are increasingly creeping across digital spaces are the Teaching Excellence Framework (TEF) and the National Student Survey (NSS), both of which have digital education impacts and should be of concern for anyone involved in digital education. The NSS provides evidence for the TEF which in turn is intended to provide students with information about the 'quality' of teaching and associated support for their course. The TEF partially uses the feedback from the NSS to inform the level of TEF that institutions are given in a so-called statement of teaching quality through a TEF Bronze, Silver or Gold award (Green, 2023).

Students views on their support including resources and community, are all impacted by digital education tools, as well as their access to the library and assessments. Departments dealing with access to resources (usually IT departments and digital education teams) will need to reflect on the outcomes of these mechanisms in order to satisfy the senior leadership of institutions who rely on the outcomes of the NSS and the TEF to attract students. Of course, the value of these tools in deciding the actual quality of any course or institution is highly contested as both the NSS and the TEF are not necessarily representative of the quality of teaching in institutions (Ashwin, 2020; Carroll, 2022; Shore, 2008). The details of the debates around the NSS and the TEF are beyond the scope of this study but are worth mentioning as indicators of a mechanistic approach to attempt to establish the reality of what is actually happening in terms of the quality of teaching in institutions.

2.4.1 A Note on Terminology

The language around digital education has changed over the years, initially "e-learning" and more recently "digital education". The term Technology Enhanced Learning is problematic as it indicates that the technology is doing something independent of the teacher or student (Bayne, 2015). As previously mentioned, terminology has an impact on understanding and throughout policies and reports are a plethora of 'empty buzzwords' (Hayes and Jandrić, 2014, p. 198; Selwyn, 2007). Linked to the use of buzzwords, is the politics of technology, numerous authors have mentioned the agenda

of language and power. Postman refers to language as having an "ideological agenda that is apt to be hidden from view" and the effect that technology has had on "altering meanings of words like "truth," "law," "intelligence," and "fact" (Postman, 1999, p. 54, 1993, p. 124) and in the Manifesto for Teaching Online, Bayne et al refer to the language of "Best Practice" as ignoring the context (Bayne et al., 2020, p. 7). I have chosen to use Digital Education to be an all-encompassing phrase to include, e-learning, online learning, technology enhanced learning etc, whilst being aware that by highlighting 'digital' as a separate form of education is somewhat deterministic but necessary in light of this study (Fawns, 2019).

The confusion with different language meaning different things to different people is problematic and leads to assumptions about the knowledge and experience of the users. A classic example of this is the use of 'Digital Native' to mean people born into an era of ubiquitous technology and the assumption being that anyone in this bracket are immediately fluent digital users (Bennett and Maton, 2010; Evans and Robertson, 2020; Helsper and Eynon, 2010; Robinson, 2019). This is an example of framing technology as simply a tool with no impact of the context of its use. The unintended consequence of this is that appropriate support is not in place for students and those who are disadvantage with possibly less experience of a range of different kinds of technology end up having to work around systems and tools with the additional pressure of being expected to know how to use it.

There are numerous references to EdTech throughout which can be defined as:
"The practice of using technology to support teaching and the effective day to day management of education institutions. It includes hardware (such as tablets, laptops or other digital devices), and digital resources, software and services that aid teaching, meet specific needs, and help the daily running of education institutions (such as management information systems, information sharing platforms and communication tools)."(Department for Education, 2019, p. 5)

2.5 Summary

This chapter delved into the historical context of the policy landscape of higher education in the UK, with a specific focus on digital education. This chapter aimed to contextualise the higher education system, particularly in England, and examines the regulatory frameworks and policies influencing digital education practices.

The main points covered were the role of the OfS, how Digital Education and Quality Assurance are managed at a national and institutional level and how Access and Participation Plans are organised and monitored. It also covered the use of so-called measures of quality, the NSS and the TEF, to pitch institutions against each other through league tables and awards. It questioned how effective these tools are in this role. Finally, it critically examined the use of a range of terminology to describe educational technology and the influence of simplified language to explain complex topics such as 'Digital Natives'. The next Chapter (Chapter 3) reviews and builds on this context to identify the current digital education debates in UK higher education.

Chapter 3: Debates in the Literature

3.1 Introduction

This chapter is split into a series of nine debates in the literature surrounding the approaches and perspectives of digital education in higher education around a range of contexts. It provides some detail on the methods of selection, exclusion and evaluation, leading to the nine debates being identified. This has been done with a view to providing some clarity for any future replication, or similar projects by interested researchers. The debates are then outlined and described in their context to present a narrative of the current climate of higher education in the UK which provides a framework of the environment in which digital education and widening participation sits. Having this overview provides high level insights into the shape of the system in which institutions are operating in. What I am trying to show is how external factors relating to a range of considerations (debates) impact on the strategical and operational level of institutions and that these measures drive how they make decisions on behalf of their students.

3.2 Literature Identification and Engagement

Through my professional role as a digital education practitioner and my continued interest in developments in technology for teaching and learning across the sector, I routinely collected resources, read current reports and followed news articles relating to aspects of digital education using online social bookmarking tools such as Wakelet, MyMind and Raindrop.io which allowed for visual storing of resources with additional notes, tags and categories. This information gathering process was continued throughout this time of this study and after as a means of staying up to date with grey literature, reports and policies in the fast-moving world of educational technology and the associated elements of its use in higher education.

With this background knowledge, my prior research to build my original research proposal around commuter students and recognising a need to identify how decisions were made by institutions and their representatives for their users and especially non-

traditional students, I used the resources available to me to search academic literature. My initial exploration was via the Lancaster University One Search tool. I used a set of keywords relating to digital access, digital poverty and digital inclusion. The criteria I used for inclusion was in relation to the study as I was only interested in post compulsory education, social factors relating the digital divide as well as previous studies where non-traditional students were considered. As the topic straddled Widening Participation and Digital Inclusion, I was interested in exploring how the relationship between these two areas had been covered and became more aware of the differences in the interpretation of the language. I searched from the beginning of the 21st century as I was interested to know how the policies that were in place guiding decisions originated.

Using the One Search was useful to establish a collection of work, but it did not show me how this work was connected to similar bodies of work which is how I came to identify alternative databases to search for academic literature such as Research Rabbit, Connected Papers, LitMaps and Semantic Scholar. All of these presented a visual representation of single papers and their connections to similar work which helped to broaden the field and topics as well as a visual representation via a network map of the collections as I built them, and my understanding developed. My initial collections were separated into folders to help organise the topics that were appearing which were then translated into refined categories which then were merged into sets of topics. I then used Zotero (referencing software) to organise and take notes. I used the bookmarking extensions in my browser to save resources I came across relating to these topics in the grey-literature and was able to build up common areas of interest, which I then refined and then classified as a debate. I settled on these nine 'debates' as opposed to a literature review in order to bring in the contemporary articles, reports and conversations across the macro, meso and micro levels of digital higher education. This was a way of conceptualising the evidence of the peer-reviewed bodies of work and aligning the grey literature of the time to demonstrate the environment that institutions were operating in.

At the time of performing the initial searches for digital divide there was a high volume of publications predicting the future impacts of the pandemic. Where these conclusions

were being reached during the pandemic (2020-2021) I excluded them from my collections as much of what was published "of its time" and I felt was too early to tell in terms of the digital divide and its impacts and therefore was excluded but I did include official non-academic literature such as Government Minsters letters to the OfS and posts from respected organisations such as JISC, HEPI and Wonkhe, all of which were relevant and influential, especially as they were referenced on multiple occasions across publications in terms of decision making and policy influence.

3.3 Contextualising the Debates

There are two important bodies of literature that have been acknowledged in light of the debates that follow.

3.3.1 Non-Traditional Students

There are distinct themes across the literature for non-traditional students in the UK. These are belonging, mobility and privilege or power (Finn and Holton, 2019, Maguire and Morris, 2018). Underlying these are that their social characteristics do have an impact on their experiences, and this adds to their sense of not fitting in or 'belonging'. In addition to not feeling like they belong, they also are constrained due to the spaces they inhabit both physically and virtually, so their 'mobility' is affected. This can be their social mobility, and where these students are commuter students, it includes their physical location. Typically, these non-traditional students can also encounter issues around privilege and power within groups of other students, particularly those students from wealthier backgrounds and those who have a family tradition of higher education achievement (Thomas and Jones, 2017, Reay, 2018).

Although not limited to living away from a student-centred life, by adding that figurative and literal distance from academia, commuter students are contending with what appears to be a multi-layered range of issues that can negatively disrupt or even derail their education Finn, 2017). There are additional links here to access to the resources required in order to be able to study, especially as a student that is not immersed in academic life. The JISC Digital Insights Survey which has now been established over five

years provides a snapshot of the use of technology for enhancing higher education (Killen and Langer-Crame, 2020). Their most recent report (2020), surveyed over 20,575 students from 28 UK universities and identified that digital inequality is a ‘major concern’ as well as other issues around student confidence in their skills and use of technology to keep up with their peers.

To fully understand and address the online experience of the 'multi-dimensional' non-traditional student, it is crucial for those responsible for educational technology implementation and support to consider the complex interplay of underlying social factors and how various disadvantages impact digital access. This consideration is particularly important for non-traditional students, whose worldviews and life experiences may differ significantly from those of traditional students.

It is unclear how well understood the impact of non-traditional students’ digital disadvantages are across the sector. From these debates, highlighting the complexity of the drivers of higher education, digital education and the management of outcomes at all levels, there is little indication that the 'on the ground' reality is a factor in any evaluation. The digital landscape is not a level playing field, and non-traditional students often face unique challenges that may not be immediately apparent to those designing and implementing educational technology solutions. Educational technology decision-makers should be aware of this considering it is virtually impossible to be a student in higher education today without access to technology (Buckenmeyer et al., 2016; Munro, 2018). Despite this, the literature around inequality and disadvantages for students in the UK barely touches on the virtual impacts of their university education, with the exception of accessibility issues. It is important to bring together literature from the field of digital education, the use of which has been magnified since the pandemic (Abu Talib et al., 2021, Barber, 2021) which includes the concept of the social equality of access online, or the ‘digital divide’, as JISC and other organisations and institutions in UK higher education have identified as severely impacting student life OfS, 2020, JISC, 2021).

3.3.2 Higher Education Studies

The changing world of higher education is acknowledged here to provide some context to the higher education environment of the UK. The Society for Research in Higher Education (SRHE) has published extensively on a range of policy and practical implications of the changes across the sector over the last twenty years or so, including the changing dynamics of higher education, encouraging widening participation and the influence and impact of the digital technologies with issues arising from datafication, surveillance and automation (Kumar et al., 2019; Williamson et al., 2023). In addition, there have been notable additions to the field from authors such as Giroux, Rudd and Barnett who have focussed on the political and social changes as a result of global Neoliberal and Populist agendas that affect the focus of higher education outputs along with the use of digital technology altering the nature of teaching and learning (Barnett, 2010; Giroux, 2002, 2023, 2003; Hayes and Jandrić, 2014; Johnston et al., 2018; Rudd, 2013).

The backdrop of the marketisation of higher education, driving a neoliberal agenda, has significantly altered the power dynamics between institutions and students, with universities increasingly marketing themselves as attractive destinations and a focus on students as consumers or customers rather than communities of scholars (Barnett, 2010; Olssen and Peters, 2005; Vernon, 2018). This shift, coupled with the implementation of the Higher Education and Research Act 2017 in the UK, has placed regulatory power in the hands of the OfS, which some argue primarily serves governmental interests rather than maintaining the independence of UK higher education (Evans, 2018). As with other areas of society, higher education is yet another 'business' seen to be made profitable, efficient and part of the market-based systems of other industries. Institutions make extensive promises to non-traditional students, particularly through commitments to equality, diversity, and inclusion (EDI) and Access and Participation Plans in England. (Donnelly and Gamsu, 2018; The Sutton Trust, 2021; Wilkens et al., 2021) However, there's a clear gap between the promise of upward mobility through valuable degrees and the harsh reality of heavy student debt.

Additionally, the role of digital education and its social implications often get ignored in these discussions.

The pandemic has accelerated the adoption of digital tools in higher education, forcing both staff and students to adapt to new modes of communication and learning. (Himani Sharma, 2022; Universities UK, 2021; Williamson et al., 2020) This shift has led to increased demands for recorded lectures and a rise in the influence of professional services managers over academic staff. However, the implementation of digital tools and student accommodations sometimes occur without full consideration of their impact on teaching practices or educational outcomes. This disconnect between administrative decisions and pedagogical needs highlights the complex challenges facing higher education institutions as they navigate the expectations of students as consumers, regulatory pressures, and the evolving landscape of digital education (Komljenovic et al., 2018).

These themes are reflected throughout the following debates and help to frame the context of the policies and regulations for UK higher education.

3.4 The Reality versus Potential

The massification of higher education has changed the nature and perspectives of those involved in setting its agenda (Hall, 2018; Holmwood, 2012). In the interests of efficiencies and effectiveness, the use of digital education has become more about the instrumental and pragmatic use of technology without any real acknowledgement of the social consequences, or any critical view of its use (Cottom, 2019; Hall, 2018; Johnston et al., 2018; Selwyn and Facer, 2013). Academics have been pushed aside as managers and administrators have increased in their power and decision making, in what MacFarlane called 'The Rise of Para-Academic and the disaggregation of academic practice' (MacFarlane, 2011). Although not all framed in relation to digital aspects of education there is a wealth of literature referring to these new structures as administrators rise in their power over marginalised academic staff in making decisions about teaching spaces, software and hardware and gathering feedback about academic

and student performance (Holmwood, 2012; Johnston et al., 2018; Perry, 2021; Vernon, 2018). Macfarlane has centred roles of e-Learning Coordinator and Learning Technologist against Teaching aspects of academic practice (Fig 1).

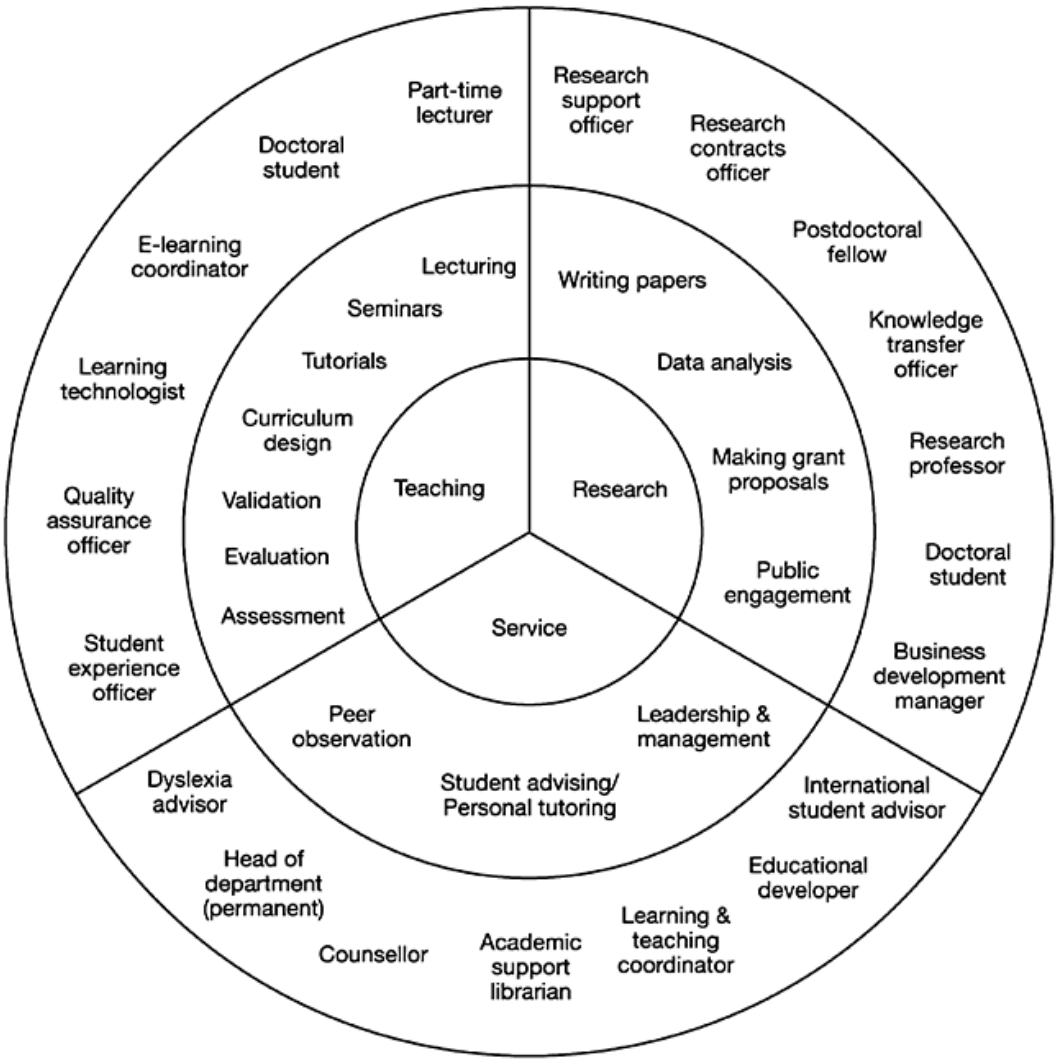

Figure 3.1 The disaggregation of academic practice (MacFarlane, 2011 p61).

The rise of those in between academic and administrative roles, like educational developers, learning technologists, including whole teams of digital education staff are called the 'Third Space Professionals' (Livingston and Ling, 2022; Whitchurch, 2009, 2006). Where the traditional view of academia was of Academic Staff and Administrative support staff, the lines between these categories have blurred to include staff who are carrying out pedagogically related activities supporting education more than they are administrating. These staff are usually based in administrative roles but are more likely

to be involved in educational applications such as those leading digital education teams. The job titles in digital education have changed over time to reflect this, the Universities and Colleges Information Systems Association (UCISA) run surveys on an annual basis, along with the Association for Learning Technology (ALT) which includes job titles and responsibilities (Deepwell, 2022; UCISA, 2019), moving away from terms like e-Learning and Technology Enhanced Learning towards Digital Education and using terminology like Leader, Consultant and Professional. However, these positions are contextual and depending on their position and the type of institution they can be very different roles. The values of the institution in terms of their commitments to digital education depends on their perspective of its use and as institutions increase in size and complexity, managing this can be increasingly difficult (Whitchurch et al., 2019).

The use of digital technology for learning and teaching is also seen as a way to attract students, especially in times of competition between institutions and is also seen as an expectation that institutions have invested in technologies (and the support around it) (JISC, 2023). This has been pitched as a demonstration of enhanced quality of education through these technologies and fits in the narrative of neoliberalism to pander to media and consumers through messaging rather than facts (Johnston et al., 2018; Munro, 2018; Vernon, 2018). Selwyn noted that through the decades, roles like Learning Technologists were seen to be the people who would be making the improvements in education, especially when it was called technology 'enhanced' learning or computer 'assisted' learning, indicating improved effectiveness and efficiencies for the university, regardless of the people who are using it (Selwyn, 2017, p. 111).

This could be why so many institutions are attracted to the concept of 'Blended Learning' indicating the use of digital education tools for both in class and out of class activities to support learning for students. It has repeatedly been cited as transforming education and aligns with themes of personalised learning, efficiency and effectiveness, but there is very little evidence in the literature of actual improvements in either of these areas (Krutka et al., 2022; Selwyn, 2012; Smith and Jeffery, 2013; Toyama, 2015). Whilst it is clearly more flexible to be able to access content and resources remotely, there is a level of complexity about how these manifests into improvements or enhancements which is

context specific with very little within the literature that mentioning this. For example, the UNESCO, funded book 'Blended Learning for Quality Higher Education' (Lim *et al.*, 2016) provides a framework for implementation as well as a series of case studies within different institutions across the Asia and Pacific continents, designed to meet the needs of institutional leaders to restructure their learning environments, it provides little in the way of the reality of institutional or faculty experiences. Whilst the framework comprehensively details all angles of the requirements for the ideal environment, it neglects to consider the challenges and unintended consequences of the technology in old classrooms, or from staff or students who may not have the level of digital access required to be successful in that kind of environment. Not to say that it is not possible to resolve but throughout the book the assumption is that technology is an instrumental part of the picture, which is more aligned to the previously mentioned technological deterministic view that seems to be prevalent across higher education in the UK. Similar publications exist offering solutions to institutional problems through educational technology (Baldwin and Feldman, 2021; Davies et al., 2017; Miller, 2015; Vicentini et al., 2022). Feenberg mentioned technology being referred to in this way as a tool that carries on regardless much like the laws of nature, it is the same for everyone. Or as he said, "independent of human will as the movements of the heavenly bodies" (Feenberg and Feenberg, 2002, p. 11).

3.5 EdTech Hype

In particular, the use of value-laden 'EdTech speak' (Selwyn, 2016, p. 438) is awash across their publications and media so any connections that could be made across departments and divisions in non-digital specific fields are made more difficult through a lack of understanding, (Gibbs, 2021, p. 44) requiring the need for the 'third space' Digital Education roles, (referred to above), to translate. This is nothing new, and what Bigum and Kenway referred to in their 2005 paper as "Booster Discourse" illustrated through their "unswerving faith in technology's capacity to improve education and most other things in society"(Bigum and Nway, 2005, p. 98). This also links to what critics of educational technology have claimed for the last twenty or so years, of what is to *come*, but not what is *now* (Cottom, 2019; Feenberg, 2017; Goodfellow and Lea, 2007; Graeber,

2015; Postman, 1993; Selwyn, 2010; Williamson and Komljenovic, 2023) and that it has some kind of “mythic” quality (Postman, 1998, p. 5). EdTech hyperbolic language is used to sell the idea of personalised learning and efficiencies using data as the means by which to make changes for students to achieve student success.

For digital education, JISC has been one of the most influential associations that has been part of the digital landscape in higher education since 1993. Initially called the Joint Information Systems Committee (JISC), they were government funded "to provide world-class leadership in the innovative use of information and communications technology (ICT) to support education, research and institutional effectiveness" (Wilson, 2011, p. A6). They also acted as an advisory committee to both higher education and further education in the UK for digital education and libraries (Read, 2012). They were part funded by HEFCE and subsequently became an independent association, funded through a subscription model. They work with other associations across the UK, including Universities and Colleges Information Systems Association (UCISA), the Association for Learning Technology (ALT), Heads of eLearning Forum (HELF) as well as Further Education Colleges and associations. Due to their influence, albeit less impartially than through indirect funding, they are still highly influential as they offer support for negotiations between commercial platforms and institutions. Since their status has changed to become more commercial (i.e. no longer in receipt of Government funding) they have partnered with commercial organisations and their focus is more aligned with economic rather than social responsibilities such as for the common good of education.

Despite their stronger commercial focus, JISC is still a useful source of support, ‘sense-making’ and advice for many institutional teams offering solutions to digital leadership, student partnership and digital skills through their products, although these are now available for additional fees (Ryttberg and Geschwind, 2019).

3.6 The Influence of Selwyn (and Other Critical Sociologists)

What the policies and policy makers have assumed is that the technology introduced into higher education or technology that has been in place for years, like VLE's and Turnitin are effective and serving a need. However, as the literature has demonstrated, much of what has been written speaks to the 'potential' of technology rather than the reality of its use (Bayne et al., 2020; Castañeda and Williamson, 2021; Cottom, 2019; Goodfellow and Lea, 2007; Krutka et al., 2019; Macgilchrist, 2021; Oliver, 2011; Selwyn, 2021, 2017, 2016, 2012, 2010; Turvey and Pachler, 2016). This has been suggested by Selwyn that it needs to be considered as "state of the actual as opposed to state of the art" (Selwyn, 2017, p. 120). He has commented that the idea of the efficiency and effectiveness of technology in education and therefore justification of its use is not new.

Neil Postman, a Cultural Media Critic, gave a speech in 1998 at UCLA where he asked his audience to consider five crucial questions for technology (Postman, 1998). In this case he was referring to the introduction of the television, but is relevant today for digital technology, which he said changed not just the nature of communication but the culture too. He called technology a Faustian bargain "technology giveth and technology taketh away" and he suggested five questions to accompany any decisions over the introduction of any new technology, which despite being an indirect reference to educational technology (Postman died in 2003) they have been adopted in critical evaluations of technology by Selwyn and others (Apple, 2012; Feenberg, 2017; Feenberg and Feenberg, 2002; Selwyn and Facer, 2014), most recently by the Civics of Technology who reference Postman's Five questions in their curriculum resources for the use of educational technology (Civics of Technology, 2022).

