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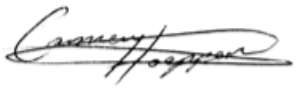
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Digitally Mediated Education and Outreach Practices in Cultural Heritage Institutions in the UK

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Trinity Term 2022

Dissertation submitted in partial fulfilment of the requirements for the degree of Master of Science (MSc) in Education: Digital and Social Change

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Abstract

This qualitative study seeks to address the limited amount of research available concerning the rapid change in Cultural Heritage (CH) learning and outreach working practices, experienced during the COVID-19 pandemic. The purpose of this study was to explore the experiences of UK-based CH learning and outreach teams, around their increased use of online and digital learning tools during the pandemic and identify any subsequent influences these tools had on their current onsite and offsite programme delivery strategies, pedagogical approaches and collaborative ways of working. Data was gathered through 39 online surveys and 18 semi-structured interviews with CH professionals, working in learning, outreach and engagement settings. The data was transcribed and coded. A thematic analysis approach to the data revealed three prominent themes: *Removal of the Default*, *Dragged by Sheer Necessity into the New World* and *Step Change.* These themes provide insight into the multiple influences online and digital learning tools can have on CH learning and outreach programmes and provide a reflective guide on best practice for CH practitioners wishing to implement them.

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Chapter 1

Introduction

On the 26th March 2020, lockdown measures legally came into effect in the UK, resulting in Cultural Heritage (CH) organisations across the country closing their doors to the public and the many people who worked within them. Within the year 70% of workers in the arts, entertainment and recreation sector - including performing arts (theatres, concerts, live music etc), creative arts and writers, museums, galleries, libraries and other attractions (historical buildings, zoos botanic gardens) - were furloughed under the Government's coronavirus job retention scheme', second only to the 77% reported in the accommodation and food sector (Tobin, 2020; Waitzman, 2021). This led to big shifts in working practices across CH institutions, including those working within Learning and Outreach roles - of which I was one.

This sudden change within my working context required a fast-paced pivot - with limited financial and human resources - to the development and delivery of learning and outreach programmes, centred around online and digital ways of working. This set of circumstances was not unique to the CH context and informal, online forums soon emerged within the sector to discuss shared problems, ideas and the challenges faced by many, in trying to deliver learning and outreach programmes into homes and schools across the country and (in some cases) the globe.

What emerged over this period was recognition that CH learning and outreach work within the UK was predominantly delivered through onsite and in-person experiences - despite the emerging technologies, research and literature on the use of online and digital tools to support learning and outreach goals. Technology was often portrayed as secondary and supplementary within learning experiences. Minimal specific research existed regarding the experiences of CH teams that described the impact of these tools on delivery strategies, pedagogical approaches or learning theories - all of which became important as the sector shifted rapidly towards using these tools as their primary mechanisms of delivery.

This research paper is supported by current literature that centres on identifying different technologies within the CH learning and outreach landscape (Hawkey, 2004) and understanding

the role and placement in the learning cycle (Gruber & Glahn, 2015; King & Lord, 2016). Much of the literature provides cases for and against the use of these digital tools - and their ability to deliver learning and outreach objectives driven by traditional CH learning theories (Andre et al., 2017; Gruber & Glahn, 2015; Jewitt, 2012; Reeve & Woollard, 2015; Smith Bautista, 2014) - whilst bigger questions concerning digitalisation, online ways of working within CH institutions and effects of the COVID-19 on the sector, are addressed by international research and parliamentary reports (UNESCO, 2021; Woodhouse & Hutton, 2021)

Further current research looks at the impacts of COVID-19 on future methods of delivery within the sector, such as the potential for blended approaches (King & Lord, 2016; Vavoula & Anastopoulou, 2020) and tools used within distance learning programmes (Ennes et al., 2021). However, the research does not explore the possible impact of these experiences on reshaping current learning theories and collaborative ways of working, in depth. Nor does it explore the practical challenges and lessons learnt by teams faced with transitioning the majority of their working practices and session content into online and digital spaces.

Thus, a limiting feature of the literature and research above is that does not pull together the experiences of CH teams - for whom the effects of the COVID-19 pandemic meant a sustained use of emerging digital and online tools within the pandemic context - with the effects of wider structural changes within organisation and the underlying attitude and beliefs present within the sector that underpin the uptake and value assigned to online and digital tools. This research aims to explore how the culmination of these factors influence current and future onsite and offsite CH learning and outreach practices.

This research is significant as it aims to help CH learning and outreach practitioners improve their practice; by collating a range of experiences from within their field, which are systematically and rigorously analysed, to provide insight and guidance in the following key aspects. Firstly, the research provides a reflective tool to open conversations within CH learning and outreach teams around their current views on the role, value and place of online and digital tools in their programmes and the effects these views might have on their practice. Secondly the research provides empirically based insights into how/where these tools have/have not influenced practice (such as delivery methods, pedagogical approaches and collaborative ways of working), encouraging practitioners to critically consider their decisions and make informed choices around the approaches and tools they undertake. A third contribution is the creation of

an evidence base that can be used to inform best practice, detailing how current tools have been used and the challenges and opportunities experienced by CH teams. Lastly the research calls practitioners to critically consider the role of learning theories within their programmes and how they may/may not be carried forward in these tools, raising a question for the need for future research into learning theories within the space.

Purpose Statement

The purpose of this empirically-based qualitative study, was to explore the experiences of UK-based CH learning and outreach teams, relating to their use of online and digital learning tools during the COVID-19 pandemic and the subsequent influences these had on their current onsite and offsite programming. It particularly focused on their experiences around the potential shifts in their pedagogical and collaborative practices. The research identified CH sites as museums, galleries, libraries, gardens, historical houses and archaeological sites and landscapes. Digital and online tools relate to different technologies that enable learning and outreach programmes to be facilitated via the internet to audiences not located within physical CH venues - although these technologies can (at times) be used within the venues themselves.

Chapter 2

Literature Review

Current literature on the use of technology in cultural heritage settings reveals a range of projects and implementations including; virtual tours promoting cultural tourism, digital archives and collection management systems, interactive mobile platforms and application, the use of artificial intelligence (AI) in understanding dwell time and eye-mapping in understanding visitors' experience of an object (Neuhofer, et al., 2014, p. 344 in Dieck et al., 2018; Pierdicca et al., 2020). Fewer articles focus on the explicit design, use and effective implementation of technology for learning practices and pedagogies in these settings (Mason & Vavoula, 2021). As new technologies become more widely embedded in the CH sector as a means for visitors to access and engage with cultural artefacts, they are also becoming more prominent within CH learning practices and outreach strategies. Further to this, the COVID-19 pandemic required many learning and outreach staff to deliver their learning programmes through increasingly digitally-mediated methods, with little warning.

The literature review below outlines the history of CH learning and learning theories. It discusses the role of outreach and engagement within learning practices and the importance of learning partnerships within these spaces. It provides a closer look at digital learning and outreach practices within CH institutions and explores the perceived benefits and criticisms of digital and online tools within the literature. These critiques pertain to wider critiques of digital learning practices. The chapter then looks at literature concerning the impact of COVID-19 on learning and outreach practices within CH institutions and the changing skill sets required by learning and outreach practitioners within the field. The chapter concludes with identification of a set of research questions.

Cultural Heritage Learning

Brief History

Learning within the CH sector is a unique educational setting and refers to the informal life-long learning of visitors to cultural institutions within a cultural tourism framework. It also refers to pre-planned, co-ordinated educational workshops for students and groups, within a more formal

educational context (e.g. primary, secondary or tertiary school visits to institutions to explore subject matter in line with their curriculum) (Hawkey, 2004). This paper focuses on the later pre-programmed, formalised learning practices within CH institutions.

It is worth noting that this literature predominantly focuses on historical practices and research undertaken within the Global North. Future research might look at historical approaches to learning practices undertaken by CH institutions more globally.

It is important to understand the historical context from which CH learning approaches emerged. Susana Smith Bautista (2014) describes origins of CH institutions as rooted within the Age of Enlightenment, whose early functions could be understood as 'socially reformists' (p. 1), where artefacts and their histories were less important than the 'values and morals of proper society' (p. 1) which they embodied.

> *'Museums became more than repositories of precious objects; they were bastions of authority and tradition that represented social norms, cultural capital to be acquired by all citizens, memories to be preserved for future generations, and public displays demonstrating what society valued most.'* (Smith Bautista, 2014, p. 1)

Smith Bautista (2014, p. 2) notes a shift in the attitudes of CH institutions in the late twentieth century towards public programming and becoming more socially relevant, due to increased costs of purchasing and objects, insurance costs and competition. Thus reflecting, a shift driven by the economic need to appeal to wider audiences in order to justify continued public funding (Smith Bautista, 2014). This included the need to be accessible to a variety of audiences, with different needs. These categories have included; Johns Falk's identification of audiences by interest level (explorers, facilitators, experience-seekers, professional/hobbyists, rechargers); Bonnie Pitman's audiences identified by learning style (observer, participant, independent, enthusiast) or by demographics around age, race, ethnicity, gender, level of education and income, and postcode (Smith Bautista, 2014).

Mason & Vavoula (2021) highlight shifts in the CH practices, moving from custodians and gate keepers of cultural artefacts towards more socially engaged and community-oriented practices. Smith Bautista (2014, p. 10) notes a further shift towards more 'experiential museum' style programming, in which objects and spaces become tools through which to deliver experiences,

rather than being seen as an end within themselves. These shifts also required the development of learning, outreach and engagement programming within CH institutions that would increase their relevance and reach into a diverse range of audiences. These principles still drive much of the focus in CH institutions today, alongside (and at times intertwined) their aims to preserve, conserve and contribute to greater knowledge production through research. The following section provides an overview of learning, outreach and engagement practices in CH learning and identifies how the above principles are evident in their approach to the use of technology.

Learning, Outreach and Engagement Practices

Reeve & Woollard (2015) summarise the learning practices and pedagogies within museums, galleries and cultural institutions as moving learning from a peripheral activity to 'a central part of what a museum or gallery is' (p. 551). This has resulted in pedagogical shifts from modernist principles of education which favour the transfer of 'preordained forms of knowledge in structured groups' (Reeve & Woollard, 2015, p. 553) to post-modernist principles of learning that focus on 'active learning, engagement, personalised meaning-making, facilitation, and experience' (Reeve & Woollard, 2015, p. 553) - reflecting the constructivist approach in which 'visitors actively *construct* their own meanings rather than passively accept those imposed on them by museum curators and educators' (Smith Bautista, 2014, p. 2).

Smith Bautista (2014) provides a summary of the how participatory culture within the digital age, is based upon an early *constructivist theory of learning.* Smith Bautista (2014) looks at how early learning theories proposed by John Dewey and Lev Vygotsky, influenced the theories put forth by developmental psychologist Jean Piaget in 1960s, which were later applied to museums in the early 1990s by George Hein in his work, *The Constructivist Museum* (Hein, 1999). Reeve & Woollard (2015) further note how the introduction of the UK national curriculum in the 1980s drove CH institutions to produce distinctive pedagogies that ensured they did not become 'just another classroom' (p. 555). The introduction of digital learning technologies into this participatory, constructivist learning space has added a further dimension of complexity to these learning practices, with the need to incorporate 'the local and global, virtual and physical, fixed and mobile' (Smith Bautista, 2014, p. 5).

Theories of Learning in Cultural Heritage Education

There are many theoretical approaches taken to learning within CH learning, often depending on geography, national policy, curriculum and funding. In *Museums as Avenues Of Learning For Children: A Decade Of Research,* Andre et al, (2017) provide a comprehensive overview of the learning theories used within CH learning, namely constructivist and sociocultural theories. The authors explain how these theories subsequently played a fundamental role in the development of Falk and Dierking's (2000 in Andre et al., 2017) museum learning theory - Contextual Learning Model (CLM). The CLM still often acts as a general framework for learning within CH institutions. The model identifies three contexts that influence learning within these spaces;

> *The **personal context** represents the history that an individual takes into the learning situation of a museum (i.e. individual's motivation and expectations, prior knowledge and experience, interests and beliefs, and choice and control). The **physical context** includes: advance organizers, orientation to the physical setting, architecture and physical space, design of the exhibit, and subsequent reinforcing events. On the other hand, the **sociocultural context** (i.e. within-group social mediation and facilitated mediation by others) involves visitors as part of a social group (e.g. family, school, preschool) that form a community of learners.* (Andre et al., 2017, p. 54)

Gruber & Glahn (2015) work further identifies three key actors within the CH learning process, these include; cultural artefacts/objects, the audience/learner and the facilitator/mediator. (Gruber & Glahn, 2015) highlight the importance of the relationship between artefact and audience, as well as the complex, often obscure process undertaken by experts, in which 'objects are first de-contextualised from their original environments and then re-contextualised with regard to the objectives of the given cultural institution' (n.p). The process of contextualisation is considered vital to the learning process, as it enables audiences and learners to construct personal meaning that supports the learning process.

Some of the pedagogical approaches used within CH institutions to help construct and foster personal meaning included; place-based learning models, immersive learning experiences and multisensory approaches to content delivery. These approaches may include pedagogical tools such as object handling sessions held onsite or offsite, drawing on haptic learning approaches (Pye 2008 in Reeve & Woollard, 2015, p. 556) that engage the multiple senses of a learner, making use of different learning styles and Gardner's (1993) theories of multiples intelligences.

Other pedagogical approaches include active learning theories, such as inquiry-based activities, problem-solving challenges, talking to an expert or storytelling-based activities - combining ‘narratives, hands-on activities, free play, free exploration and guided multisensory experience’ (Andre et al., 2017, p. 60). Jewitt (2012, p. 75) describes the multimodal character of these pedagogical engagement strategies as incorporating ‘bodily physical experiences, emotional and intellectual experiences, or experiences that build on the visitors’ imagination, or lived memories’. These might include approaches such as gamification and location-based games, making use of tools such as augmented reality, that act as ‘motivational platform[s] to create engaging and efficient learning activities’ (Dunleavy et al., 2014 in Dieck et al., 2018, p. 2017).

Further pedagogical approaches used to encourage personal connection and meaning making include relational learning theory, establishing authentic connections, drawing on ‘community of learners’ models (Rogoff, 1994) and drawing on techniques such as empathic mimicry.

Othman et al, (2021), provide four interrelated components that can be seen to underpin the above pedagogical approaches and tools in relation to CH learning experiences. These measures relate to a learner's level of ‘engagement, knowledge and learning, meaningful experience, and emotional connection’ [Othman et al., 2011 in Othman et al., 2021, p. 2).

This has led to the development of multiple onsite learning tools and technologies. King & Lord (2016) provide an oversight of these technologies, categorising them by their overall purpose/goal in the learning cycle and the kinds of activities they support, rather than identifying particular examples which run the risk of becoming obsolete. These included technologies that support activities onsite such as; navigating (wayfinding/exploring), storytelling (narration/information/feeling/sensing), playing (rewards/control, souvenirs, collecting), sharing (connecting, peer exchange) and making (doing, experimenting, learning communities) (King & Lord, 2016, p. 225)

These tools have also been used to bridge the divide between CH institutions, the classroom and home. The following chapter outlines outreach and engagement practices within the sector and the impacts of digital and online tools on delivery practices, which closely align to the ways of working undertaken during the COVID-19 pandemic.

Outreach and Engagement

In his book *Museum Educator's Handbook*, Graeme Talboys (2011) describes CH outreach work as a means to 'extend the effectiveness' (p. 138) of educational visits through pre/post-visit work as well as extending the reach of an educational programme to those who are unable to access onsite offers due to barriers such as cost, location, accessibility needs and/or time constraints. Blankenburg (2016) defines outreach as 'programmes and projects that bring elements of museum learning into schools, communities and other institutions' (p. 82), including museum resources such as artefacts, replicas, multimedia content and staff. These make use of CH pedagogical approaches, such as 'inquiry, self-directed learning and hands on exploration' (Blankenburg, 2016, p. 82). Talboys (2011) further breaks down cultural heritage institutions outreach services into two categories.

Indirect outreach work is defined by Talboys (2011, p. 138), 'those you set up and administer but which involve minimal levels of contact between you and those using them'. These include programmes such as travelling exhibitions (pop-up/temporary), mobile museums, school museums, undergraduate studies and distance learning material. Direct outreach services that involve CH education staff working outside the CH venue 'in direct contact (to a greater or lesser degree) with educational users' (Talboys, 2011, p. 138). These include talks, lectures, and workshops, direct work in schools and other institutes of formal education, community groups and consultancy work (Talboys, 2011). This reflects the transformation of modern museums as described by (Smith Bautista, 2014, p. xxi) 'from an early place-based cultural institution to a more dispersed (post)modern space'.

This 'dispersed (post)modern space' includes digital technologies, internet and social media based outreach programmes. Blankenburg (2016) identifies different digital forms of outreach such as websites, download reference materials and lesson plans, searchable collections, virtual tours, social media, e-learning (MOOCs/online platforms), games and competitions, mobile apps and museums trails. These different forms of outreach (digital and analogue) enable different pedagogical approaches and affordances. Digital learning pedagogies for learning and outreach programmes in CH institutions will be discussed in a later section (p. 11). However, effective development of educational outreach programmes requires dialog and an openness to working with partners within and outside the CH sector.

Learning and Outreach Partnerships

In the chapter *Planning for Effective Partnerships,* King (2016) identifies a shift away from the client-service model between CH institutions and schools, as both institutions begin to share common learning goals. He notes how this has resulted in a convergence of pedagogies and created favourable conditions for more collaborative partnerships. CH institutions are becoming 'peers of other learning organisations' (King, 2016, p. 63) aiming to provide better learning experiences for students - experiences that not only bring in revenue but embed CH institutions as indispensable partners within the learning ecosystem, that extend student learning in ways formal learning settings cannot. Thus reflecting, the change in focus within CH institutions towards creating visitors' experiences that remain relevant to learning partners - requiring CH institutions to have a deeper understanding of current and new pedagogies, including digital tools and their respective pedagogical affordances.

King (2016) suggests a collaborative framework is needed to establish "deep, long lasting programmatic partnerships" (p. 67). This is important given the often-large financial outlay and human resources required, to design and deliver new learning programmes. King's (2016) framework recognises the changing skills required of museum educators and includes; consultation, building inter-organisational teams and collaborative programme development. This process encourages onsite collaboration between CH staff both in schools, teacher training colleges and within CH venues, which can be beneficial when considering controversial or abstract subjects (King, 2016), such as the recent focus climate change, #MeToo and #BlackLivesMatter. Hawkey (2004) however challenges the assertion 'that heritage institutions must adapt, by adopting narrow learning objectives and assessment mechanisms' (p. 20), questioning the appropriateness of mapping formal education learning onto CH learning.

As well as collaboration with external learning partners, it is important to note here CH learning teams are required to collaborate with internal departments (such as marketing, media, website) and external technology organisations (outsourcing development). This highlights concerns around the impact of technology on CH learning collaborations, on multiple levels, set in the wider context of increased digitisation of CH collections and the digital formats and platforms they occupy.

Technology within CH learning and outreach practices is a well-established field**.** The uptake of digital and online tools - alongside distance learning tools - has been further impacted by the

COVID-19 pandemic. This has opened up a new line of pedagogical approaches for CH learning practices, particularly around blended and distance learning. It has also opened up questions around the current skills sets, organisational aims, strategies and staff structures within the CH learning sector. It has highlighted broader sector-wide questions around online safety, safeguarding, copyright and the use of data tracking - particularly in light of a more global move towards the use of platforms and big data. These concepts will be further developed in the section *Data Practices and Digital Policies*.