These five questions have stood the test of time and have been adapted to suit the current climate and he urges those involved in implementing educational technology to consider its purpose, such as: What is the problem that this technology will solve? who benefits, who is harmed as well as any unintended consequences. This has factored into contemporary debates over the impact of social media, as well as Generative AI (Centre for Humane Technology, 2022; Postman, 1998; Selwyn, 2017, 2010). This critical

approach is particularly useful at the current time when so much emphasis is placed on economic benefits and the deterministic stance that many platform providers claim about their products which they state are solving the problems of higher education (Holmes, 2023; Ideland et al., 2021). It is a useful framework to apply and cut through the core of the messaging from EdTech providers to consider questions relating to the unintended consequences of the systems to 'empower' students or 'leverage the capability' of systems etc, and it can help those who are not in IT or Digital Education focussed roles to consider more critically, the impact of the EdTech they may expect students to be using.

Selwyn has written extensively on critical approaches to the use of "technology in educational settings"(Selwyn, 2010, p. 66) and provides a grounded view of the reality of its use. He argues that instead of looking at "what works or what could work" we should consider the context and then ask what is working and how well (or not) and by doing that we can gain a rich account of its situated use (Selwyn, 2017). The current direction of the OfS, although not specifically about digital education, states "the OfS may promote innovation in particular areas or encourage the dissemination of information about *what works* best to enhance particular outcomes." (my emphasis)(The Office for Students, 2022a, p. 25).The use of this language implies an uncritical and instrumental approach to technology as a solution to what is almost certainly a more nuanced issue. Something that Rudd called "Ideological Appropriation" (2013, p. 147) which in itself may not be problematic, except in the context of terminology like digital transformation, which Rudd sees as a way of distracting institutions from "structural and organisational issues" (Rudd, 2013).

3.7 Alternative Views of Selwyn's Approach

At the 2018 Learning Analytics Knowledge conference (SoLAR, 2018). Keynote Speaker Selwyn advocated for alternative data use perspectives, which Prinsloo criticised for lacking sensitivity. However, despite comparing Selwyn's approach to a 'Carnival Clown and a trickster,' Prinsloo acknowledged from a Critical Data Studies viewpoint, that the

presentation's challenging title, 'What's wrong with Learning Analytics?', likely resonated with the audience's need for critical reflection on Learning Analytics (Prinsloo, 2019). Selwyn recently took part in a debate via the EdSurge Podcast where he was matched with an entrepreneur and investor in EdTech. Despite their differences and perspectives, they agreed on many occasions, to which they were both surprised. Specifically in the evaluation of the products for which both agreed was an essential part of the development and use of EdTech (EdSurge, 2022). Selwyn has also criticised himself, citing his anger and haste in some of the articles he has published in particular his paper on sensational claims made by EdTech companies (Selwyn, 2016, 2011).

What these excerpts show is that even amongst advocates for the considered use of digital education tools in higher education, there are grey areas that highlight the difficulty in ensuring that all sections of the higher education community are considered when making decisions about the 'right' technology in educational settings. It shows that with reflection and over time, the contexts may change and what is appropriate or relevant at one time may not mean that it will always be the case.

3.8 Neutral Tools and the Politics of EdTech

> *Anyone who has studied the history of technology knows that technological change is always a Faustian bargain: Technology giveth and technology taketh away, and not always in equal measure. A new technology sometimes creates more than it destroys. Sometimes, it destroys more than it creates. But it is never one-sided. ~ Neil Postman, 1992*

There is an overriding view across policy makers and in many institutions in terms of their view of the implementation of educational technology as neutral, as an example, indicated in the recommendation for innovation funding through Innovate UK, for 'Emerging and Enabling Technologies' (Department for Innovation, Business and Skills, 2016, p. 78); in Success as a Knowledge Economy (2019) the introduction of EdTech is seen as a means to resolve institutional issues (an illustration of the aforementioned 'Ideological Appropriation', p 43), with advice to "embed technology in a way that cuts

workload, fosters efficiencies, removes barriers to education and ultimately drives improvements in educational outcomes" (Department for Education, 2019, p. 5) or that student experience and success will be improved, in a UK university digital strategy: "Provide our taught students and postgraduate researchers with a high-quality student experience through effective use of digital technologies, data and digital approaches, and to encourage student success" (University of Leeds, 2021).

Numerous accounts have been produced to counter the neutrality view to bring to attention the social-technical considerations that come into play which determine if the product or tool is enabling or effective (An and Oliver, 2021; Oliver, 2013; Selwyn, 2023a; Winner, 1980). The process of analysis or evaluation must include the people who are using it and those responsible for supporting technology cut through the hyperbolic expectations of the 'potential' of the tools and acknowledge that with the introduction of the technology into the learning and teaching culture it changes the dynamics of environment (Postman, 1998). The use of digital education to wield power in the interests of monitoring and surveillance, not just of students but also staff could alter how a class can be taught (Kerssens and van Dijk, 2022). The debates about EdTech and its use link to Critical Studies of education which can be about the claims and also about the effect of its use in magnifying inequalities (Macgilchrist, 2021). In his 2007 paper on the Social Construction of Technology (SCoT), Selwyn highlights how in many cases a skills deficit is blamed (on the user) rather than the technology when it fails to live up to the hype (Selwyn, 2007). Applying SCoT brings in the diverse experiences and knowledge of the users and not view technology as immune to these differences (Cottom, 2019; Feenberg, 2017; Fuchs, 2019; Watters, 2015; Xiao, 2023).

The idea of technology to improve education has been heavily invested in (Department for Education, 2019). In the UK, higher education institutions all have a digital education team in one form or another (Department of Education, 2023; Krutka et al., 2022; Pashkov and Pashkova, 2022). This commitment to digital education appears to be based on the reductive idea that by virtue of having the technology available, education is bound to be improved or enhanced. In the Framework of Quality Assurance of TEL (Volungeviciene et al., 2014) the use of TEL is referred to as a concept, replacing the

words e-learning, blended learning and online learning and in Fawns (2019) he refers to the post digital, questioning whether or not TEL is appropriate and whether or not Digital Education is a better term as it calls for attention on the delivery as well as the form (Fawns, 2019). As far as the framework is concerned it is a way to frame the use of technology, again as 'just' tools. In their model of the successful implementation of TEL the measurable impacts are dependent on cooperation and skill of staff as well as support reflecting on the idea of neutral technology, the success of which is based on upskilling staff, and as previously noted by Selwyn (2007), are typically being blamed if the chosen technology does not produce the identified return on investment (Selwyn, 2007; Volungeviciene et al., 2014). Bayne also commented on the 'loaded term' of Technology Enhanced Learning and the lack of clarity over what technology was enhancing and which learning (Bayne, 2015).

3.9 The Pandemic Impact

During the Pandemic and the "pivot" to online (Bligh et al., 2022) there was an increased awareness of the digital divide within the student body across the sector. Unsurprisingly, in the UK, students who had entered into higher education via non-traditional routes, for example through Access Agreements, were unable to use their institutional resources were enormously disadvantaged, despite the best efforts of many institutions. There are clear links between the literature around non-traditional students and the impact of disadvantage with online aspects of higher education (Butcher and Curry, 2022; Clarida et al., 2015; Cotter and Reisdorf, 2020; Helsper, 2012; JISC, 2021b; Kuhn et al., 2023; Merisalo and Makkonen, 2022; Office for Students, 2020; Safford and Stinton, 2016; Selwyn, 2004). With a focus on policy makers in Europe and Asia, the ARC8 Outlook Report focussed on Inclusive and Diverse Higher Education (2021) as a result of the pandemic and included a Spotlight on the Social Dimension of Digital Learning and included a section on the inequality of opportunity for students and warning of the Matthew Effect "of the already privileged benefitting more" (Balkovic et al., 2021, p. 23). It is important to bring together literature from the field of digital education which includes the concept of equality of access online, or the 'digital divide'. Despite calls from outside of the UK to consider social aspects of digital exclusion, the current

literature regarding these students in the UK has received little attention of the human issues of social inclusion that can occur as a result of digitalisation. At best, it touches on the affordances of online aspect of the student experience (Thomas, 2020) generally noting that technology can benefit through adding flexibility to access resources regardless of their location, and in some instances the claim that 'everyone' has access to technology, whether it be a mobile device or laptop which leads to a more diversified access to learning (Finn and Holton, 2019). Whilst this is true, there seems to be a very limited acknowledgement of the role that technology plays in education settings for these students, despite the UK's commitments to the European Higher Education Area, (the Bologna Process) "reinforcing social inclusion and enhancing quality education, using fully the new opportunities provided by digitalisation" (cited in Balkovic *et al.*, 2021, p. 41). It does not seem to have been translated from policy aspiration to into practice. This omission and almost dismissive perception of the complexities for non-traditional students in their use of technology, had been magnified by the COVID19 pandemic (Abu Talib et al., 2021; Barber, 2021). Without acknowledging the social and political role that technology plays concludes that students without the means or resources to improve their digital access are then further disadvantaged by institutions who provide for digital *accessibility* but not *access*.

During the pandemic the Digital Teaching Review (Barber, 2021) provided the Office for Students a definition of digital access (see Table 3.2).

Element	Criteria
Appropriate hardware	Students have the hardware that allows them to effectively access all course content. Hardware is of the specification required to ensure that the student is not disadvantaged in relation to their peers
Appropriate software	Students have the software they need to effectively access all aspects of course content
Robust technical infrastructure	Technical infrastructure and systems work seamlessly and are repaired promptly when needed
Reliable access to the internet	Reliability and bandwidth of the internet are at a sufficient level for ensuring that a student is not disadvantaged in relation to their peers
A trained teacher or instructor	Students have a trained teacher or instructor who is equipped to deliver high-quality digital teaching and learning
An appropriate study space	Students have consistent access to a quiet space that is appropriate for studying

Table 3.1 Digital Access defined in The Digital Teaching Review (Gravity Assist report) (2021) p11

This definition reflected the instrumental view of the one-dimensional access through hardware and software, this is in contrast to earlier research around the digital divide and digital poverty which provides a more nuanced view of the factors that impact access. According to van Deursen, Helsper and others, digital access is the first level, followed by use and outcomes (Helsper, 2012; Safford and Stinton, 2016; Selwyn et al., 2001; van Deursen and Helsper, 2015). This was the first time that term Digital Access was used by the Office for Students in relation to what had previously been identified as 'digital poverty' by commentators during the pandemic who had raised the issue of the digital divide (JISC, 2021a; OfS, 2020). The report was influential in that it had surveyed over 2,000 students on their access to the resources they needed to sustain their education over the pandemic and crucially it asked students about their expectations after the

pandemic for their return on campus. Whilst clearly the students wanted to return to an in-person experience there were elements of flexibility that students wanted to remain on their return including recordings of lectures and access to more online resources (Barber, 2021).

After the lockdown restrictions were lifted, the UK Government was concerned about the level of online teaching activity that remained even though the Covid restrictions were removed: "Universities minister, Michelle Donelan, called publicly for a return to face-to-face teaching on many occasions, stating that "it is what students want" (Emerge Education and JISC, 2022, p. 10). As a consequence of some push back from HEPs against the resulting dismantling of blended online learning, which had had some noticeable benefits for non-traditional students, the Blended Learning Review was commissioned, led by Professor Susan Orr (Orr et al., 2022) to focus on the level and quality of blended learning, which was defined as "'teaching and learning that combines in-person delivery and delivery in a digital environment" (Orr et al., 2022, p. 8). The report included the reference to the definition of digital access which was integrated into the revised 'B Conditions'. These are the expectations that the OfS has for providers in maintaining the teaching quality of their programmes. There were twelve recommendations from the Blended Learning Review, which had sought consultation from staff and students through on campus interviews with various teams involved in digital education and students' unions.

The recommendations covered most of the digital access definitions requirements, such as appropriate spaces for study, teaching staff's digital skills and support, as well as coherent approaches to the use of online elements within the structure of the programmes. It also called for relevance in the use of educational technology in programme design, in what reads like a bid to assuage concerns over fears of the use of digital education as a means to cut costs and therefore quality. These were concerns raised in the popular press and across social media as students returned to campus (Harding, 2022).

3.10 Digital Inclusion and Accessibility/Widening Participation.

The Accessibility Regulations were introduced in 2018 and apply to all public sector bodies. The regulations require that all information online should be accessible to everyone and requires for all content online to be clear without any need for adaptation by the user (Central Digital Data Office, 2018). For example, captions for video content and ensuring that web-based content is accessible via screen readers. It also includes ensuring that hardware is available for anyone who needs it. There are some options for exclusion, especially if adaptations are not reasonable, or a 'disproportionate burden' (Central Digital Data Office, 2018), but on the whole, the requirement for ensuring digitally accessible content is well known across the sector with those involved in digital education activities. This is important because the consequences for not following the regulations is a breach of the Equality Act 2010 and the Disability Discrimination Act 1995 which could result in court action (Central Digital Data Office, 2018).

3.11 Data

In many cases, providers are engaged in using a variety of technology for the student experience and so generate a lot of data. Whilst these systems have been in place for many years, as more systems are introduced or accessed by students more data is generated and has become a sensitive issue, not least because of the unintended consequences that may occur. Bias, profiling, surveillance, and monitoring are all factors where abstract data is used as a way of measuring the behaviour of staff and students (Heath, 2021; Kumar et al., 2019; Micheli et al., 2018; Pashkov and Pashkova, 2022; Selwyn, 2019; Thompson and Prinsloo, 2023). Issues over consent and ethics have been raised repeatedly in terms of informed consent and the need to gather data at all from systems in the name of user behaviour, especially as this could be seen as surveillance capitalism (defined as Educational Technology platform providers scraping data from their systems and selling back to the users). What had been seen to be more ethical was data gathered and framed as learning analytics (Heath, 2021) although Willis et al (cited in Heath, 2021) suggested that institutions adopt their ethical framework for

data collection, as during the pandemic institutions who moved over to more online tools were collecting data with a lack of transparency over the 'what' and the 'why' (Heath, 2021, p. 333; Williamson et al., 2020, p. 113).

JISC have played a key role in identifying trends in use of learning analytics, explored through their Data Explorer project (2016) in which they piloted and developed a series of tools to analyse and capture data. For example, their 2017 report they cite the Heads of eLearning Forum (HeLF) survey in which Digital Leaders at UK HEPs indicated that the main source of analytics tools were JISC developed. The main challenges included trying to get staff on side to allow them to pursue their goals of data collection, despite academic staff not seeing the benefits and trying to persuade their ethics teams to allow them to do it (Sclater, 2017). This indicates a lack of connection between the proposed use and those involved in academic work who are working with the students every day (McGarr and Engen, 2022).

3.12 Widening Participation and the Impact on Digital Education

One of the key themes across the literature on educational technology has been the lack of connection between the context of use for students and even staff, with educational technology. Claims of efficiency and effectiveness as drivers for its implementation are made in abundance as new technologies surface (Holmes, 2023; Selwyn, 2016). In his review of EdTech over the last twenty years, Weller highlights the peaks and subsequent troughs but also references the lack of reflection or even recording of what had been and how anything is different this time. As he states in the introduction of the Massive Open Online Courses (MOOCs) rush of 2012 "so many 'new' discoveries about online learning were reported - discoveries that were already tired concepts in the EdTech field" (Weller, 2018, p. 25) and others have noted that for over forty years, the 'idea' of EdTech sells more than it provides (Hayes and Jandrić, 2014; Jackson, 2019; Kerssens and van Dijk, 2022; Matthews, 2020; Post, 2020; Postman, 1998; Selwyn, 1997; Selwyn et al., 2020; Turvey and Pachler, 2016; Weller, 2018). Despite this long history of counter claims against technology transformation and revolution, it is still easy to find publications from

academics claiming that technology has revolutionised education, even claiming that technology 'saved' education during the pandemic, for example 'Understanding the role of digital technologies in education: A review' (Haleem et al., 2022). This paper proposes an understanding of the role of technology in education and as such has an extended review of selected research around the use of technology citing thirty-four examples of the value of education technology in the classroom and university settings. Notwithstanding the increased flexibility of using the internet to access resources (again, contextual dependent use makes all the difference) most of what is suggested as beneficial and 'transformative' is again, reflected in the aforementioned view of technological determinism, and includes a series of statements that 'propose' the success of teaching within the classroom, rather than 'actual' evidence. Misinterpretations of evidence are included here they have used examples of pandemic approaches which highlighted the need for social factors to be considered as successes. Their main conclusions are that the barriers to success are lack of technical knowhow, lack of resources for poorer children and that staff 'need' to adjust but there are no solutions to any disadvantages of the students. This is an example of a blinkered perspective and is full of examples of effectiveness and efficiencies (once the staff are trained and the poor are catered for) and disappointingly reflects an over optimistic interpretation of the evidence for EdTech, this lack of criticality is disappointing, considering calls eleven years earlier for a more 'pessimistic' evaluation of EdTech, it seems little has changed (Selwyn, 2011, p. 213).

When technology in education is portrayed as independent of any effects on power or politics (Winner, 1980) and is viewed through the lens of efficiency and effectiveness it does go some way to explain the lack of acknowledgement or responsibility across departments to consider EdTech as having any kind of social impact. Often the people who are responsible for the technology are not those who have an extensive knowledge of teaching and vice versa but they will be aware of the perceived inevitability of digital technology for educational success. For example, prior to and during the pandemic, the Connected Curriculum, bringing research into teaching was adopted in many institutions nationally and across the globe and included over 48 references to digital education and skills (Fung, 2017). However, the connection between access and use of technology is

not understood or embedded in where the students are, and where the students have the most engagement (Cottom, 2019). This could explain why there is a disconnect between the use of technology and concerns over equitable and effective access. The politics of technology and access has been discussed and explored for over 20 years (Brown and Duguid, 1996; DiMaggio et al., 2001; Selwyn, 2004; Watters, 2021) (Brown and Duguid, 1996; DiMaggio et al., 2001; Selwyn, 2004; Watters, 2021)-but it is only recently that the impact of technology in education has really become a broader issue as the pandemic highlighted the benefits as well as the weaknesses (Bligh et al., 2022; Bothwell, 2020; Devlin and Samarawickrema, 2022; Harding, 2022; Laufer et al., 2021; Universities UK, 2021).

Unfortunately, the terminology used by the Regulator could confuse those involved in supporting the use of technology for students and staff as well as those supporting widening participation. The use of 'digital access' as a new reference to digital poverty (which was the term used just prior to the Gravity Assist report in 2021, cited earlier), is very close to 'digital accessibility which is a familiar term to those in digital education teams who are aware of the legal requirement to ensure all online information should be accessible under the Equality Act 2010 for disabled users. As important as this is, it does not cover the equally important digital access required for students from disadvantaged backgrounds which is essentially a widening participation team concern. The lack of consideration between these teams, both experts in their fields and the lack of research covering both digital inclusion and student dispensations is stark. Even more stark is the lack of perspectives of both groups, staff involved in implementing and supporting education technologies and, staff involved in engaging with students (academic and support). This highlights the changes in responsibility for academic staff and what Macfarlane called the rise of the 'Para-academic'(MacFarlane, 2011).

Digital inclusion and poverty are considered, but only in as much as first level access, which as previously discussed is only the beginning (Butcher and Curry, 2022; Helsper, 2012; Selwyn et al., 2001). The social context is more than having a laptop or device but also involves issues of race, assumptions about abilities and confidence levels (Johnson, 2022; Rana et al., 2022; Sydorenko et al., 2021; Yee and Timmis, 2013) Cultural contexts

are not always present in the digital education literature and vice versa. How staff perceive their roles could be vital in ensuring issues around access and participation and although there were calls from various parts of the sector during the pandemic to ensure students who are disadvantaged through their lack of access are catered for on their return to campus after the pandemic (UPP Foundation and Student Futures Commission, 2021) there has been very little acknowledgement from institutions at any scale.

3.13 Summary

This chapter was a review of the debates in the literature that surround digital education and are of concern for institutions, especially for members of staff who are responsible for the implementation of educational technology as well as staff who are the end users. It also considered the impact for non-traditional students and reminded us of the importance of reflection and critical thinking in our practice to ensure that any use of technology should be based on a need, within context and that we should recognise that it impacts on our behaviour. It also recognised the impact that the pandemic had on the perception of use of educational technology and how that has raised awareness of the digital divide.

Chapter 4: Research Design

4.1 Introduction

This chapter provides detailed information about the qualitative approach that was taken and includes the framework that was applied in order to carry it out. The methodology is discussed along with details on who the participants were, how they were recruited and ethical considerations. It goes on to explain the context of the participants, how they were selected and the format of the interviews, including an additional appendix where the interview guide is provided. It presents a description of the methods used to gather and abstract data as well as a summary of position of my point of view as the researcher and finishes with a summary of critical theory.

4.2 Research Questions

Policy level:
RQ 1: In what ways do digital experts understand the requirements of widening participation in the context of digital education?

Institutional responsibility:
RQ 2: How do they describe their role in the university in relation to digital practice?

Local decisions:
RQ3: In what ways, if at all, does widening participation/digital policy inform their practice and decision making?

4.3 Design of the Study

This is a qualitative study using semi-structured interviews as part of a social constructivist, interpretative approach through the lens of critical theory (Kirkpatrick, 2013). The aim of using this framework is to capture the reality of digital education approaches from a range of digital decision makers, both in formal and informal decision-making roles. In particular, how these decisions relate to non-traditional

students, reflecting the reality of their contribution to the "messiness of digital education" (Selwyn, 2013, p. 198) and to bring to the surface the 'state of the actual' from the state of the art (Selwyn, 2010, p. 70).

The process of analysis was based on Reflexive Thematic Analysis (TA). The process of reflexivity in TA acknowledges that knowledge is context-dependent and inevitably influenced by the processes and practices of knowledge generation, including my own involvement (Braun and Clarke, 2022). For this reason, I have included a section entitled Researcher Subjectivity and Assumptions (section 4.8). The use of Thematic Analysis and my approach is described in the section entitled Data Analysis (section 4.7).

However, it is not a-theoretical, hence my reference to using a critical theoretical lens as a framework for interpretation. My rationale for this approach is to allow for adaptability and flexibility considering the variations of perspectives from the participants. This way my interpretations of the perspectives of the participants can be presented as their stories, which is captured in detail in the next chapter, Participants Stories.

4.3.1 Sample Selection

This was a purposeful sample selection. Purposeful selection is where the participants are selected based on a set of criteria. The criteria for selection were leaders of digital education or influencers of decisions with at least one year's experience involved in decisions about the use of technology in educational settings in UK Higher Education. This included those in formal and informal roles such as academic staff, heads of digital education, those in leadership roles and higher education consultants.

4.3.2 Ethical Approval

Ethical Approval was granted by the ethics committee for Educational Research at Lancaster University in accordance with the requirements of the research I was undertaking. All participants were informed that they could retract their interviews and

they were provided with information about the project as well as the requirements of participation. Once this was confirmed the recruitment process begun.

All of the participants been given pseudonyms to preserve anonymity. I considered anonymising names by using a participant number, but I wanted the document to be read with the participants in mind and I wanted the names to reflect the origins and backgrounds of those who contributed to the study, while maintaining their privacy. As suggested in Heaton (2022), I changed the names according to age group, gender and ethnicity to maintain the character of the participants whilst maintaining their anonymity (Heaton, 2022).

In addition to further ensure anonymity, the location of the institution, type of institution, were not identified. All quotes from participants have been reduced as much as possible and summaries of their comments were made in place of their actual quotes if appropriate.

All edits to maintain the anonymity of comments are shown in brackets "[ ]" and replace references to identified institutions, roles or other identifying remarks. e.g. replacements for a named institution have been changed by "[this university]" or "[my university]" (Heaton, 2022).

4.3.3 Recruitment

I used my own networks to present a call for participation. Social media was used (Twitter and LinkedIn) to attract participants and the links to the Participation Information Sheet and the Consent Form were hosted on my personal blog. There were 30 responses, 26 provided consent and 25 were interviewed. Four of which responded to indicate their interest but did not provide their consent and so were excluded from participation. One other provided their consent but did not respond to confirm their appointment and so were not pursued.

4.4 Participants

There was a broad range of participants involved in the study. There was an even number of those who identified as Male or Female. 24 of the 25 were White and there was a range of levels of Digital Education experience. Not all of those who were at the Executive Leadership level were equally experienced in digital education, but they were all very experienced in higher education leadership roles, with 21 out of 25 having been involved in education in higher education for 10 years or more.

This diverse group has been organised into areas according to the main focus of their career pathway. These were: IT, Digital Education, Academic and Professional Services (staff development related). Table 4.2 outlines who were in which group. Some of the participants did cross into some of the other pathways but they are sorted by their dominant career pathway, which may or may not be where they are based in their institutions or the focus of their roles. This grouping helped to identify their perspectives of the purpose of digital education tools.

In addition to the above categorisation of the participants, it was also useful to view the participants against their level of social connection across their institution. This allowed for how much they knew about their specific institutional environment and helped to explain how they gathered information about the needs or use of digital education in their contexts. Determining these levels was based on a combination of factors, mainly their descriptions of their roles and their knowledge of their institutional departments and how these relate to their own departments or roles. Although not an absolute measure, it was a helpful way of understanding the participants perspectives and was aligned to the concept of Social Capital (Granovetter, 1973). This is shown in Table 4.1 below:

Table Level	Participants	Total
Strong social connection	Will, Sean, Eva, Pamela, Jacob, Wyatt, Michelle, and Suzan	8
Moderate social connection	Ella, Liam, Vince, Josh, Travis, Monika, Jacob, and Olivia	8
Weak social connection	Geoff, Maggie, Louis, Charles, Brian, Sophie, Amanda, Evette and Miles	9

Table 4.1 Participants grouped by their levels of social connection determined during the interviews.

The term ‘digital education’ has been used to refer to the use of “technology in educational settings" (Castañeda and Selwyn, 2018; Selwyn, 2021). I am using this as an umbrella term to allow for the variety of staff who are involved in Professional Services teams where the names of these services were varied covering terms like Head of Learning Technologies and Head of Technology Enhanced Learning, as well as for those in academic and commercial roles who are all involved in aspects of its use.

Not all of these roles were specifically making decisions for their institutions, but they were involved in directing and leading digital use and in some cases the implementation of different kinds of digital education. Not all were working as paid employees of a university with some commissioned through their services via consultancies or working as part of a consortium bringing digital education groups together over common themes (such as VLE’s, lecture capture etc).

The frame of reference for these groups were as follows:

Name	Participants	Total
IT Perspectives	Amanda, Ella, Jacob, Sophie, Will, Maggie, Josh, Brian	8
Digital Education	Nick, Louis, Vince, Liam, Pamela, Olivia, Evette, Eva, Michelle and Sean	10
Academic	Suzan, Geoff, Travis, Wyatt and Monika	5
Prof Services	Charles, Miles	2

Table 4.2 Participants Grouped by Career Pathway.

To review how these groups were situated in their institutions, each participant was placed into categories according to how involved they were in their institutional communities. This was not because of their positional responsibility but through their experiences and knowledge of their institution's needs. Further details on how they were sorted into categories has been provided in 4.4.1 'Additional Contextual Information and they have been divided as follows:

Level of Social Connection	Participants	Total
High	Will, Sean, Eva, Pamela, Jacob, Michelle and Suzan	7
Medium	Ella, Liam, Travis, Monika, Vince, Wyatt and Olivia	8
Low	Brian, Miles, Evette, Sophie, Amanda, Louis, Charles, Maggie, Geoff, Josh	10

Table 4.3 Participants and Levels of Social Connection

4.4.1 Additional contextual information

To identify the specific context of each participant I created a table to place them in their Frame of Reference group, the types of institutions and size, years of experience and years in their institutions (Table 4.5). This provides an anonymised overview of the context within which they are situated as I felt this gave context and informed the rationale behind their decisions. I also determined their seniority of leadership according to their roles and power within those roles as well a cross check with published profiles such as LinkedIn, Academia.Edu or their institutional pages. In some cases, they had contributed to external blog sites about their roles, or they had been involved with national organisations, like ALT, JISC and UCISA. I identified their experiences as Executives, at the highest level to Junior Leaders at the lower end. These were determined by their years of experience (via LinkedIn or University profile pages). The levels of experience are shown in the Table 4.5 below. I thought it was important to note their years in higher education as well as their length of service in their current institutions which I considered when they referenced their social connections across their institutions. The decision to indicate the quality of their social connections (High, Medium or Low), was also informed from the discussions during the interviews. Indications of this were made through their sharing of how well they were aware of initiatives and responsibilities of different teams or departments across the institution and how they referred to them and could cite examples of activities, such as mentioning strategies outside of their own departments or in the case of academic staff, their awareness of process and accommodations for widening participation and support.

Furthermore, to gain more contextual information about each participant I reviewed digital and learning and teaching strategies for each institution, along with their Access and Participation Plans or where these were not in place, e.g. non-English institutions, I reviewed their respective Widening Participation strategies.

To gain an insight into the culture of the institutions or organisations I reviewed background information on the types of affiliations that they had within the sector. This included groups like The Russell Group, Post-1992, Red Brick etc. I also noted

institutional ranking according to the QS Ranking website but this was only used as a guide to where they may be perceived to be in terms of their reputation, as I was aware of the limitations of gauging quality from so called league tables (Ashwin, 2020). The final step I made was to review, where applicable the Complete University Guide (The Complete University Guide, 2023), an informational website targeted at students to help them make an informed choice of university, covering everything from their historical perspective, rankings in the TEF, locations, size, support etc. This was useful to consider how institutions market themselves and gives an insight into values and culture.

4.5 Key to Contextual Table

The context for each participant has been determined based on the information I was able to glean from the interviews as well as external websites and digital profiles. The table is comprised of the headings which create a picture of levels of experience, types of institutions and years of experience in the sector. The participants were sorted into these categories based on a set of factors (details) which are described below:

Heading	Details	Examples
Participant	Anonymised maintaining the character of the participant	Age, gender and ethnicity have remained true to the participant whilst maintaining anonymity
Frame of Reference	This is based not on roles or departments but how they demonstrate their perception towards educational technology. It is not based on job titles but on perspectives.	A head of department for digital education could be either be IT or Digital Education depending on their view of the role of technology (Instrumental view would be IT, otherwise Digital Education). An academic would be classed as Education. Professional Services has been used to refer to a leader in a teaching and learning office/department which may consider digital aspects of education but was not the main function.
Institution Type	Research	Research focussed.
	Education	Education focussed (these can combine with Research)
	Commercial	Non-University, but organisation connected to the sector
HEP Size	Student Numbers	As published in The Complete University Guide to provide a rough estimate of the size of the institution.
	S	Less than 10,000 students
	M	Between 10,001 and 15,000 students
	L	Over 15,001 students
Role Type	Executive	Positional power determined by their role. Executive is a member of the Senior

Heading	Details	Examples
		Management Team for their institution or organisation
	Senior	Strategic leads such as Head of Department (type)
	Mid-Level	Allocated in a leadership role for a Faculty or organisation with a level of autonomy but no line management responsibility
	Junior	Decision making under supervision from a senior member of staff. Acts in an advisory capacity
IT Level (sourced via interviews, online identity)	Very Experienced	The highest level. Based on their intensity of experience in digital education or IT related. At this level they have consistently been immersed in an IT or Digital Education role for a number of years. Up to date on the latest developments
	Experienced	A good level of IT/Digital Education experience a number of years. Up to date on the latest developments
	Intermediate	Confident and reasonably well qualified/experienced in IT/Digital Education. Reasonably up to date
	Moderately Experienced	The lowest level. Fairly recently involved in IT/Digital Education and most of the experience has been through secondary or unofficial experiences.
Years in HE	How long they have been working in the sector but	Based on employment, where it was known, and through interviews. Indicates

Heading	Details	Examples
	not necessarily the same institution	their depth of experiences (but not necessarily linked to IT or Digital Education proficiency or knowledge)
Years in Institution	How long they have been working for their current institution	As above

Table 4.4 Key to the participants context.

Participant	Frame of reference	Institution Type	HEP Size (S,M, L)	Role Type	IT Level	Years (HE)	Years (institution)
Amanda	IT	Research	L	Senior	Experienced	9	9
Ella	IT, Digital Education	Teaching	S	Senior	Experienced	18	18
Jacob	IT	Commercial	S	Senior	Very Experienced	30	4
Sophie	IT, Digital Ed	Research	L	Senior	Experienced	6	3
Will	IT, Digital Ed	Teaching	M	Senior	Very Experienced	25	25
Maggie	IT, Prof Services	Teaching	M	Exec	Intermediate	25	1
Nick	IT, Digital Ed	Teaching	M	Exec	Experienced	16	1
Louis	Digital Edu, Prof Services	Teaching	M	Senior	Intermediate	10	11
Vince	Digital Ed	Teaching	M	Senior	Experienced	25	17
Liam	Digital Ed	Research & Teaching	L	Senior	Experienced	15	10
Pamela	Digital Ed	Research	L	Exec	Very Experienced	29	10
Evette	Digital Ed	Research & Teaching	L	Mid-Level	Intermediate	12	4
Eva	Digital Ed, Prof Services Academic	Teaching	M	Exec	Very Experienced	22	6
Sean	IT, Digital Ed	Teaching	M	Senior	Very Experienced	21	21
Suzan	Academic	Teaching	M	Senior	Experienced	20	3
Travis	Academic	Teaching	M	Mid-Level	Experienced	14	10
Geoff	Academic	Teaching	M	Exec	Very Experienced	33	33
Wyatt	Academic	Research	L	Senior	Very Experienced	24	24

Participant	Frame of reference	Institution Type	HEP Size (S,M, L)	Role Type	IT Level	Years (HE)	Years (institution)
Monika	Academic	Research	L	Senior	Intermediate	23	12
Michelle	Commercial, Digital Ed, Academic	Commercial	S	Senior	Very Experienced	17	4
Miles	Commercial	Commercial	S	Junior	Moderately Experienced	9	3
Olivia	Commercial, Digital Education	Commercial	S	Exec	Very Experienced	22	16
Brian	Commercial, IT	Commercial	S	Mid-Level	Experienced	25	8
Charles	Prof Services, Education, Digital Education	Teaching	L	Senior	Intermediate	12	2
Josh	Prof Services, IT	Teaching	L	Mid-Level	Experienced	13	6

Table 4.5 Contextual Information of each participant (see Table 4.4 above for Key to categories).

4.6 Data Collection

Semi-structured interviews were used to gather data. The intention was to hear from digital experts about the reality of their experiences in making choices about the technology and how it was applied in their context. Prior to the interviews I prepared by researching the institutions and organisations that the participants were members of to establish an idea of the culture of their environments. I reviewed their website and where appropriate their APPs and Widening Participation Strategies and if available their Digital Education Strategy. I placed each participant into a group according to their institution's affiliation (e.g., Research Intensive, Teaching Focussed) size and location. See Table 4.4 for the key to the information and Table 4.5 for the contextual information.

I was specifically interested to find out about *actual* events as opposed to theoretical accounts and I was aware that this would be unlikely to happen in a focus group setting. The digital education community is relatively small, and participants would have known each other which would have been a barrier to open and honest discussion. Therefore, the use of individual semi-structured interviews was the most useful tool to bring out perspectives of the participants and especially their attitudes and beliefs (Adams, 2015), of how digital education had been applied within their institutions and especially in regard to digital access for non-traditional students. I was aware that there would be a considerable amount of data generated by these interviews and so I allowed myself three months to collect the data.

The interviews were all online via MS Teams. Participants were contacted individually, and a suitable interview time was arranged. The interviews lasted between 45 minutes and one hour and once a time was agreed a meeting invite was sent with no more than three interviews on any one day. This was because I wanted to be able to prepare for the interview as well as write notes after each one. As I was also working full time, I needed to balance the time I had to ensure I was informed and able to reflect appropriately on what was being discussed at the time.

I created a set of questions against themes as a way of thinking about the topics I was interested in, and grouped these based on dimensions of Access, Use, Control, Culture and Society. I tested these questions with an academic colleague who was not involved in the study as a way of establishing if these were the right kinds of questions to ask. The headings for these questions were grouped by Access and Use, Command and Control, Widening Access and Participation, External Influence and Knowledge (Appendix 2). In addition, I created an example scenario, based on actual events of a commuter student with intersectional disadvantages experiencing difficulties in accessing the resources they needed for their assessment which demonstrated the challenges faced by this kind of student. I wanted to be able to refer to this as an example of diverse students' digital experience and use it as a prompt for the interview (Appendix 3).

The interview schedule was created to ensure a suitable level of consistency so that I covered similar questions across all of the interviews that I had arranged. The interviews were arranged to start at the end of August until the first week of October 2022. During this time was the Association for Learning Technology (ALT) Annual Conference where a lot of the participants were attending (the conference was the first week of September) and so they were arranged around this event.

The first two interviews were pilot interviews and I explained to the participants that I was interested in their feedback to help me develop the questions for the forthcoming interviews. The nature of qualitative research is that there should be 'trustworthiness' in my findings, as unlike quantitative research which uses measures that can usually be replicated and so offers 'reliability', the constructivist nature of this study has meant that I needed to ensure rigour in alternative ways. According to Lincoln and Guba (1985) qualitative data should follow four approaches to ensure trustworthiness: Credibility, Transferability, Dependability and Confirmability (Lincoln and Guba (1985) cited in Stahl and King, 2020, p. 26).

As previously mentioned, the questions were tested before the interviews and during the first two interviews I asked for feedback from the participants. This allowed me to test their credibility. Transferability refers to the extent to which findings can be transferred to other contexts or settings. By providing accounts to illustrate my findings, that are context-rich as provided in the Stories and Issues Chapters, and by including a range of voices from the spectrum of digital education decision makers across institutions, establishes transferability (Selwyn, 2010, p. 26; Springer, 2023).

4.6.1 Technical Notes

The transcripts were recreated outside of Teams using Otter. Ai which is a more reliable transcription tool than the built in Teams version, and these were cross-checked with the audio and edited to ensure they matched perfectly. These were cross checked with the field notes that I had kept where I could familiarise myself with their content and note

where there were links between the transcripts. I also searched the transcripts using Keyword in Context (KWIC) via the Corpus Linguistics analysis software Sketch Engine (McGlashan, 2013). As previously noted, the transcripts were reviewed and listened to in line with the video, then the audio was downloaded, and new transcripts created using Otter.Ai to improve accuracy. Through the initial review, it was noted that missing lines of text were occurring across the interviews in the original Teams automatic transcripts. Otter also provided a summary of the content which was helpful when reviewing the transcripts and looking for connections between the participants. Even though Otter.ai was more accurate than the Teams transcripts, they still required editing, especially when there were any accents or faster speakers. Once these had been corrected and anonymisation was checked, I used the Sketch Engine corpus analysis tool to build a corpus from the transcripts which I could look to see where there were potential common themes. I used the KWIC to search for these which was helpful to get a general idea. I then attempted to use NVivo but that was unreliable and crashed repeatedly so I transferred the data to Atlas.ti. Atlas.ti was more reliable and initial codes were inductively created from each transcript; after repeatedly reading through the transcripts and using the field notes I had created after each interview; I was able to evaluate the way that each interviewee saw their roles in the context of non-traditional students.

The codes were then further refined until a picture emerged related to a set of themes which were then combined and reviewed several times to build into five thematic areas. I was able to use some of the additional analysis features of Atlas.ti to see the connections of these themes, creating Memos to help formulate ideas as well as used the Networks function which essentially aided the creation of concept maps for my themes.

4.7 Data Analysis

As mentioned earlier in section 4.3, Reflexive Thematic Analysis was used as an approach to making sense of the data that had been generated through the interviews. The use of Reflexivity in TA was important in this study as a means to interpret the large collection of data from the interviews within their context. The use of reflexivity is part of

this process, as my own assumptions have been referred to and considered as I have applied the process and immersed myself in not just the interview transcripts but for each participant as a whole, including the framing of their perspectives based on their organisation, their role and levels of social connectedness across their practice. This applies a form of Immanent Critique, where the norms and values of a society (or organisation) are applied in order to critique it and has been applied to the analysis of the data to illustrate how the participants perspectives and behaviours have been normalised as approaches and highlights the injustices that arise as a result. This framing aims to inspire change and encourage it to happen from within (Celikates and Flynn, 2023).

The use of a critical theory as a lens provides a framework for meaning-making and to explore the patterns of meaning across the variety of contexts.

After each interview, I took some time to reflect on what had been discussed and immediately made notes on my initial thoughts. I then re-read the transcripts, including the audio to ensure that everything had been captured and made additional notes. Initially, I tried to make my notes into a template, but I soon realised that this was not appropriate and constrained my thinking. It was after re-reading the transcripts and listening to the audio recordings over the next few weeks that I was able to make sense of what was being shared with me. I felt that there was immense value in this practice and despite my personal bias and subjectivity I needed to immerse myself in these interviews to really understand how the participants viewed their roles and place in the digital education activities (Braun and Clarke, 2022). I did not wait until I had interviewed all the participants to do this, and it helped develop the questions that I was asking and gain clarity over some of the responses. I noticed as I was doing this that some of the participants were revealing more to me, in how they answered some of the questions, by what they did not say.

To organise and visualise the concepts that were developing I applied a deductive approach and used concept maps to look at the themes and evidence of where the relationships were according to the coded transcripts. Dependability was assured through the rigorous data collection techniques mentioned above, using the Interview Guide as a means of keeping the topics consistent and keeping field notes after each session. This practice also helped to ensure confirmability as I was using the field notes as a reflexive practice to help understand the context of the range of individuals. Part of the purpose of the table was to establish an overview of the range of contexts and identify how these perspectives were developed. I repeated the process of aligning different roles of the participants as I saw it affected how they viewed the application, use and impact of digital education tools.

I applied a 'Big Q' qualitative analysis. Big Q qualitative analysis is where qualitative tools and techniques are applied within a qualitative paradigm (as opposed to a Small q qualitative research which uses these techniques within a quantitative paradigm (Braun and Clarke, 2022, p. 7). Following these techniques, I repeated reviewing my field notes, the transcripts and reflections and summaries until all the interviews were completed until I felt I knew what content I had collected. To help me do this and to ensure that I captured as much information across the array of participants I set up a form to extract information from the transcripts. I considered the same information about each participant and helped me to review the participants in a more structured way but was flexible enough to not constrain my thinking (see Appendix 3).

I revised my initial views of what I thought was happening in the data which helped me to understand the links between them (Braun and Clarke, 2022).

4.8 Researcher Subjectivity and Assumptions

My perspective is as a leader in the higher education digital education community in the UK with over 20 years' experience in post-secondary education. As an IT Lecturer, Programme Leader and then a Digital Educational Development Manager, I have been

actively involved institutionally as well as with commercial organisations and associations related to the development and application of educational technology. However, increasingly I have seen a trend away from the benefits to students and staff and more to economic interests of third-party providers. This has been magnified since the pandemic. Whilst I am always curious about the new technologies for education, I have become concerned about the lack of any real understanding of who was using these systems and how they were being used.

My view has been that most digital education decisions are made from an instrumental view of their use rather than who was using them. This was based on firsthand accounts of others experiences about the application and use of technology as well as my own experiences of Virtual Learning Environments, iPad use and App developments in higher education. My views have been formed by my work on digital literacies and the lack of engagement in using technology in classes. My assumptions were that those making these decisions were unaware of the social, cultural and political impacts of the use of digital education platforms and products and were instead viewing the use of digital tools through and instrumental, neutral view (Winner, 1980).

4.8.1 Reflexive Practice

In using Reflexive TA, I am able to use my subjectivity as an asset in the process of analysis (Braun and Clarke, 2022), in that to understand the views of the participants I applied my perspective using my experiences and background in digital education. I also spent some time thinking about my own perspective and captured this in my notes, for example in my views and opinions as I explored the complexity of the interviews, as well my personal views from a critical perspective.

4.9 Summary

Using qualitative methods and especially reflexive practice has been the key in determining who the participants were and how they formed their institutional views of the people who were impacted by their decisions to use or implement educational

technologies. This chapter goes to some lengths in describing the processes that were undertaking to reveal the way that the background, experiences, knowledge and connections influenced participants and how they approached their use of technology in their own context. It also revealed how important anonymity was in order for these context rich experiences to be used in this research. The use of these methods allows for the rich accounts in the next chapter Participants Stories and the themes that were revealed.

Chapter 5: Participants' Stories

5.1 Introduction

This chapter is dedicated to the stories of the participants which brings to life the situated context for those involved across institutions and beyond and how they formed their views about the use of digital education within their institutions, which in turn guides their understanding of the needs and requirements of their users. It begins with an overview of the participants and the interviews and how they shaped the conversations and the information they provided which formed the process of analysis mentioned in the previous Methods Chapter. It then moves onto specific participant introductions and profiles, moving onto Themes. The themes have been presented to provide some common ground between this diverse group and are later discussed in more detail.

The role of this chapter to present detailed perspectives of who the participants were. There were 25 participants with interesting stories to tell and by sharing these here I am able to present how their backgrounds and experiences impact on the issues that arose and are discussed in the following Chapter 6, (Issues).

5.2 Process

Across the range of participants there were different types of digital experts within institutions, organisations, and networks. Some were setting the direction for their institutions, their faculty or programme and some were influencing either internally or externally (or both) through networks and consultancy.

Within these groups were a range of stories, built on individuals perceived responsibility in their institutions for digital access and participation across educational experiences. The stories were developed out of the interviews which were built across layers of discussion, starting with who they were, how long they had worked in their roles and their perceived level of influence in decision making around digital education. This was then followed by who their students were and what they knew about them and if there were

any requirements to have access to a minimum specification of IT equipment or basic level of digital skills. From this we talked about specific topics of hidden students, those students who were non-traditional. Those not on campus, for example: Commuter Students, many of whom do not have the choices, or experience that other more traditional students might have.

Tied to this was the digital divide and how within cohorts there will always be students without the confidence and skills or experiences that may be assumed when digital education is provided. To establish a picture of how they worked with other teams in their institutions, we talked about the silos in institutions. These can form in all areas in higher education from teaching to professional services teams. For example, they can occur where responsibilities allocated to professional services groups that may not cross over into other professional services teams, like IT services and student experience teams who generally do not include academic teams in their decisions. There was also an exploration into students using their systems in unintended ways as a means of 'working around' their systems as well as how effective they thought that the external networks and influence of EdTech companies were in their views and decisions of systems and product requirements.

Because digital education is now an essential part of a student's higher education experience, it seems unlikely that there could be any evaluation of widening participation without considering the impact of digital education. To that end, participants were asked, where appropriate about their interactions with widening participation teams and their input into their activities. All English higher education providers have to have an APP or a Widening Participation Strategy for those outside of England in other regions of the UK. These formal documents are used to provide a statement of activities, over time, that demonstrate that university's commitment of their accountability for their contribution to the widening participation agenda. Along with these APPs, universities also publish their strategies and policies relating to education, although not all have a digital strategy, they all have a Learning and Teaching Strategy which outlines their values, their commitments to all students and future directions. These official documents are meant to provide non-traditional students with information and reassurance that their needs

will be catered for, or at the very least that there are known differences in the way that they may engage across their student experience. All the participants had an APP, except for two outside of England.

There was limited engagement with widening participation teams and only a few examples of effective engagement across the participants, yet all of the APPs refer to some form of institutional commitment to ensure that all students had opportunities to succeed. Students' success is not just digital education, but it is a huge part of their experience which could be derailed or hampered by a lack of effective digital access.

5.3 Situating Participants Stories

Each of the participants presented their perspectives and frame of reference based on their prior experiences of their own situations within the context of their roles, either within and institution or organisation or as an actor within these environments. The purpose of using Reflexive TA in the analysis is "to present a range of patterned meaning" (Braun and Clarke, 2022, p. 215) rather creating institutional case-studies from these participants. These Stories are provided to give context for the later chapters where the Issues and associated impacts are identified.