A Closer Look at Digital and Online Learning in CH

'Museums must confront the "essential role digital now plays in delivering [its] core mission and ambitions" and go beyond freely disseminated web-based content to meet the needs of their tech-savvy audiences and 21st century institutional goals'. (Mitchell et al., 2019, p. 248)

Mason & Vavoula (2021, p. 407) speak of a 'sector-wide institutional refocusing' as cultural organisations shift their attention away from objects and collections towards visitor experiences and the narratives surrounding their collection. This refocusing, in conjunction with the demands of the information society (van Dijk, 2005; Webster, 2014), has largely resulted in many cultural institutions moving their collections to online spaces. These digitised artefacts and architectural spaces are shared through institutional websites as well as across collaborative archive-style platforms and social media platforms. Two examples of these digital shifts can be seen in the contemporary initiatives Europeana and Google Arts & Culture. Both platforms seek to "aggregate the contents of museums and make them available through the internet in a single online space" (Pesce et al., 2019, p. 1884) making the cultural artefacts, spaces and knowledge owned by institutions around the world more visible and accessible. However, this does little to address questions and concerns of those with limited access to the internet and digital technology.

It should be noted that this paper does not focus on the wider theoretical debates concerning cultural objects/artefacts/artworks and their digital reproductions. Rather it focuses on what these digital reproductions and debates mean for teaching, learning, engagement and outreach practices, associated with the sector-wide refocusing of CH institutions as spaces of learning for visitors and how these digital objects/spaces influence the way in which narratives are shaped and shared.

Defining Online and Digital Learning in Cultural Heritage Institutions

Houston (2020, p. 2) notes how CH educators have historically 'brought learning into the classroom through "traveling trunks", object studies, and outreach programs'.
These practices have shifted over the last decade to include technologies that support digital learning practices such as, videoconferencing, virtual reality and multiple digital platforms - from blog posts to wiki documents, presentations and social media interactions (Houston, 2020, p. 3). These tools are particularly well suited to the delivery of distance learning programmes, which began to emerge in the mid-1990s (Bradford & Rice, 1996 in Ennes, 2021, p. 243) and became essential to the delivery of CH education during the COVID-19 pandemic. This paper draws on the definition of online learning as 'programs that are facilitated via the internet to audiences not located within the museum' (Ennes et al., 2021, p. 467), including the emerging practices around blended learning programmes.

Whilst the term distance education is often a blanket term for "online learning, e-learning, technology mediated learning, online collaborative learning, virtual learning, web-based learning (Moore et al., 2011, in Ennes & Lee, 2021, p. 163) there is common consensus that it includes learning between at least two individuals in different spaces and/or times, using a variety of resources (Ennes & Lee, 2021, p. 163). This consensus is carried through into definitions of CH distance learning practices, provided by Ennes et al, (2021) in which the authors identify digital and online tools as enabling forms of synchronous distance learning, asynchronous distance learning, interactive virtual learning, virtual educators, interactive virtual learning programs, point-to-point connections, multi-point connections, and streaming.

(Ennes et al., 2021, p. 243) provides a recent review of the literature of distance learning practices specifically within the museum learning context and highlight how 'the research examining these programs was primarily evaluative case studies describing benefits and barriers, the importance of partnerships, and the changing roles of educators with the development of distance learning programs' (p.243). However, these descriptions of distance learning do not identify 'hybridity as a characteristic of the relationship between digital and material museum engagements' (Galani & Kidd, 2020, p. 289). Nor do they make room for blended learning, which King (2016) identifies as an emerging pedagogy that combines 'digital content and instruction with face-to-face content and instruction' (p65).

Hawkey, (2004) provides an early taxonomy of online and onsite museum learning opportunities with digital technologies in *Learning with Digital Technologies in Museums, Science Centres and Galleries*, which can be seen to underpin the distance learning resources and practices within the sector. Hawkey (in Gruber & Glahn, 2015, n.p.) provides a further focused breakdown of distance learning technologies by dividing them into two categories or sets based on their contextual features; synchronous /asynchronous and local/remote. This describes how learning with Information and Communications Technology (ICT) within the sector takes place through multiple sources from pre-recorded/written/audio content to real-time learning programmes. This provides a useful framework, through which to look at technologies and learning programmes - the opportunities they afford and the learning theories and goals they set out to fulfil - rather than focusing on the particular technologies which run the risk of becoming obsolete.

The Case for Digital Tools in Cultural Heritage Learning

Gruber & Glahn (2015) make a case for the relevance of ICT in CH venues proposing that they break down institutional barriers such as limited opening times, duration of non-permanent exhibitions, location (distance and associated travel costs) and public access to archived artefacts. Further research points to the specific benefits in three key areas;

1) Increasing Audiences and Reach

One of the key benefits often cited relates to the potential for increased audiences (Ennes, 2021; Houston, 2020; Gaylord-Opalewski & O'Leary, 2019 in Mitchell et al., 2019)
Mitchell et al, (2019) focuses on the use of 'interactive virtual learning (IVL) programming within cultural institutions' to extend the organisational reach - drawing on the potential to strategically 'augment museum content' (p. 242) to engage new audiences through interesting, engaging relevant content (e.g. Mazzola, 2015 in Ennes, 2021). Houston (2020) attributes the increase in the outreach opportunities to the growing number and 'diversity of platforms for participation' (p. 3). Whilst Gruber & Glahn (2015) describe reach in terms of geographical location related to distance and travel costs.

2) Supporting Visits

Another benefit associated with the use of online and digital tools relates to its ability to support future learning visits onsite and in class learning activities (Mitchell et al., 2019). These

resources might be used before or after a visit, to reinforce learning or introduce learners to a site/collection/learning team, such as 'the goals of the new one-hour interactive virtual workshops, designed around museum content, existing middle school field trip lessons, and synchronous technology, were intended to enhance existing lessons with active teaching strategies, object analysis, inquiry, and digital resources' (Mitchell et al., 2019, p. 243).

3) Build Relationships

> *'To understand a museum in the digital age is to understand how its online (global) community is related to its physical (local) community and to all the points and flows of interaction within its distributed network'. (Smith Bautista, 2014, p.xxii)*

A third key benefit of online and digital tools relates to their potential to 'foster deeper connection with museum content and build a relationship between the group and the institution through multiple points of connection' (Mitchell et al., 2019, p. 250). This includes web-based interaction through organisational websites, platforms, online games, mobile applications and live streamed webinars. Not only can these experiences build relationships, they can also build interest in a collection which may later result in onsite learning visits. These relationships can be established at an organisation level or personal with teachers and students in relation to a CH site's collections and learning team; linking back to the discussion raised in the *Learning and Outreach Partnerships* paragraphs - in which CH institutions are encouraged to build "deep, long lasting programmatic partnerships" (King, 2016, p. 67) embedding themselves within the learning ecosystem.

Critiques/Concerns of Digital and Online Learning Practices

The above highlights some of the opportunities provided by online and digital tools within CH learning and outreach practices however, there are a number of challenges and concerns regarding their use. Hawkey (2004) identifies two concerns. The first concern centres on the digital developments within the sector being led 'primarily by technologists, rather than by museologists' (p. 18) and educationalists. The second relates to concerns around the quality of experiences on two levels. On one level it speaks to how digital and online learning is seen 'predominantly as a means of delivering conventional content, effectively unchanged' (Hawkey, 2004, p. 18) ignoring the need to adapt to the unique nuances, limitations and affordances of the technology. On the second level it relates to questions of a more fundamental nature around

'whether a digital exhibit, however much it can be manipulated, can ever offer anything approaching the real museum experience' (Hawkey, 2004, p. 18). The following three sections build on these concerns, looking at practical considerations and limitations of online and digital learning tools within CH learning practices, sector concerns around authentic CH encounters and wider education critiques of online and digital learning.

1) Practical Considerations

In her review, Ennes (2021, p. 243) states that some of the practical considerations and barriers regarding the use of online and digital tools within CH learning and outreach practices, relate to; 'cost (e.g., Gaylord-Opalewski & O'Leary, 2019), time constraints (e.g., Sanger et al., 2015), a lack of staff capacity and the need for new training (e.g., Gaylord-Opalewski & O'Leary, 2019), and issues with technology (e.g., Hilton et al., 2019)'. Mitchell et al, (2019) , extends this further in economic concerns by suggesting that 'some cultural institutions have been slow to adopt digital trends for fear that this increased access to museum content might dissuade audiences from physically visiting brick and mortar institutions, thereby decreasing attendance and revenue' (p. 246-247). While these practical, logistical and financial concerns play a significant role in the uptake and use of these tools, the literature also reveals an underlying concern regarding the suitability and impact of these tools on the quality of learning experiences.

2) Authentic Encounters and the Effects of Remediation

As seen in the above section *Theories of Learning in Cultural Heritage Education*, there are multiple theories and pedagogical values underpinning learning within CH institutions. The following paragraphs highlight the concerns raised in the current literature.

a) Pedagogical Values:

"Our biggest concern was the removal of the hands-on component as that is how children learn best and is how we've always delivered our programs. We were able to incorporate hands-on components through activity prompts and materials kits" (Ennes et al., 2021, p. 475)

The above reflects a belief regarding the pedagogical value given to physical interactions with objects, artworks and physical spaces in CH settings, in which the 'physical, place- and material-based experiences remain essential' (Smith Bautista, 2014, p. xxvi). However, it also reflects knowledge and belief around the current capabilities of technology to deliver these values based on the limitation of the technology they have been exposed to.

An additional pedagogical concern relates to the perceived difficulty in interacting through different digital and online tools as identified within Falk and Dierking's (2000 in Andre et al., 2017) Contextual Learning Model. 'Like on-site museum audiences, virtual visitors require intervention to synthesize digital content' (Mitchell et al., 2019, p. 247). However, it is important to note different online and digital tools allow for different interactions, *'*digital files for download are static but evergreen, pre-recorded lectures or lessons allow for asynchronous learning, and live teaching offers students a chance for interaction in a responsive online classroom setting' (Houston, 2020, p. 3). However, while static methods may '*provide less of a personal connection and do not allow for customization or flexibility for individual classes'* (Houston, 2020, p. 4), they can significantly contribute to multiple parts of the learning cycle, particularly with more blended approaches.

The focus then centres on how to virtually engage with learners in meaningful ways and to identify the features within tools that enable high quality virtual interactions and experiences, as well as considering the ways in which they may impact on physical encounters. This highlights questions around: the potential of the technology to add additional layers of recontextualising the object for the viewer; the possibility of technology to create new contexts for viewers to engage with artefacts; the value of facilitators in reaching and interacting with more global audiences online and lastly how the technology enables the viewer to engage with the artefact in a non-physical manner (e.g. the ability to zoom in closer than the human eye or manipulate objects, seeing multiple sides/angles unavailable is traditional displays cases).

b) Remediation

Technology influences how individuals and groups interact with museums and galleries, as well as how they engage in learning within them and online. The process by which technology influences our interactions is termed remediation (Crook, 2013; Jewitt, 2012)**.** Crook (2013) describes the process of remediation as '... appropriating a digital technology into some cultural practice (say, education, shopping or banking) is not simply "strengthening" that practice, say in terms of its pace, efficiency or economy, it causes that practice to be executed differently. It remediates the structure of how we act' (p. 9).

Whilst Gruber & Glahn (2015) highlight how visitors 'relate themselves to the artistic or cultural object', the concept of remediation and Actor Network Theory (ANT) proposes that the

technologies through which viewers and learners engage and interact with CH influence the very act of relating itself. This is significant within CH learning settings because the technology can be seen as an actor with remediating force on two levels; remediating learners' interactions and remediating cultural artefacts themselves through their digital reproduction and concepts of 'aura' as define by Walter Benjamin (1939 in Hindmarch et al., 2019, p. 249) which can be understood as 'an ineffable quality inherent in the object, which is not captured by any form of mechanical reproduction'.

Jewitt (2012, p. 74) explores 'how the use of digital technology in museums and galleries can remediate the visitor experience'. In the specific case study of OOLK mobile technologies used by the D-Day War Museum, Portsmouth for learning project, the OOLK, technology, formerly known as MyArtSpace, was designed as a museum service that used 'mobile phones and a web-based portal to support enquiry-led museum learning' (Jewitt, 2012, p. 74). The technology enabled learners to use phones to take photos, record sounds and write text in order to create personalised galleries and trails through exhibitions that could later be curated and shared via an online web portal (Jewitt, 2012). Vavoula et al, (2009 in Jewitt, 2012) highlights how the nature and character of learner engagement can be enhanced by OOLK technology, stating that its users 'look more carefully and with more detail at objects using the phone as a visual aid' (p. 90). The OOLK technology is seen to afford learners new ways of looking, collecting, sharing and integrating information. However another level of remediation is occurring simultaneously as the technology remediates cultural artefacts themselves through the process of digital reproduction itself - influencing perceptions of colour, scale and detail.

This relates to Walter Benjamins' theory defined above, which explores the affectual power of objects to 'evoke emotional responses in viewers' (Hindmarch et al., 2019, p. 249). This theory underpins the pedagogical engagement strategies of CH learning that incorporate the 'bodily physical experiences, emotional and intellectual experiences, or experiences that build on the visitors' imagination, or lived memories' described by (Jewitt, 2012, p. 75). It also reflects the four measures of quality underlying CH learning experiences put forth by Othman et al, (2021) - engagement, knowledge and learning, meaningful experience, and emotional connection. As Hindmarch et al, (2019) put it, 'the question is not does our virtual object have an aura, but can an entire exhibit have affectual power when one part of it, the object itself, is replaced with a digital copy' (p. 250)? Can an object inherit some of the aura from the original object (Hindmarch et al., 2019, p. 243)? Furthermore, it asks how CH learning teams can build

meaningful, affectual learning experiences through digital and online tools, particularly in a field where concepts of authenticity and aura are dominant in the learning theories and pedagogical values and the impact these beliefs have on the perceived value of digital and online learning experiences.

In her article *Seeing Syntax: Google Art Project and the Twenty-First-Century Period Eye,* Kim Beil (2013) explores the ways in which Google Arts and Culture technology remediates our experiences of cultural objects. Beil (2013) speaks about the 'invisible instruction' (p. 22) of particular technological tools, in which the resulting (digital) reproductions act as didactic objects that begin to teach us how to look by focusing our attentions on certain attributes over others, imparting 'a particular kind of knowledge in the viewer' (p. 22). Beil (2013) takes this notion even further by extending Baxandall's theory of *The Period Eye* (1972) which argues that whilst the mechanics of sight are somewhat similar in all humans, the way in which we interpret this 'sense data can vary widely according to our prior visual experiences' (p. 22). As a result, Beil (2013) argues that the technological tools with which we look at, perceive and interpret cultural objects and works of art influences wider trends of cultural taste. This asks us to consider how the technology used in learning and outreach practices shape our understanding of CH artefacts. However, Hindmarch et al, (2019) raise a critical point regarding the potential of digital and online tools to invoke new aspects of aura, that can be used in the learning process, in which online and digital 'interaction may lead to a richer engagement on virtual auras with the digital model' than one might have with an object' (p. 252-253).

As such the remediating quality of technology within CH learning should be considered on two levels, influencing the kinds of interaction learners have within objects, spaces and artworks (on a micro level) whilst also influencing wider values, tastes, perceptions, understandings and interpretations of culture itself (on a meta level).

3) Wider Critiques of Digital Learning and Data Practices

'Many myths persist about the role of ICT in learning (Hawkey 2001), and these can be as powerful in museums and galleries as they are in schools.' (Hawkey, 2004, p. 18)

The above statement reflects how CH learning and outreach programmes call for an understanding of current formal educational practices and challenges around online and digital

learning practices. The following paragraphs situate the CH learning practices within the literature concerning wider digital learning practices.

a) Compounding the black box

A common critique of technology in learning practices is that "technologies are often black-boxed and naturalised, and left unexamined other than at the level of their use" (Bowker and Star 2000 in Edwards, 2015, p. 266)**.** This is of significance when it comes to organisational and collaborative platforms that share CH artefacts in which algorithms have the potential to refer, nudge and prompt viewers and learners down certain knowledge pathways, towards certain content and 'affect the authoritative character of official museum or gallery and visitor knowledge' (Jewitt, 2012, p. 76). Whilst this tool is useful in many respects, it hides some of the underlying concerns around learner agency.

b) Access, Representation and Societal Structures

Access with CH settings often refers to reaching new audiences, who previously may have not engaged with an institution due to barriers such physical distance, cost, misrepresentation/lack of representation, lack of interest/awareness, feelings of discomfort within the space or being unable to access both the space and content. Technology based solutions are often upheld as ways to overcome these barriers, particularly physical and cost barriers. However, there are also significant access barriers when it comes to accessing technology, such as 'basic computing skills, hardware sharing, mobile-dominant computing, data costs, electrical reliability, internet infrastructure, language, and culture' (Nye, 2015, p. 177). This asks the bigger question, framed by Weizenbaum (in Birhane et al., 2021) around the role technological solutions play in allowing 'existing power hierarchies to remain intact' (p. 9). As Birhane et al, (2021) note, 'Many researchers, as well as organizations… explicitly work on continuing to uncover particular ways technology in general and ML [machine learning] in particular can encode and amplify racist, sexist, queerphobic, transphobic, and otherwise marginalizing values [12, 36]' (p. 9). In relation to digital cultural practices this can be understood on two levels. From cultural institutions perspectives it raises questions as; who is able to participate in and/or contribute in online digital CH spaces; which objects, artefacts and artworks are shared; and what stories are told and who is telling them. As Zollinger & DiCindio (2021, p. 485) note 'while virtual platforms may reach a broader geographical audience, the audience itself becomes limited to those with reliable internet access'. From a technology-based perspective this can then be further extended to who is able to collect, interpret, and make use of the insights afforded by these digital interactions,

reflecting back on the shifts within CH institutions to make relevant content for diverse audiences, widening access to forms of cultural capital. Zollinger & DiCindio (2021) suggest that 'Museums can contribute to addressing this inequity by finding ways to reach K-12 students without access to the technology to participate in virtual learning offered by schools by providing resources and access to STEAM materials that support their formal education' (p. 482).

c) Data Practices and Digital Policies

Digital artefacts and spaces can be seen as new pedagogical tools with the possibility of providing new methods of gaining insight into engagement and learning processes, through the collection and processing of data in these spaces. Research undertaken by Noehrer et al, (2021, p. 1) reveals that 'practices around data in institutions have changed and that digital methods for organising and accessing collections for both staff and the general public have become more important'. Parry et al, (2018) also note an increase in CH institutions using web analytics and data from social media accounts in decision-making processes. Data driven practices may seem appealing in an information society that places value on quantifying and measuring phenomena. Yet, the manner in which CH institutions engage with, participate in or reject these data and platform driven spaces and practices, will call for clearer policies in line with organisational and/or sector values. The UNESCO Report (2021): *Museums around the world in the face of COVID-19,* reveals many of the challenges facing CH institutions in the production of digital policies, including 'internet access, the digitization of collections (itself based on the inventory of the collections), a minimal IT infrastructure (photography, scanners, computers), and above all, a staff with the necessary skills and time to carry out these tasks' (p. 22).