5.4 Participant Introductions

The purpose of interviewing those who are either by name a digital leader or through influence (without the formal title) was to identify how their institution decided how they would support non-traditional students' digital access and participation. The interview was designed to encourage a conversation around the way they perceived what was happening in their institutions, with very much their own perspectives and depending on their position, authority, and independence, in terms of the decisions they made, either for themselves or for their teams. It also included, as previously noted, references to widening participation teams who are usually responsible for the Access and Participation Plans which are designed to evaluate a cross-university perspective of the non-traditional students' experience, described by the Office for Students as a 'whole institution approach' (Office for Students, 2023b).

Semi-structured interviews were used to capture the range of perspectives and experiences of the participants, all of whom were involved in digital education and had a role in the decisions and could influence of their part of the institution they were involved with.

These stories are important to shed some light into the how decisions are made about digital access and participation for students and in particular the awareness these leaders had about the issues and needs of non-traditional students who may need alternatives to the standard support or access based on their personal access to resources and levels of experience. Whilst many are aware of digital accessibility needs for disabled students through their provisions for assistive technology, the change in demographic of students and the impact of their differences on their digital experiences is not as well known. For example, although they may be aware of the kinds of students that they are providing digital access for, they may not be aware of how the intersectionality of varying disadvantages may impact on use, which is invariably not how they envisaged.

By talking to these participants and trying to draw together their perspectives, a rich picture is created that can provide some illustration of the varying ways that digital decisions are made for inclusive access and participation.

5.5 Participant Profiles

The participant profiles show the broad range of participants involved in the study. There was an even balance between gender those who identified as Male (11) or Female (14). 24 of the 25 were White and there was a range of levels of Digital Education experience. Not all of those who were at the Executive Leadership level were equally experienced in digital education, but there was a high level of experience in higher education, with 21 out of 25 having been involved in education in higher education for 10 years or more.

Very few of these participants were solely responsible for making decisions on behalf of their institutions but they were involved in directing and leading decisions in the use and in some cases the implementation of different kinds of digital education. Not all were working as paid employees of a university with some commissioned for their services via consultancies or working as part of a consortium bringing digital education groups together over common themes (such as Digital Education Support, Practice as well as the Technologies, e.g. VLE's, Lecture Capture etc).

5.6 Themes

As described in Chapter 4, section 4.7 Data Analysis, themes were generated through examining the common areas from the participants stories. Across all the groups there were five main themes:
Data, (Un) Accountability
Digital Impact (Personal)
Disempowerment
(Institutional) Dysfunction.

A description of each of these themes have been provided below, all of which have common elements across the participants experiences in one form or another. I have provided these in detail here and linked them in the next section to each group of participants based on their strength of social connections across their institutions.

5.6.1 Data

The Data theme is a combination of positive and negative aspects of decisions about the collection, use and analysis of data generated through digital education and other university systems. This includes the processes behind the collection and issues around evaluation and performance of teaching as well as privacy concerns and relevance of some of the data collection. Ethics and Policies were also mentioned. In terms of students there was some concern about the use of data for mental health and the automated use of data for decision making.

5.6.2 (Un) Accountability

This referred to the perceived (un) awareness of non-traditional students' digital access requirements and in some cases academic staff requirements. The levels of awareness of access needs and use depended on their level of social connection with participants not necessarily cognisant of the responsibility towards how the technology they provided was being used. Many did not see the relationship of their roles to the social and cultural factors of the students' experience. This also included where specific adjustments had been made to provide a more inclusive environment for these students. (Un) Accountability links to the Data theme, in that the use of data collection at scale has been justified as a way of knowing who the students are and therefore recognition that the students were not a homogenous group. This indicates that the institutions recognise there are different needs of students, for example, due to the aforementioned legal obligations there is a requirement to ensure Digital Accessibility.

5.6.3 Digital Impact

The use of digital education has increased and become embedded in many ways and so this theme related to the experiences of staff who talked about how they had implemented and introduced technology to support education since the pandemic as well as how the technology has meant changes to ways of working. It included support for staff and students as well as consultation and strategies for evaluation.

5.6.4 Disempowerment

A strong theme amongst many of participants was the way that decisions had been taken out of their hands or they felt isolated and excluded from digital developments that affected how they worked and how they could support their students. This includes those in both academic and administrative roles.

5.6.5 Dysfunction

Institutional dysfunction created barriers for staff who were trying to use digital education to support and help provide a more inclusive environment was part of this theme as well as the disconnection that many felt were hampering their efforts to be able to work across teams, including Widening Participation and other Professional Services. Issues within this include administrative barriers, prioritisation, and infrastructure.

5.7 Change of Perspective

The original intention was to categorise participants through their perception of the use of digital education in their institutions. These were: IT, Academic, Digital Education and Professional Services. However, through closer analysis of the transcripts it is clear that their perspectives depended on their knowledge of their institutions and how well connected they are within it. The combination of these factors, rather than the length of service in their institution provided a better insight of informed decisions with effective 'buy-in' from their teams or members of their institutions. Depending on their networks they seem to have a better understanding of their responsibilities or the needs of the populations that use digital tools.

Based on the above it makes more sense to redefine the categorisation to not be solely from their perspectives but around levels of social connections: Weak, Moderate and Strong, as determined by their reported effectiveness and trust in their networks.
To that end, as mentioned in the Methods Chapter the participants were viewed both against measures of social connection and by their perspectives and experiences.

5.8 Participant Milieu

As mentioned in the previous section, in order to capture the richness from the participants stories in the milieu they are situated, across differing institutions, roles, levels and parts of the digital education landscape, it was necessary to determine what linked them together. In order to make that determination and to provide recognition of my own preconceptions it is important to reflect on the value of subjectivity in the

Reflexive process and to the clarification over the approach of my own subjectivity as an important part of the process of Reflexive TA (see Chapter 4, Section 4.3, p 68). In addition, I have made clear my perspectives and assumptions as a part of the data analysis process (Chapter 4, Section 4.8.1, p 87).

As shown in the Methods section, after categorising them into roles, experiences and perspectives and analysing the transcripts it was clear that there was a common denominator that indicated their ability to have a broad view of the actual use and application of the technology they provided or used. This common denominator was their levels of connectedness in meaningful ways across that provided an overview of the effective use of educational technology. Therefore, each participant was allocated to one of the three groups based on common levels of social connectedness: Weak, Strong, and Moderate. Members of each group are listed, along with a short description of their perspectives and themes. The aim here is to introduce the character of the participants, within the limitations of their context. For the purposes of these stories, their accounts have been described within their context, using their experiences to set the scene for what follows. By grounding these stories as descriptive accounts, rather than hearing their voices directly, the aim is to provide background information to humanise the experiences they talk about in the next chapter, Issues.

5.8.1 Group 1 - Weak Social Connections

Geoff, Maggie, Louis, Charles, Brian, Sophie, Amanda, Evette and Miles

This group consisted of a mixture of IT, Academic, Professional Services, Digital Education and Commercial staff. In this group the theme of Disempowerment was the strongest as well Dysfunction. It also had a low level of Accountability.

Geoff has worked for his institution for over 30 years and has achieved Professor status. His institution is large with a teaching focus. His work since the pandemic has been mainly supervision of PhD students and he has been working from home. He has published extensively and has a national and international reputation in digital

education. Despite this he felt that his value and agency within his institution was extremely low and as such he felt disempowered and excluded from any decisions in his institution. He has limited contact with his institution and does not hold any influence due to his isolation internally. His work with students has always focussed on equality and he has recently been involved in an international agency to raise awareness of issues around diversity and inclusion. He complained having no information about the students that were at his institution due to the fact that he was not in a Professional Services role and so had no access to that information: *"it's something I'm not likely to see because I'm not management, and I'm not professional services. And I'm probably perceived as cantankerous so far anyway"*. Externally he is actively participating in professional networks, but this is not recognised within his institution. He is currently being threatened with redundancy.

Similarly, Amanda, who is the head of a small, centralised IT team in a large, research-intensive university also feels excluded and undermined by the decisions made in her institution. She was not able to influence decisions about the strategic use of tools within her institution and despite her best efforts she has been unable to control the use of various systems which she feels need to be managed through her team: *"So, we just do, we just scrape through, we just do the bare minimum. That's literally why we just put it up and throw it out there and people can use it for whatever they want. And we're slowly changing that. But our investment in Digital Education and certainly Centralised stuff is appalling"*.

Her team is underfunded, and she is feels caught up in the bureaucracy which she feels has set the institution back. The lack of any kind of education strategy, digital or otherwise has also meant that there seems to be no hope of change and her lack of connectedness across her institution has left her vulnerable to the effects of isolation. She knows of various initiatives through her role and being a member of some committees but is not actively involved in them as she feels invisible. Her lack of effective connections in her networks has influenced her own perception of her role in supporting non-traditional students to access digital education in that she believes that other people look after those students, and it is nothing to do with her role.

Although not as extreme as Geoff and Amanda, equally isolated and unsupported is Evette. She has worked for a medium sized, research and teaching institution in a digital education role for about 4 years and has worked in higher education for about 9 years. Her role is based in a faculty, to bring into the curriculum digital education and at the forefront of her mind is the students and the need to be more inclusive through designing in digital access. However, despite her moves to try and create a community of practitioners, she is blocked through her lack of effective social connections or influence. On returning from the Lockdowns, a senior member of faculty commented that everyone was an expert and so didn't need her help anymore. Although trying to build contacts and offer support, her role and environment means that she is having to use her networks externally to try and gain credibility across the sector. She does not feel supported internally and feels very vulnerable and undervalued. This has had a negative impact on her work and feelings of being unable to help students who she feels would benefit from the flexibility of digital education. There are some members of staff who she feels positive about, but they may or may not be directly able to influence how she is perceived. She has one very senior contact who is aware of her issues but cannot directly get involved in some of her concerns.

Maggie, Louis, Sophie, Brian, and Charles were similar in their perceived connections but due to their relative isolation in their work they have minor levels of effective and meaningful connections within their networks. Maggie who is a senior level executive in her medium sized, teaching focussed institution was very positive about her role but had very little knowledge of digital education and was not confident about the process of implementation of digital education, leaving it to the IT Leadership to dictate the direction, despite being in a digital leadership role. Her level of understanding about the use of data and implications of privacy and the impact for non-traditional students was absent and throughout the interview she was uncertain about the answers around support and use of digital education and used language usually associated with IT Departments to provide explanations. She came across as confident on a surface level, but she was in a new senior role, in a new focus, away from her many years of experience in other areas of higher education.

Louis presented a similar persona, introducing himself as having five or six key roles in his small, teaching focussed institution. He was confident and spoke of leading a team implementing technologies, working with students who were generally local, from lower socio-economic backgrounds, offering them IT skills support and development. He explained how he worked across academic and professional services roles and after closer inspection, revealed that much of the work he was doing was not carried through. Feedback from students not read and the support that was proposed was not properly followed up due to staff (and students) workloads. Brian presented a similar level of confidence within his role building relationships with institutions as an employee of a digital education supplier. From his perspective he was confident of his abilities but less confident of the access he was granted by the key people in customer organisations. He felt that there was a lot that the institutions could do if they would allow him to show what was possible. His biggest frustration was that he was unable to have the traction he felt he deserved due to what he termed, "*IT Gatekeepers*." He believed that it was better to identify key influencers and bypass the barriers that way. Any social connections were at a superficial level. He was clear about the importance of using data and how he was able to access data and that having an overview from all of his customers meant he had a better picture of use. He used this data to target individuals in institutions and highlight their 'good practice'.

Sophie and Charles were in this group as although they had connections, they were not able to take advantage of them or use them effectively. Sophie was a leader in her faculty in a strategic, digital education role. Her institution was large and research intensive. She had been in a more technical role prior to her current position, for a small, teaching focussed institution which was more directive than her current institution. Her experiences within her previous role around the learning environment was something that she relied on for her work. She was focussed on the technical aspects of digital education tools and her confidence came from that. Wider issues around students were not something that she was familiar with and when asked about access agreements she felt that they would not have anything like that. Social issues around diversity were also not on her radar. She had supporters in her networks and had only been in the role for the last 2 years, mainly working remotely. Outside of her small network she has been building

up her presence in external networks but has not yet raised her level of meaningful connection through it. Charles had only recently joined the institution as the head of a professional services team who worked closely with the TEL team leader. He had no real ties in his networks to give him any overview of the operation and use of digital education within the teams he was close to or responsible for. He had moved from a very different institution to a large, teaching focussed institution. He was disempowered through his lack of knowledge about the issues around non-traditional students, and he also felt that they didn't have those kinds of issues in his institution. He based this on the issues not being raised and he said he was in regular contact with the Students Union. Both Charles and Sophie were not negative in themselves about their institutions but were critical of how things worked. Sophie was not able to access data that she thought would be useful and Charles said that they were not making use of the data they had and that it could tell them a lot about students' behaviour. Neither seemed overly concerned about ethical issues that might arise.

The final member of this group is Miles. As a consultant within an organisation commissioned to review higher education institutions, Miles was usually brought in to review the systems and processes to identify how they could be improved within whole institutions. He has worked in higher education after leaving university where he was a Sabbatical Officer for Education. He had a good theoretical understanding of the issues of some students but at a more personal, surface level. He also has no real connections to the institutions he is reviewing and so developed surface level networks, in which he has no real engagement with. He was positive about his work but negative about the way that universities operate.

5.8.2 Group 2 – Strong Social Connections

Will, Sean, Eva, Pamela, Jacob, Wyatt, Michelle, and Suzan

This group comprised of three heads of digital education style services, academics, an ex-academic now a consultant and a recently retired senior academic. They shared a high level of accountability and empowerment through their connections. Within this

group were levels of disempowerment and dysfunction but not to the extent of the other groups.

Will has been with his institution for over 25 years and has been part of their development into digital education which was originally part of their IT services. He was extremely positive and excited about the potential benefits of active learning and has set up networks internally with academic staff and other professional services to explore related connections to emerging technologies as well as setting up collaborative partnerships with local industries, part of the civic engagement strategy of the institution. In addition, he was very aware of issues relating to the development and support of non-traditional students and gave examples of his awareness of cultural differences he had discovered when talking to students. He also knew about Access and Participation Plans and initiatives through his connections in the institutions. He mentioned high level connections and decision-making all connected to relevant strategies across IT, Education, Research and Enterprise. He was also using data to support students, through the analytics as well as exploring new initiatives.

Similar levels of engagement were apparent with Sean who had been with his institution for 21 years. He not only led a team of IT and digital education specialists, but the structure of institution meant that he was line managed along with the Head of Learning and Teaching by their PVC Education. He was aware of the needs of non-traditional students through these connections and had recently had a briefly about the contents of their APP from the Widening Participation team. He had a good set of connections and as such was able to have high levels of empathy with various needs of academic staff as well as the IT department. The levels of dysfunction were low compared to other institutions which he recognised was a feature of being in a small university. The institution was a small, teaching focussed institution which had a high level of local and career focussed (vocational) learners.

Common to both Will and Sean were their in-depth knowledge of the impact of digital education for their students across digital access levels. Their levels of awareness were high around the requirement for access to hardware, use and application. However, in

Wills case, their institution provided digital skills support through their IT Department, whereas for Sean's institution, it was provided through their Library services and IT Department.

Within this group, Pamela, an executive level digital leader within a large research-intensive university provided insights into the decisions that were made from the perspective of the IT Directorate and as a leader in education and online learning. Her views were based on extensive consultation and knowledge about the students. Her links across the institution were extensive and developed through relationships with academic staff which had already been in existence through roles years prior when she was in another role in education. She moved into IT about 10 years ago and had brought with her skills and connections across the sector. This meant she had an academic, education and IT perspective which enhanced her ability to connect effectively, meaning that she was able to make decisions that respected their needs. Most of her work was based on values, in terms of principles which the institution had applied to their decision making, which included the ethical use of data, which products they were willing to work with as based on that companies values and if they were in alliance with theirs, as well as having a very structured and efficient decision making framework in terms of the needs of students, which included thinking through how the technology enabled students. She gave an example of lecture capture which was an investment across the whole university. This was partly for non-traditional students so that they could access the recordings on demand as well as to *" take away the idea that it's a once in a lifetime high stakes lecture that if you miss it, that was your fault and your problem, whereas the lecture recording meant but if you missed it, because you are bus was late, or you're on a train, or you live further away, you're still able to access the content."* Her institution used data from points across the campus, which was not identifiable at the individual student level, but captured their use of the facilities. For example, library data could be displayed to students to help them make decisions about which floor they would go to by being able to see how busy each level was. This was data from vending machines on each floor, which indicated the level of students. Her examples of data use extended to the use their VLE, as well as extensive array of user groups with staff and students, all providing data about the use of systems which was combined to provide a map of

behaviour across the institution. The philosophy was to include access to technology *"unless there was a good reason not to have a thing. So, it's more like by exception"*.

Everything that is provided to staff for use in their teaching has been tested and modified as needed in order for it to suit the needs of their users, *"something that the University has made a specific decision to and investment to do, which is to shape the tools that fit the pedagogy"*. She was very clear to present the institutional IT provided to ensure that there was equal access and that any tension towards central IT services is based on restrictions due to scaling as opposed to control.

She made it clear that their decisions were based on accessing views and opinions of staff and students which were involved through many user groups, which were ongoing and helped to provide the needs requirements for their programmes. The institution offered various levels of engagement from regular users, super users and early adopters which helped to shape the vast array of technology on offer. This information was used during committees to make the final decisions. There appeared to be a high level of accountability and rationales of use of data. The levels of disempowerment were framed around the examples she gave *of "selfish or teacher-centred academics"* who want to use a specific tool without regard for what is already available or how it will be supported and used by their students. In one case, she mentioned an academics had signed up for software, and they had done so not realising that the institution had refused to work with them due to not meeting their standards, which indicated a level of disorganisation in relation to communication. This could be due to the size of the institution which had over 40,000 students.

Michelle, Suzan, and Wyatt provided an academic view of leadership in that they were all in academic roles. Michelle and Wyatt had both been senior leaders in their departments and had now moved onto to different roles. Wyatt had recently retired from his institution and his role as Head of Department in a large, research intensive institution and Michelle had left her role as a Senior Lecturer in a large, teaching focussed institution and had set up her business as a Higher Education consultant. Both had effective and meaningful connections and took an active part in their networks, both internally and externally.

Michelle had a comprehensive understanding of the needs of non-traditional students and had undertaken a large amount of work in educational technology standards which included digital literacies for staff and students. Over the pandemic she had been working closely with institutions who had raised concerns about the digital divide as well as their use of data and lecture capture. She had recently published a book about digital education in universities with two other colleagues. Her main concern had been the effect of what she had termed *"pandemic amnesia"* amongst some universities who wanted to return to the 'before times' and not consider the impact on non-traditional students who had been shown what flexible learning was like and now, they wanted to close the door. Her connections to examples of working with students and their digital needs was very strong in that she was aware of the issues that had arisen and were still present for many students in FE and HE. She felt they needed to be addressed more widely across institutions and she raised how she had been aware of the lack of conversations between students and staff in IT and other departments including academic staff. She felt that this could help bridge the gap between what is provided to them rather than for them. She explained how she had been working with a private university who had decided to take the 'user' point of view: *"it's about the service you provide, actually, to start having those some of those conversations with different stakeholder groups. That's quite interesting because it's actually from the user. So, you're actually looking at it from the student point of view"*.

Wyatt was able to reflect on the approach that had been taken over his time working for his institution and how IT departments gradually accepted the need to provide for increasingly digitally literate student and staff groups. He had been working for nearly 30 years for the same institution and had extensive networks internally and externally which helped him in bringing in digital education hardware and software. His networks internal to the institution meant that he was aware of developments in IT outside of his department and as he had shown an interest in the introduction of high-speed broadband for example, he was invited to attend more conversations and helped explain the needs of his students to the IT Department, especially through unofficial special interest working groups. The use of data was not as clearly understood and the main source of data he had been able to access was through the VLE which indicated a very

limited amount of engagement. *"I used to talk about was learning analytics, and what I was saying about learning analytics is who decides on who has access to the learning analytics, who decides on the algorithms that are used in the learning, etc. So, I was taking it from our sort of you know, … I had access to a relatively easy access to a form of learning analytics through Blackboard. But it was just a useful way of trying to raise people's awareness that, you know, what if it is then used to make teaching assessments based upon the number of interactions or something is that? Yeah, [is that] ethically right, etc"*.

Initially he mentioned that it was more about getting access to the software which were not connected to the internet, and through his engagement within the networks he was in, he was able to garner support for needs of his department. Part of his work was working with schoolteachers who at the time had better access to technology than the university and expected to be able to access what they needed as part of their development. He was able to work with external networks and internal networks to facilitate this. The strength of his connections was how his role was able to function effectively. There was a level of disempowerment as the IT department was trying to control access and as with all large universities there was a level of dysfunction, which from Wyatt's perspective he was able to work around through his connections.

Suzan was a Programme Leader and Senior Lecturer for a small, teaching focussed institution. She has responsibility for a group of module leaders focussed on Computer Science and has been working for the institution for 3 years and has over 20 years' experience in higher education, with much of this spent at nearby institutions which has extended her connections and reputation and allowed her to capitalise on the value of her networks. Through her role and her awareness of the needs of the students she teaches she has a strong connection to the support services in Professional Services departments. She had noticed the high level of commuter students in her classes and was aware of the needs of her students. Her institution provided her with resources and structure of how to manage students and provided an extensive set of tools to provide clarity and structure in how the programme should be presented to the students via their VLE. This included a clear explanation of the feedback that had been received by the

previous cohort and how their needs had been addressed. They used an electronic handbook which included interactive data which was used for personal tutor sessions.

Overall, she reported that the connections between departments were good and due to the size, it was easy to identify roles and responsibilities. Her levels of meaningful and effective connections were enhanced by her role but also through her use of networks and involvement that she had across Professional Services. She mentioned how she was always contacted to talk to prospective students or new members of staff as she became known as being helpful and willing to support their work. There was some feeling of disempowerment and dysfunction through other departments not recognising the implications of their roles and the impact that they had on students. Suzan was very interested in the experiences of her students and wanted to support them as much as possible within the regulations of her institution.

5.8.3 Group 3 – Moderate Social Connections

Ella, Liam, Vince, Josh, Travis, Monika, Jacob, and Olivia

This group consisted of heads of digital education, leaders of digital education (non-line management responsibility), academic and executive and senior members of a consortium. This group had various levels of accountability which depended on their focus (academic staff here were more accountable than the heads of digital education for example) There were levels of disempowerment and dysfunction, but all had been able to make some use of their connections within their networks to differing levels of success.

Ella, Liam, and Vince are all heads of their teams and have been working in digital education for some time. Ella is the head of her team and responsible for all forms of student digital education, including the VLE and curriculum design. The university is focussed on vocational learners and is small with less than 6,000 students. She has been working for her institution, for about 18 years and has worked her way up becoming well established and gained a good reputation for completing her projects successfully. She

was made the head of the team 4 years ago which has increased from 4 to 23 members of staff. These are mostly working on projects and are funded via temporary contracts. She talked openly and confidently about her institutional focus and knows the university very well with good networks which were developed through her alliances, including with senior members of the university. Her networks are precarious in that she is constantly aware that she needs to prove herself, despite being in a recognised leadership position, in order to get buy-in and when a new member of staff comes into the institution, she complained that she has to be able to start all over again. She talked of her 'advocates' which she saw as a key part of her role *"if you've got all the advocates that gets you in"*. Her connections are moderate due to the transient nature of her team and the staff that work in the institution. She mentioned that many staff were not academic but from industry which did cause some issues around student support. Her knowledge of the students was good, her access to students was through user experience initiatives, and she was unaware of the issues that come with a local, lower-socioeconomic student population and considered digital access to be more about digital accessibility. Her levels of accountability to student's digital needs generally were surface level based on IT access but there was no recognition of the impact of the social implications that hamper its effective use. In terms of data, Ella was aware of the use of systems to gather data about engagement with digital tools, but this was no mention of planning to make better use of the data which was currently in the form of behavioural analytics in the VLE. Ella was not as confident as she could have been due to the precarious nature of her network.

Liam was also a head of digital education service and had previously been an academic and then went into his current role having worked at his institution for 10 years. He had been in higher education for a total of 15 years. His connections in the institution were very much his connections and not his team's connections. He mentioned how he saw himself as the bridge between the academic and IT community using the fact that he could relate as an academic and felt that this meant he was able to be accepted into the academic community and develop a working relationship. He was confident about the level of engagement he had across this medium sized, teaching and research led institution and he knew about the needs of students but there was little connection to

the widening participation teams and the associated social factors affecting digital access for students. In many ways, he was like Ella and Nick in that he saw digital access to be about digital accessibility which meant that any provision for supporting social difference was not part of package of support he offered. He was connected to the IT department but had no line management responsibility for them. IT managed the digital learning team and should be working closely with his team (the education development team), but he felt they had not managed to become a cohesive unit. They are all based in the same Directorate but were all very much separate to each other. Interestingly, the budget holder for all digital education was the IT department. He has connections with them, built through his experiences prior to the role and had mentioned an example where he was able to influence a decision. There was: *"a decision fairly high up within the university was taken that we would stop using Zoom and we just use Teams. Umm and I, luckily, was party to that conversation and was very concerned that I don't think decisions of that scale should just be taken lightly behind closed doors, essentially. And so, we/I managed to convince greater powers than I that a consultation would be something that would be very well received and should be run"*.

Liam's team worked very closely with staff rather than students and his frame of reference were much around IT. He mentioned the use of data analytics through Microsoft products and that his institution was looking at user engagement of the data they produced. This was not to say that it was academic related but behavioural data. He gave some examples of disempowerment around academic staff being unable to effectively communicate their reasons for not wanting to use some technology for assessment and it was through his dialogue with them he was able to ascertain their reasons and so assumptions that had been made were clarified. He was aware of external networks but not very active in them. He was a National Teaching Fellow and commented on how he needed to engage more in educational professional networks for digital education. Although he seemed to be doing some interesting and useful work there was limited connections outside of the small network of interest in digital education and it seemed to be very much more about his role and work, rather than a team. There seemed to be a level of dysfunction in that the balance of power for the digital education was heavily in favour of the IT team. All budgets were organised through

them and therefore the power of the decisions was weighted in their favour. The IT team was 150 and his team was 11.

Vince has been working with his institution for about 15 years and has been leading the digital education team all that time. The team has 5 members, looks after digital tools and his team works with the academic staff development team. He also teaches new staff on their academic practice certificate. NSS also features as part of the remit of his team. He was concerned about the level of data that the institution collected and how that was managed as it was unclear as to the reasons for the collection and how the data was being used. He wasn't aware of commuter students or if this information was shared across teams to help with the use and planning of the tools that he was responsible for. His biggest frustration was the lack of connections between the collection of data and the lack of evaluation. He has connections externally and follows up on various initiatives at other universities but is aware that there is a lack of connection between the identification of types of students and their digital access and participation. He gave the example of dysfunction in his institution by means of the fact that he discovered at an external conference, that his institution had a high number of white working-class students, but it was not something that the institution had mentioned despite their reams of data collection. There was a lack of insight. Another aspect of dysfunction was the lack of access to useful data. His perception of accountability to the students was low and only through the pandemic was the issue raised of the lack of digital access that students had and how much they relied on the resources of the institution. The pandemic had also caused the institution to change their approach to become more aware about their students' needs and so there has been a move towards adopting digital skills initiatives and more embedding skills within the curriculum. The use of data was a strong theme and accounted for most of the conversation including some cynicism around the reasons for collection which was explained to be more about evidence gathering to report to the Regulator, than for any specific interest to benefit students. He gave an example about the lack of engagement in developing his ideas of digital education from the pandemic to build on successes and therefore engage more with students who had been able to take advantage of the flexibility of distance learning.

Although he has worked for a long time at the institution, he felt powerless to be heard in terms of the direction of digital education as his connections were informal and not through his position in the institution.

The lack of broader connections across the institution was something that Josh was also familiar with which meant that although he was aware of non-traditional students there was not any consideration of their specific needs other than offering training and offering online resources. His main concern at the large, teaching focussed institution that he was part of was to ensure that the product that he was responsible for implementing was managed and any consideration of APP promises or accountability to students was not part of his concern. His focus was on developing his reputation as he was in a new role in a specific department of the university. He was delighted to be considered as a person who knew about commercial platforms but also saw himself as aware of pedagogy and as equally important for education as the academic staff he worked for. His role of digital leader was as a Learning Technologist, and he was the point of contact for systems that he had worked with in other roles he had held such as the digital support role in the staff development unit. He was concerned about the status that his role presented and was not concerned about the social factors that impacted many of the students that used the systems that he recommended and supported. The students that were at the institution and within his department were vocational learners who relied on the product that was in place for their learning. There was little evidence of direct decision making but there was of his influence. His language centred around users experience rather than students but then most of the contact that he had was with staff and not students. He was offended by an academic member of staff who had asked for academic support from a real user of a system he was supporting and wanted to be accepted in education circles rather than just IT. He made use of networks to introduce the idea of digital champions of the product that he was implementing which was also a tactic of Brian from Group 1 (Weak social connections) who was a commercial product supplier. There was a sense of trying to prove himself throughout the conversation which meant that Josh was very focussed on his personal goals which meant that the focus on how the students accessed the digital tools he supported was very much left to the standard form of access. His goal was the success of the tool to be relied on and used. When the issue of

non-traditional students was raised it was not something that he was familiar and suggested that the library would support their skills development. Social factors were not commented on or raised as something that could hamper students' efforts to be effective users. His role was fairly new, but he has been working for the institution for over 5 years. He was not using external professional networks outside of the regional groups he belonged to and was unaware of their existence in some cases.

Travis and Monika were both academic staff in different institutions. Both had made decisions about using technology and had seen the impact that the tools had made over the pandemic. Travis was a senior academic in a medium sized teaching focussed institution. He was frustrated about the lack of consultation and being forced to use systems *"from out of nowhere"* during the pandemic which had caused issues over how he was teaching and had implications over the feedback he received from students who were also frustrated about the integration of digital tools. Monika, who had worked for a research-intensive institution was equally frustrated about the lack of support for the technology that she was using but this was not mandated in the same way as Travis. Monika had used the VLE to give students access to their instructions for their learning with the intention of developing the groups working together. However, her frustration came in the form of automated emails triggered by the supposed lack of engagement of students who had been working in groups and they had nominated one group member to access the VLE who then shared the documents via WhatsApp groups. From the student's perspective they were engaging with their programme, but the university system had recorded a lack of engagement via digital interactions, which caused issues for Monika who had to reassure the students that they were doing the right things. During the pandemic, Monika was able to get closer to her students and her work had resulted in her being able to identify issues that she had not known about before, such as students with caring responsibilities who enjoyed the flexibility of the classes that Monika was involved in. Travis on the other hand was given an evaluation on his performance from a central service through an unknown person and needed to be able to justify the feedback he had been given on the systems he had no control over. This was an example of the disempowerment he had felt through decisions being made outside the department. He was concerned about this because his research focussed on student engagement and

use of technical systems. He was very well connected outside of his institution and although had connections internally they were not influential enough to carry any weight outside his circle. He was more accountable for his students in that his contact with them meant that he was aware of some of their issues including social factors. He mentioned being demoralised over the pandemic about the lack of engagement from some of the students as his expertise was teaching in a face-to-face classroom. The fact that the senior management had introduced a new system without consultation made things very difficult and caused a lot of time spent learning a new system which detracted from the time they could have used to create a better experience for the students. There were complications in that the teaching was done using the new systems and they had to do the assessments through the VLE that affected what he was able to do with his sessions. His lack of meaningful connections internally meant that he was unable to change or influence some decisions, even those that were detrimental to the student experience and to his autonomy in teaching.

Jacob and Olivia were both from the same organisation. They were at different levels working as a team. Olivia was a Director and Jacob was in a management role. Jacob was similar to Wyatt in that he had been involved with higher and further education at the time that high speed internet access was formally introduced to institutions. He had a high level of connections which were effective as he worked across institutions to help them integrate their systems and his current role is working in digital education as a manager of a consortium of universities. He is well known across this network and beyond and has broad level of connections which he uses to enable others. He is an influencer, and his network was part of the professional network of digital education that supported and provided a forum for other digital leaders. The network he managed, was a useful vehicle for sharing information about the issues related to suppliers and for supporting digital leaders working with students, having recently set up a group related to the support of student partnership working. Part of this relates to raising awareness around non-traditional digital access. Over the years, he had been working within networks he has also been involved in accessibility needs for students. Olivia had been working for the same consortium for 15 years and had been working for a regional consortium prior to this. Her work had always been with institutions to help them make best use of digital

tools and this included skills development. Her connections were across many institutions but due of the turnover across organisations it meant that she was constantly rebuilding connections. However, many of the people she worked with moved between the institutions that were in the consortium so in some ways she was able to maintain connection, but it depended on the role that the connection had as to whether it was still useful to her. She was accountable to students in that they recognised there was a skills gap prior to attending university from non-traditional students and so she worked with a team to develop a course which was shared across the consortium. She has also introduced and supported members of the consortium to share their products and projects. Using her connections, she is very good at targeting specific groups who may be interested and is very keen to cross-pollinate departments, such as Librarians with other digital education leaders. The use of data was of concern to her and the use of learning analytics which is a theme for the coming year within the consortium.

5.9 Summary

This chapter introduced the participants in detail and included selective comments from their interviews. It covered the roles, their years of experience and perspectives of their roles and responsibilities. It also introduced the themes that arose from their accounts of their experiences and how their levels of meaningful connection impacted their views of their impact.

These groups have demonstrated the haphazard way that non-traditional students digital access needs are considered within digital education. They were interested in that their perspectives did not necessarily ensure that they're more accountable to non-traditional students, but it was their individual social connections and effectiveness across their institutions that provided the insights and access to resources to be able to know about, and to support the needs of non-traditional students. The next chapter brings these characters to light through their own voices and highlights some of the issues based on the themes that emerged through these rich introductions.

Chapter 6: Issues

6.1 Introduction

Having introduced and established the participant context and their characters in the previous chapters, this chapter using these perspectives as a foundation to delve deeper into the issues they raised. These are directly linked to the themes that had previously been identified and are brought to life by using illustrative excerpts from the interview transcripts, demonstrating the challenges and perspectives that guide decisions these experts make on behalf of their users.

The aim here is to build on the participant background and context already provided and allow the voices of the participants to bring their issues to life, demonstrating the reality of their roles and the impact that this has.

As a reminder, the themes were: Accountability, Digital Impact, Data, Disempowerment and Dysfunction. The issues that appeared across many of the interviews were to varying degrees, in relation to aspects of these themes, although clearly, Disempowerment and Dysfunction are themes as issues in their own right.

6.2 Researcher's Shifting Perspectives

In line with the reflexive approach to the analysis and the subsequent identification of these issues, it is important to present here a note on how I drew conclusions to present these Issues. I initially had my own preconceptions of those who played a role in decisions about the use of digital education and had set about to encourage participation from those involved in taking a lead in decisions that affected non-traditional students. I had knowledge of a range of stakeholders involved in these decisions, but as the research progressed my views were significantly transformed.

6.2.1 From Preconceptions to Informed Perspectives

I had begun this study with the view that an IT Department was a common name and description of the activities held within it. I saw them functioning as gatekeepers, following a pattern of techno-solutionist behaviour, detached from their users. Through this study I came to realise that this was a simplistic view of the IT Department, and it was much more nuanced across the range of institutions, especially where these teams could be home to education focussed digital technologists. My sampling strategy was to speak to a broad range of decision makers at different levels and distances from their users. I was surprised that my call for participants resonated with a diverse range of roles, but excited to be able to explore their perspectives. I had envisaged that the roles of individuals would align with their responsibilities but in some cases, they held more than one role, and that impacted on their own perceptions of agency. Until I had undertaken this work, that was not something that I had considered.

Because of this array of perspectives, my analysis was not confined to the interviews alone but included the institutions and organisations (aligned to HEPs), which helped to broaden my understanding of the ecosystem of digital education. In order to make sense of the diversity of respondents I felt it was important to review the information provided by those institutions in order to gain insights into their closeness or distance to those in positions of strategic importance. This led me to include not just their Access and Participation Plans or Widening Participation statements but also to include their reported student sizes and institutional reach.

The data analysis that led to the following Issues as detailed in these pages was formed over a period of time and including many revisions. As this was an iterative process, it could only be a snapshot in time, and limited by the perceptions of those involved. It was a volatile time in higher education as we moved away from the Covid years and the many stresses and strains that digital education had been put through because of it. If I were to do this again, it might benefit from a narrower focus and include targeted staff from Widening Participation and the Student Support teams as well as some insights from students.

Ultimately, all of these issues relate to a loss of communication across the institution. In the next chapter, I will explore these in more detail but for this chapter, I wanted to present what Selwyn had described as absent from much of the research around educational technology, *"the 'context-rich' accounts of the often compromised and constrained social realities of technology use 'on the ground' in educational settings"* (Selwyn, 2010, p. 66).

For the following set of issues, I have indicated which themes occur and how they may be connected to other themes. Due to limitations of space, where it makes sense to provide more context, I have done that but otherwise I have saved additional details for the discussion in the next chapter.

6.3 Accountability

Throughout the conversations I have had through the interviews, there seemed to be a lack of awareness of the link between 'digital' and 'education'. Not necessarily for the people who I spoke to, but the people who they work with and in some cases are answering to. This 'lack of awareness' refers to the belief that the digital part of education was insignificant and was not as valuable or effective as a face to face, campus-based experience. This is not to say that they didn't know there was a difference but that they saw technology as neutral, merely a tool when in fact, it is very different. The introduction of any technology will impact on that culture, (Postman, 1993) from this perspective, the use of technology does change the culture of education and requires additional support to be in place in order to ensure that students can access what is required of them and for staff to be able to use it effectively for their teaching.

It was useful to gain the historical context of how we got here, and this formed a natural part of the conversations I had with some participants. Talking to me about their experiences during the early years of the internet moving into mainstream academic institutions, Wyatt, Jacob and Geoff all commented on the requirements from the IT departments to control access to the internet and the perception that it was enabled for

the benefit of the institution and the IT department and not necessarily with its educational use in mind.

Jacob recalled when he was installing the JISC provided Joint Academic Network (JANet) access to the internet for institutions and how IT departments who were looking after local networks were suddenly connected, with no clear idea about what they would do with it. There were no institutional discussions across the 'users' at that time and the immediate concern was not what solution this provided but how to ensure that it doesn't break or how prevent giving too many people access to it. Jacob felt that the IT managers had realised how much damage could be done in the wrong hands, those who are not 'trained' in using the internet and so keeping people away from it was the first order. *"And this was the techie people saying, Okay, we've got the internet now. Yeah, what do we do? (...) there's still people who say that they're your IT managers who are very nervous. (...) (Jacob, IT Leader, Weak Social Connections).*

Wyatt (recently retired senior academic), also reflected on how the 'new' internet set up affected how useful it was for those who needed it for teaching. The perspective of use came from a technical IT viewpoint and "*not a learner perspective"*. He referred to access as being *"done unto you",* rather than involving academic staff in conversations about the potential uses. *"I'm not aware of any real engagement with academics in what was being provided" (Wyatt, Academic, Weak Social Connections).*

Geoff, also a senior academic at the end of his career, provided similar conversations and he illustrated when the 'control' began to fade: *"25 years ago, in the dawning of institutional ed tech, in the case of universities like (my University), there was a strong argument that poor people didn't have access to the digital technologies that would enable them to learn unless they went into the universities that owns them. And therefore, you know, you could argue that at that point, Ed Tech was benign. It was a kind of equaliser. (...) But I think that what we've seen over the last 15 years is actually that that the availability and the familiarity and the confidence with digital technology, outside the university, even amongst the poorest demographics, outweighs what they see inside the university. (...) And yet they go to they go to school or university and then they just sit in*

front of a desktop computer only, you know, where the ways in which that are used are governed by a kind of codes of behaviour. (...) and actually, if you misbehave, you'll get thrown off." (Geoff, Academic, Weak Social Connections).

For Geoff, the way that IT was controlled was about power and having control over the kinds of access, which he points out has changed now as digital access is much more about mobile and flexible access.

The functional management of the network has always been about security which is a real threat and quite rightly a priority but there is a disconnect over the use of IT for competing priorities across the 'business interests'. What seems to be an issue here is the lack of awareness of the reality of teaching and exactly how it occurs by non-academic users. The human elements require flexibility for academic staff to be able to decide for themselves how and what they use to teach. From an IT perspective there needs to be a justification of the time spent on providing access to specific technologies at scale which is at odds with the way that individual academics may operate, and they are mindful not to replicate tools that do similar things. Unusually, Pamela mentioned that her institution had *"all the technology"* unless they had a reason not to include it. *"...You know, we try not to have several of tools doing very much the same thing, or mostly the same thing. And we won't take on things that are dodgy. We also won't take on things that the data is hosted somewhere dodgy. I mean, the procurement of these tools does go through quite a rigorous process to make sure that the company running them, and the hosting data and all of that, we also build a lot of stuff ourselves. And that's possibly what's different from some less rich institutions is that we have a lot of developers in the institution and that's something that (the university) has made a specific decision and investment to do, which is to shape tools that fit the pedagogy." (Pamela, Exec Leader IT, Strong Social Connections).*

With her IT perspective, Pamela referred to what she called the *"self-centred academic"*, someone who wasn't thinking about the how their choice of tool might not be able to scale across the institution and the work involved. *"It's sometimes that's just a bit self-centred, teacher centred. "I don't like doing this." What do you want? Everybody in University has to use the same VLE. Blackboard. (...) I think that often individual lecturers*

don't realise quite how much the organisation is providing tools at scale. So, something that has to work for 100,000 people. Yes, there's always, you know, there's going to be a fair amount of scale." (Pamela, Exec Leader IT, Strong Social Connections).

In a similar way, this instrumental approach was also mentioned by Sean who talked about discussing requirements with staff who had identified a tool that they would like to use without knowing what was already available. *"And I think that's part of the education is sometimes staff don't actually know we've got it all. So, we'll be, you know, people were saying, Oh, can I have? Can somebody get me a Vevox account? And we'll say, well, we've got Mentimeter. Okay, they might have slight differences. You might have one over the other, but this is gonna meet 80 or 90% of your needs. (...) So, we're like, "Okay, we'll go and get one of those, we'll plug it into Moodle, there it is, you can use it, it's not as good as some of the other things out there. But is it good enough?" (Sean, Head of, Strong Social Connections).*

The management and implementation of systems at scale are the concern of the IT department and in the cases mentioned above, both participants were also closely linked to their academic departments. And just to note, both participants although very technical they also had strong and meaningful, effective connections in their institutions. This provided a better understanding of requirements, and they were aware of the reality of use because of them. In contrast, Suzan, an academic but less time in post, was at the receiving end of a decision from a member of administrative staff who was unaware of the unintended consequences of their actions. Suzan had requested software for the assessment component of her course in good time, but the lack of awareness of the needs meant that her requested was not given priority and so was unavailable when it was scheduled to be used. The department who processed the order were unaware of how delaying could impact the student experience and Suzan had to explain the resulting poor feedback on her module: *"because we had we had issues with the licensing software that we needed for the teaching. And those issues because of the delays on securing the licence because somebody else, you know, in Procurement, didn't sign something in time, etc etc etc. came that we have to extend the deadline. So instead of being end of December ended up being mid-January, which sounds that within a good accommodation, but they meant that they have to work during this Christmas period. And*

they were not supported. So super stress. Plus, then the NSS came out. They had to fill that, and they were very vocal." (Suzan, Academic, Strong Social Connections).
This example identifies how those who are some distance from the reality of use are not impacted by the consequences of their decisions. In the cases of Sean and Pamela, they were trying to mitigate these kinds of issues through bulk purchases and making academic staff needs fit into what they had already provided. Suzan's example is of the human impact of IT process-driven decision making. This is also indicative of some inflexibility as well as lack of awareness or understanding of the actual events.

As Michelle mentioned: *"I think we can never exactly know how students are going to access things. And when things. And again, I think that goes back to assumptions about technology, and not really understanding kind of the practice of what it is we're actually asking the students to do this, it's not just always, oh, it keeps you in stay mode, a PDF, or we can change it (so) that's fine for information giving. But see if you're wanting to extend knowledge, which fundamentally a university should be doing, then students are going to be doing quite complex cognitive and computational activities. So, I think sometimes, with some of the systems, we think, sometimes when we do workflows, we may be oversimplifying things."(Michelle, Academic, Strong Social connections).*

The IT department versus Education is often seen as a clash of cultures as well as a lack of awareness (Bossert and Münstermann, 2023). As Michelle pointed out, a university is more than information giving. This fits with the shift of the concept of the university as an institution transforming information, to knowledge and wisdom to the marketised knowledge as a commodity-based business corporation (Olssen and Peters, 2005).

6.4 Issues of EdTech

6.4.1 The Emergency Pivot

The issues within the theme of Digital impact cannot ignore the result of the pandemic and the shift, almost overnight to teaching online. This "emergency pivot" as noted by

Sophie was not traditional online learning but a hurried attempt to keep the courses running whilst universities needed to close.

Nearly everyone mentioned the pandemic, citing it as a marker of when new tools were introduced. Evette mentioned how they did not have Microsoft Teams (hereafter referred to as MS Teams) but used Zoom, and Maggie mentioned how every course was to have a MS Teams site. For both staff and students, the pivot has made an impact. In the same way that Neil Postman noted that technology was both good and bad (Postman, 1993), there was acknowledgement that there are some benefits, and it has allowed a door to be pushed open to allow EdTech providers to enter into higher education spaces with their promises that the digital estate shows a 'modern university' or that a transformation is about to take place through the use of their tools. Nick mentioned that institutions were now building up their digital estates as opposed to their physical campuses and that there was a change of perception of EdTech: *"It's this real pervasive entity now and it's this so much money involved with it as well and I think it's my concern is that but I think digital tools and technologies are wonderful and have the ability to really change people's lives and change people's educational experiences. My concern is that times where we are shoehorning processes into it until like a technological framework, just because it 'seems' like the right thing to do and actually we're not considering is it the right thing to do? What works best in the face-to-face setting?" (Nick, Senior Head of, Weak Social Connections)*.

Every institution mentioned that they had MS Teams and EdTech generally is brought up as an issue within the theme due to the viral uptake across institutions during and now after the pandemic. IT Departments who historically had close connections with Microsoft were setting about providing access to MS Teams and their associated 'apps', such as Stream, One Note and MS Office. It was a tidy package and provided the structure and order that the IT departments preferred from a familiar and trusted supplier. As Jacob described *"The growth of Microsoft really grew, I think, because this is a slight aside, but they grew, I'd say primarily because it was down to IT people to try and have a sense of control over what was happening. Microsoft provided very organised professional education for IT people." (Jacob, IT Leader, Weak Social Connections)*.

Evette mentioned how enthusiastic the IT Department were: *“IT loved MS Team's. So that's there, I really liked the people in IT. Actually, this Teams, is the guy who heads up IT. He's lovely. But he really, he thinks Teams...he would go, he would use Teams, as a VLE there's an absolutely no doubt about that”. (Evette, Digital Technologist, Weak Social Connections).*

One of the biggest frustrations about MS Teams is that it was brought in by stealth to do a job that it was not designed to do. This had caused confusion for many digital education teams as MS Teams is classified as a business system and so looked after by business IT and not educational IT. There were a number of comments about the difficulties of using a business tool in an academic environment or not being sure why they were using Teams *"like this unwieldy, which is going to happen with Teams anyway. You know, it's just it was created with a purpose. And then you add on the things that the customers need, but it's not, it's like, it's the difference. Like, if I may do this analogy, you know, like, when you went to a purpose, build school, or converted barn, so yeah, you, too, will have different affordances." (Suzan, Academic, Strong Social Connections).*

Even in a very IT controlled environment, Maggie reflected that she wasn't sure why the MS Teams decision had been made, despite her responsibility for "Digital Transformation": *"And the sorts of protocols that we adopt this year when we've gone back to mostly in person teaching. So, for example, a decision that every Moodle module space would have an associated Team's platform, even though we expected most people to be doing in person teaching (...) Interestingly, I don't know who that decision was discussed with, because it wasn't discussed with me and mostly those sorts of decisions have been discussed with me." (Maggie, Senior Leader, Weak Social Connections).*

6.4.2 Attempted Platformisation

There were a number of comments about EdTech companies offering institutions solutions to problems that they were not clear they had (Ideland et al., 2021). They moved into institutions knowing that there had been quite a relatively successful pandemic 'experiment’, and some academic staff and students appreciated the flexibility of remote

teaching and catching up via recordings which had been made readily available. It appears that some EdTech companies were using this as their way into the lucrative higher education market which Pamela referred to as “Snake oil Salesmen” *"(They) whisper snake oil in their ears as though this is an amazing technology" (Pamela, Exec Leader IT, Strong Social Connections)*.