Platforms And Partnerships

Pesce et al, (2019) further reflect on new ways of disseminating heritage and their collections through 'an array of new digital channels, technologies and media' (p. 1884), that require 'big data capabilities that are beyond the specialization of museums' (p. 1884) that put them in a position in which they need to deal with new partners. Pesce et al, (2019) suggest that this experimentation with digital platforms by CH institutions enables them to create economic and cultural value that they could not have achieved themselves. Whilst this paints a very positive picture of the current digital shifts, Pesce et al, (2019) highlight the complex nature of

partnerships by drawing attention to ‘new managerial tensions and trade-offs are emerging for museums since big data and online platforms put them in a more complex network of stakeholders’ (p. 1901). This relates particularly to individual museums’ online strategies around ‘open’ and ‘closed’ approaches to content creation and dissemination (Pesce et al., 2019, p. 1901). This tension is further complicated by the ability of online platforms to act as marketing avenues, turning virtual visitors into on-site visitors, simultaneously encouraging collaboration with platforms whilst also fuelling competition between institutions within the industry (Pesce et al., 2019). Whilst this concern might feel slightly removed from CH learning and outreach practices, it can be seen to influence learning goals, relating to key performance indicators around learner number, within both publicly and privately funded CH organisations.

Digital Fatigue & Cultural Heritage Learning

Online digital solutions can potentially have a positive role to play in terms of accessibility and novel affordances around engagement strategies and learning pedagogies. However, (McNaughton, 2020) raises a counterpoint pertaining to the post-lockdown context of the COVID-19 pandemic; ‘gallery educators noted that in their institutions, post-lockdown, many students had “digital fatigue” and that those who were visiting galleries were very keen for hands-on learning experiences’ (p. 147). This raises questions again around the differences in experiences of on-site and digital engagement opportunities, and the future appetite for these experiences. It also draws on the earlier concepts of aura embedded within CH learning theories and pedagogies discussed earlier. Many of these questions, values and approaches were brought into focus during the COVID-19 pandemic, which required the sudden shift of working practices within CH learning teams. The following paragraphs further explore the literature produced in relation to this unique context.

Changing Practices in the COVID-19 Pandemic

Vavoula & Anastopoulou (2020) undertook a recent research project entitled “*School Visits Post-Lockdown”*, investigating the potential effects of the COVID-19 pandemic on future school visits in CH institutions post lockdown in the UK. A research survey titled “School Visits Post-Lockdown” revealed the following six key findings (Vavoula & Anastopoulou, 2020, p. 4):
The first key finding reflected an increase in the use of digital activities, as modification to CH learning and outreach programmes in response to COVID-19 (Vavoula & Anastopoulou, 2020).
The second finding reflected that digital activities were approximately ‘60% more likely to feature

in post-lockdown visits than pre-covid' (Vavoula & Anastopoulou, 2020, p. 4). The third finding revealed a suspected increase in 'appetite for digital components in post-lockdown school visits' (Vavoula & Anastopoulou, 2020, p. 4) and included 'home activities, virtual tours, live lectures, online collections, bitesize talks, and social media' (p. 4). The fourth finding looked at potential blended approaches to future school visits, incorporating face-to-face and digital methods of engagement - in which 95% of the participants in the study reported a willingness to try these blended methods, particularly for pre-and post-visit activities. The fifth finding identified a key benefit of digital tools as their ability to engage with audiences in new geographical regions. However, a key concern raised here related to the costs and loss of physical interactions related to these methods. Finally, the study concluded that 'a period of intensification of the integration of digital activities within school visits may be imminent; a period that presents unique opportunities to explore how museum pedagogies can guide the planning of flexible, blended school visits that combine face-to-face and online activities' (Vavoula & Anastopoulou, 2020, p. 4). These findings indicate a strong desire within learning and education teams in CH institutions to undertake more digital activities post-lockdown, particularly 'blended (face-to-face and digital) school visits' (Vavoula & Anastopoulou, 2020, p. 4).

In another research study into museum-based distance learning programs undertaken by Ennes et al, (2021, p. 466), the authors note that 'about half of the respondents said they used teleconferencing software and almost three-quarters used social media to host their programming' in the online programs they developed immediately in response to the COVID-19 closures (p. 469)

In 2022 with national COVID-19 restrictions slowly falling away, it remains to be seen if a 'period of intensification' identified in Vavoula & Anastopoulo 2020 research emerges and which digital approaches, platforms and policies adopted (and adapted) within the pandemic remain.

Changing Skillsets

'In a world ready to "go live," museums do not require expensive technology or cumbersome hardware to engage groups in synchronous virtual programs. Instead, institutions should define the digital skill-set needed to activate museum content using the accepted educational framework and available technology.' (Mitchell et al., 2019, p. 250)

What this skill set looks like is still emerging. As Reeve & Woollard (2015) state; ‘A multiskilled learning manager needs to balance the following priorities: a knowledge of each audience group and its potential needs, interests, and incomes; an understanding of learning theory, practice, and styles; a knowledge of the collection and its multiple interpretations; and resource planning and management’ (p. 556). Whilst Zollinger & DiCindio (2021) suggest a concern over ‘how the digital divide factors into current and future programming decisions, access, and out-comes’ is vital (p. 482). The quotes reflect that, practical skills alongside an understanding of digital tools, their affordances and limitations, the contemporary societal debates around their use are important.

Parry et al, (2018), conducted research in the current digital skills needs in the sector in which they highlight how organisation structures and digital responsibilities are evolving in the sector. The authors identify that digital skills are not readily available in the workforce yet are seen as a part of everybody's skillset. However, as these skills become more professionalised, CH organisations are evolving, resulting in three models taken to digital roles within an organisation: centralised, hub and spoke, distributive. They also identify an assumption around digital skills inferring technical skills, creating a reactive relationship to digital skills, resulting in low levels of digital literacy (Parry et al., 2018). There is an acknowledgement in their research of the potential and intention within the sector to adapt to new ways of working.

This highlights key questions, facing the CH sector in terms of skills, from questions around the role CH staff play in developing, managing, distributing and deploying the pedagogical tools and strategies (Parry et al., 2018) to how might these tools shape and change CH learning practices themselves. They also raise questions about the position CH institutions should take in monitoring and using online spaces and the data they generate (Parry et al., 2018). Further to this they draw into question the current and future skill sets required by CH learning teams to work in online and offline formats.

Research Questions

The above literature provides an overview of the history of CH learning and outreach practices. It highlights the shifts in online and onsite delivery methods that emerged in response to the COVID-19 pandemic and explores questions around the future combination of digital skills and content into pre-existing educational strategies. One proposed result of these merging practices

is the rise in blended learning and outreach approaches, however, there still remains a question around which programmes, technologies, pedagogies will carry forward, and what these might look like.

RESEARCH QUESTION: Has the increase in use of digital and online learning tools encouraged by and emerging within the COVID-19 pandemic, impacted on cultural heritage institutions' approaches to onsite and offsite learning and outreach programmes?

- **Research Question 1A (RQ1A):** In what ways (if any) are digital and online learning tools influencing the changing pedagogical practices and nature of cultural heritage education and learning, how so?
- **Research Question 1B (RQ1B):** In what ways (if any) are digital and online learning tools influencing the changing nature of internal and external learning-centred partnerships/collaborations in cultural heritage institutions, how so?

Chapter 3

Research Design and Methodology

The following chapter outlines the ontological and epistemological philosophies underlying the research methods, sampling, data collection and analysis methods, undertaken in this dissertation. It will also look at researcher reflexivity, limitations of the study, questions of quality and ethical considerations.

Philosophical Perspectives

This dissertation is predominantly underpinned by a constructivist worldview with an interpretivist epistemological approach to knowledge production that is “sensitive to the particular qualities of people and their social institutions” (Clark et al., 2021, p. 74). This constructivist worldview is further underpinned by social constructivist values, with an underlying ontological belief that proposes ‘social phenomena and their meanings are continually being created by social actors’ (Clark et al., 2021, p. 115). Social constructivism focuses on participants' perceptions of the situation under study, looking at how they have interpreted, created and assigned subjective meanings to these experiences based on their interactions with others, as well as historical and cultural norms (Creswell & Creswell, 2018, p. 8).

Thus, the qualitative research methods undertaken within this dissertation are guided by these social constructivist values due to their close alignment with the research aims - to generate an understanding of the recent experiences of CH learning teams based on their reflections around the use of digital/online learning tools and resources. The research particularly focuses on their experiences over the course of the COVID-19 pandemic and the impact of various cycles of site closures, re-openings, lockdown measure and restriction on their online/digital working practices.

Research Design

Qualitative Research Approach

The philosophical perspectives outlined above align with the research aims and guided the approach taken to the qualitative research design and methodology. The research project takes a qualitative approach to gathering empirical data on the experiences of CH learning and outreach teams in relation to their use of digital technologies in learning programmes.

The qualitative approach aligns with the overarching research agenda and philosophical perspectives to explore the experiences of CH learning and outreach teams regarding their digital learning practices from the perspective of those working within the field. The research seeks to identify and understand the types of digital learning pedagogies, tools and practices currently in use within the sector, reflecting on individual practitioners' recent experiences regarding the impacts of the COVID-19 pandemic on their ways of working - from learning design and delivery to learning partnerships (with schools and other learning groups) and decision-making processes regarding future policies and organisational structures. Thus, a qualitative research approach was best suited to answering the research questions

Data Collection Tools

The data was collected through two methods. In the first instance, it was collected through online surveys to ascertain a more quantitative breadth of perspectives on the predominant tools and experiences of CH learning and outreach teams. In the second instance, it was collected through qualitative semi-structured interviews, to develop a more nuanced understanding of these digital learning experiences and practices. Thus, the online surveys sought to explore the range of tools and an overview of the attitudes towards digital learning experiences and practices, whilst the interviews sought to establish a depth of understanding of specific individual experiences and practices. Both the survey and semi-structured interviews were designed for once-off engagement and are therefore cross-sectional in design. The data collected through semi-structured interviews was given priority, with the online survey serving a secondary role. The survey data acted as a tool to highlight areas that required further elaboration, which were subsequently sought within the interview data. This was due to the rich qualitative data provided in the interviews in relation to answering the research question and

sub questions. The survey data also acted as a comparative device when interview data reflected competing or contradictory ideas.

Online Surveys

The primary purpose of the survey was to gather initial empirical data around the attitudes and experiences of CH learning and outreach teams in relation to online/digital learning tools and practices particularly looking at how these may have shifted over the course of the COVID19 pandemic.

The survey comprised of eight sections *(Appendix A).* Section one, two and three consisted of general information, research project information and researcher contact details in accordance with CUREC ethical guidelines. Section four gathered basic data on survey participants such as job title, organisation type, size and location. Section five in the survey made use of descriptive questions to identify the types of technology used and formats of learning (e.g. synchronous/asynchronous). These took the form of checkboxes, with the option to add other additional descriptions. This was followed by section six and seven with inferential questions around the potential wider influences of these tools and formats on design, delivery, pedagogy and policies, as well as partnerships and collaborative ways of working. These took the form of a multiple-indicator measure in the form of Likert scales, designed to 'measure the intensity of respondents' feelings or opinions' (Clark et al., 2021, p. 368), around the degree of influence that online and digital tools had on working practices. These quantitative questions were presented with the additional option to write further reflections and comments. Section eight asked participants if they were happy to be contacted for a follow up interview, thus becoming a tool for semi-structured interview participant recruitment. This meant the surveys were partially anonymous - those wishing to leave their contact details and names for potential interviews were able to do so, while others could remain unnamed. This counters some critiques raised by Clark et al, (2021) against self-completion questionnaires - a researcher's inability to prompt or probe participants in order to collect additional data and the limited number of (often closed-ended) questions used within surveys. Furthermore, the survey data became the basis for expert interviews, in which the participants were encouraged to elaborate on their survey responses.

The survey was delivered exclusively online using Microsoft Forms, this was selected for several reasons. Firstly, for its ease of use - participants were able to participate through a

simple online link with no additional administration costs or time required for printing and/or posting. The structured nature of the form ensured a semi-guided flow through questions - whilst participants could look through the set of questions in one section, they were not able to jump ahead to the next section - thus limiting the effects of respondents reading ahead, which can lead to inconsistencies in answers known as 'question order effects' (Clark et al., 2021, p. 519). Further to this, in order to submit the form, each question needed to be answered thus ensuring that participants did not forget, accidently leave out sections or provide incomplete surveys. In order to allow for participants to intentionally leave a question unanswered, a 'prefer not to say' option was included. However, this option had 0% uptake in the completed questionnaires. Lastly the online survey option was selected for its ease in relation survey sample recruitment, as it could be shared through multiple means, such as social media platforms, emails and smartphone messaging.

Whilst the surveys can be considered as 'free from interviewer effects' (Clark et al., 2021, pp. 516–517) - such as the influence of interview presence on an interviewee exhibiting 'social desirability bias' (p. 766) - they were not able to entirely rule out the critiques around questionnaires not being completed by the intended participants or the exclusionary nature of the online format. The survey required participants to formally declare their suitability and confirm their adherence to the inclusion criteria (p.31) however this could not be enforced in an overt way.

Expert Interviews

The expert interviews - which survey participants could elect to participate in - followed a semi-structured interview approach which provided a focus and consistency within the interviews. The flexibility within the approach allowed the sequences of questions to vary or depart from the interview guide, in response to the narrative presented by the interviewee - providing room to 'ask further questions in response to what they [the interviewer] see as significant replies' (Clark et al., 2021, p. 997). This resulted in rich, detailed data that reflected the thoughts and feelings of the interviewee (Clark et al., 2021, p. 997) that aligns with the constructivists principles underpinning the research.

The interview guide *(Appendix B)* provided a loose structure for the interview and was sent to participants in advance of their interview. The guide comprised of ten questions. Questions one to three consisted of a series of closed ended questions, related to the online survey around the

types of technology used within CH learning and outreach practices prior to the pandemic, as well as those used during the various state-instituted lockdowns and those currently still in use. These three introductory questions can be seen as predominantly factually based questions (Clark et al., 2021, p. 579) and served four purposes; to ease interviewees into the interview process and build rapport, to serve as a reminder/prompt regarding their survey answers, establish context, and finally in the event of interviewees not having completed a survey, they provided an overview and opening into their working practices. Question four and five can be described as *intermediate questions*, focusing on the individual experiences of online and digital tools in CH learning and outreach projects (Charmaz in Clark et al., 2021, p. 1011). Question four focused on a reflective case study from the interviewees own experiences and included a subset of further prompts. These prompts acted as tools, to guide follow-up, probing and specifying questions (Clark et al., 2021, p. 1010) used to gain insight not only into the factual elements of the case study and draw out interviewees' attitudes and beliefs regarding their experiences. Question five further required interviewees to reflect on their impacts of these experiences on their current practices. Question six to ten can be understood as *ending questions* (Charmaz in Clark et al., 2021, p. 1011), exploring their perspectives and opinions regarding future working practices in the sector.

The interviews were conducted in-person in CH institutions whenever possible or alternatively via Microsoft Teams in a few necessary cases when in-person interviews were not possible due to distance and interviewee availability. Whilst Clark et al, (2021, p. 1032) reports that, 'there is some evidence that prospective interviewees for this method are less reliable than face-to-face interviewees, in that they are more likely to drop out at the last moment', this did not prove a problem, however the quality of the internet connections within these online interviews fluctuated, influencing the quality of some files, transcriptions and their subsequent coding.

A common critique of interviewing techniques in research is that an 'interviewers' attributes can have an impact on respondents' replies' (Clark et al., 2021, p. 502), this is due to the interaction between the characteristics of interviewers - such as race, gender, socio-economic status - and the characteristics of respondents (Clark et al., 2021, p. 502). This links to researcher reflexivity (p. 33). Within this research, moments of heightened positionality are recorded in the coding via annotations. The introduction given in the beginning of each interview, attempted to lessen impact of the 'social desirability bias' (Clark et al., 2021, p. 504) by overtly stating that research was aimed at gathering the varied experiences and multiple opinions of CH learning and

outreach staff, regarding their use of online and digital tools. This introduction directly stated that there were no right or wrong answers, opinions or experiences. Lastly interviews are often critiqued regarding what is referred to as the 'problem of meaning' and relates to the interpretivist principles around the construction of meaning, in which meaning is something humans constantly create together, it is not pre-given. Clark et al, (2021, p. 505) describes this problem as the often held 'assumption that the interviewer and respondent share the same meanings of the terms employed in the interview questions and answers' and that there is a risk that the interviewer and respondent may in fact not be sharing the same meaning systems (Clark et al., 2021, p. 505). This interview attempted to lessen that through providing the interviewees with the question guide prior to the interviews in which specific or unique terms were defined, followed by follow up questions in the interview if concepts, ideas, descriptions appeared to differ.

Sample Design

Approach to Sampling

The project employed a non-probability purposive sampling approach to identify 'cases or participants in a strategic way, so that those sampled are relevant to the research questions that are being posed' (Clark et al., 2021, p. 434) and made use of three sampling strategies in the recruitment of survey and interview participants; convenience, snowball and purposive sampling methods.

Initially a convenience sampling approach was employed in the online survey. This included the identification of professional sector networks, sector forums and social media groups, in which I actively took part as a professional already working within the CH sector. These included a regional network, a nation email forum and an international, professional social media group on facebook group, and two sector support groups on twitter. Convenience sampling was also used to recruit three initial interview participants based on their known unique experiences and relevance to the research questions. The convenience sampling approach within the initial survey recruitment phase then led to the identification of possible participants for the expert interviews, based on the information provided in the survey.

As such, a second snowball sampling method was undertaken for the second phase of expert interview recruitment, in which interviewee participants provided me with names of other CH

professionals working within the field, whose experiences potentially aligned with the research question. A third purposive sampling method was employed to actively research and identify potential expert interviewee candidates in organisations underrepresented in the sample group.

Inclusion Criteria

Before completing the questionnaire or participating in the expert interview, participants were required to meet the following basic inclusion criteria; have current or recent and relevant experience in the CH education sector - defined as holding a role connected to delivery, designing or decision-making related to education within the last 5 years.

A sample plan *(Appendix C1)* - to ensure a variety of views from different organisations (such as galleries, museums, libraries) and multiple positions within organisations - was constructed to guide the selection process of participants for the expert interviews identified through completed surveys and the snowball sampling process. These included learning/outreach/engagement officers directly involved delivering the work, digital learning producers specifically focused on digital outputs, managers looking at wider organisational working patterns, and directors concerned with overarching organisational strategies. This was done in order to engage with as many different levels of experience within the sector. The following paragraphs provide a closer look at the data collected.

Data Collected

Online Surveys

The survey was published between 25th May - 21st June 2022. The form link was shared to; Buckingham cultural educators network, GEM (Group for Education in Museums), the Learning in Museums and Galleries Facebook group and on twitter through the sector support organisations Engage.

39 surveys were completed, with 23 participants leaving their contact details for an expert interview. Eight of these participants were recruited to the research prior to their survey through convenience and snowball sampling methods and completed the survey prior to their expert interview in order to aid the interview process. A further eight survey participants were identified

as suitable for expert interviews, four of which were able to commit to interviews within the given time frame. (See *Appendix C2.1-3* for survey sample details).

Interviews

Eighteen interviews were conducted, between 24th May - 16th June 2022. Four interviewees were recruited through convenience sampling, four were recruited through the survey, six through snowball sampling in interviews and four through purposive sampling methods. Ten took place onsite, whilst eight took place online over Microsoft Teams and on Zoom (when specifically requested over Teams by participants). See *Appendix C3.1-2* for the populated expert interview sampling plan and sample details. The interviews were audio recorded, initially transcribed through Microsoft Office's online word processor and thereafter the transcripts were refined within the coding process. Interviewee were anonymised by assigning numbers accompanied by basic organisation descriptors *(Appendix C3.3).*

Data Analysis

Thematic Analysis

The study makes use of a thematic analysis approach to data analysis, first developed by Gerald Holton in the 1970s, which enables the capturing of 'complex, messy, and contradictory relationships that prevail in the real world' (Damayanthi, 2022, p. 3) in the data.

The research began with a deductive coding approach, initially coding data according to interview and survey question themes guided by themes introduced in the literature. A second set of inductive coding was established simultaneously throughout the deductive coding process, emerging in 'bottom-up' manner, driven by themes identified in the data (Braun & Clarke, 2006, p. 83). This was an interactive process and codes were created, deleted or merged as more data was coded. This process also led to the further development of theories within the literature review, particularly regarding pedagogy and learning theories.

Codes were produced during the first eleven interviews, with the remaining seven interviews being coded predominantly with the existing coding framework. A small number of additional codes were created during the second phase of coding. These were coded back into the other transcripts where appropriate. The coding was initially undertaken through a semantic

approach, in which 'the themes are identified within the explicit or surface meanings of the data' (Braun & Clarke, 2006, p. 84) and labelled with terms emerging in the data itself. See *Appendix D.1* for the complete set of deductive and inductive codes produced. The codes were further grouped into categories (*Appendix D.2*) before being reviewed in relation to each other, to establish emerging and interconnected themes (*Appendix D.3*). The coding was done using Nvivo Software.

Reflexive Research Practice

One of the key characteristics of qualitative research, as mentioned above, is reflexivity and the role researchers play in shaping the research. This dissertation takes a two-pronged approach to reflexivity. The first is the positionality statement below, outlining my past experiences, connection to the researched field. The second is in-text reflection points made in the coding process, relating either to my past experiences that may shape my interpretation of the data or limiting factors within the research setting/context on the data collected.

Positionality Statement:

My interest in exploring the experiences of CH learning and outreach teams in relation to their online/digital learning practices, arises from my own experiences as a Learning and Outreach Officer working in a historical house in South-East England. I held this role prior to and during the course of the COVID-19 pandemic. This affords me in some instances an insight into the learning practices and pedagogies within the sector, however it also means I am susceptible to certain assumptions on three levels. Firstly, an assumption of a shared level jargon with interview participants both within the interview process and during data analysis phases of research. A second assumption lies in the level of understanding I ascribe to research audiences around CH learning practices. Lastly, my pre-existing personal experience may influence my assumptions around what constitute common practices within the sector.

It is also significant to note that diversity within the CH sector is very low. According to *Equality, Diversity, and Inclusion: A Data Report 2020 - 2021*, (2022) conducted by Arts Council England, 49% of the total workforce were women, 14% were Black, Asian, and Ethnically Diverse, 10% were LGBTQ+ and 7% were disabled. Thus, identifying as an able-bodied, white, CIS woman, puts me within dominant working groups, which may have influenced how participants perceive and interact with me.

Limitations of the Research

Whilst the sampling methods used in this project proved useful in the recruitment of appropriate survey and interview candidates, these methods do have limitations. This includes the effect of human judgement and bias in the sampling process, which can lead the researcher to include or exclude participants in the sample group (Clark et al., 2021, p. 410). This was mitigated as much as possible through the inclusion criteria and sampling plan. However, due to the limited timeframe given in which to undertake the research, it was not possible to recruit all the samples identified in the sample plan *(Appendix C3.1)* This was predominantly due to the effects of snowball sampling, which led to museums being heavily represented in the data. This required identifying and approaching members within the identified sector networks to include more galleries, libraries and historic houses, in order to widen the data sample within a limited timeframe. This reflects how forms of non-probability sampling can produce limited, inaccurate or non-comprehensive sample groups (Clark et al., 2021, p. 410). This is also seen in the limitations of the online format and placement of the survey, resulting in it predominantly being seen by those within a particular geographical region, and/or already participating in pre-existing networks. Whilst the social media platforms did have a wider reach, the survey was still only accessible to those with internet connections, suitable devices that support it, an understanding of social media platforms and who already have knowledge of and are included within these groups.

The snowball sampling led to interviewees predominantly from the southeast region of the UK, with similar resources, attitudes and approaches which reflect in the results being mainly UK-centric (amplified by the predominance of theories and literature produced in the Global North).

Questions of Quality

This dissertation makes use of *Tracey's Criteria* (Tracy 2010 in Clark et al., 2021, p. 1297) as a framework for assessing the quality of the research undertaken throughout the research process These include the following eight criteria: worthy topic, rich rigour, sincerity, credibility, resonance, significant contribution, meaningful coherence, and ethics.

Instances of *rigour* are evidenced within this research through the multiple forms of data collected, the breadth of data collected in the online surveys and the depth of data collected

through the eighteen interviews, and the theoretical informed data collection and analysis methods described above. The research speaks to measures of *sincerity* with the inclusion of a researcher positionality statement and identification of the research limitations and challenges faced by the researcher. Transparency is conveyed within the data collection and analysis methods, supported by coding tables within *Appendix D.* The research seeks *credibility* by identifying the limitations of the research, reflecting researcher biases through reflective researcher practices within the data collection and coding phases. Discussions around *worthiness of topic* and *significance of contribution*, are highlighted in the introduction and conclusion, with the intention that *resonance* for readers may be established by insights gained through the reflection on the details and descriptions provided within the study, rather than the production of generalisable results. *Meaningful Coherence* is initially addressed within the methods section in relation to the selection of qualitative research methods that align with the constructivist philosophical perspectives and research question, which seeks to establish meaningful interconnectedness throughout the literature, methods, findings and discussion. The eighth criterion - *Ethics* - ensures the researcher has 'given consideration to procedural, situational and relational ethics' (Tracy 2010 in Clark et al., 2021, p. 1298) and is addressed in the following paragraph.

Ethical Considerations

A key ethical consideration when conducting sector research through expert interviews, is the establishment of an environment and setting in which interviewees can speak candidly about their experience, free from institutional, professional, reputational concerns and/or obligations. An additional concern is ensuring the research benefits both survey and interview participants. These concerns along with additional ethical considerations, are addressed in the approved CUREC ethics application: CIA-22HT-077 *(Appendix E-I)* in accordance with the university's code of ethics.

Chapter 4

Findings and Discussion

The following chapter presents and discusses the key findings of my research, addressed in three themes; *Removal of the Default*, *Dragged by Sheer Necessity into the New World* and *Step Change*.

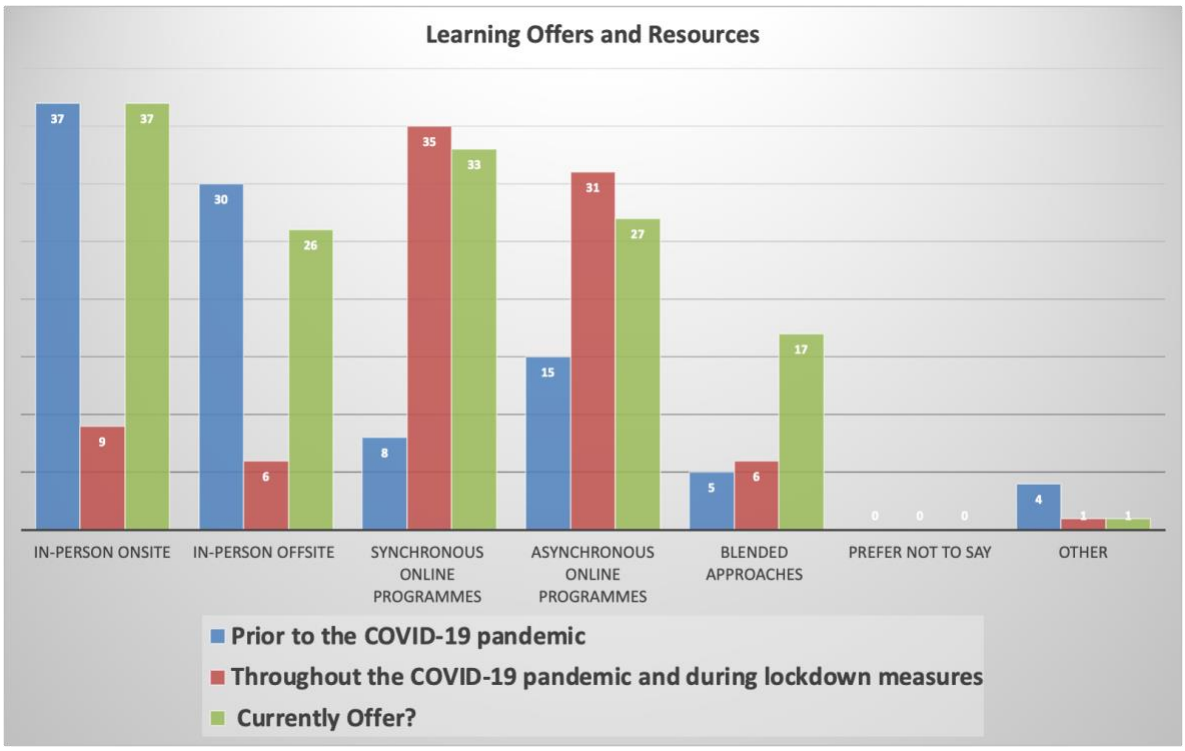
Removal of the Default looks at findings around the impact of online and digital tools on pedagogical values, learning theories and practitioners' views and attitudes towards these experiences. This theme is discussed in relation to RQ1A. *Dragged by Sheer Necessity* pulls together findings around professionalism and skills development relating to the impact of online and digital tools on organisation staff structures and collaboration. These findings are discussed in relation to RQ1B. *Step Change* presents findings related to the myths and misconceptions learning and outreach teams discovered through their use of online and digital tools, which have resulted in new approaches to their current programming and future goals and provide further insight into RQ1A.

Removal of the Default

'I *think the removal of the default is always a good thing, it forces us to sort of examine'.*
(Interviewee_11/LLC)

The following paragraphs summarise the key findings of the online surveys and their relationship to findings regarding the uniqueness of the COVID-19 pandemic, established within the expert interviews *(Appendix D3.1)*.

The use of various online and digital tools to support CH learning and outreach practices is not new. However, the COVID-19 pandemic brought with it many shifts in working practices within the sector, particularly in relation to onsite and online methods of programme delivery, presented in *Graph 1* below.



Graph 1: Learning Offers and Resources

Onsite programmes were the predominant form of learning and outreach resources and delivery prior to the pandemic. While these onsite offers have returned to their former levels, what is of more interest is that the subsequent high number of online programmes established during the pandemic *are still* offered alongside onsite programming - revealing a sustained shift in working practices, as suggested by Vavoula & Anastopoulou's (2020) research. In order to further understand the underlying attitudes and experiences of CH learning teams that support these shifts, survey data was compared to data within the expert interviews, which highlighted perceptions around the unique context of the pandemic in which these new working practices developed.

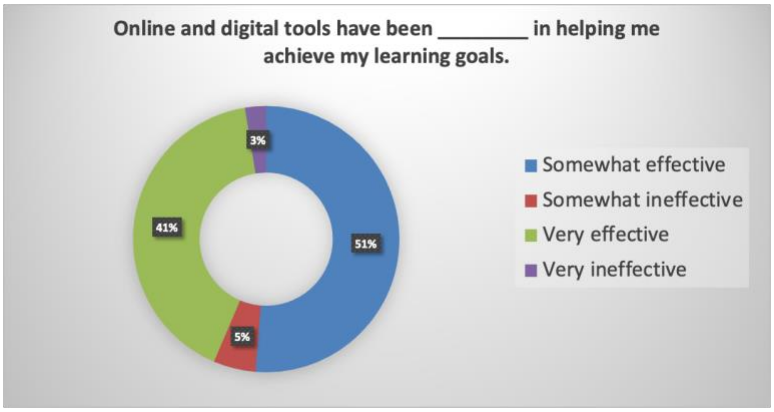
These findings provided an insight into the context of work in the sector, within the UK. Firstly, it must be noted that interviewees mentioned team members as well as themselves being furloughed/flexi-furloughed and made redundant. These government sanctioned lockdowns, and job retention strategies meant that teams were rapidly changing personnel and the logistical conditions under which programmes/projects were delivered shifted equally rapidly. This was not unique to the CH sector, but it did result in a 'removal of the default' (Interviewee_11/LLC) that has had a prolonged effect on the working practices of professional within the sector, *'There*

isn't a default, so we're genuinely having these discussions of like, what is the best fit for this. (Interviewee_11/LLC)

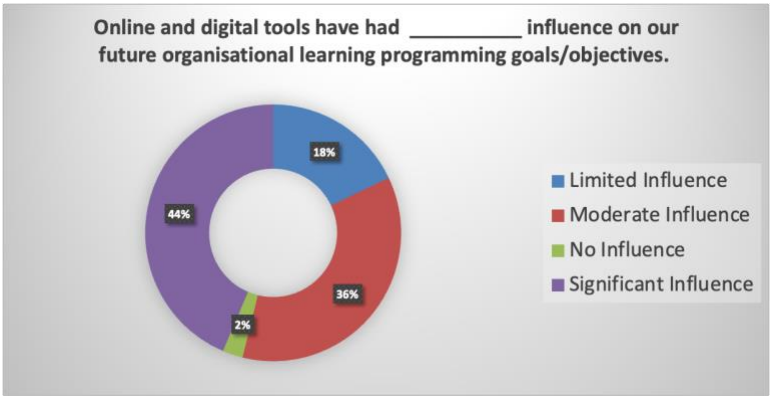
The removal of the default identified above, has influenced different aspects of CH learning and outreach work, such as; default sites/settings for working/learning, access to resources both for staff and participants, redefining how volunteers engage in the digital sides of CH learning projects, creating anonymous spaces for participants, interacting with wider schools ecology and redefining what local learning and outreach audiences mean - *'So I think it was an interesting thing to us… To think about what does local audience mean when the museum is closed, but our staff is still active… and "local" became a different concept to us'* (Interviewee_06/MMC))

The findings also reflected the positive experiences of interviewees' abilities to do something differently within the context of the pandemic, including undertaking more research in audiences' needs, taking risks and being more agile in their programming, trialling new resources, piloting new programmes and testing out new forms of technology.

These perceptions are further established by the survey data in which 92% of the respondents agreed that digital tools had been 'very effective' and 'somewhat effective' in helping them achieve their current learning aims *(Graph 2)*. 80% stated that digital tools would have a 'significant' and 'moderate influence' on their future learning goals *(Graph 3)*.

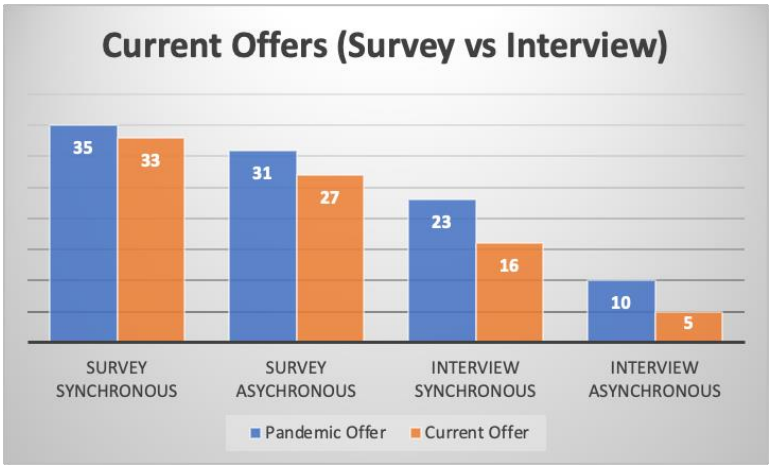


Graph 2: Current Learning Goals



Graph 3: Future Learning Goals

When the **survey data** is compared to data within the interviews on the use of synchronous and asynchronous online tools for current learning and outreach delivering, the survey data reveals a 6% decrease in synchronous online methods and 13% decrease in asynchronous online methods. The **interview data** reveals a bigger decrease in synchronous and asynchronous online methods, contradicting the suspect increase in online programmes hypothesised by Vavoula & Anastopoulou (2020) in the literature. This measurement was created by comparing the number of references made by interviewees, to four cross-codes sections in the interviews data (*Graph 4)* and might reflect experiences of digital fatigue identified by McNaughton (2020) in the literature but not cited directly by interviewees.

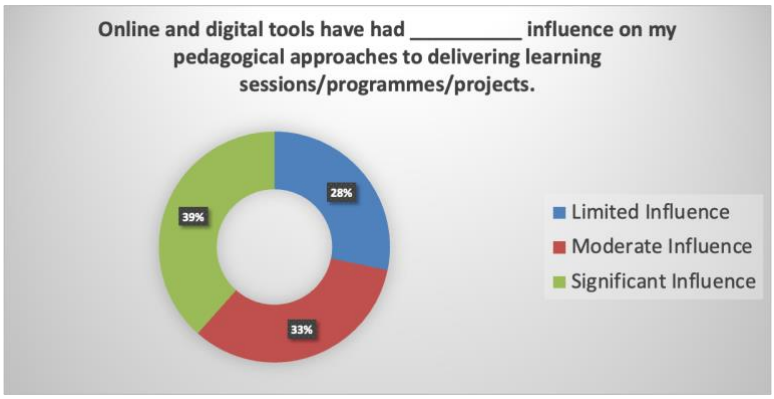


Graph 4: Current Offers

The above paragraph identifies the instances of digital and online tool use; the following paragraphs explore how pedagogical approaches were incorporated into their usage.

Pedagogical Approaches

The survey data in *Graph 5* reveals no clear consensus on the impact of online and digital tools on approaches to pedagogy, with 39% indicating *significant influence* on pedagogical approaches, 33% selecting a *moderate influence* and 28% identifying them as having a *limited influence*.



Graph 5: Pedagogical Approaches

The expert **interview data** provides further insight into this, revealing a distinction between pedagogical values, learning theories and delivery techniques and the effects of online and digital tools on them respectively. The focus on pedagogical values emerged through terminology used with an interview and subsequently allowed for more latent coding processes regarding underlying values within the interview data.

Pedagogical Values

> '*… one of the first things we did was to set some pedagogical values, really as to what we wanted that programme to be like, and they have remained true.'*
> (Interviewee_05/MLR).

The above statement indicates how pedagogical values can be seen to guide the use of digital and online tools. The expert interviews identified the following common pedagogical values.

Excellent standard of delivery practice was a key pedagogical value and can be understood as well-developed learning resources, delivered in well-rehearsed, engaging manner that achieve the learning outcomes they set out to. This value is not tethered to any particular type of resource or delivery mechanism but rather the quality with which they are produced and

delivered. *Using the CH collections to inform active learning practices* was a second pedagogical value highlighted in the research. Again, this value remains independent of technology used in the resource - whether it be high resolution images shared in a live stream session or a 3D object with information on a third-party platform. The value is placed on how the digital and online tools can activate unique objects within a CH collection, in a way that enables learners to construct their own understanding of concepts/objects through interactions. *Authenticity* is a third value that emerged in multiple interviews. It relates to the production of learning encounters - with individuals and objects - that make use of genuine objects and build personal connections to create rich, meaningful encounters drawing on concepts of aura identified within the literature. The fourth value connects to the importance of creating social learning spaces in which *shared learning experiences* could be had between learners. This involved examining the affordances and opportunities within online and digital tools to build moments of social learning environments. The fifth pedagogical value relates to encouraging *multiple voices* to be heard within learning and outreach resources, evidencing Noehrer et al., (2021) theories around technology acting as a tool to break down audience and institutional hierarchies. This required looking at the ways digital and online tools could be used to encourage and highlight a multitude of voices. The sixth value focuses on creating learning experiences that children associate with *fun rather than classroom learning* - pedagogical values that apply to traditional learning and outreach approaches, independent of technology. They guided the manner in which the digital and online tools were used, rather than the tools influencing the underlying pedagogical values.