Others had similar stories: *"It’s really tricky, because yeah. Sometimes I get approached directly. Sometimes it’s just one of the Senior Leaders who’s been approached and of course pass it down and go “Oh Eva shall we look at this?” And it’s like, Oh God. We have already said no to that person. The issue I’ve had is that a lot of these EdTech companies will find the Vice President or even our President. Or someone on Council, you know our Governing body and they will get to them. The next thing you know, they’ve already had a demo and they’re wanting to role something out." (Eva, Senior Leader, Strong Social Connections)*.

Eva mentioned how she had to intervene at senior management level when the EdTech company had bypassed her team after they had turned down a ‘deal’ from them, only to find that they had approached more senior staff *“(…) this isn’t right for us and if we bring this in, how does that impact on the VLE? and you know, we have this bigger picture and maybe some of the others don’t always think about." (Eva, Senior Leader, Strong Social Connections)*. Vince mentioned the "tricks up their sleeves" to get to the VC which has implications for implementation and support *"...give them something that we know will make them their eyes light up, and then they'll get and then eventually, it filters down to us, either we're buying this, which is like some completely useless load of rubbish." (Vince, Head of, Weak Social Connections)*.

Michelle took a pragmatic view to guide her thinking about the ‘product’ which tied into Nicks comment about the increase in desire for the improved ‘digital estate’: *“I think there has to be that level of criticality about anything that a company says because they are, ultimately, they want to sell you their product. So, I think it's, again, it's going back to that understanding, and I think some of the companies do quite a good job, you know, they, you know, they have something quite useful. And some of them do have some, you*

know, people on board that do understand the sector, I think, again, it's kind of yeah, really being able to have those I suppose deeper level discussions with them. You know, I think there's quite a lot of like, you know, kind of headline you know, it's like clickbait almost, it's like yeah, problems with assessment. You know, we can 'solve' your plagiarism in the university." (Michelle, Academic, Strong Social Connections).

Even Will, who was very well placed and connected in his institution, had to spend time dealing with the lobbying of his senior management team and felt that the practices of the EdTech industry were much more aggressive over the pandemic as they had a new level of confidence. In a similar example to Eva, he mentioned that aggressive tactics of an EdTech provider: *"(...) they came in very heavy. It's interesting, actually, because they went in at the senior management, the C level, they tried to bypass the learning technology teams. Because they thought that they'd get bigger take up, if the VC said, I think it's brilliant" (Will, Senior Leader, Strong Social Connections).*

According to Brian who works for a commercial EdTech provider, it is not his practice to use these tactics. For him it was about community building and relationships *"And being on the other side, I think, you know, you know, there's a lot of scepticism and a lot of people fear a sales and, you know, and I, I'm, I'm totally mindful of that and, and respect that. So, I tried to tread carefully in that respect" (Brian, EdTech, Weak Social Connections).*

However, his approach resonated with some of the other comments about how they build the relationships: *"But it's it's getting harder, it's getting now getting the ear of people is is hard. You know, unless people within the institution invite them to meetings or if you catch them at some kind of conference. You know you're you're, that's what I said before about trying to work beyond your kind of your IT contacts. They can be gatekeepers. They can say no. No, we'll, we'll we'll speak to these people. We talk to them all the time. And it's it's a different conversation that they'll have that." (Brian, EdTech, Weak Social Connections).*

Issues relating to the pandemic and its consequences occurred across the interviews, and IT departments seemed to have gained ground in academic spaces because of the acceptance that some technology that had been purchased for the pandemic will be carry on being used regardless of any need's evaluation. Michelle noted that because staff had Zoom for their personal use, they wanted to use it at work, probably not realising what they already had access to, creating a 'bottom up' pressure to be able to use it as part of their toolkit: *"So Zoom became, even though a lot of universities had some kind of conferencing facility, which would be absolutely fine, there was almost like this external pressure, oh, we'll all get zoom, because some people I think, because they maybe didn't understand or actually, in some ways, didn't actually know, the functionality of the technology that was in situ, if you like, they just started getting their own licences through using this." (Michelle, Academic, Strong Social Connections).*

Michelle pointed out that "big decisions" were being made by institutions which were usually lengthy, drawn-out procurement processes were made overnight: *"Yeah, I think I think it was actually really quite interesting from a kind of an external viewpoint, watching what happened over the pandemic, because (...) decisions around about, you know, upgrading changing your VLE. You know, there's big procurement, those, you know, everyone's involved in a big process. But there were some really big decisions were made very, very quickly by a number of institutions." (Michelle, Academic, Strong Social Connections).*

This was the point the Travis made when he found that almost without warning, they had a new VLE which changed the way that he had planned to teach, causing unexpected issues around the process he used and having to learn about a new system. This highlights what Selwyn called the 'messy realities' of education technology use (Selwyn, 2010, p. 70).

6.5 Disempowerment

FIONA: I'm trying to see where you fit in.

EVETTE: So am I, constantly, Fiona. I have no idea where I fit in.

(Evette, Mid-Level, Weak Social Connections)

The issues within the theme of (Personal) Disempowerment were not confined to one group within institutions. For some, there were many frustrations, some participants shared very openly, the ways that they are completely disempowered through decisions taken senior staff who are some distance from the reality of education and of the impact of those decisions on students.

Geoff talked at length about how his situation had changed over the last 15 years or so of this 30-year career as a senior academic. He explained how he felt that it was difficult for him to answer some of the questions in our conversation because he was so far removed from administrative managers who he said made all the decisions. *"And I suppose there was the initial thrill that what we'd all been talking about for 30 years would come to pass. But I you know, because of the pandemic and that we would see a transition to digital learning. And indeed, we did, but I think it was driven by Managers needing to keep the show on the road. Not by anything innovative for transformative." (Geoff, Academic, Weak Social Connections).*

He said that in the past there was more meaningful consultation with academic staff as it was, they who were teaching, and it was not about monitoring student behaviour but more about accessing resources. The profession he felt had changed quite dramatically towards an IT led decision about the tools they can use which then dictated how they should teach. Geoff felt it was no longer about knowledge but about information without wisdom (Postman, 1999) *"... I think something that (this university) and many other institutions, there's been a change in the dynamic. How students conceptualise themselves because they are consumers as much as they are students. And I think to some extent, over the last 20 years, the profession has lost its confidence, partly as a consequence of the kind of political rhetoric and the way things are funded. To think, you know, we can't just stand up and say, "No, actually, this is good, and this is how we're going to do it." We actually you know, we're going to be told how to do it. Because the*

various tools don't give us that freedom of choice. Understand, you know, it's kind of the demise of liberal education, as defined by middle class white Europeans. But it ends up not being something more inclusive, it just means ends up being market driven." (Geoff, Academic, Weak Social Connections).

For Geoff he felt that he was completely disempowered. He cited the example of no longer being seen as a teacher but as an 'employee' which meant he was not respected for his views as the expert in his field but that he should be told what he needed to do: *"But it's actually to do with, I mean, I suppose several of my colleagues were having a kind of critique about the way that the university is run and managed. The way it's hierarchic. Top down, command driven. And I suppose actually, in my mind, I was, you know, constantly aware of the rhetoric of open learning and stuff like that, you know, when we talk about participation, and we talked about transparency, and we do in our role as teachers. But as soon as we are in our roles as employees, all of that goes out the window, we get told what to do. [...] You know, it's kind of it's returning to those questions of 10 or 15 years ago, what is the purpose of education? And I guess it's difficult to detach the purpose of it from the way of delivering that purpose, you know, the detaching the meanings from the ends". (Geoff, Academic, Weak Social Connections).*

It was not just academic staff who were frustrated by the management of digital education. Amanda was responsible for IT central student systems but felt disempowered through senior leadership who did not see the digital education as a 'priority': *"So [...] we just scrape through; we just do the bare minimum. That's literally why we just put it up and throw it out there and people can use it for whatever they want. And we're slowly changing that. But our investment in Digital Education and certainly centralised stuff is appalling. So, the university can't really afford and doesn't really have the desire to do anything that is new. The problem you have is that the people who make the decisions and the people who are driving the Digital Education forward in this university, are my level, not the high enough level, and so they prioritise the other things. [...] There's such a backlog of just general things to improve fundamental things, and the top don't see Digital Education as a priority. We're looking at traditional supervision*

model, paper-based models, all that." (Amanda, Head of, Weak Social Connections).

6.6 Frustration

As previously mentioned, the non-traditional students were sometimes assumed to be the responsibility of another department or section of an institution. In addition, there was a lack of knowledge by some of the non-academic staff interviewed of the reality of teaching and how the technology that was implemented was actually being used across their institutions. The lack of awareness resulted in frustration and feelings of disempowerment for those who were trying to teach with it. This was borne out by frustrations around the decisions made on their behalf as to the availability of what was 'needed' for their sessions and how digital technologies could be used. There was also frustration from non-teaching staff who were employed in digital education roles but were essentially excluded from contributing through having no real connection to the groups they were supporting. The classic example is the opening quote from Evette who displayed frustration through her isolation and feelings of being undervalued in her role in the faculty.

As an example of the root cause of issues of disempowerment and frustration I have included part of the conversation that I had with Maggie. As one of the very senior leaders who participated, it was interesting to reflect on her comment about working closely with the IT Directors for the "digital transformation" of the institution and her involvement as an executive leading for education, leaving the technical aspects to the IT department: *"And I suppose, as someone who knows what I want and knows what I want it to do, and that's my kind of fundamental approach to technology is, you know, I know what I want it to do, go find me the system that does that, or the integration that will allow it to do that." (Maggie, Senior Leader, Weak Connections)*.

This instrumental view of technology, as a neutral tool, (Hare, 2022; Selwyn, 2014) has consequences for others who are impacted by these kinds of decisions.

The examples below have been selected as representative of a range of comments leaving frustration at the unintended consequences of decisions that surfaced throughout the interviews.

Travis who is an academic member of staff was frustrated through decisions which had been made without thought to their actual use: *"Well, originally, we were using Moodle as our VLE. So then all of a sudden, you know the senior management team, they have decided to move away from Moodle [...]and then all of a sudden, we had to to to relearn how to learn from the scratch, a system that we didn't know and that coincided as well with COVID. So, we had to learn this quite fast." (Travis, Academic, Weak Social Connections*).

Nick mentioned to me how, just prior to his appointment, he could see how taking the time to review the use of the tools within their VLE and considering the implications of changes to the teaching environment, could have prevented the removal of a key teaching tool for one of their departments when the somewhat detached IT department upgraded their system: *"...a couple of our Schools have really complained about this coz we have effectively then removed the technology that they use for pedagogic purposes and a VLE review would pick that up." (Nick, Senior Head of, Weak Social Connections).*
There were also staff who supported digital education who felt disempowered through the structures in place in their institution. *"It is all about having the people, the right people at the right level and the other problem is this university has no strategy for education and no Digital Education strategy. So again, there's nothing to say that this is the direction that we're gonna try and do for the university." (Amanda, Head of, Weak Social Connections).*

The following is an example of academic frustration, how there is a misunderstanding of the reality of trying to work around the systems in place. Suzan, who is very confident in her use of IT found that because of the way the system was set up when something doesn't go to plan, like the Wi-Fi not working correctly, she was prevented from being able to record her video: *"We had one week I remember we had connectivity issues with our Wi Fi. And I suppose we were given laptops, (...) I come in person, and I couldn't*

record it because I have to be connected to the Wi-Fi to connect to record via Teams (...) to me it's like overkill using this because all you need to do is record a video." (Suzan, Academic, Strong Social Connections).

6.7 Data

Part of the theme of (institutional) Dysfunction included how data was being used. I had asked about the use of data for making decisions because I was interested to know how much they knew about how their institutions were using the data created through their systems. Whilst there were some examples where they were collecting and using data in ways to provide students with information, spaces in the library, for example and one university was planning a project around the application of learning analytics to provide information to Personal Tutors, these instances were few and far between and the overarching message seemed to be that it was a planned future activity.

When Travis mentioned the change to the VLE mid-way through the pandemic, he had no choice in what was used and so some of the feedback from the students was negative which affected his overall score. The data from the feedback was analysed by a non-academic professional services department detached from his faculty and out of the known context he was seen to be underperforming. *"I think that makes might also influence the student's satisfaction, as well. So, you will see at the end when we've got the module evaluations and where we measure student satisfaction. Then you will see that some students might say that this specific technology is crap. (...) So that was again that was a decision that the university made to change technology and now it has a negative impact to the students. They didn't ask us; they didn't care about their own opinion and also they didn't actually evaluate if this technology is is making a positive impact or it has some sort of positive influence." (Travis, Academic, Weak Social Connections)*.

Ella mentioned the use of learning analytics which they used for monitoring but not for improving performance: *"Yeah, I mean, you've got, you've got analytics on most things,*

so you can make kind of generalised assumptions on how people are behaving." (Ella, Head of, Weak Social Connections).

Ethics and Policies were of concern to a couple of the participants, particularly around the use of learning analytics which was not applied in any meaningful way for the students of the institutions represented, as there is almost certainly concern over bias and misinterpretation of this data. Reassuringly however, Eva explained the view that she had on the use of predictive analytics and the considerations that needed to take place:*"...there was a sort of automation with the attendance monitoring system so students would receive an email if they hadn't attended a certain percentage, but that's about as far as we have gone. We certainly would be very wary of using AI for decision making and things. I think that's where it gets difficult. And for us its, learning analytics is about supporting that conversation with the student. Rather than making decisions. So, you know, Personal Tutors should be alerted to the fact that there is potentially an issue and have that conversation." (Eva, Senior Leader, Strong Social Connections).*

Whilst they were using the automated email notifications, similar to other institutions, she was clear about the need for caution before stepping into decision making. However, she did mention their approach to data collection which was impacted by the new system they are putting into place. What is unclear is how useful this will be in terms of helping students with their learning or whether is it more for the benefit of the institution in their requirement to monitor attendance to satisfy the governments requirements for students with visas: *"We've been using the JISC Data Explorer System but there has been some issues around some of the traffic light that have been generated, and we haven't been able to get the attendance monitoring data in, that's now coming into the system. (...) over the past couple of years, it was sort of a DIY approach to bringing the data together in spreadsheets and they form the student engagement reports and the idea was that they would match the JISC data which was basically VLE and data from SITS. Although the assessment data is typically only updated after assessment boards. So, it was mainly, VLE usage and student attendance, which was obviously, a bit problematic over the pandemic. ...We have a system where students swipe into their classes, so*

hopefully we will get more of that data this time" (Eva, Senior Leader, Strong Social Connections).

There was concern about the use of data for student mental health issues and the automated use of data for decision making. In some cases, it didn't and in some cases, there were complaints of not being able to access it or that there was data overload. Issue of data ethics arose here, especially in terms of why data was collected when they are not using it and whether this was appropriate. This also links back to the inefficiency of the institution or even the lack of data literacy by individuals as it is unclear how guidance was provided to non-academic staff as to how they might contextually interpret any data they have been provided which in the case of Travis, was detrimental and demoralising. This highlights the concept of "context is king" (Selwyn, 2012) and where out of context the data can be read very differently. This resonated with Monika who had to explain to students receiving automated "non-attendance" emails as they sat in her class working together on group work. This generated queries and confusion adding to the workloads of staff answering queries so technically it offers nothing and costs more.

Maggie mentioned to me that the data that they hoped to collect as part of their digital transformation was not yet ready. *"...the fact that we're having a digital transformation probably tells the story about the fact that we need a digital transformation. So, I think the senior team who were all relatively new and started just before the pandemic or during it, are very much of the view that the data insights are completely lacking, because the data management systems and the way data is stored and the way systems talk to each other has not been carefully constructed. Let's put it that way." (Maggie, Senior Leader, Weak Social Connections).*

However, she was excited to know that the IT Director had in a place a clear strategy for data collection which was another future target. Her main concern was that the IT Department was collating data and making it ready for analysis, which would be brought into dashboards which she said would then mean that the data was accurate. She also mentioned that they also needed to ensure that there were appropriate structures in place to ensure that privacy and use were considered from an ethical perspective:*"...*

And the aspiration is absolutely yes, that we will move to a point where we will have a data warehouse that we will generate these dashboards that we will use those and the way that data is normally you know, use probability and statistics and past experience to generate data insights. But I mean, we're, we're a long way from that. I think our digital transformation plan for that particular area of data management has about five or six steps. And we're just between step one and two and that's like step six is when you get actually AI insight." (Maggie, Senior Leader, Weak Social Connections).

Vince also remarked on his institution's obsession with data collection, which was driven by their fear of being asked by the OfS about their attendance data and engagement. He was responding to my question about the identity of their commuter students, which he was sure despite all data collecting efforts, could not provide the answer: *"And I think in terms of where our institution is at, in its in its approach to data, is I think a very much at the beginning. So, it loves to collect data, (...) that students are attending face to face sessions. We've spent hundreds of 1000s on making sure. But then, what do we do with that data? Well, it's just for reporting, we don't seem to then build anything from that, that positively affects a student's performance. So, we, without any connection with our team, when we started collecting student attendance data, for instance, there was this attempt to create in some kind of system that just sent annoying emails to people who most of them had turned up or forgot to swipe their card. And then there's no evaluation around well, is this working? So, going back to your, your original theme is of do we know who our commuter students are? Probably not. I don't think we would do." (Vince, Head of, Weak Connections).*

The problem seems to be the collection of data without really understanding what it is they are collecting and any unintended consequences in terms of the use of the data. Data dashboards were frequently mentioned as a panacea to how to deal with all of the data and in some cases that might be relevant, but for others, relying on the knowledge and expertise outside of educators or those close to those who generated the data, detaches the context of the information the data provides which could lead to misinterpretation.

6.8 (Institutional) Dysfunction: Misunderstanding (Hidden) Students

What intrigued me was that although the participants introduced themselves to me as being responsible for digital education in one form or another for their institutions, either operationally or strategically for students and staff, only 4 of the 25 participants were aware of their institutional commitments to widening participation students and were actively doing something about it. The majority did not see any connection between the systems and support they provided needing to be any different and some told me they did not either deal with those students or they didn't have any at their institutions. Despite this, in their introductions it was made clear to me that they made decisions about the systems that students used, and staff taught and that it was their responsibility for example, as Ella put it: *"under my team all the systems, any systems that students engage with as part of education is my remit." (Ella, Head of, Weak Social Connections),* or as Nick mentioned: *"my responsibility is broadly around the decision-making processes, the strategic direction and the general support for technology enhanced learning at the institution. So, it's ensuring that we have sufficient systems and infrastructures in place to support digital learning in all sorts of flavours of digital learning. Whether that's fully online or or blended learning or face to face or augmented with some technology." (Nick, Senior Head of, Weak Social Connections)* Sophie stated: *"I dominantly support and encourage the strategic use of teaching learning and assessment technology, working largely with academics, major stakeholders in the faculty and the Central University. That is what I do. " (Sophie, Senior Lead, Weak Social Connections)* and finally, Charles: *"My co-manager looks after the TEL team. We work very closely together, and we explore obviously through my team as at Yeah. the largely staff facing, but we obviously look at the digital provision as well. So online digital assessment is as a big drive for us at the moment as well. So that's my current role." (Charles, Head of, Weak Social Connections).*

However, later in their interviews in response to the questions about supporting students with different needs, for example, typically along the lines of "What about non-traditional students?" They abdicated that responsibility: Amanda: *"They do, yeah. They have, they*

have widening participation at X yes, but that would be for, I, I'm not involved in. That is a different office. That's a X admissions office that do widening." Charles: (when asked about lower socio-economic status students): *"Yeah, I have to say, uh. Partly the institution, the type of institution we are, it's embarrassingly, I'd say, is that it's less of an issue for us. Because when, when I joined someone said to me you're joining probably the one of the most white middle class universities in the country"* Nick:
"My team are fundamentally staff focused we don't really interact with students at all. Be it existing students or incoming students." Ella: "*So not my team. So that's again through central IT function. There's we've got like a digital hardship fund as well. And that was, I mean, that's seen a lot of use. In terms of the systems that we develop, we always kind of like test them on quite a few versions back of browsers like understanding not everybody's on the most recent one, I think we do kind of the last five or eight versions."* Sophie: (in response to a question about Contextual Offers/Access Agreements): *"No, we don't. We don't have that. [...] so, your home students, I think, have to be very, very top end, you know, they are the real 1% nought point 1%. In some places, it's very competitive. Just to get in some of the places[...]"*.

This is a sample of the responses. In the same way as those who took a technological deterministic view and perceived digital to not be part of education, (something that those of us in digital education complain tirelessly about) these people in digital education perceive that widening participation is managed outside of their zones of consideration.

In many cases the contact with students was few and far between. So, it is no surprise they are unaware of the social factors that can impact on digital access for these groups. One of the barriers to knowing more about their students was their lack of engagement with students in educational settings. Most of the participants didn't talk to students directly in the context of their digital experiences. There was access to students through 'partnership' type activities or consultative activities which students were paid for their opinions. Ella told me they had a bank of students to access for consulting about what they thought of various updates to their VLE for example. These were paid opportunities on an hourly basis.

Most were able to talk to students through the student rep system and no one had a good relationship or mentioned to me that they worked closely with their student union. Evette told me that she was 'not allowed' to talk to students and Nick informed me that although he decided what was in use for teaching purposes he only heard from students if they *'somehow found their way'* to his team and they assumed that academic staff were responsible for their online content, so that means they are responsible for all forms of engagement by students.

Throughout all of the interviews, I noted that very few knew who their students were, what their APP said about digital technology or what students were doing to gain digital access. Only those in Professional Services roles who were well connected and trusted in their institutions knew the reality, except, of course, those who were in teaching roles in some way, either as a full-time academic or where that was part of their workload such as student support and welfare.

In the call for participants, participation information and throughout the interviews I made it clear that I was interested to know how they supported and catered for non-traditional students. I referenced commuter students as a central theme as this group are known to cover most of the disadvantaged groups (mature, ethnically diverse, lower socioeconomic backgrounds, family responsibilities etc) but throughout the conversations it was clear that there was very little understanding of the issues that these groups face. When talking about these groups there was a very instrumental approach in terms of their needs. In a matter-of-fact way I was told about providing laptops, the idea being that they have had hardware provided which means that have the same level of access. This indicates their lack of awareness of any disadvantage through 'digital access', the social and cultural factors which are known to also impact their experience and the overriding view of technology as a neutral tool. There are various issues for students (and possibly some staff), including lack of confidence, support, resources, and experience. *"Well, do we do laptop loans? Of course, we do. [...] Yes, yeah. So huge numbers of laptops essentially, given [...] And we also have a lot of equipment loan, not just laptops, so cameras, and digital recorders, and projectors, everything AV equipment.*

For student groups yes. So, nobody should have to buy if you need it for your project". (Pamela, Exec Leader IT, Strong Social Connections).