Learning Theories and Delivery Techniques

The manner in which these pedagogical values were manifested in online and digital learning and outreach programmes, was guided by various learning theories employed by each organisation and the context of their collections. Learning theories identified within the expert interviews, can be seen to align to one or more of the pedagogical values described above, resulting in various delivery techniques.

Active and object-based learning theories aligned with values of *authenticity* and *learning experiences informed by collections*. In one instance, the combination of several theories identified within the literature (Andre et al., 2017; Gruber & Glahn, 2015; Jewitt, 2012) - including virtual reality tools, traditional storytelling techniques and principles of empathic memory - led to the development of emotive personal learning. In another case, a live stream

session employed object-based and interactive learning theories to create an interactive match-the-pairs games in a virtual live stream session, in which learners looked at high-resolution photographs of unlabelled historical artefacts and then attempted matched them to modern day equivalents brought into the classroom by their teacher. Social and relational learning theories were used to promote pedagogical values of *shared learning experiences and multiple voices,* these often led to the use of polling features in webinar-style programming in which content was live-streamed to multiple schools simultaneously - bringing in interactive features whilst building a shared learning experience within classrooms and between schools. Platforms such as Padlet and Jamboard were used to encourage democratic conversations and create spaces in which multiple voices could be gathered. Immersive and multisensory learning theories related to the pedagogical values of *personally meaningful* and *authentic learning experiences* as well as the *value of fun and play* within CH learning, reinforcing learning theories outlined in the literature by Andre et al, (2017), Dieck et al, (2018) and Reeve & Woollard (2015). In some instances, these led the development of synchronous online sessions intersected with asynchronous game-based experiences, such as timed myth-buster segments - in which a pre-recorded video challenged learners to discuss a myth with a partner against a countdown timer. In other instances, the production of tactile resources, such as richly-detailed raised images and audio description, to accompany live-streamed object-handling activities for blind and partially sighted audiences. It is worth noting that these examples often arose when discussing the challenges of online and digital tools, however they reflect the values and learning-theory-first approaches often described by interviewees when discussing their experiences and approaches to using digital and online tools.

A further challenge was identified in selecting and applying the above values and theories within the contexts of an institution's unique collection, exemplified in the quote, *'everything that we have is textual … so actually, how do we communicate a textual 2D object in a, you know, in like a 4D video post-textual world?'* (Interviewee_14/HSR). This quote refers to a collection consisting predominantly of books and authors notes, set within historical architectural space. The values of fun, authenticity, collections-informed content and shared learning led to the development of an interactive writing-game, based on the collections textual content and hosted on the institution's website. The game was used within livestream sessions, as well as acting as a standalone asynchronous engagement. Thus, reflecting how the different affordances offered by various online and digital tools in conjunction with the affordances of the collections themselves, can challenge assumed 'default' delivery techniques and lead to creative solutions.

Views and Values

The biggest tension underlying the challenges above, lies between the pedagogical values and the underlying beliefs held by multiple stakeholders within the sector around the levels of quality available in online and digital tools.

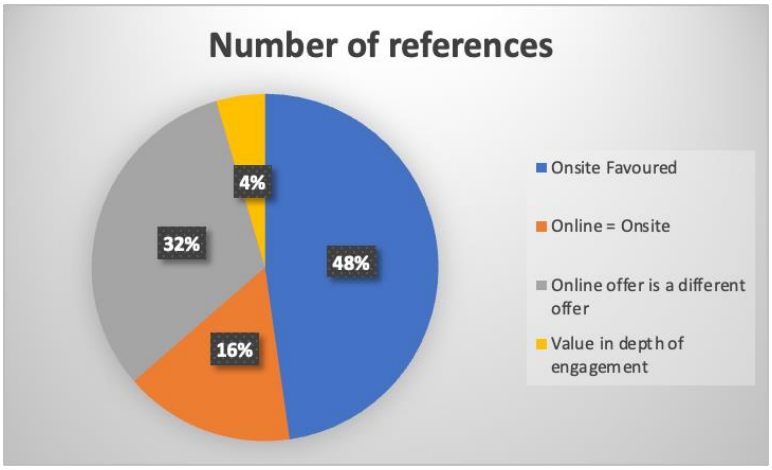


Chart 6: References to Onsite/Online Values

Chart 6 presents the breakdown of the coding category *Views and Values*, comprising four codes reflecting interviewee views on the value of onsite experiences compared to those online. 48% of the codes presented the view that onsite engagement is more favourable to engagement online and digital engagement. The reasoning behind these however varied significantly from; online interactions offer lesser cultural capital, the USP (unique selling point) of CH institution is direct engagement with collections onsite in context, to the belief that the increase in online engagement was placeholder due to limited options in the COVID-19 pandemic. This view also includes the influence of other stakeholders on determining value, such as participants including teachers, organisations and funders, and the kinds of engagement they measure - furthering Parry et al, (2018) findings around limiting assumptions held by CH staff to an exploration of the wider context in which they are formed. All of which contributes to the idea that onsite is a richer, more genuine experience.

However, 32% of the views reflected the belief that an *Online Offer is a Different Offer,* reflecting the ideology that online and onsite offers were of a completely different nature and should not be compared - '*Actually, it's not about that it's not better in person or better online. It's [pause]... you're doing an experience. That experience is better online. This experience is better in person'* (Interviewee_06/MMC). The quote reflects the perception that these offers are designed

in different contexts to meet different needs and therefore, add value in different ways allowing different styles of engagement. This reflects questions of digital aura identified within the literature. Whilst 16% reflected online and onsite were able to offer the same level of experience and engagement - '*you can do that digitally as effectively I believe, as you can in person'* (Interviewee_14/HSR). And 4% explicitly reflected that value links to depth of engagement and not the format. It should be noted that depth of engagement was often mentioned in relation to approaches taken to content development, reflecting how 'the removal of the default' has enabled a level of questioning within individual practitioners and the wider sector.

Discussion

What does the 'removal of the default' mean in relation to the impact of online and digital tools on pedagogical approaches and RQ1A? Will the 'removal of the default' have a lasting effect on learning and outreach practices?

The above findings suggest that many of the current pedagogical values and learning theories have remained largely the same, uninfluenced by online and digital tools. Rather these values have guided the use and practical application of tools in different ways. A good example of how "default" delivery mechanisms within programmes have changed, was illustrated by an interviewee describing how the learning team had adapted in-person true/false style questions - used to encourage discussion - in synchronous sessions. Short pre-filmed "myth-buster" clips prompted participants to discuss the possible myth with a partner, against a countdown timer on screen, developing elements of active learning and games into the session. However, the findings presented varied values regarding online and digital tools in this space, suggesting that the default view around quality and depth of engagement still favour onsite programming. The default around pedagogical values and learning theories remain unchanged. However, default methods of delivery have changed - *'There isn't a default, so we're genuinely having these discussions of like what is the best fit for this?'* (Interviewee_11/LLC)

‘Dragged by Sheer Necessity into the New World’

> *‘...through sheer necessity staff had been kind of dragged into this this new world’*
> Interviewee_02 (OLC)

This theme explores the intersection of the categories; *Collaboration, Organisational Strategies and Structures, Job (Skills) and Attitudes-Approaches-Belief (Professionalism),* the subsequent findings provide insight into the RQ1B and the impacts of digital and online tools on collaborative working practices *(Appendix D3.2).*

The above quote reveals the accelerating influence COVID-19 had on changing the working practices within the sector and changing the levels of individual and organisational readiness and willingness to undertake these shifts. It presents a snapshot of the approaches and values CH institutions hold on the changing role of technology within their spaces, in which the museum walls might be considered ‘*slightly more porous’* (Interviewee_02/OLC), where engagement on a phone in a bedroom and be considered equally as valuable as being in a museum space. This introduces questions around skills-sets required to enact and deliver learning and outreach in a more distributed museum model. The following paragraphs explore how the requirement of new skills has impacted on the organisational staff structures within CH institutions and collaborations within the sector.

Professionalism

Whilst COVID-19 may have ‘dragged’ CH institutions into the new world, a sense of professionalism within this ‘new world’, was a key consideration for interviewees. Professionalism in the data related to concerns around how learning resources were designed and delivered to a high standard, and the skills that needed to be developed or bought-in to attain them, reflecting the findings around emerging professionalism identified in the literature by Parry et al, (2018). There was a strong recognition in the interview data of the shifting perceptions around the role of professionalism throughout the COVID-19 pandemic, *‘It was really really fast and it was really popular, but it was quick and dirty. It wasn't at all polished!’.* (Interviewee_17/OLL). The notion of professionalism influenced the purchasing of equipment and the drive to develop the tech-based skills.

New Skills

As described above, entering into this 'new world' required CH learning and outreach teams to quickly employ digital tools, resulting in *'the need to kind of self-upskill in order to be able to create digital content, run a webinar, put music content online, has been unprecedented'* (Interviewee_02/OLC). However, interviewees commonly reflected that skills around engagement, pedagogy and intellectual rigour remained unchanged and that there was a lot of crossover in skills - followed by an identification of the need for personal qualities such as flexibility, mindset and risk-taking. However when it came to technology-based skills the responses often included the need for further skills development, such as CPD training for CH staff on how to use various online platforms, underpinned by the belief that these skills could be easily taught. Yet a tension emerged between the need for generalist versus specialist skills that intersected with the categories of *Collaboration* and *Organisational Strategies,* particularly around organisational restructuring, reflecting Parry et al, (2018) findings around the blurring of digital and other roles, and the emergence of centralised, hub and spoke, distributive models.

Organisational Structures

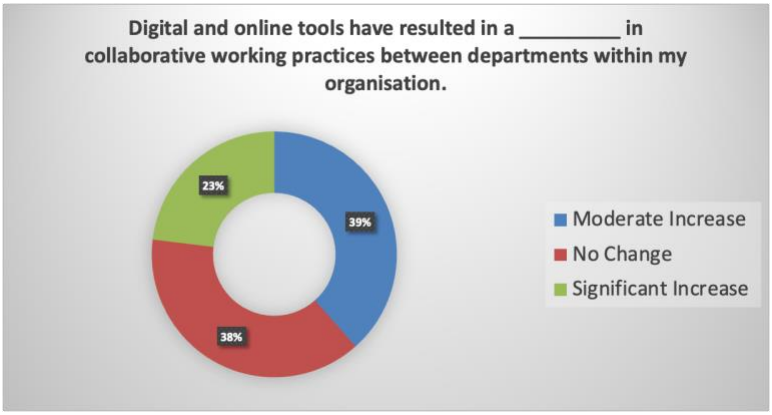
'I mean specialisms are disappearing and I suspect that generalist sort of approach is the way things are moving' (Interviewee_02/OLC)	*'But the organisation now has a digital department that's going to grow. And the aim is to be able to have is to have production experts in house'…. 'I'm not sure whether there will be more of a demand for digital generalists like me'* (Interviewee_12/MLC)

Table 1: Quote Comparison

The above *Table 1* reflects skills on a personal level, linked with discussions around job roles and organisational structures. Five interviewees reflected on shifts within their own organisation and job roles linked directly to digitally focused roles. Where these roles sat within the organisation differed, some sat within a specific centralised digital department, others spoke of more distributed models embedding digitally focused roles within departments. This in turn is reflected in the internal and external collaboration data, from both the surveys and interviews.

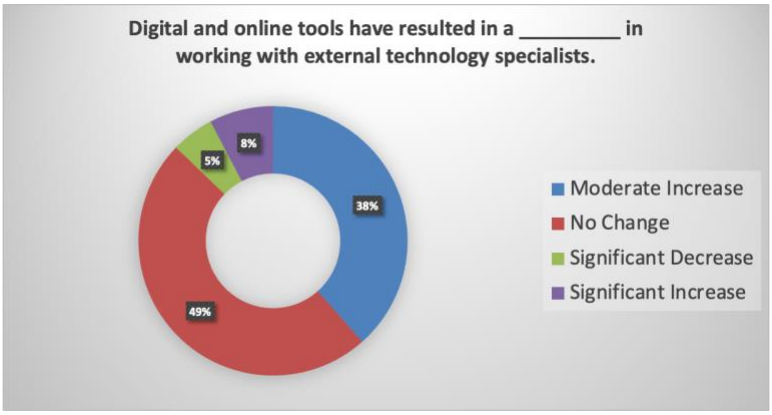
Collaborations

Within the survey *(Graph 7)* 38% participants reported digital and online tools having no change on collaborative working practices between organisational departments, while 39% reported only a moderate increase in inter-departmental working.



Graph 7: Internal Collaborations

Further to this, 49% of survey participants reported no change in working with external technology specialists, while 38% reported only a moderate increase in these external partnerships *(Graph 8).*



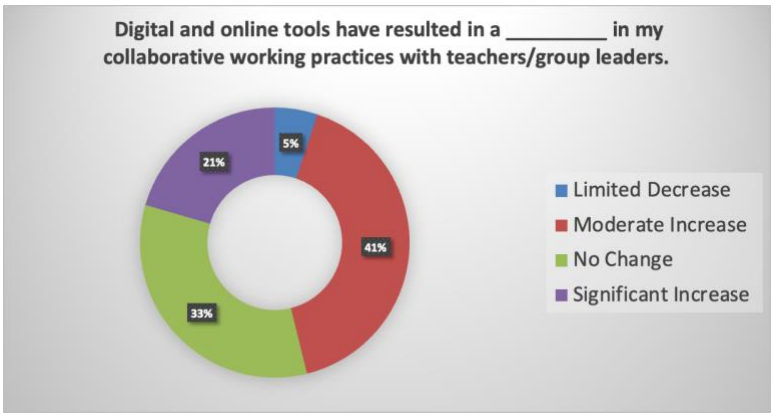
Graph 8: External Collaborations

These results can be interpreted in relation to the change in skills development and the way this manifests within an organisation. It is important to note that skills development and organisational restructure intersected with codes of costs (such as minimising costs) and professionalism. For instance, the high rates of 'no change in collaborations with external technology specialists' could be indicative of the increased skill sets developed within learning teams during the pandemic, driven by the need to cut spending due to the loss of income. This intersects with concepts of professionalism and the pedagogical values around excellent standards of delivery practice. The moderate to no change in interdepartmental collaborations

could be seen as a result of shifting organisational structures, in conjunction with the diminished team sizes due to the unique context of furlough within the pandemic.

The concept of professionalism introduces external partnerships. The survey data revealed an interesting insight into external partnership practices. Some of these related to technology based partnerships that extend CH skills beyond their current capabilities, similar to those identified by Pesce et al, (2019) within the literature, such as; *'we've achieved [so much] through those collaborations and actually, the commercial companies we've worked with, we've taken them to a new level, by possibly our innocence over what can be achieved rather than our knowledge of what can be achieved'* (Interviewee_15/MST). Notably, most of the external collaboration referred to in the expert interviews related to working with freelance content developers, makerspaces, theatre companies, youth organisations, schools and experts in the production of resource content rather than the co-creation of digital and online tools.

Collaborating with Teachers and the Wider School Eco-System



Graph 9: Collaboration with Teachers

Collaboration with teachers/schools/group leaders deserves a closer examination. The **survey data in** *Graph 9* reveals CH staff reported a *moderate increase* of 41% in collaborative working with teachers and 33% *no change*. However **interview data** provided a different insight. Collaboration with teachers was often inter-coded with 'increased communication' and preparation with teachers prior to synchronous online sessions and increased interaction with teachers during sessions. These collaborations echoed the deep partnerships identified by (King, 2016) in the literature - *'So it required a real partnership with the teacher to be saying in advance, you know, "we're going to deliver this box of objects to school tomorrow. This is the*

session. You know, when we get to this bit of the session, could you give every student" or you know, could you coordinate this?' (Interviewee_04/OLC)

This increased communication with teachers, could also be viewed in conjunction with the codes *uniqueness of pandemic* and *opportunity to do something new,* which led to increased risk taking, evidenced in an interview quote relating to CH staff working with teachers not local to their venues and *'being able to try things out and kind of having a group of teachers who were up for trying out new things in their teaching practice anyway'.* (Interviewee_13/MMC)

The above quote also introduces the important element of geography into the context of collaboration. 'New Geographical Audiences' was the top-rated benefit of online learning tools and reflects a common view that '*new audiences came out of those online interactions'* (Interviewee_13/MMC)

This shift in collaboration - the increased communication and interaction - compounded with the opportunity to do something new, not only led to the development of new audiences but also the development of new learning programmes, emerging out of bespoke workshops. As evidenced in one interview where a bespoke online session led to the identification of and connection to a whole new audience group to engage outside of the COVID-19 context - '*I will be presenting to lots and lots of international schools and it would be nice to think that some of them will come back from that and want to do online sessions because they can't visit the [museum].*' (Interviewee_13/MMC)

The ability, time and flexibility to design more bespoke workshops and pilot new programmes were often crosslinked to the category *Uniqueness of the Pandemic* and code *Opportunity to do something the Different*, were intertwined with the theme: *Removal of the Default.* This reveals that whilst the *Removal of the Default* did not have a strong influence on underlying pedagogical approaches and values within the sector, the increased use of online and digital tools, due in part to being 'dragged into the future', can be seen as influencing collaborations and content development. Further to this, the increased use of digital and online approaches in the pandemic enabled deeper connections and partnerships, causing some CH institutions to engage in research into the wider school setting, *'I think the nature of the pandemic, slightly kind of allowed us to kind of think, kind of, [the] whole schools as a kind of bigger ecology I guess'* (Interviewee_18/GLC).

However, a nuanced conversation emerged in relation to asynchronous online resources, data tracking and teacher uptake of these resources. *'We don't actually know really how many teachers use those resources'* (Interviewee_03/HMR). This reflects a more complex conversation around the use of data tracking to understand engagement with online and digital resources, than identified by Parry et al, (2018). Whilst some interviewees spoke about data tracking, SEO, data related KPI's and even data driven resource design, the more common conversation centred on their perceived use, value and (in)accessibility of data within and between departments. This relates back to the categories organisational restructuring, the development of new roles and departments and the shifts between centralised and distributed digital departments.

Discussion

The above theme *Dragged into the Future* reveals a set of findings that explore the sudden need for increased skills development relating to digital and online tools for CH learning and outreach. The development of these skills - which relates to institutional values around the future and current role of technology in their spaces - manifests itself in the shifting organisational structure and has led to the creation of new departments and job roles. However there is no clear consensus around centralised or distributed digital working departments within the research data. These organisational structures can also be seen as factors influencing the level of internal collaborations relating to RQ1B. Whilst the effects of online and digital tools on external collaboration predominantly relates to the development of resource content. However the impact of sudden increase in online and digital tools on teacher-CH staff collaborations revealed in the findings, suggest pedagogical approaches remain the same but the tools have promoted an increase in the collaborative production of new content and resulted in wider geographical reach.

Step Change

> *'So we have to convince ourselves it's a good experience. Then you have to convince your institutions, and then you have to convince your funders, you know meanwhile the whole sector is repeating the same information back at you "It's better in person, you've*

> *gotta reopen. It's better in person". So you can see how these mindsets start and continue'*. (Interviewee_06/MMC)

The third theme to emerge in the findings relates to concepts around changing practices, exploring the intersection where the myths identified surrounding the use of online and digital tools for learning and outreach meet the practical experiences of these tools shaping current programming and future objectives *(Appendix D3.3)*.

Within the expert interviews, participants were asked to identify myths or misconceptions they felt surrounded the use of online and digital tools in achieving learning and outreach objectives. These myths and misconceptions closely echoed the views and values held by CH learning and outreach teams identified in theme one. They present a back-and-forth narrative. On one hand they raised the misconception that online and digital tools are stressful, tricky and hard to use. On the other, they acknowledge that the online and digital tools usually involved big adaptations to programmes, meant an increased workload and required more staffing resources in order to be effective in achieving their learning and outreach goals - *'in one sense it's so easy to set up as a link and send it around, but it's another thing making the session hit your objectives, keep the learners engaged and really bring a museum to your audiences'* (Interviewee_09/MLC). These myths are linked to the underlying values around 'face-to-face' experiences and concerns that audiences and funders would see digital experiences as less valuable, lower impact and generating less cultural capital.

Myths and Misconceptions

"I just hope that in the future it [digital tools] will make museums - it can make museums - much more accessible to everybody" (Interviewee_01/MLC)

The use of these tools by CH institutions for learning and outreach purposes are not new. However, the sudden 'removal of the default' in practices brought about by COVID-19 pandemic, resulted in many CH institutions taking a closer look at the affordance of these tools in relation to their programming objectives, such as access and inclusion.

Access and Inclusion is a category that continually appears throughout the data set, followed by the popular view that digital and online tools are a practical and sustainable means to increase

it. Thus, attitudes surrounding online and digital tools, combined with reflections on their practical use, led to interviewees critically questioning the ability of digital and online tools to address questions of access and inclusions.

The emergence of the theme *Access and Inclusion* within the coding could be interpreted as the combination of two factors. Firstly, the underlying principles of learning and outreach work within the CH context raised in the literature review - to make institutions, collections and programming more socially relevant - compounded by increased access needs resulting from the COVID-19 pandemic, in which physical access to CH sites became a limiting factor for almost all audiences. These factors led to the predominant uptake of digital and online tools as methods for engagement during the pandemic. Within the interviews, reflections on the use of these tools, often centred on their future potential (beyond the COVID-19 context) for increasing access, particularly the opportunity to reach greater and geographically diverse audiences currently limited by staff and/or building capacity. These reflections further extended to ideas around breaking down the museum walls, '*And actually, if you blow up the space* [the physical building/collection]*, you go, "Right don't worry about it, the space isn't there, the space is infinite!" How do you actually move into that online space?'* (Interviewee_14/HSR). However, there were seemingly contradictory opinions expressed around the affordances, opportunities and design considerations of digital and online tools in relation to access and inclusion. The following emerging myths thus allowed a more nuanced set of perspectives to emerge in the expert interviews, resulting in the crystallisation of four key myths around the use of these tools to address questions of access and inclusions:

a) The fallacy that technology always increases access and inclusion for all learners, especially those considered as Special Educational Needs and Disabilities (SEND) exemplified in this quote, '*So I think it's very interesting with SEND because there's a lot of things bounded about that online is much better for people with SEND or people who have social, emotional, mental health difficulties. And sometimes it is, but actually it's not better for everyone with those needs.'* (Interviewee_04/OLC)

b) The falsehood that technology is always the best solution. *'I think, going back to that example of the outreach programme, where digital really is enhancing - it's something; they wouldn't be able to visit us otherwise - it's looking at where it is filling a gap and making sure. Because, I know in the past digital has been used for digital sake, so I'm*

always really conscious of not doing that and only using it where it's the most appropriate.' (Interviewee_09/MLC)

c) The idea that audiences reached through digital/online methods are more diverse to onsite visitors - '*... it really helped challenge the idea that the people in the museum are one type of audience and the online audience is potentially very much different and more diverse. Actually, it's just more of the same."* (Interviewee_02/OLC)

d) The concern in the sector that addressing questions of access and inclusion in online and digital tools requires a special approach, skills and tools, *'In many ways it's not dissimilar to the question we have had for years about inclusion. The problems, the challenges are what we've always faced - not everyone has access to money, access to transport, access to time, and access to pre-learning, in the same way that everyone else does. So everything we create, it always has that thing of - how have we made it accessible and inclusive? And online is another version of that, in the same way that everything was, it's just a different environment."*

The above nuanced uses of technology are discussed in the following paragraphs, where they intersect with interviewee reflections around influence of online and digital tools on current onsite programmes, future online offers and other areas of work.

Influences on Onsite and Future Programmes

Within the expert interviewees a few participants highlight instances where their experiences of online and digital tools during the COVID-19 pandemic, had resulted in the uptake of new approaches to their current programming. These include the following examples, in relation to the nuances highlighted in the above myths;

a) Audience needs;

   This led to the identification of new staff as an audience group, in which film and production skills gained could be appropriately used to create staff training resources

b) The identification of when online and digital enhance programmes, compared to in real life or blended approaches;

This resulted in the use of blended approaches in which asynchronous video content designed for online settings was used within the museum to encourage audiences to physically occupy spaces differently - particularly when social distancing meant onsite offers were still restricted. It also meant the identification that some sessions - previously held in-person - were more effective in online spaces. This was a point highlighted by a number of interviewees in relation to webinar style content or broadcast programmes that centred around 'speaking-to-an-expert' style content. A further example of digital tools filling a gap related to the use of virtual tours as social guides as pre-visit activities for SEND audiences.

c) The development of programmes for geographically diverse audiences;

Programmes were developed for geographically diverse audiences, such as targeting live-streaming offers to family audiences who couldn't reach the museum. The ability for online and digital tools to allow for more sustainable and accessible forms of asynchronous programming, encouraged the idea of digital efficiencies afforded through technology. A further example centred on the future desire to create open-source plans of objects and spaces for use with 3D printers to be made available to schools and makerspaces.

d) An acknowledgement of the limitation of online and digital tools in addressing wider societal questions of access and inclusion.

This resulted in the identification that some synchronous online content could become converted into asynchronous resources hosted on organisational websites as free-to-download content. As well as the need to use accessible and inclusive design principles to guide the production of all future online and onsite content

The above **interview data** - on the myths relating to the value of online and digital content and the practical experiences around their implementation - align with the **survey data** conveyed in *Graph 3: Future Learning Goals (p. 39).* The data reveals a high number of respondents reported that digital and online tools had a significant and moderate influence on their future learning goals and objectives.

Discussion

The above intersection of myths, the value and practical experiences of implementing online and digital content brought together in the theme *Step Change*, provides an interesting narrative around the influence these tools have had on both pedagogical and collaborative approaches within the sector. They can be seen to provide an insight into the umbrella research question around how the use of digital and online learning - encouraged by and emerging within the COVID-19 pandemic - has impacted on CH institutions' approaches to onsite and offsite learning and outreach programmes. The findings point to pedagogical values and learning theories remaining unchanged in onsite and online programmes. However CH staff have undertaken a lot of work to adapt digital and online tools to effectively align with learning and outreach values and objectives. This is evidenced in the often-contradictory myths and the complex inherent values assigned to online and digital experiences in comparison to in-person encounters. However the above examples - guided by myths identified around inclusive and accessible objectives - reveal that onsite and online delivery practices are influenced by online and digital tools, evidenced in the shift towards inclusive and accessible conscious design choices and delivery methods. Thus, while it might be said in relation to RQ1A, that digital and online tools have not influenced pedagogical approaches, they have been used strategically to meet the current existing pedagogical values. They also reveal a deeper set of beliefs around the value of digital and online experience in the CH sector - beliefs guided by the wider sector, funders and institutions. Therefore, there is no clear consensus around any sort of bigger step change, a finding supported by the data that reflects a series of smaller steps driven by need for practical changes in approaches to programme delivery.

Thus it can be said that, the current onsite or offsite programmes (in person onsite or online) have been influenced in small ways by the increased use of online and digital tools experienced by CH learning teams over the course COVID-19 pandemic. And with each small improvement and development, the footprint of digital and online tools within CH programmes becomes increasingly significant.

Chapter 5

Conclusion

The three themes that developed within the findings chapter provide insight into the research question and its sub-questions.

The theme *Removal of the Default* addresses ways in which digital and online learning tools technology are influencing the pedagogical methods raised in RQ1A and questions its lasting effect on learning and outreach practices. The findings reveal that digital and online learning tools did have an influence on learning and outreach delivery methods. However they did not have a strong influence on the pedagogical approaches - underpinned by pedagogical values and learning theories identified within the literature - or the predominant values within the sector, which have largely remained the same. In fact, in many ways the pedagogical values have guided the use and practical application of online and digital tools: evidenced by the removal of previously unquestioned “default” programme delivery methods in favour of new case-by-case assessments for specific programmes and audiences. Further, there remains a default/predominant view that quality and depth of engagement in direct forms of onsite or in-person experiences are generally more valuable than online experiences, in terms of the richer experiences and cultural capital they provide.

The theme *Dragged into the Future* interrogates the influence of digital and online learning tools on internal and external learning-centred partnerships/collaborations in CH institutions, raised in RQ1B. The increased use of online and digital tools influence collaborations through the increased need for skills, guided by institutional level views and values held around the future and current role of technology. This has manifested in different ways. Internal collaborations reflect shifting organisational structures, which have led to the creation of new departments and/or job roles. However there is no clear consensus around best or common practices, regarding centralised versus distributed digitally-focused departments, as so much depends on the nature of the skills required. When skills are not internally available, external collaboration becomes a worthwhile investment (funds permitting) and significantly contributes to overall skills development within CH teams and the growth of all stakeholders. However the findings suggest

that external collaborations often relate to the development of digital content (eg. working with theatres) rather than the creation of digital tools.

Increased use of digital and online learning tools on teacher and school collaborations revealed an increase in the creation of bespoke workshops and piloting new programmes, leading to an increase in coproduction of new content with teachers, including those from geographical regions outside of 'local' learning audiences. These digitally enabled co-production experiences alongside the unique circumstances of the pandemic encouraged deeper connections and partnerships with schools and teachers, causing some CH institutions to engage in research around the wider school eco-system. Thus the increased use of digital and online learning tools can be seen to have a range of influences on multiple levels of internal and external learning-centred partnerships/collaborations in CH institutions.

The theme *Step Change* developed through the research question, explores how the increase in use of digital and online learning tools, encouraged by and emerging within the COVID-19 pandemic, changed and impacted on CH institutions' approaches to onsite and offsite learning and outreach programmes. These impacts are identified in the intersection of myths, the values and practical experiences of CH learning and outreach teams, as fully explained in the relevant section above. The findings point to how pedagogical values and learning theories remain unchanged in onsite and offsite programmes, similar to the findings related to the role of pedagogical values and learning theories in the production of online and digital tools discussed within the theme *Removal of the Default*. A notable impact is the adaptation of digital and online tools, both onsite and offsite to effectively align underlying values and objectives, evidenced in the shift towards inclusivity and accessibility conscious design choices and delivery methods. These take into consideration the contradictory myths identified around inclusive and accessible objectives. The impact of the increased use of digital and online learning tools is also revealed in the support from the wider sector funders and individual institutional cultures. Support that is guided by a deeper set of beliefs relating to questions of aura in digital and online experiences in the CH sector, that inform the predominant learning theories. These experiences of increased engagement with online and digital learning tools lead to shifts within onsite and offsite practices and reflect a series of small steps driven by need for practical changes rather than a bigger step change driven by pedagogical changes. Therefore it can be said that, online/digital experiences onsite or offsite have been influenced in many small ways by the increased use of online and

digital tools and that with each new development, collaboration and small innovation, the footprint of digital and online tools within CH programmes steadily gains significance.

Ultimately the research calls practitioners to critically consider the role of learning theories within their practice and how they may/may carry these theories forward into online and digital tools, developed through their own skills or internal/external collaborations. The research raises a question for the need for future research into learning theories, relating particularly to concepts around the role of aura within digital and online learning environments - whether they are delivered onsite/offsite through in-person/online methods. Future research might also be conducted into the use of online and digital tools for learning in CH institutions from a more global perspective. Finally, future research might look at the impact of the sector's current demographics (such as race, gender, class, sexual orientation, able-bodiedness, language, marginalisation) on the approaches and use of tech in these spaces.

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Appendix A - Online Survey Questions

Digital Learning and Outreach Practices in Cultural Heritage Institutions

Exploring the links between the increased use of digital technology, digital platforms, the digitisation of cultural artefact and classrooms in the cultural heritage education sector

CUREC Approval Reference: CIA-22HT-077

General Information

The aim of this study is to explore the relationship between the increased use of digital technology, cultural digital platforms, the digitisation of cultural artefact, artworks and spaces, and classrooms in the cultural heritage education sector. It will investigate if/how digital technology is changing the pedagogical and collaborative practices between cultural heritage institutions and schools, regarding their onsite and offsite education and learning outreach programmes.

We appreciate your interest in participating in this online survey. You have been invited to participate as you have both recent and relevant experience (holding a role that is related to cultural heritage education design, delivery and/or decision making, within the last 5 years) in the cultural heritage education sector.

Please read through this information before agreeing to participate (if you wish to) by ticking the 'yes' box on the following pages. You may ask any questions before deciding to take part by contacting the researcher (details below). The Principal Researcher [redacted] who is attached to the Department of Education at the University of Oxford. This project is being completed under the supervision [redacted]

Please complete the following questions within the online survey, based on your current or recent and relevant experience (holding a role that overseas education related decisions making within the last 5 years) in the cultural heritage education sector. This should take about 10-15 minutes. No background knowledge is required. The data is needed to build an overview of the recent experiences of those within the sector. The data from this survey will be collated to form the basis of an empirical research study, I am undertaking as a part of my MSc dissertation. No third parties will be given access to that data.

Please note that participation is voluntary. If you do decide to take part, you may withdraw at any point for any reason before submitting your answers by pressing the 'Exit' button/ closing the browser.

We have included a 'Prefer not to say' option for each set of questions should you prefer not to answer a particular question.

Research Data Information

How will my data be used?

We will not collect any data that could directly identify you, unless you choose to share your name and contact information with us for a follow up interview.

Your IP address will not be stored. We will take all reasonable measures to ensure that data remain confidential.

The responses you provide will be stored in a password-protected electronic file on University of Oxford secure servers and may be used in academic publications, sector specific publications, conference presentations, websites. Upon completion of the research, the data will be anonymised and permanently stored after publication or public release of the work of the research.

Who will have access to my data?

The results will be written up for an MSc degree.

Upon completion of the project, all anonymous data will be securely archived in ORA-Data - Oxford University Research Archive (the University's institutional repository, a permanent and secure archive of research outputs and research data). At this time, any data holding personal details will be securely disposed of in accordance to the university guidelines.

Who has reviewed this study?

This project has been reviewed by, and received ethics clearance through, a subcommittee of the University of Oxford Central University Research Ethics Committee CIA-22HT-077.

Concerns and Contact Details

Who do I contact if I have a concern or I wish to complain?

If you have a concern about any aspect of this study, please speak [redacted] on [redacted] or their supervisor [redacted] on

[redacted], and we will do our best to answer your query. I will acknowledge your concern within 10 working days and give you an indication of how it will be dealt with. If you remain unhappy or wish to make a formal complaint, please contact the Chair of the Research Ethics Committee at the University of Oxford who will seek to resolve the matter as soon as possible Social Sciences & Humanities Interdivisional Research Ethics Committee; Email: ethics@socsci.ox.ac.uk; Address: Research Services, University of Oxford, Boundary Brook House, Churchill Drive, Headington, Oxford OX3 7GB

1. Please note that you may only participate in this survey if you are 18 years of age or over. *

   I certify that I am 18 years of age or over

2. If you have read the information above and agree to participate with the understanding that the data you submit will be processed accordingly, please tick the box below to start. *

   Yes, I agree to take part

Participant Information

3. Job Title: *

4. Organisation Type: *

- Museum
- Gallery Historical House Library
-
- Garden
- Freelance Educator Prefer Not To Say
- Other

5. Size of Learning/Education Team:

**This includes early years, primary & secondary schools, higher & further education, as well as, informal learning groups.*

- Small (1 person/secondary role included in job) Medium (2-5 people)
- Large (6+)
- Prefer not to say
- Other

6. Location: *

- Rural (village) Suburban Town
- City
- Digital / Online Only Prefer not to say
- Other

7. Country *

Digital Technology and Learning Programmes

8. **Prior** to the COVID-19 pandemic which types of online learning and outreach programmes did you offer? *

- In-person Onsite
- In-person Offsite (educational outreach projects/ school visits, etc)
- Synchronous Online Programmes (live online learning using tools such as video conferencing, live streaming on social media sites
- Asynchronous Online Programmes (virtual tours with supplementary learning packs/guides, interactive digital objects, downloadable learning resources, pre- recorded videos, interactive website tools)
- Blended Approaches (both in person and online) Prefer Not To Say
- Other

9. **Throughout** the COVID-19 pandemic and during lockdown measures, which types of online learning and outreach programmes did you offer? *

- In-person Onsite
- In-person Offsite (educational outreach projects/ school visits, etc)
- Synchronous Online Programmes (live online learning using tools such as video conferencing, live streaming on social media sites)
- Asynchronous Online Programmes (virtual tours with supplementary learning packs/guides, interactive digital objects, downloadable learning resources, pre- recorded videos, interactive website tools)
- Blended Approaches (both in person and online) Prefer Not To Say

10. Which types of online learning and outreach programmes do you **currently** offer? *

- In-person Onsite
- In-person Offsite (educational outreach projects/ school visits, etc)
- Synchronous Online Programmes (live online learning using tools such as video conferencing, live streaming on social media sites)
- Asynchronous Online Programmes (virtual tours with supplementary learning packs/guides, interactive digital objects, downloadable learning resources, pre- recorded videos, interactive website tools)
- Blended Approaches (both in person and online) Prefer Not To Say

11. What types of online technology do you offer/make use of in your current learning programmes? *

- Video conferencing technology (e.g. Teams/zoom)
- Live Streaming on social media sites (e.g. Youtube Live/facebook Live) Virtual Reality (e.g. Virtual Tours)
- Augment Reality
- Downloadable resources via your website: Pre-recorded videos files Downloadable resources via your website: Audio files
- Downloadable resources via your website: Photographs/images Downloadable resources via your website: PDF/text based resources Interactive features and games on website
- Mobile Application for download
- Prefer not to say

- Other

12. Where are these tools/resources hosted? *

- Organisations Website
- Shared Online platform (e.g. Google Arts and Culture / Europeana) Linked to organisations website but hosted by a third party
- Social Media Platform
- Organisational Intranet (Private network/shared drive)
- Prefer not to say
- Other

Reflections on design, delivery, pedagogy and policies

13. In your experience, how effective have you found the above online and digital tools in achieving your learning goals? *

> **Online and digital tools have been _____ in helping me achieve my learning goals.**
>
> *Very Effective |Moderately Effective| Neutral | Somewhat Ineffective | Extremely Ineffective (a hinderance)*

14. (Optional) Tell me more:_____

15. Exploring the influence of online and digital tools on your pedagogical approaches to delivering education projects and their impact your organisation's learning objectives and policies.

Pedagogical approaches may relate to ideas and approaches to learning theories in museums, such as Falk and Dierking's (1992, 2000) constructivist learning theories that promote museum learning strategies that draw upon learners physical, personal and social contexts.

*Including online platforms for learning programmes, such as Google Arts and Culture / Europeana. *

15a) Online and digital tools have had _____ influence on my pedagogical approaches to delivering learning sessions/programmes/projects.

Very Significant Influence | Significant Influence |Moderate Influence | Limited Influence | No Influence

15b) Online and digital tools have had _____ influence on our future organisational learning programming goals/objectives?