Showing a lack of awareness about the kinds of technology available to students should be at the top of any list where there is a dedicated digital transformation strategy. After all, how can students benefit from the 'digital transformation' without the access to it? Here, Maggie, explains that they have thought about what could be needed on a cohort level, rather than a one-to-one basis. Not knowing what devices students are bringing with them to their programmes in order to gain access has the potential to exclude students. Maggie is based in a very structured, IT led institution where they have planned meticulously their strategic approach to an institution wide 'digital transformation'. She explained how she relies on the IT Director to guide her through the technical aspects of their strategy*: "I've just become the Service Tower owner for all things teaching and learning in relation to data management, data processing, and the decision making about where priorities will be in terms of time effort, to secure change, or to manage systems, which we already have." (Maggie, Senior Leader, Weak Connections).*

Perhaps based on the following comment, the 'informal chat' provides a more realistic view of how students are learning which could provide a better indication of the kinds of support their students' need. *"Oh, that's a good question. I don't know the level of I don't know the detail in this institution of what we do to alleviate hardware software problems that may arise for particular students on a one-by-one basis. I know that we have something that I don't know what it is, (...) But I know we obviously do things, but I also know that this institution tries to pre-empt one by one case needs to thinking about what is it that is needed at a programme level and having very clear availability of support and resources and technology to support people as cohorts." (Maggie, Senior Leader, Weak Connections).*

Liam was more aware of the difficulty students face having to ask for help. He mentioned the 'ideal situation' where everyone had the same device so staff would be able to prepare the use of educational technology knowing that all students had access. But he is not as certain about the reality of the support for students without access to technology, and referred to the local processes and the library as a central access

point: *“So I would like to get more towards that and almost kind of for all of the benefits actually of having people all on one platform and understanding what you can and can't do and it just gets people around the awkward question of or having to go in, and say really sorry, I don't have this kind of device. So, we do have a lot of uh processes local processes, for getting devices to people, but it tends to be, from my understanding is that they, for example, if they want to go into the library and study, there's a bank of laptops that they can borrow to use in the library. Yeah. But they're not ones that can when they register say sorry, I haven't got a laptop, and the university provides them one.” (Liam, Head of, Weak Social Connections).*

Just through these examples it was clear that there was a lack of awareness and therefore accountability for, not just about this first level digital access (Helsper, 2012; Scheerder et al., 2017; van Deursen and van Dijk, 2019) but that they were not even sure what was available.

6.9 Summary

The main issues in this chapter demonstrated that these leaders believe they are responsible for making decisions, leading teams, and strategically using digital education tools across their respective institutions but they do not seem to consider how non-traditional students might be affected in their access to these systems. Essentially by pushing the responsibility to widening participation teams or others who they see as their responsibility they’ve excluded a whole group of students who may be negatively impacted by their decisions. These become hidden students (Darvin, 2019; Edwards and Carmichael, 2012; Koutsouris et al., 2021). They exist but remain unseen by those with the responsibility to ensure that the digital learning environment is at the very least useful for their educational needs. The lack of connection to other departments here may be the reason these participants seem to be unaware of their role in supporting students.

No one mentioned here is in a teaching role.

This chapter provided examples across the range of themes with the reality of digital education practice across the UK higher education sector. Each of these issues have been laid out to capture the reality against the expected practice of institutions. These

have been brought to life through the excerpts and quotes of the participants who provided a rich picture of the state of the sectors digital education provision.

Chapter 7: Discussion and Conclusion

7.1 Introduction

The previous two chapters, I introduced the profiles of the participants including their backgrounds and experiences in the form of Participants Stories (Chapter 5) to provide the context of the interviews and highlighted the issues that arose in the form of a set of Issues (Chapter 6). Originally, the participants were grouped against their roles and departments but after analysing their stories it became clear there was a common link between their personal connections in their institutions and so they were categorised against the strength of their networks and their social connections (Granovetter, 1973). Having them grouped in this way provided a pattern of those with strong or moderate connections as well as those with weak connections. From these groups there was a link between those with meaningful and effective relationships and those without and how these related to the Themes. In Chapter 4, there was a brief outline of the Themes: Data, Accountability, Digital Impact, Disempowerment and Dysfunction. From these Themes a set of issues were evidenced using a series of illustrative quotes from the relevant participants.

With so many participants, a rich series of accounts was created which highlighted the complexity of institutions and the messiness of higher education (Selwyn, 2010) whilst highlighting the political nature of the higher education sector. Although framed in the initial chapters, by exploring the policy landscape, there has been a strong emphasis of the political system that drives higher education in the UK, its impact should not be understated. This chapter brings together different ontological perspectives from those surrounding the edges of digital decision making to those involved in the operational level and critically evaluates how these decisions are impacted against external, internal, and personal drivers according to the research questions.

The research questions consider the different levels of decision making that around the direction, implementation, and use of digital education in higher education. They are from a macro (External Policy), meso (Institutional responsibility) and micro (Local

responsibility) perspectives that digital experts would need to consider across higher education. The questions have been listed below and the following sections respond to each one. The final section takes these insights and considers the future direction for research to explores solutions to the strengthen digital access and participation in a more organised and deliberate way.

In the introduction I had outlined the socio-technical critical theoretical framework, combining the use of critical theory, which is focused on critique and problematisation as well as usually viewing technology as a means of control, with the more practical socio-technical approach which brings in a more realistic process of exploring the impact of power dynamics and the outputs of technology use in these higher education settings. By applying this framework, which has its limitations, it is none the less a useful way of highlighting and considering issues that could become obscured by the complexity of the sector. With this in mind, extending this to include a multidisciplinary approach could be a useful way of incorporating the various departments and divisions that have been addressed here, which in turn could bring the diverse interdisciplinary perspectives and insights together and aid realistic and practical approaches for solutions where they are able to be applied.

Any limitations of this framework, such the potential as a comprehensive approach covering both the critical and the social, would be the propensity for it to be overly complex as well as theoretically focussed, which could result in oversights of the nuanced nature of individuals and their institutions. None the less, the combination is a useful step to raising awareness of the accountability when introducing technology amongst non-traditional students and the educational ecosystem.

The research questions were:

Policy level:

RQ 1: In what ways do digital experts understand the requirements of widening participation in the context of digital education?

Institutional responsibility:

RQ 2: How do they describe their role in the university in relation to digital practice?

Local Decisions:

RQ3: In what ways, if at all, does widening participation/digital policy inform their practice and decision making?

7.2 Policy Level

RQ 1: In what ways do digital experts understand the requirements of widening participation in the context of digital education?

The types of students and staff accessing technology has changed over time but the way that decisions are made and supported in higher education, have remained the same. Despite the increased use of digital education platforms and products and the raised awareness of digital poverty of students, especially since the recent pandemic, there are some digital education leaders, decision makers and influencers who are detached from the reality of the use of technology and unaware of their contribution to claims made through official documents from their institutions, i.e., APPs. These will often refer to being applied across the institution, but they very rarely include an evaluation of digital education aspects of teaching and learning.

The aim of this study was to explore with those involved in decisions around digital education, their views on non-traditional students' digital access and participation. This included how they perceived their responsibilities and how they worked across their institutions to enable and support students and academic staff.

As shown in the Policy Chapter there are several interlinked strategic areas that impact digital education and therefore should be high on the agenda for those involved in digital education in their institutions. As previously mentioned, the APPs, although not specifically a 'digital' education evaluation tool, is used by the English Regulator for monitoring and evaluating how institutions are held to account for the claims they have made for widening participation, which includes how they were delivered, and it has been a unifying force in organising and ensuring that widening participation is of strategic importance for English institutions. As described in the Policy Chapter, it is important to note that the Regulator requires all institutions who wish to charge the highest fee level

to have an APP, furthermore the collective set of the institutional plans is used by the OfS to evidence how they are tackling their statutory requirement to "ensure all students, from all backgrounds [...] are supported to access, succeed in, and progress from higher education" (The Office for Students, 2023, p. 4).

Digital Education is an inevitable part of the student experience (Selwyn, 2010, p. 66) and despite not usually being specifically mentioned in the APPs it should form part of any evaluation of the student experience as we know that educational technology can exacerbate existing inequalities and can negatively affect a range of students (Helsper, 2011; Hill and Lawton, 2018; Kuhn et al., 2023).

From the information gathered through the conversations in this study it was clearly the case that the majority were unfamiliar with what had been claimed or proposed in their APPs and did not see any connection between their roles, the exception being those who were socially connected, therefore closer to the reality of use.

The APPs guidance requires providers, amongst other things to consider how they will "expand and promote diverse flexible pathways and provision" (The Office for Students, 2023, p. 4). For the minority in this study, there were clear lines of communication, with effective relationships between teams and shared and informed decision making, based on individuals, rather than any strategic direction. In the majority of cases, where the strength of the relationships to other teams were ineffective, which included their distance from their 'users', the approach was much more instrumental to the implementation of technology, first and foremost focussing on the digital tools as neutral and from a technological deterministic 'solution' rather than any actual use. As Hall identified "a non-social instantiation of pure technical rationality rather than as a node in a social network"(Feenberg, 1999, cited in Hall, 2011, p. 274). The only social concern that was typically mentioned in relation to a students' digital access was their legal obligations for digital accessibility under the Digital Accessibility Act which required from 2018 that all online materials need to be accessible (Central Digital Data Office, 2018). This highlighted the messiness of education, which in reality depends on many factors (locations, networks connections, resources, experiences etc) (Cottom, 2019; Feenberg, 2017; Goodfellow and Lea, 2007; Graeber, 2015; Selwyn, 2017). It also highlighted the

narrowness of their perspectives, with the focus being on their immediate responsibilities, rather than any wider picture.

In response to this first question then, the ways digital experts understand the requirements of widening participation occurred in a haphazard way, dependent on their own professional experiences but not by virtue of their position. Depending on their levels of meaningful connections across their institutional functions and their closeness to the reality of the access and use of the technology made all the difference in terms of meeting the needs of their students (and staff). If they were part of a broader team of 'education' staff and had digital education experience, as well as working regularly with students, they were able to see firsthand the impact digital education had on the students. Reminding us that those working on the ground with direct accountability for the actual use of educational technology were more likely to understand the reality and unintended consequences of its use (Selwyn, 2017), especially in the context of widening participation requirements.

This study has provided direct examples of this. Those detached from direct contact with students, made assumptions about the purpose of, and the way the educational technology was being used, following the traditional technological solutionist view and may not know the reality of what was really happening within the campus or online spaces. For example, Michelle mentioned assumptions about the use of technology and who is using it (p 40) *"I think that goes back to assumptions about technology, and not really understanding kind of the practice of what it is we're actually asking the students to do",* demonstrating the disconnection between different functions within institutions that occur when they operate in isolation. This was highlighted by Amanda's response when asked about non-traditional students, that it was "*a different office"* and that she was *"not involved"* (p 129).

This was especially stark where data was collected from the students but was not used due to the practical reality of analysing and evaluating what was provided. Both Louis and Vince provided examples of collecting data from students and not using it due to lack of resources. For Louis this was time, and for Vince it was the lack of strategy and a clear

purpose of use. Vince remarked "*We've spent hundreds of £1000s on making sure. But then, what do we do with that data? […] it's just for reporting, we don't seem to then build anything from that, that positively affects a student's performance"* (p 127) (~~p163~~). The application and use of technology to support non-traditional students on these occasions highlights the complexity, and the messiness of higher education. A reminder that applying technology without considering the social and cultural factors that impact it will not lead to successful outcomes (Bennett and Maton, 2010; Costa et al., 2018; Gibbs, 2021; Gilliard, 2023).

The interviews were undertaken between August and mid-October 2022. The Blended Learning Review (Orr et al., 2022) had only recently been completed but there still was a broad lack of awareness of how the recommendations of digital access contained within that report would be actioned. This served as an indication of confusion around the use of language, conflating digital accessibility and digital access by nearly everyone who participated in this study (Goedhart et al., 2022; Kuhn et al., 2023; Munoz-Chereau and Timmis, 2019).

To summarise, most of the digital experts, who were not working with meaningful connections across their institutions were unaware of any responsibility towards ensuring digital access and felt it was the responsibility of dedicated Widening Participation teams. This occurred especially when their perspective of the use of the technology was purely functional and without any social effects.

This reflects both the lack of understanding and accountability, due to unawareness of the reality, as well as a gap in knowledge due to their disconnection within their institutions. This lack of accountability has been exposed elsewhere in studies of digital exclusion in society for those from lower socio-economic backgrounds, where policymakers and technology developers fail to recognise the needs of their users, passing the responsibility for developing skills and engaging with digital technology as an individual responsibility (Beckman et al., 2018; Goedhart et al., 2022; Helsper, 2012).

Unless participants were involved directly in decisions about widening participation, either through projects with those involved or by proximity through their trusted status, there was barely any knowledge about the contents of their institutional APP. Their

attention was towards how they were measured in terms of their project objectives, especially those in Professional Service roles. This included those in senior level roles who worked and set the agenda for the use of digital education tools and services. This was a very instrumental view, and depending on how socially connected they were in their institution, it affected how they perceived their responsibility.

The few participants that were not based solely in one institution, had a more surface level knowledge of the impact of digital education, as they were working across a network of HEPs. Where there was a good social connection, these participants were well informed about the needs of non-traditional students and understood that these tools were not neutral and there could be unintended consequences of its use depending on the context. Where participants were some distance from the reality of the everyday experiences of these students, there was little to no knowledge about sector level requirements for widening participation.

A small minority of those interviewed were aware of their institutions policies and practices in relation to widening participation and how digital education affected them, but this was by no means the norm. If anything, they understood WP initiatives through their perceived responsibility and tasks they would be measured against. In this way, technology became a tool that served a purpose, and any social affects were seen to be for the individuals concerned to deal with.

7.3 Institutional Responsibility

RQ 2: How do they describe their role in the university in relation to digital practice?

Of all of the groups of participants, those involved or tasked with being responsible for a section, division, or strategy in the digital education area of their institution were clear that they needed to achieve their objectives for digital education. What was interesting was how they introduced themselves in many cases as ‘responsible for the student

experience' but excluded from that any levels of difference (in some cases having nothing to do with students) and saw their roles first and foremost as an enabler of the provision of digital tools for education. Across all the levels they were aware of the student experience, but they were not always in contact with students and so made assumptions about their needs. Tools and platforms were seen as neutral to any effects of the user, which led to further assumptions about how the technology was being used, especially if it was not working correctly.

Everyone mentioned that they were providing access for students and staff but without any real understanding of what that meant. Where they were focussed on the institutional use of digital education, the concept of "what works"(Henderson et al., 2017) as a theoretical lens but not from the actual use of the tools. Even if a participant from outside of the institution and providing a service in a commercial context, they viewed the data as a means to explain what was useful and what was not working. They saw their role as facilitator of access through information and case studies, but the reality was presented very differently by academic staff who were at the receiving end of these technologies.

Related to technology determinism, institutional silos have been identified as a barrier to ensuring the success of implementing and using technology effectively. The implication being that it is the users rather than the system that is at fault preventing the effective use of technology. The participants in this study described their roles in relation to digital education practice as a facilitation rather than enabling, with no concern for deleterious effects of its application for non-traditional students. They did not see themselves as accountable for (or even recognised) varying kinds of use. They provided the tools and support in how to use it, but what they did not do is consider how the design or implementation may impact on non-traditional students or how it was actually being used. Indeed, they are under no obligation, as there is no directive to ensure this either through Government Policy or through legal requirements.

The participants described their roles through an instrumental view of technology which has led to a lack of engagement by departments within institutions who do not see the relevance to their roles, including widening participation teams. That is why it is important to bring these concepts together because without acknowledging the broad relevance of digital education and its impact "as more than just a set of tools but more of a set of practices" (Cottom, 2019, p. 29) ~~(Cottom, 2019, p. 29),~~ those already disadvantaged will continue to struggle.

Conceptually, most of the participants were keen to talk about the predicted application of the data they hoped to collect, yet there was no real evidence of the data currently being used in any meaningful way to enhance learning. There was plenty of data from VLE's and swipe cards or even, as Eva mentioned, student society activities, but there was no mention of systematic use of data from systems to reveal anything valuable to students or to staff in terms of learning and teaching.

It appears that automated emails and data dashboards are being used to monitor the behaviour of students and staff. This use of data as a surveillance tool is problematic as depending on who is reviewing the data and acting on the data can cause issues of bias, and inappropriate decision making (Heath, 2021; Selwyn, 2019, p. 5; Thompson and Prinsloo, 2023). Where the participants were well connected across institutions, they were aware of how digital education was affecting both students and staff, there could be effective interventions. Will and Eva both mentioned the ethical use of data and questioned why it was being collected. Whereas those in the weak connection groups without meaningful relationships (Maggie, Louis and Ella for example) were complicit in the collection and use of data from a functional perspective rather than from a social or educational one, led more from IT perspectives.

There were instances which highlighted how data from some systems was being used to automate emails for students who had not logged into the VLE, in the name of efficiency. The desire to have data automated is another example of the view of neutral technology, justified to being used as a functional service and any outcomes as impartial. The use of automated emails reminded students that they had not been participating in the way

that the algorithm assumed they would. It was as if it was applied only because the system had this functionality, rather than any specific need and was activated by a non-academic member of staff, seemingly unaware of what was happening on the ground (Selwyn, 2010, p. 66). However, the unintended consequence of this action causes confusion from students who feel like they are being reprimanded, and frustration from those staff who work with students and have to then deal with their concerns. All of this generated from an automated system that has no insight into what is actually taking place, in the name of efficiency. In this case, it was an email to a student doing group work and was in the office of Monika as the email arrived working on their project. By itself it could be considered seems to be insignificant, but it changes behaviour, and we lose sight of any benefit which might have been identified in its original purpose. As Neil Postman observed "Technology is not additive, it is ecological" (Postman, 1998, p. 4). By that he meant that when you introduce a new technology, in this case, automated emails, that it pervades the culture.

Eva mentioned how she had heard of another case, similar to Monika's experience where automated emails were sent to students for perceived non-attendance, which again was incorrectly applied to a group of students who had all been working in groups, as the data was gathering individual interactions and used this as a measure of student engagement which led to the wrong conclusion.

In addition to this misdirected use of automation from data there was a lot of comments about the predicted use of data, sometime in the future (Williamson et al., 2020) It was commonly referred to as a project to be, rather than something that had been done. Maggie mentioned this in her comments on digital transformation. Part of this involved the cleaning of data in readiness of the new strategy but she admitted it was some way off. Other Data concerns were raised by Vince who noted that his institution gathered too much data and that he was still unable to identify what kinds of students they were providing for.

Linked to the issues around Data was the concern of ethics. Ethics was not raised by everyone but those who were well connected with a good sense of their role across their

institution were mindful of ethical concerns of collecting data appropriately. Pamela, Will, Eva and Sean were all concerned about the ethical use of data, Pamela noted that the ethos of their institution was based on decisions made through values, and ethics was considered as part of that. She commented that *"there were just some EdTech companies we just won't do business with"* because of it. This group saw their role as value based, from an educational perspective and not one of functional IT, means-to-ends way of thinking, where the use is based on efficiency as a result of educational technology (Kirkpatrick, 2013).

In summary, these participants saw their roles in digital education very differently depending on how embedded they were in their institutions and how valued they felt they were. The actions they took to support or consider any social factors (socio-economic status, ethnicity, culture etc) that may affect the use of digital education depended on their own motivations or knowledge of the impact these may have on the students' experience. The contribution of this study, at the institutional level, has been to go beyond what structures are in place or the intended purpose of educational technology but to dig into the underlying relationships between the interests of institutions and the impact on users. The accounts bring these experiences to life and to show the depth of distance of accountability.

7.4 Local Decisions

RQ3: In what ways, if at all, does widening participation/digital policy inform digital experts practice and decision making?

In as much as digital access is a legal requirement for all institutions to consider, the day-to-day involvement with widening participation at a digital policy level extends to ensuring that students with disabilities are accommodated for. This is due to their being a regulatory requirement. From the 25 participants in this study, it was clear that any other recognition of difference for students through their backgrounds and experiences is entirely predicated on the individual concerned and depending on their level of authority, e.g. positional power, dictated their impact.

Within the Issues (Chapter 6) the lack of useful information from the data could be seen to contribute to the misconceptions of who was responsible for the needs of their users and therefore a lack of accountability. The participants accountability in their roles was linked to this in that if staff don't know who their students were and are not connected to them in any meaningful way then being accountable for the results of decisions made on the behalf of these hidden students does not have the impact it might have if they had accessible data. For example, several of the leaders I spoke to introduced themselves to me as "responsible for all student systems" including their strategic use. When questions were asked about non-traditional students, this was no longer their responsibility and they removed themselves and shifted it to another department. The only group that could not do that were the academic staff who have no choice but to be responsible for whatever happens at the moment of use, regardless of any decisions they had made. Travis mentioned how the decision to replace the VLE was made regardless of the consequences, in the interests of it being more engaging. Without consultation or evaluation (due to the pandemic) he had to learn how to use something that he had not planned for and was incompatible with how he had intended to teach his module. The students were unhappy, and this was represented in the feedback on his module. To compound this outcome, the data from his module was analysed and assessed out of context, by an unknown person in an administrative department. This scenario where the administrators are making decisions on behalf of academics without having to suffer the consequences is not uncommon as administrative roles in higher education are increasing (Holmwood, 2012). In theory this would have been a workflow that probably made sense but, in this instance, context was important, and the lack of accountability was represented unfairly, according to Travis.

This was not the case for those with high levels of meaningful connectedness in their institutions. In the workplace, this is formed through trusted, horizontal relationships in communities and because of this information is shared more freely (Schuller and Field, 1998, p. 229). The analysis showed that because of their relationships they could see the impact and hear first-hand from those closest to the outcome of their decisions and so were able to see the human impact. Issues that arise from these decisions was something that Will mentioned when he spoke about the cultural issues that occurred

with an international student, he had been speaking to, told him about issues he had with the use of educational technology compounded by the unfamiliarity of the UK educational system. Due to Will's position in the institution, he was able to adjust and make recommendations based on the knowledge he had of the reality of use. Pamela recognised that making use of the library data would benefit busy students looking for study spaces. Eva mentioned that they were not rushing into anything, when asked about the use of data as she was working closely with support departments, academic staff and was also teaching herself. As Selwyn noted, "Academics should maintain an interest in, and sensitivity towards, the importance of local contexts, cultures and circumstances" (Selwyn, 2012, p. 216).

Eva's views were very much about the contextual and ethical use of technology and data. She prevented staff in administrative services collecting data on students' activities within Student Union Societies. Whereas the administrative staff it as a "means-ends" way of identifying student engagement (Selwyn and Facer, 2013, p. 8), Eva pointed out concerns over the ethical implications, in part because of her close proximity to the students. Sean, having worked for his institution for 21 years and worked closely across departments could provide advice which was empathetic to the needs of the users which included staff and students. Preferring to contact and discuss requirements with academic staff and making recommendations together. All of these participants were aware of the issues of non-traditional students and those staff teaching them in ways that the other participants were not. They were very clearly accountable to their institutions and in line with their aspirations of inclusivity for all students.

Across the participant interviews, there were clearly groups who were not only aware of their responsibilities towards disadvantaged students but were actively committed to working with the Widening Participation teams or were situated within the same offices of those teams as the structures of their institutions meant that senior leadership roles were accountable to education and not just Digital Education. For these groups of leaders, they met with students across different backgrounds and also were actively involved in team meetings with their Senior Leadership. For this group, they recognised that it was not only accessibility that they needed to consider but it was also that they

were very much aware of the social factors that had an impact on their students experiences (Bikos et al., 2018). Most of these participants were in roles directly related to teaching and met with their students on a regular basis. These participants were also effective in their institutions because of their connections across their institutions. They had good networks and trusted relationships with cross-institutional teams, as determined by their levels of effective and meaningful connectedness (Granovetter, 1973).

This analysis highlighted the disconnect of those in support roles for digital education and those who were on the ground and working with students every day. For those staff in academic roles, directly accountable to students, there was a sense that those outside of the classroom, who provided their support, had become more like directors of how they should be teaching. This led to frustration on their part as they had to deal with any unintended consequences of digital decisions on their practice (Atkinson et al., 2019). There was no sense of accountability for those making these decisions and those who had to live by them, especially where educational technology is seen as the fix to institutional problems (Krutka et al., 2022; Pashkov and Pashkova, 2022; Smith and Jeffery, 2013). This disempowerment also surfaced through the data that was either not available for any useful context in terms of teaching and was more likely to be for monitoring purposes of staff and surveillance of students. (Thompson and Prinsloo, 2023).

To summarise, widening participation policies only informed digital experts where there was a legal requirement to do so (such as the Digital Accessibility Act) and not because of any regulatory requirement for ensuring commitments to widening participation through an institutions APP for example. It is contended that policies within institutions based on digital education and widening participation were more useful to those with reporting requirements and they did not have any practical relevance, being more performative. The most striking examples of this were where examples were given of carrying out policy requirements but not acting on the feedback or 'having time' to deal with the result of their policies. In this way, decisions were made without evidence and

feedback was not being acted on in the ways that their policies mentioned. This was not unusual, in most cases compromises were being made to manage the day-to-day users of systems. To that end, there was a more reactive engagement with technology which focussed more on digital accessibility rather than the social factors of digital access.