Very Significant Influence | Significant Influence |Moderate Influence | Limited Influence | No Influence

15c) Online and digital tools have had _____influence on our organisations learning policies. (Including the online platforms for learning programmes, such as Google Arts and Culture/ Europeana)

Very Significant Influence | Significant Influence |Moderate Influence | Limited Influence | No Influence

16. (Optional) Tell me more:_____

Reflections on Learning Partnerships and Collaborations

17. Exploring the influence of online and digital tools on the level partnerships and collaboration. *

17a) Digital and online tools have resulted in a _____ in my collaborative working practices with teachers/group leaders in the design and/or delivery of learning programmes.

Significant Increase / Moderate Increase / No Change / Limited Decrease / Significant Decrease

17b) The use of digital and online tools, in the design and/or delivery of learning programmes, has resulted in a _____ in collaborative working practices between departments within my organisation.

Significant Increase / Moderate Increase / No Change / Limited Decrease / Significant Decrease

17c) The use of digital and online tools, in the design and/or delivery of learning programmes, has resulted in a _____ in working with external technology specialists.

Significant Increase / Moderate Increase / No Change / Limited Decrease / Significant Decrease

18. (Optional) Tell me more:_____

Further Research and Contact Details

19. Are you willing to be contacted to take part in a further interview? *

- Yes
- No

20. Please leave your name and contact details below.

_____

Thank you

Thank you for taking the time to complete this survey.

If you have a question or concern about any aspect of this study, please contact me [redacted] or my supervisor [redacted] on [redacted], and we will do our best to answer your query. I will acknowledge your concern within 10 working days.

Appendix B - Expert Interview Guide

CUREC Approval Reference: CIA-22HT-077

INTERVIEW QUESTIONS

Exploring the links between the increased use of digital technology, digital platforms, the digitisation of cultural artefact and classrooms in cultural heritage education.

Digital Technology and Learning Programmes - Overview

1. **What types of online learning and education outreach programmes do you currently offer and for which age groups/audiences? How do you decide this?**

Examples include:

- In-person Learning and Education Outreach Programmes Onsite
- In-person Learning and Education Outreach Programmes Offsite (educational outreach projects/ school visits, etc)
- Synchronous Online Learning Programmes (live online learning using tools such as video conferencing, live streaming on social media sites)
- Asynchronous Online Learning Programmes (self-guided virtual tours, interactive digital objects, downloadable learning resources, pre-recorded videos, interactive website tools)
- Blended Learning Programmes (both in person and online)
- Other

2. **What types of online technology do you offer/make use of in your current education programmes?**

Examples include:

- Video conferencing technology (e.g. Teams/zoom)
- Live Streaming on social media sites (e.g. YouTube Live/Facebook Live)
- Virtual Reality (e.g. Virtual Tours)
- Augment Reality (e.g.
- Downloadable resources via your website:
  - § Pre-recorded videos files
  - § Audio files
  - § Photographs/images
  - § PDF/text based resources
- Interactives on website
  - § 3D scans

§ games
- Mobile Application for download
- Other

3. Where are these tools hosted?

Examples include:
- Organisation Website
- Shared Online platform (e.g. Google Arts and Culture / Europeana)
- Linked to organisation website but hosted by a third party
- Social Media Platform
- Other _____

Digital Technology - CASE STUDY

4. Can you talk through a recent an online learning and/or education outreach project/programme/resource you've recently run and/or created?
   a. Identify tech used
   b. How/where it was hosted (what were the pros and cons)
   c. The design process
   d. The delivery process (and lessons learnt/highlights/challenges/most & least effective elements)
   e. Why was it designed to be delivered online? What was your goal?
   f. How/was this educational experience different from a face-to-face project?
   g. What would you consider the key successes of this project?
   h. What would you consider the challenges on this project?
   i. If you were to walk in the shoes of a learner/participant taking part in this project, how would you describe your experience of this project?

Pedagogy, Practice & Policy

5. Have these online and digital tools had any influenced your pedagogical approaches to delivering education and outreach projects? If yes, how so?

** Pedagogical approaches may relate to ideas and approaches to learning theories in museums, such as Falk and Dierking's (1992, 2000) constructivist learning theories that promote museum learning strategies that draw upon learners physical, personal and social contexts.*

6. What, in your opinion, are the current/future skills required in the cultural heritage education sector? (Have they changed/shifted/evolved?)

7. **What do you feel are the biggest misconceptions/myths surrounding the use of online digital tools in cultural heritage education?** (What would you caution other cultural heritage educators on?)

8. **Has the recent global experience of the COVID-19 pandemic and the effects it had on cultural heritage venues and learning teams shifted your vision for the future of cultural heritage education and outreach, in terms of**
    a. Organisational strategies/goals
    b. Organisation education policies (e.g. online safety, data privacy, digital maintenance/decay)

    If yes, how so?

9. **Online platforms and tools are often cited as a means to reach new audiences in the cultural heritage sector, what are your experiences regarding reaching new audiences/widening participation with online learning programmes?**

10. **What role do you think digital and online cultural heritage education and outreach can play, in constructively contributing to conversations (and actions) regarding the digital divide/access/inclusion?** How might this fit into wider conversations relating to your organisation's mission/aim/goal/values around equal access to culture and/or cultural capital?

Appendix C - Interview and Survey Sample Data

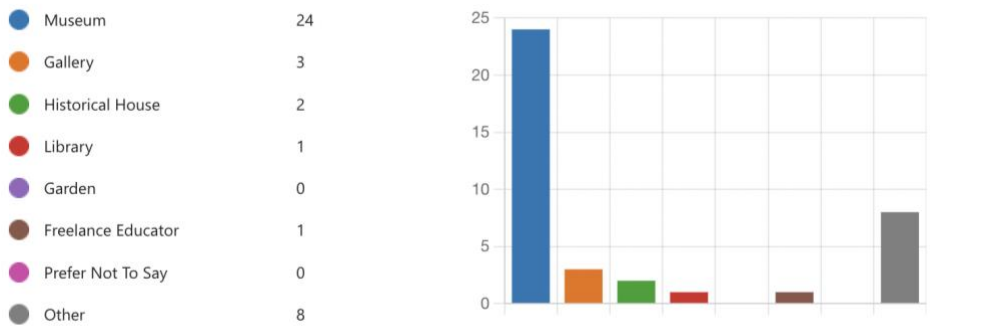
C1: Sample Plan for Interview Participants

	Officers	Digital Producers/ Managers	Managers	Directors/CEO	Other
Galleries					
Museums					
Libraries					
Historical Houses					
Other					

C2: Survey Sample Details

The following tables indicate the final organisation type, size and location of the survey participants.

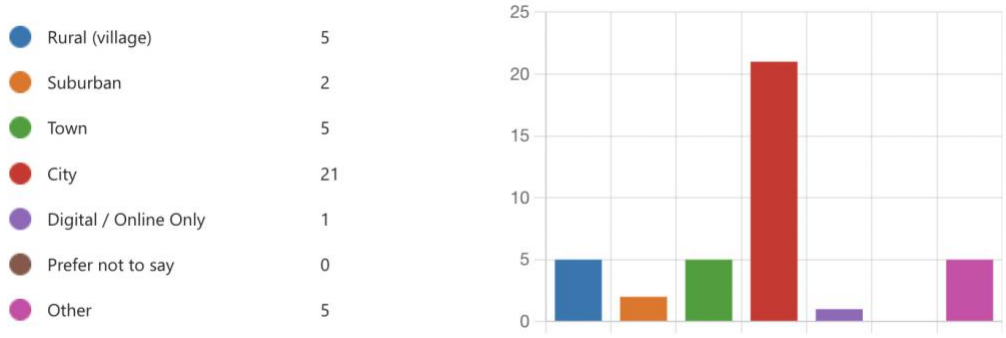
C2.1: Organisation Type



C2.2: Size of Learning Team



C2.3: Location



Other = Digital and office based; We work across 5 museums across the county; Digital / Online Only; Parkland/estate; National

*38 out of the 39 survey respondents were based in the United Kingdom, with a single respondent based in the United States. This was subsequently removed from the data to keep all findings consistent to the UK setting.

C3: Expert Interviewee Sample Details

C3.1: Populated Expert Interview Sample Plan

	Officers	Digital Producers/ Managers	Managers	Directors/CEO	Other
Galleries	2	2			
Museums	2	2	2	2	1 - Wikimedian In Residence
Libraries					1 - Wikimedian in Residence /Digital Skills Wikimedian

Historical Houses			1	1	
Other	1 - GLAM*		1 - Historical Religious Site		

C3.2: Expert Interviewee Sample (organisation type, size and location)



C3.3: Expert Interviewee Anonymised Codes

Generic Code: Interviewee_no. (Organisation/Size/Location)

Organisational = Museum, Gallery, Historic House, Library, Garden, Other
Size = Large, Medium, Small
Location = City, Town, Rural, Digital/Online

Details for selection of category - “other”

Interviewee_02 (OLC)	Other = GLAM Institution
Interviewee_04 (OLC)	Other = GLAM Institution
Interviewee_17 (OLL)	Other = Historic Building / Place of Worship

Appendix D - Thematic Analysis

D1: Deductive and Inductive Coding

DEDUCTIVE CODES		INDUCTIVE CODES	
Former Job Title	Organisational Website	Misc	Mobile optimised web
Furlough	PDF	Monitoring and Evaluation	Padlet
Future Skills	Platform based App	POI - need researching	Polls
Job Description	Polls	Copyright	Self-Authoring Tools
Job Title	Powerpoint	Break down barriers to initial visits	Webinar Approach
Place of Work	Social Media	Digital Efficiency	Converting - Adapting Onsite Content to Online
Current Offer	Teams	New geographical spaces	Democratising Content
Future Appetite	Third Party Platform	Practical Design Considerations	Evergreen Content
Future Offer (Desired)	Video	Rehearse with Tech	Professionalism
Pandemic Offer	VR	Retain Learning Audiences in different time zones	Teaching Digital Skills
Pre-Pandemic Offer	Zoom	Sense of Community	Additional Teacher Support
Myth - Misconceptions	Zoomable Images	Teacher Attitudes, Skills and Tech Spec	Budget Restraints
Data Privacy	Uniqueness of Pandemic Circumstances	Digital Asset Production	Context of collection (institution) on offer
Digital Decay	Fee Structures	Environment Sustainability + Policy	Online Interactive Techniques
Future Policy	Organisational Aims	Organisation Restructure	Digital as an Approach
Online Safeguarding	Organisational Strategies & Goals	Sustainable tech	Industry Norms - Expectations
Challenges of Online Delivery	Value of Online vs Onsite	AI-led Engagement	Online influencing onsite offer
Limitations of Tech (GLAM educators)	3D Images	Breakout Rooms	Online influencing other areas of work
New Audiences	3D Printing	Chatbot	LMS
New Geographical Audience	AR	CRM System	Mailing List
Positives of Online	Audio FIles	Drupal-based web content	Mentimeter
Teaching to the void	Google Classroom - Google Meet	Jamboard	
User friendly tech (shareable with teachers)	Greenscreen		
Asynchronous Online	Online Games		
Blended Offer	hybrid		
In-person	Cultural Capital		

Onsite	Digital Divide	
Synchronous Online (Live Stream Workshop)	Data Tracking	

D2: Categories

Categories & Subcategories	
Access and Inclusion	Uniqueness of Pandemic Circumstances
Approach to Content Development	Attitudes-Approaches-Behaviours
Cont Dev - Guiding Factors	Changing Role & Place of Tech in Cultural Institutions
Cont Dev led by Learning Theories	Critical of Tech
Authentic Connection	Digital as an Approach
Empathetic Mimicry	Industry Norms - Expectations
Immersive Experience	Opportunity to do Something Differently
Multisensory	Positive Attitude (having a go with new tech)
Object-Based Learning Pedagogy	Relationship to Tech (Self Described)
Pedagogical Values	Tech-centric (Tech for Tech sake)
Social Learning	Tech-deterministic
Talking to an Expert	Audience
Cont Dev led by methods of delivery	Early Years
Broadcasting	Families
Web-based Delivery	Higher Ed
Cont Dev led by Participants	Lifelong learning - public engagement
Audience-led	Onsite Audiences
Child-led Approach to Content Development	Parents
Curriculum-led content development	Primary School
Data driven content development	Secondary
Teacher-led Approach to Content Development	SEN
Cont Dev - Key Questions	Teachers
Cont Dev for Purpose	Collaboration
Encourage on-site visits	Collaboration with Teachers
Pre & Post Visit Support	External Partnerships
Converting - Adapting Onsite Content to Online	Internal Partnerships & Collaborations

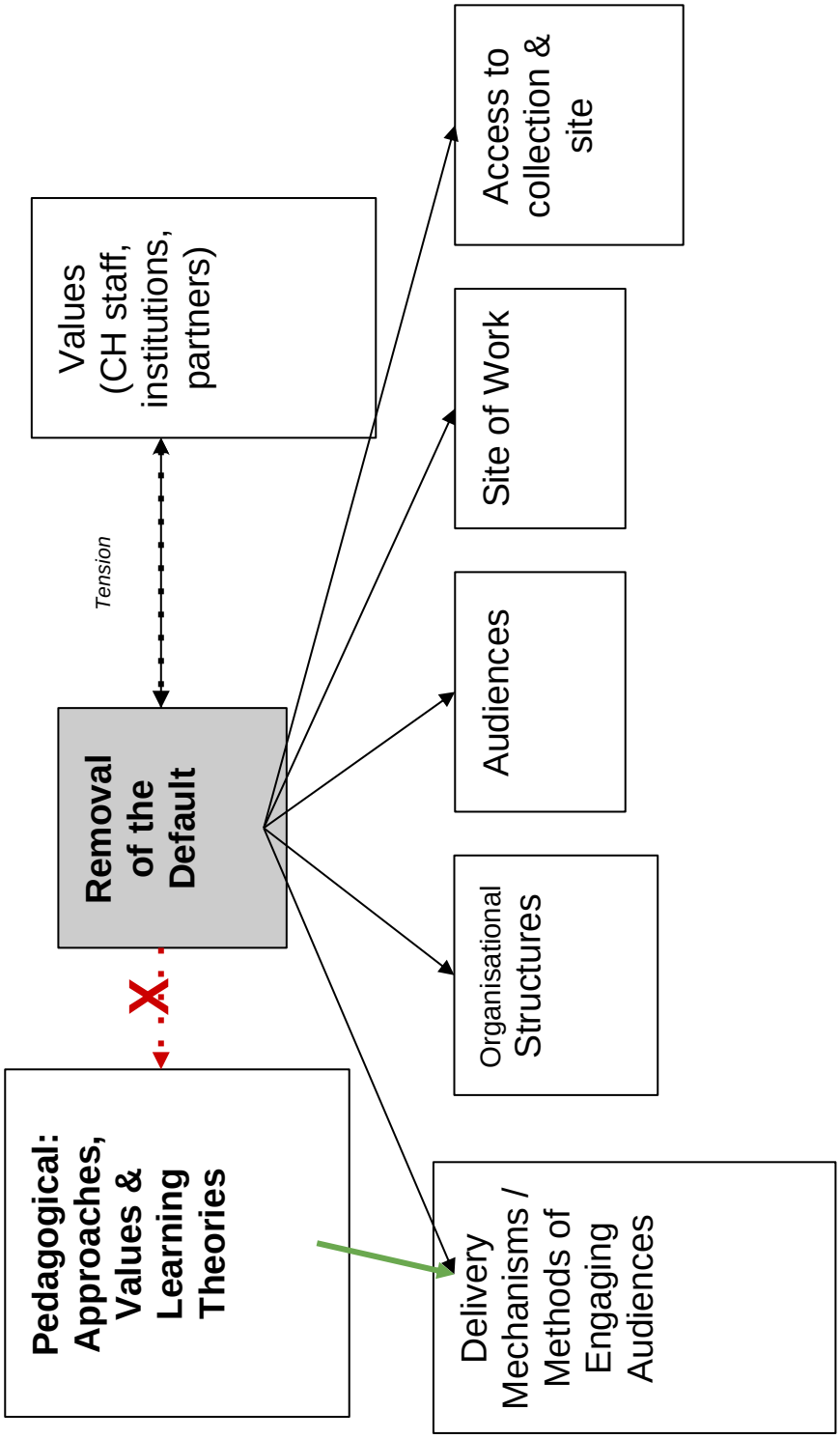
C. HOEPPER_Dissertation

Democratising Content	Impact of Online Working
Evergreen Content	Online influencing onsite offer
Professionalism	Online influencing other areas of work
Teaching Digital Skills	Job
Cont Dev - Practical Considerations	Former Job Title
Additional Teacher Support	Furlough
Budget Restraints	Future Skills
Context of collection (institution) on offer	Job Description
Online Interactive Techniques	Job Title
Pre-sent activities & craft materials	Place of Work
Misc.	Learning Offers
Monitoring and Evaluation	Current Offer
Myth - Misconceptions	Future Appetite
POI - need researching	Future Offer (Desired)
Policy	Pandemic Offer
Copyright	Pre-Pandemic Offer
Data Privacy	Resource Type
Digital Decay	Asynchronous Online
Future Policy	Blended Offer
Online Safeguarding	hybrid
Pros, Cons and top Tips to Online Delivery	In-person
Challenges of Online Delivery	Onsite
Limitations of Tech (GLAM educators)	Synchronous Online (Live Stream Workshop)
Practical Design Considerations	Social Impact
Pro's	Cultural Capital
Break down barriers to initial visits	Digital Divide
Digital Efficiency	Tech
new audience	3D Images
New Geographical Audience	3D Printing
New geographical space	AI-led Engagement
Positives of Online (General)	AR
Retain Learning Audiences in different time zones	Audio Files
Sense of Community	Breakout Rooms