The difference was for academic staff who were involved in teaching students from non-traditional backgrounds. They were trying to make decisions to support their students but again, many of these staff were referencing digital accessibility rather than digital access. Where these staff were not part of conversations or connected in some way to staff from widening participation teams, these policies were not informing their practice.

This delineation can have wide ranging impacts on non-traditional students which this body of work introduces as a problem for students without the background, resources, and experiences to be able to work around unnecessary difficulties which could be solved if there was truly a 'whole provider' approach.

7.5 Conclusion

Digital education tools and platform support and implementation are not the same for all institutions and should be considered within the context of their use. The effectiveness and relevance are impacted depending on the individual regardless of specific roles in cases where they were well connected. The language of those in departments in administrative teams took a more authoritative lead in terms of the digital education despite their distance from its use. The rhetoric of institutions to promote their institutions and report to the OfS on how they support students indicated that they took a 'whole institution approach' but it was not reflected in any way with most of the digital experts I spoke to and in many cases where they were not connected in a meaningful way across their institutions. Where they had a narrow view of their role, they abdicated their responsibility for non-traditional students' needs as someone else's problem. However, they could reel off the list of what is on offer without any real clue as to the impact of their decisions as they were detached from the reality of its use.

Depending on where they are and their role, there was patchy support across the institutions that I spoke to. Depending on who they were, I was told very proudly that they offered support in terms of providing laptops and other devices. In some cases, they provided iPads. The support they were talking about was the option to bring their personal devices into the Helpdesk's to get them fixed and the digital skills support took the form of online skills sessions through LinkedIn Learning (as an example) or that it was dealt with via the IT department. There were a few 'Heads of' people who told me about their digital skills support happening through their IT departments. This digital skills support was for the functional use of IT supported software, in terms of how to use Office etc. Other sessions about searching for information might happen in the library through library staff teams. In terms of preparing students prior to attending their university courses I was only told about one opportunity to complete the JISC Digital Skills inventory where students self-assess their digital literacies through a series of questions and then they are given a report at the end with their strengths and weaknesses. Quite what they then did with that they did not know and there was no follow up.

This study has brought together for the first time, accounts of 'under the surface' issues present in digital education across the UK higher education and highlighted a gap in the organised support for non-traditional students across the sector. It presented a diverse group of honest accounts and perspectives, from individuals concerned with aspects of leadership and influence in the implementation, support, and access of digital education for all students. In particular exposed how much of the support for non-traditional students is left up to chance and that whilst official policies and strategies claim to consider widening participation initiatives, the lack of any organised concern across digital education teams means that there is little to no evaluation of the real digital needs of these users.

It has highlighted how concern for educational technology can be perceived to be inconsequential to student life, and seen as a neutral tool when in reality, it's implementation and strategic use is affected by how well the particular staff member is connected in meaningful ways can impact on the effectiveness for non-traditional students. Many other studies have focussed on either digital or widening participation experiences of students (Clarida et al., 2015; Costa et al., 2018; JISC, 2021b; van Deursen and Helsper, 2015) but there is a gap in the lived experiences of those involved in implementing digital education and their views on digital access. This study has provided evidence of the impact of this and has shown how whilst there are good intentions there is also a lack of any meaningful accountability or evaluation of the impact of these initiatives as demonstrated by the accounts presented here.

The accounts presented here from digital experts from across the higher education sector recounted their perspectives of their roles in supporting, implementing, and leading digital education initiatives and their awareness of the needs of digital access for non-traditional students. Not everyone was in an official role or career pathway that meant that they may not have been the key decision makers for their part of the student's digital experience, but they were an important factor in influencing decisions of senior leaders and academic staff, and their institutions representations to the OfS or other regulators of their whole institutional approach towards access and participation.

The analysis of these accounts demonstrated how disorganised and disconnected the digital access and participation support was for students in contrast with the organised and accountable Widening Participation teams, who are in dedicated teams across all UK higher education institutions in one form or another. Whilst beyond the scope of this study, future research could involve mapping the digital access needs of non-traditional students and applying the same level of accountability through a digital access and participation plan and making it a requirement in the same way that the current APPs are used (see Appendix 1). This could provide a structure that is so clearly needed and put strategic importance on the impact that digital technologies have on students' experiences. This may also take away some of the happenstance that has been occurring within the sector around knowledge and understanding of the impact of the implementation and support given towards the introduction and use of educational technology. Making those more accountable for its design, implementation and use may also lead to EdTech developers of digital education to be held to account for the data that is generated and what is provided to institutions for example.

What this study has shown is that there is clearly a lack of awareness and knowledge of the unintended consequences of insufficient digital access and use by those responsible for managing and implementing it. In terms of the research questions, each of these has been included under the research questions section and I have highlighted how each of these questions has been answered. Following on from that, this chapter includes a summary of the main findings as well as a summary of the connections between this and other research that addresses either digital or widening participation agendas.

7.6 Connections to Other Research

This research builds on the work critical theorists that have argued for the development of research with more of a critical view of the use of educational technology from beyond the claimed improvements of learning or enhancements to focus on actual use and the human and societal factors that provide the context of its use (Cottom, 2019; Feenberg, 2017; Oliver, 2011; Postman, 1998; Selwyn, 2010) *"the academic study of educational technology needs to be pursued more vigorously along social scientific lines, with*

researchers and writers showing a keener interest in the social, political, economic, cultural and historical contexts within which educational technology use (and non-use) is located." (Selwyn, 2010, p. 66).

I have established my contribution to new knowledge by focussing on the context of those involved across the spectrum of digital education across the UK higher education sector. What this work has provided is a record of how digital education and widening participation initiatives are at odds, which is especially dependent not just on the context of use but the environment and motivations of those implementing it. I have identified how staff perceive their levels of responsibilities despite claims made by their institutions to satisfy regulatory requires and brought to the surface a 'behind the scenes' look into the organisation and practice of digital education decision makers and influencers.

It has given importance to the human connection between digital education and widening participation teams as an essential factor for student success and that the implementation of 'digital' is just as important as plans for widening access and as I have shown, they need to be reflected in evaluations of performance in supporting non-traditional students. Many non-digital experts (such as those in other professional services departments) are often informed by IT departments who view technology from a non-human perspective taking an technological deterministic stance (DiMaggio et al., 2001). Taking this view can have a detrimental effect on those who rely on technology in these settings as it is built on assumptions about the students. Across the participants interviews, much of how those in 'Heads of XXX' roles described how they provided various technologies based on assumptions that those using it were basically traditional students and had access to all the resources they needed (including support).

7.7 Limitations

a) The interviews in this study were undertaken before November 2022 just prior to the released of ChatGPT. Whilst AI had been mentioned very briefly in terms of

automation, it was not discussed in any detail and may have had an impact on our discussions.

b) This study is limited in that it is a snapshot in time of a group of digital experts' perceptions of how their users are working with the systems that they provide. A longitudinal study, which could have considered developments in digital educational technology use (such as the introduction of broader AI technologies) would be valuable to be able to show what has changed over time.

c) It can only provide digital experts views and what is missing is the views from widening participation teams who put together the evidence for APPs. It would be interesting to compare how they understood the contribution of digital educational technology and digital access as a contributing factor to student success.

d) I have indicated that the introduction of a Digital Access and Participation plan may be a way of recognising the connections and provide accountability but have not been able to explore this in any depth or to evaluate if it should form part of the existing APP in an official capacity.

e) Additionally, there was no funding for this study which might have increased participation from a wider group of participants.

Chapter 8: References

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Appendices

8.1 Appendix 1 Key Acronyms and Definitions

Acronym	Definition	Notes
APP	Access and Participation Plan	A regulatory requirement in order to charge the full fee for a degree programme.
Blended Learning	Contested as to a precise definition, but essentially when more than 30% of the content is accessed online	It would be difficult to find a course in the UK which does not use less than 30% as the majority of institutions use a VLE
VLE	Virtual Learning Environment	Also known as LMS (in the USA)
OfS	Office for Students	
HERA	Higher Education and Research Act	Regulatory Framework that the OfS is guided by and works within
ALT	Association for Learning Technology	Highly valued and representative of a high proportion of mainly UK but also international use of educational systems and tools. Across Higher Education, Further Education and Schools. Commercial Platform providers can also be members and it operates

Acronym	Definition	Notes
		using a subscription model from institutions and also individual members. They also offer a fellowship scheme.
UCISA	University and Colleges Information Systems Association	More IT focussed than education but does have some cross over for those in digital education. Covers Higher Education, Colleges, and Schools.
HeLF	Heads of eLearning Forum	An extremely high proportion of those responsible for decisions in mainly IT but also digital education are members. This is a well-established and community-based network with a Chatham House rules approach to discussions and sharing of information around the systems and products that are being used within their institutions.
Digital Education	For ease of use the reference here relates to	There are many terms used to describe the use of web based and

Acronym	Definition	Notes
	all forms of web enabled or networked learning	networked products and systems for education. Labels of eLearning, Technology Enhanced Learning (TEL), Online Learning, Learning Technologies, web enabled technology, are all covered here under 'digital education'.
Digital Access	How the web is accessed for educational purposes	The idea is that digital access is affected not just by the hardware and software in use but also by the context which includes social factors and when applied alongside definitions of digital poverty help to provide a better picture of the use by students and how these differences impact on their outcomes
Digital Accessibility	The adaptation and enhancement of online resources to allow for students with disabilities to be able to use the web effectively through adjustments	This term aligns with the Digital Accessibility Act (2018) which requires all public facing bodies to make their web-based resources and information accessible

Acronym	Definition	Notes
		for those with disabilities. This includes transcripts, captions and flexibility in the use of fonts and screen-based readers.
Non-Traditional Student	Students who are not from white middle-class backgrounds, based in the UK, living in halls and the first in their families to go to university.	The use of 'non-traditional' is an all-encompassing term to try and provide a convenient reference to describe students who are not privileged
Commuter Students	Students living in their family homes and attending their local university	Commuting students in London are the 'norm' so this term is used in conjunction with non-traditional. Travelling to and from their institutions creates disadvantage depending on the other factors of disadvantage that students may have such as socio-economic, cultural, or ethnic factors.
Widening Participation	The process by which entry to higher education is supported through measures to support	The aim being to extend the opportunity to non-traditional students and increase their chances of

Acronym	Definition	Notes
	students from diverse circumstances	social mobility through higher education
Digital Experts	Leaders, influencers, academic staff with an interest in technology in educational settings and have experience of its use and application in higher education for teaching.	The term 'digital experts' is applied as a means to frame staff linked to the decisions about the use of technology for education.
Digital Poverty	Aligns to Digital Access in that being digitally poor implies less access to the web	The OfS adopted the phrase digital poverty during the pandemic and then altered this to read 'digital access' see above

8.2 Appendix 2 Office for Students APP Template

Using this access and participation plan template*

Providers registered with the Office for Students should use this template to complete their access and participation plan.

It should be used with:

- Regulatory notice 1: Access and participation plan guidance (OfS 2023.67)
- Regulatory advice 6: How to prepare an access and participation plan – effective practice advice (OfS 2023.66)

Please use the structure – the titles and subtitles – in this template to create your plan. If you use an alternative template, or your plan is more than 30 pages (excluding annexes), it may take longer to process your plan.

We have included prompts in light blue boxes. **Please remove all light blue boxes before submitting a plan.**

Providers are free to apply their own branding, colours, typography and other styles, so long as they retain the structure of titles and subtitles in the template.

Please make sure that your document complies with the Web Content Accessibility Guidelines 2.1.[1] Published PDFs should, for example, include structured headings using the document styles, alternative text where appropriate, and a title in the document properties. You can check the accessibility of your plan by using the accessibility checker in MS Word.

* Please delete this front page when you have completed your plan.

[1] See www.w3.org/TR/WCAG21/.

[Insert name of provider]

Access and participation plan 2025-26 to 2028-29

For more information about how to complete this template see:

- Regulatory notice 1: Access and participation plan guidance (OfS 2023.67)
- Regulatory advice 6: How to prepare an access and participation plan – effective practice advice (OfS 2023.66)

Introduction and strategic aim

This section should include contextual information that will help the OfS, students and other readers to understand your context, size, and mission. It should also describe the overarching strategic aim with respect to equality of opportunity.

Risks to equality of opportunity

This section should summarise the key risks to equality of opportunity that your plan will address and how you have identified these risks. Where you have identified an indication of risk that you are addressing in the plan we expect you to explain why you think it is occurring.

For example, 'Risk 2.1: There are lower proportions of students eligible for free school meals in Poppleton University, particularly in the following subject areas, and intersecting with the following demographic criteria. Evidence suggests this is a function of insufficient prior knowledge, limited access to good information and guidance and internal application procedures.'

Objectives

Each risk to equality of opportunity that the plan addresses should have at least one corresponding measurable objective. Objectives should be timebound and measurable.

For example, 'Objective 3.1: Poppleton University will increase the number of students eligible for free school meals attending the university to 30% of our intake by 2030 through working in partnership with schools to address insufficient prior knowledge and attainment and improving the quality of transition from their prior learning environment.'

Intervention strategies and expected outcomes

Each objective should have an intervention strategy. This should refer to the risks to equality of opportunity identified through the assessment of performance that it is designed to address. It should also include information on the activities that will contribute towards meeting the overall objective, as well as details about the financial and human resources that will be needed to deliver it.

It should include information about how you intend to evaluate it for efficacy. Information about why you believe the intervention strategy will work (e.g. the evidence base) can be included in Annex B of the plan. We suggest using the template below for each intervention strategy, as this can provide a high level summary of your underpinning theory of change. Some may need multiple pages.

Intervention strategy template

Intervention strategy 1: Objectives and targets

This section identifies the principal objective that the intervention strategy will contribute towards. If the intervention strategy is likely to contribute to other objectives, these can also be noted here. Please note target reference numbers that relate to those set out in the Fees, Investments and Targets document (FIT).

Risks to equality of opportunity

This section identifies the risks to equality of opportunity that the intervention strategy will address.

Objectives and targets: List relevant objectives and targets or reference these if listed elsewhere in the plan.

Risks to equality of opportunity: List relevant risks to equality of opportunity or reference if listed elsewhere in the plan.

Activity	Inputs	Outcomes	Cross intervention strategy?
Provide a high-level description of each activity that will contribute towards reaching the objective of the intervention strategy, including: - Target student groups - Numbers of participants/schools (if applicable) - If this is a new or already existing activity - If this is collaborative.	Provide an estimation of the resources (human and financial) that will be needed to deliver the activity over the four years of the APP. Where resources are shared across departments or intervention strategies, an estimate of the proportion that will go into this activity should be made.	Provide a high-level overview of the expected outcomes of the activity. These outcomes can be used to track progress and understand the impact of each activity on the overall intervention strategy objective.	Indicate if the activity will contribute to other intervention strategies.
Multiple activities are likely to be necessary per intervention strategy. Each activity should be detailed on a separate line.			

Total cost of activities and evaluation for intervention strategy:

Summary of evidence base and rationale: High-level overview of the evidence base used for this intervention strategy, and signpost to full explanation in Annex B if necessary.

Evaluation

This section should provide a summary of the way in which the intervention strategy will be evaluated. It should detail which activities will be evaluated and the expected level of each evaluation. It should also state whether the intervention strategy as a whole will be evaluated.

An example of how you may wish to set out detailed evaluation activity that relates to activities in your individual intervention strategies is provided below:

Activity	**Outcomes**	**Method(s) of evaluation** Include type of evidence you intend to generate e.g. empirical (Type 2).	**Summary of publication plan** When evaluation findings will be shared and the format that they will take.

More detailed information on evaluation can also be provided in the Evaluation section or at Annex B.

Whole provider approach

This section should detail how you are taking a whole provider approach to addressing the risks to equality of opportunity and how you have paid due regard to your obligations under the Equality Act 2010.

Where relevant, you can include an explanation about how the access and participation strategies align with your other strategies to achieve published equality objectives.

Student consultation

This section should detail how you have consulted students on the plan before its submission for approval, what steps you took as a result, and how students have been

and will be involved in the planning, monitoring, evaluation and delivery of access and participation work.

Evaluation of the plan

This section should describe your strategy for strengthening your evaluation activity overall.

Provision of information to students

This section must describe how you will provide information on fees and financial support to prospective and current students before they start their course and throughout it. You should ensure that the information provided is clear and accessible.

Annex A: Further information and analysis relating to the identification and prioritisation of key risks to equality of opportunity

This section sets out the risks to equality of opportunity that you have identified in your assessment of performance. You should explain how you identified those risks and spell out any indications of risk you have identified that the plan does not address. For the latter, include any mitigating actions where appropriate. Include only those elements from your assessment of performance and consideration of the Equality of Opportunity Risk Register (EORR) that directly relate to identified risks. It is not necessary to include in the plan all the analysis you have undertaken.

You may use charts and graphs to make the assessment of performance more presentable.

Depending on its size and context, a provider may identify a greater number of indications of risk than it would have the capacity to address through its access and participation plan. In such a case, a provider should present a clear rationale for the number and nature of the indications of risk it has chosen to focus on in its plan in this section

Annex B: Further information that sets out the rationale, assumptions and evidence base for each intervention strategy that is included in the access and participation plan.

This section should set out further information about the evidence used to underpin each intervention strategy, and any rationale and assumptions related to the underpinning theory of change for each intervention strategy.

Annex C: Targets, investment and fees

> The OfS will append the information from the fees, investment and targets document when an access and participation plan is published.

8.3 Appendix 3 Interview Questions and Guide

Based on dimensions of access and use, control, culture and society the following were the initial questions that were developed into the guide below:

Access and use

Who are your students?

Who decides what your students need and how they access it?

How is support provided?

Do you ever meet with students about their use of the IT/Learning technologies?

What responsibility do students have in ensuring they can access the technology provided?

How much consideration is given to the location of students?

Who decides the level of institutional use of digital technologies?

Command and Control

Why do you have the technology you have? (format, apps, browsers, responsive design etc)

How are the primary learning technologies across the institution set up?

How do you know you have got it right?

How do you evaluate and review?

What groups across the institution inform your decisions?

What restrictions (apart from security) do you impose on systems, regarding teaching and learning?

How much personalisation is possible?

What are the key policies and practices that impact on learning technology access?

Widening Digital Access and Participation

Digital Poverty and the Digital Divide are terms used more frequently since the pandemic – what do they mean to you?

Apart from the legal requirements of accessibility, are there any other imposed considerations (internal or external) that you are aware of?

What is your view on the 'so-called' inequality of students?

How are differences taken into account (experience, resource level)

External influence/knowledge

What sector communities/groups do you belong to?

How influential are EdTech?

How influential are external drivers to your decisions? (Government, organisations, networks etc)

How much autonomy do you have in your decisions for your institution?
The interview guide (below) was then formed from these initial questions and was the main set of prompts used during the interviews.

Interview Guide

1. Introduction 5-10 minutes max

- [ ] Thank them for participating;
- [ ] 60 minutes or less;
- [ ] check that they have provided consent
- [ ] Interview purpose, covering the themes of my research around inequalities of access, use and participation of edtech by non traditional students (commuter students, mature students, lower socio economic groups, racially marginalised)
- [ ] Interested to know from their perspectives
  - [ ] What is their role in higher education context (professional services, academic, advisory etc)
  - [ ] how long have you been involved in educational technology
  - [ ] Are they an influencer or a decision maker in terms of what is used for teaching and learning?

2. Students at their institution/kinds of students they think are using their tech

- [ ] Do you expect students to have a certain level of digital skills before attending?
- [ ] Who are they? How aware are you of non-traditional students?
- [ ] How are students supported to use the systems? and when?
- [ ] If there are issues with students own technology (laptops, and other devices) does your institution offer hardware repairs or any support for hardware/replacements etc
- [ ] How flexible are the systems that students are using (can they be accessed in multiple ways for example? who decides how they are implemented?
- [ ] Are their requirements for a minimum spec (IT) for the courses you are involved in?
- [ ] How are differences taken into account? When? (before, during etc or only during)
- [ ] What role does data play in decisions about access and participation?

3. Main groupings of interest:

Hidden students: hard to find out information about different groups of students. The types (of student) are more varied and will have different needs and resources. Systems have been in place to meet the needs of different kinds of students; inflexible and set up by people who are not involved with students (conflicts of priorities) working around systems not designed for them

Digital Poverty/Divide : money and skills to use/experience/confidence/access; cost of living crisis increases pressure; asking for help etc; the haves and have nots (how common is that?) Expectations of ability not checked?

Silos: Teaching staff, professional services staff how do they work together to support students? Access and Participation plans there to encourage participation but the importance of edtech effective use, access and digital literacies skills are rarely mentioned, should they be?

The problematisation issue: EdTech claims, solving what needs fixing or is it? Web 4.0 'revolution'? Magic bullet solutions etc but not necessarily implemented in a way that allows for flexibility of how it might be used

8.4 Appendix 4 Interview Prompt (scenario)

For context the following illustration was used as a tool to highlight the kinds of digital access experiences that may affect non-traditional students.
Student Persona (contextual prompt for interview)

There's no app for that

Natalia is an 18 year old, UK Muslim, undergraduate student who has responsibilities to her parents care and cannot move away from home. She has decided to attend a university by travelling by train but she remains living at home. She takes the train each day and has three changes, but she is determined that she will succeed and become a Human Rights Lawyer.

She has an older laptop which is quite heavy and requires to be permanently plugged in as the charge on the laptop doesn't last long. She also has a smartphone which was her brothers, on a pay as you go contract. She has budgeted carefully so that she hopes that as long as there are no surprises re her finances, she will be able to manage. When she began her course, she carried everything with her to uni, but she doesn't always find a space with a plug to be able to use her laptop and she has started to get shoulder problems from lugging everything around (usually in a hurry), so she has been making do with her phone and a notepad where possible. She attends lectures and any face-to-face activities on campus and relies on the time she has travelling on the trains to catch up or finish off what she has started at university.
She is familiar with apps and social media and often sends messages to herself (using audio) when she is on campus and if she can get Wi-Fi she will try and search for and download as much as she can so she can access offline on her travels.
One of her modules on her course requires a group research project using blogs. The institution has a WordPress installation and uses CampusPress as their host. Natalia was keen to make a good impression with her group and offered to upload and edit some work before the deadline. As usual, due to her family commitments, she had left the submission to the day before and discovered that she could not login to the site using her institutional login credentials. She tried changing her password and over the

course of the day felt incredibly stressed and deflated that she would be letting her team mates down and they would all lose marks. After hours of trying to access through the WordPress App, she contacted the support team who told her that although the blog was a WordPress blog, her institutional access was provided by CampusPress and so the login info would not work for her on the app. They advised her to use a laptop to access the site and not to use the app. As Natalia was hoping to use the train travel time to complete the task she had to now wait until she got home as she could not rely on her internet connection on the train. They told her that she could use the browser on her phone to login as it was adaptive to the device and offered her links to BT Hotspots. Whilst that might have worked if she was stationary, when she was travelling by train, she could not risk losing work. If she had been able to use the WordPress App (or a similar version for the institution) she would have been able to use it offline and could make the most of the time she had between her uni and her home.

The university does not have any plans for an app as they believe the recommended alternatives are sufficient.

8.5 Appendix 5 – Data gathering from transcripts form

Heading	Prompt
Pseudonym	
Role	Role and group; include perspective and status; Years of experience; how confident were they in introducing their work/position?
Connections to strategies and policies	Details of their awareness of and alignment with institutional strategies and policies; views of non-traditional students
Did they take responsibility?	Did they think that digital access (rather than accessibility0 was part of their role? What did they say about non-traditional students and digital education?
Everyone was asked around the same topics	Who did they think their students were? Do they know how they use tech? Flexibility of access; how to they use data; hidden students (not everyone the same); digital poverty/divide; silos of teachers/admin/IT/SMT; influence of networks external and internal; staff and student workarounds
Any additional thoughts?	

This formed the basis of data collection from the transcripts to help explore the large number of transcripts.