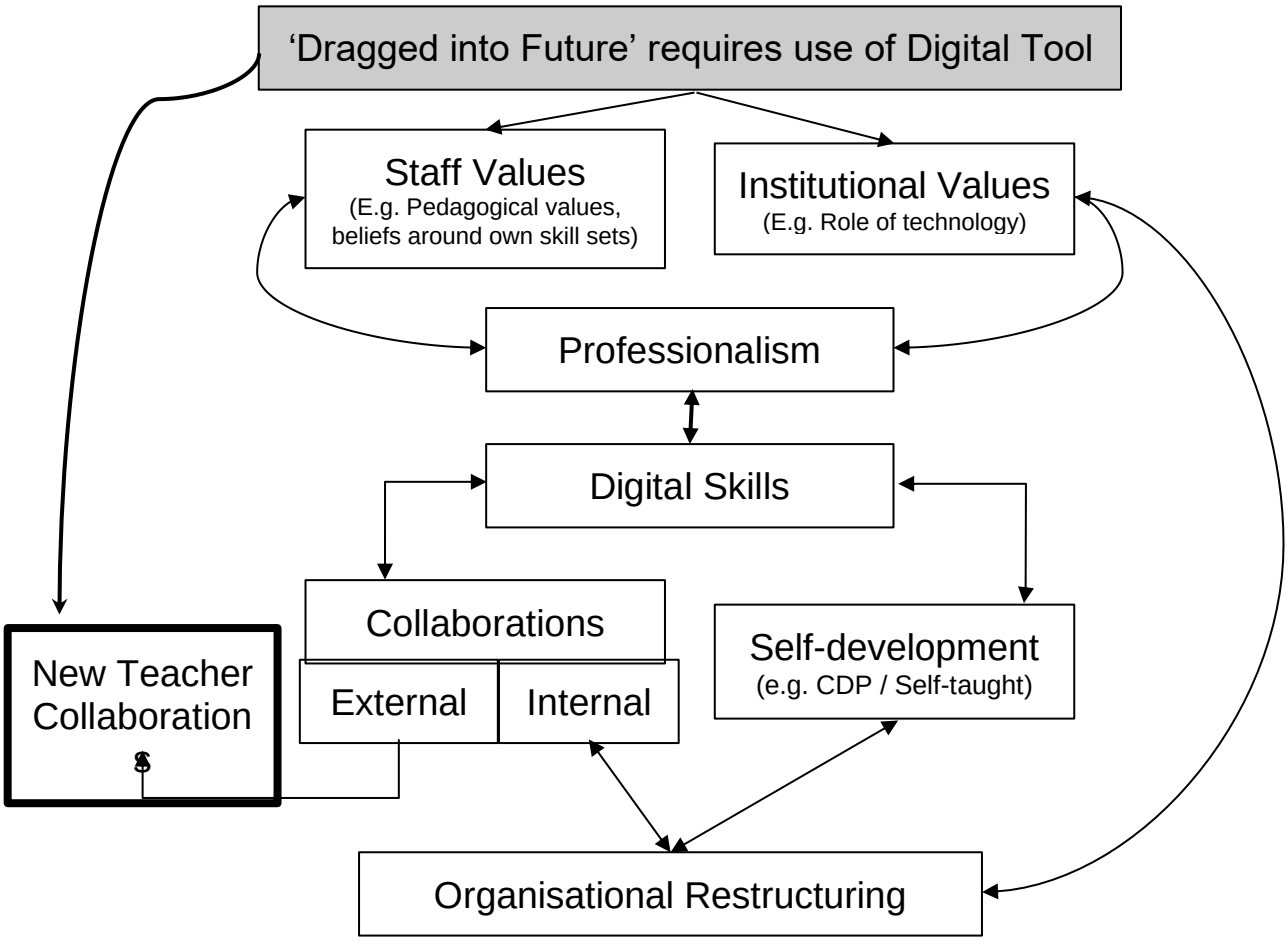
Rehearse with Tech	Chatbot
Teacher Attitudes, Skills and Tech Spec	CRM System
Teaching to the void	Drupal-based web content
User friendly tech (shareable with teachers)	Google Classroom - Google Meet
Strategies and Structures	Greenscreen
Data Tracking	Jamboard
Digital Asset Production	LMS
Environment Sustainability + Policy	Mailing List
Fee Structures	Mentimeter
Organisation Re-Structure	Mobile optimised web
Organisational Aims	Online Games
Organisational Strategies & Goals	Organisational Website
Sustainable tech	Padlet
Value of Online vs Onsite	PDF
Online = Onsite	Platform based App
Online is a Different Offer	Polls
Onsite Favoured	PowerPoint
value in depth of engagement	Self-Authoring Tools
	Social Media
	Teams
	Third Party Platform
	Video
	VR
	Webinar Approach
	Zoom
	Zoomable Images

D3: Themes

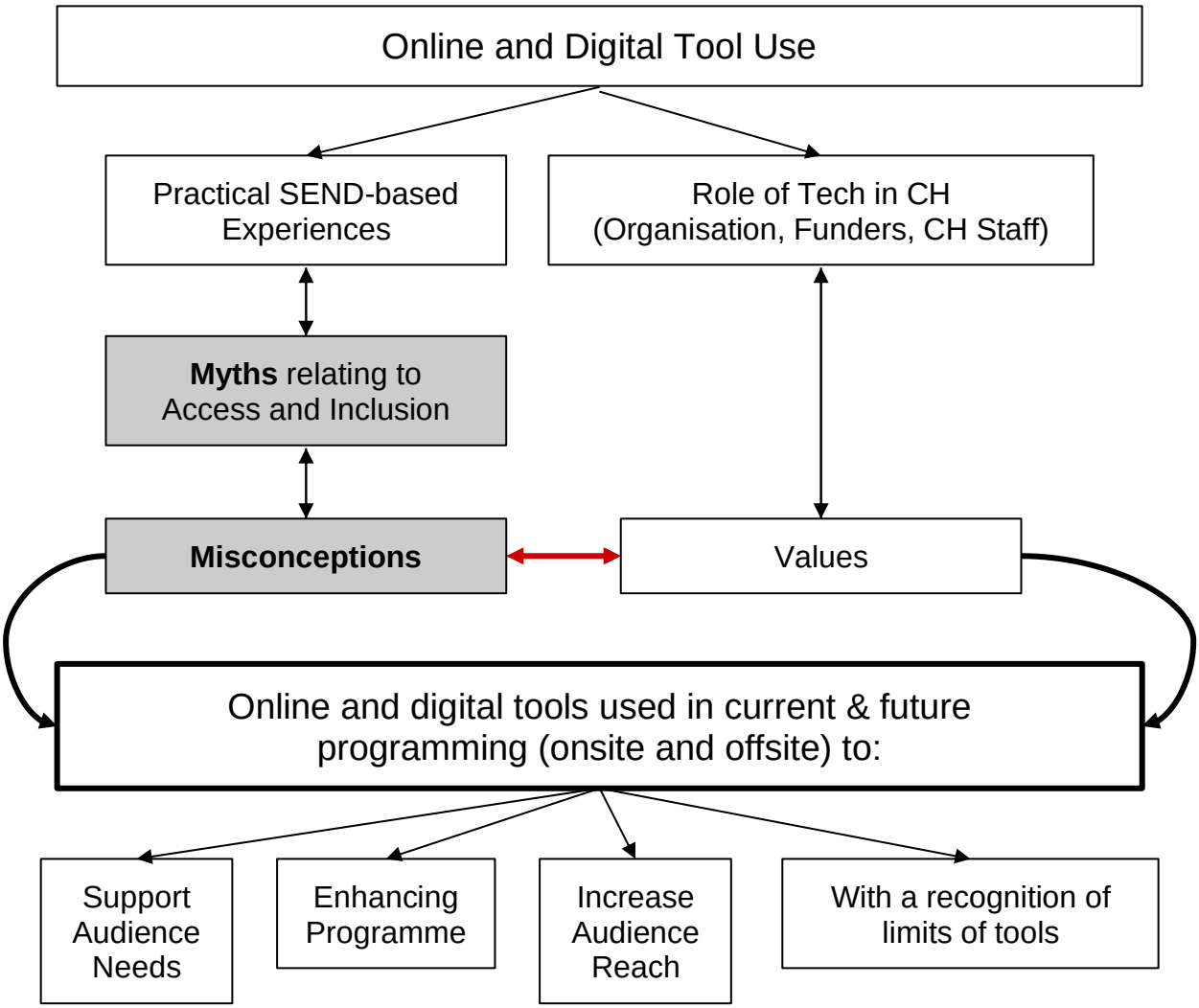
D3.1) <u>Theme 1: Removal of the Default</u>



D3.2) <u>Theme 2: Dragged into the Future by Sheer Necessity</u>



D3.3) <u>Theme 3: Myths and Misconceptions</u>



Appendix E – CUREC Approval

CUREC Approval Reference: CIA-22HT-077

From: [redacted]
Sent: Tuesday, May 10, 2022 12:19 PM
To: [redacted]
Cc: Student CUREC <student.curec@education.ox.ac.uk>[redacted]
Subject: CUREC

Dear [redacted]
One little note, on the form you have not got your correct Oxford email…and Diana can provide a research/ reference number…Otherwise

Digital Education and Outreach Practices in Cultural Heritage Institutions/ Digital Tools and Spaces in Cultural Heritage Education in 2022

The above application has been considered on behalf of the Departmental Research Ethics Committee (DREC) in accordance with the procedures laid down by the University for ethical approval of all research involving human participants.

I am pleased to inform you, then, that, on the basis of the information provided to DREC, the proposed research has been judged as meeting appropriate ethical standards, and accordingly, approval has been granted.

Please continue to follow all current guidance issued by CUREC during the pandemic, notably COVID-19: CUREC guidance on research involving human participants, https://researchsupport.admin.ox.ac.uk/governance/ethics/coronavirus

If relevant please also check the CUREC website for their best practice research guides, these can be very useful in refining the writing up of ethical considerations in your research – see https://researchsupport.admin.ox.ac.uk/governance/ethics/resources/bpg

Good luck with your research study,

Keep well and safe,

Yours sincerely,

All good wishes,

[redacted]

Subject: RE: CUREC: CIA-22HT-077

Dear all,

The reference number for this CUREC application is CIA-22HT-077

This application was originally sent to Pinar for review and so I have copied her into the email so that she knows that this application has now been approved.

Best wishes
Diana

Appendix F – Expert Interview Invitation

Expert Interview Invitation

Exploring the links between the increased use of digital technology, digital platforms, the digitisation of cultural artefact and classrooms in cultural heritage education.

Expert Interview Invitation

Central University Research Ethics Committee Approval Reference: CIA-22HT-077

Dear ,

You have been invited to take part in an expert interview as a part of a research project, exploring the increased use of digital technology, digital platforms, the digitised cultural artefact in the cultural heritage education sector.

Before you the interview takes place, you may find it useful to understand why the research is being done and what it will involve. Please take time to read the following information carefully and discuss it with others if you wish. You are welcome to ask me if anything is not clear or if you would like more information.

I look forward to our upcoming interview.

Kind regards,

[redacted]

[redacted]

1. When and how is the research taking place?

The interview will be conducted on Teams video call or in person (at your place of work / an alternative pre-arranged public venue) between 23 May – 10 June 2022 and should last between 45-60min. Please take time to decide whether you wish to take part in the research and confirm your participation with me by 27 May 2022.

2. Why is this research being conducted?

The aim of this study is to explore the relationship between the increased use of digital technology, cultural digital platforms, the digitisation of cultural artefact, artworks and spaces, and classrooms in the cultural heritage education sector. It will investigate if/how digital technology is changing the pedagogical and collaborative practices between cultural heritage institutions and schools/learning groups, regarding their onsite and offsite education and learning outreach programmes. The research seeks to provide insights into the sector's working practices highlighting common experiences, challenges, success and best practice. The research further seeks to understand the discourse within the sector regarding the sustained approaches and use of digital methods in the post-lockdown environment, along with future views regarding digital engagement methods. Lastly, the research will explore institutional policy regarding digital platforms and data in relation to learning practices within the sector.

3. Why have I been invited to take part?

You have been identified as an expert within the field based on your current/recent experience (within the last 5 years) and relevant experience (hold a role that overseas education related decisions making) with the cultural heritage education sector. This is a part of a wider empirical research study including 50 online surveys and 15 expert interviews.

4. Do I have to take part?

No. It is up to you to decide whether or not to take part. You can withdraw yourself from the study, without giving a reason, by advising me of this decision. The deadline by which you can withdraw any information you have contributed to the research is 08 July 2022. Any data collected will be securely disposed of upon your request to withdraw.

5. What does taking part in the research involve?

The interview will take place via a Teams video call or in person at your place of work / an alternative pre-arranged public venue and should last around 60min. Please note a quiet space will be required in which to conduct the online/in-person interview. This single interview will consist of a series of questions/discussion prompts, sent to you a week in advance. These will relate to the experiences of digital practices - including the digitisation of artefacts and spaces and the creation of online cultural platforms - in cultural heritage education from the perspective of those working within the field. This includes cultural heritage educators working in cultural institutions such as, Galleries, Libraries, Gardens,

Historical Houses and Museums. The interview will seek to identify and understand the types of digital learning pedagogies, tools and practices currently in use and their subsequent impact on learning delivery and learning partnerships (with schools and other learning groups). The interviews will explore how these experiences are impacting thinking and decision making regarding future design, delivery, and policy within the cultural heritage education sector. This will include reflecting on the recent experiences and impacts of the COVID-19 pandemic on the sector.

Please note written consent is required to participate in the interview. You can ask to pause or stop the research activities at any time.

With your consent, I would like to audio record the interview so I can have an accurate record of our conversation.

You have the option to consent to how quotations from your interview may be used in the final research output; I do not wish to be quoted / I agree to the use of quotations in research outputs if I am not identifiable / I agree to the use of direct quotations, attributed to my name, in research outputs. You will also have the additional option to clarify quotations if you wish, before 22 July 2022.

6. What are the possible disadvantages and risks in taking part?

There are no foreseeable risks to taking part in the research. You are able to remain anonymous should you wish not to have your answers identified as your own. Any identifiable data given during the interview will be anonymised according to your level of consent, in the transcription process. There will be no identifiable data in the research outputs unless you have given consent for named quotations.

7. Are there any benefits in taking part?

While there are no immediate and direct benefits for interview participants, it is hoped that this research will contribute to deeper understand of the opportunities and challenges within digitally mediated learning practices and partnerships in the cultural heritage education sector.

8. What information will be collected and why is the collection of this information relevant for achieving the research objectives?

Identifiable data (including consent forms, interview audio recording and transcripts) will be stored digitally on the approved University of Oxford, Nexus 365 OneDrive for Business. The audio recording will be recorded on a mobile device set to the university's safe standards policy and removed from the device after the interview. The transcription will be done through the university approved Word for Web software, accessed through Nexus 365 OneDrive. Upon completion of the project, all anonymous data on the Nexus 365 OneDrive will be securely archived in ORA-Data - Oxford University Research Archive (the University's institutional repository, a permanent and secure archive of research outputs and research data). At this time, all data holding personal details will be securely disposed of in accordance to the university guidelines.

I (the researcher) and my research supervisor will have access to the research data for the duration of the project.

9. Will the research be published? Could I be identified from any publications or other research outputs?

The findings from the research will be written up in a dissertation and may be shared in academic/industry publications, conference presentations and websites. You will not be identifiable in the research outputs, unless you have given written permission for named quotations.

A copy of my dissertation will be deposited both in print and online in the Oxford University Research Archive where it will be publicly available to facilitate its use in future research/its access will be restricted.

10. Data Protection

The University of Oxford is the data controller with respect to your personal data, and as such will determine how your personal data is used in the study. The University will process your personal data for the purpose of the research outlined above. Research is a task that is performed in the public interest. Further information about your rights with respect to your personal data is available at https://compliance.admin.ox.ac.uk/individual-rights.

11. Who has reviewed this study?

This study has received ethics approval from a subcommittee of the University of Oxford Central University Research Ethics Committee. (Ethics reference: CIA-22HT-077**)**.

12. Who do I contact if I have a concern about the research or I wish to complain?

If you have a concern about any aspect of this study, please contact [redacted] or [redacted] and we will do our best to answer your query. I will acknowledge your concern within 10 working days and give you an indication of how it will be dealt with. If you remain unhappy or wish to make a formal complaint, please contact the Chair of the Research Ethics Committee at the University of Oxford who will seek to resolve the matter as soon as possible:

The Chair, Social Sciences & Humanities Interdivisional Research Ethics Committee;

Email: ethics@socsci.ox.ac.uk; Address: Research Services, University of Oxford, Boundary Brook House, Churchill Drive, Headington, Oxford OX3 7GB

13. Further Information and Contact Details

If you would like to discuss the research with someone beforehand (or if you have questions afterwards), please contact:

[redacted]

Appendix G – Interview Consent Form

Interviewee Consent to Take Part

Consent to take part in

Exploring the links between the increased use of digital technology, digital platforms, the digitisation of cultural artefact and classrooms in the cultural heritage education sector.

Central University Research Ethics Committee (CUREC) approval reference: CIA-22HT-077

Purpose of Study: The aim of this study is to explore the relationship between the increased use of digital technology, cultural digital platforms, the digitisation of cultural artefact, artworks and spaces, and classrooms in the cultural heritage education sector. It will investigate if/how digital technology is changing the pedagogical and collaborative practices between cultural heritage institutions and schools/learning groups, regarding their onsite and offsite education and learning outreach programmes. The research seeks to provide insights into the sector's working practices highlighting common experiences, challenges, success and best practice. The research further seeks to understand the discourse within the sector regarding the sustained approaches and use of digital methods in the post-lockdown environment, along with future views regarding digital engagement methods. Lastly, the research will explore institutional policy regarding digital platforms and data in relation to learning practices within the sector.

	Please initial each box if you agree with the statement
I confirm that I have read and understand the information sheet for the above research. I have had the opportunity to consider the information, ask questions and have had these answered satisfactorily.	☐

C. HOEPPER_Dissertation

I understand that my participation is voluntary and that I am free to withdraw at any point 08 July 2022 without giving any reason. ☐

I understand who will have access to personal data provided, how the data will be stored and what will happen to the data at the end of the project. ☐

I understand the extent to which I could be identifiable from any publications or academic/industry publications, conference presentations and websites. ☐

I consent to being audio recorded. ☐

I understand how audio recordings will be used in research outputs. ☐

Use of quotations: Please indicate your preference (select *one* option): a

a) I do not wish to be quoted. **or**
b) I agree to the use of quotations in research outputs if I am not identifiable. **or**
c) I agree to the use of direct quotations, attributed to my name, in research outputs.

	b
	c

I give permission for you to contact me again to clarify information. ☐

I understand how to raise a concern or make a complaint. ☐

I agree to take part. ☐

_____	dd / mm / yyyy	_____
Name of participant	Date	Signature
_____	dd / mm / yyyy	_____
Name of person taking Consent	Date	Signature

Appendix H – Participant Information Online Survey

Participant Information for Online Surveys

Exploring the links between the increased use of digital technology, digital platforms, the digitisation of cultural artefact and classrooms in the cultural heritage education sector

CUREC Approval Reference: CIA-22HT-077

General Information

The aim of this study is to explore the relationship between the increased use of digital technology, cultural digital platforms, the digitisation of cultural artefact, artworks and spaces, and classrooms in the cultural heritage education sector. It will investigate if/how digital technology is changing the pedagogical and collaborative practices between cultural heritage institutions and schools, regarding their onsite and offsite education and learning outreach programmes.

We appreciate your interest in participating in this online survey. You have been invited to participate as you have both recent and relevant experience (**holding a role that is related to cultural heritage education design, delivery and/or decision making, within the last 5 years)** in the cultural heritage education sector.

Please read through this information before agreeing to participate (if you wish to) by ticking the 'yes' box below. You may ask any questions before deciding to take part by contacting the researcher (details below). The Principal Researcher [redacted], who is attached to the Department of Education at the University of Oxford. This project is being completed under the supervision of Niall Winters.

Please complete the following 16 check-box questions within the online survey, based on your current or recent and relevant experience (holding a role that overseas education related decisions making within the last 5 years) in the cultural heritage education sector. This should take about 15 – 20 minutes. No background knowledge is required. The data is needed to build an overview of the recent experiences of those within the sector. The data from this survey will be collated to form the basis of an empirical research study, I am undertaking as a part of my MSc dissertation. No third parties will be given access to that data.

Do I have to take part?

No. Please note that participation is voluntary. If you do decide to take part, you may withdraw at any point for any reason before submitting your answers by pressing the 'Exit' button/ closing the browser.

We have included a 'Prefer not to say' option for each set of questions should you prefer not to answer a particular question.

How will my data be used?

We will not collect any data that could directly identify you, unless you choose to share your name and contact information with us for a follow up interview.

Your IP address will not be stored[1]. We will take all reasonable measures to ensure that data remain confidential.

The responses you provide will be stored in a password-protected electronic file on University of Oxford secure servers and may be used in academic publications, sector specific publications, conference presentations, websites. Upon completion of the research, the data will be anonymised and permanently stored after publication or public release of the work of the research.

Who will have access to my data[2]?

The results will be written up for an MSc degree.

Upon completion of the project, all anonymous data will be securely archived in ORA-Data - Oxford University Research Archive (the University's institutional repository, a permanent and secure archive of research outputs and research data). At this time, any data holding personal details will be securely disposed of in accordance to the university guidelines.

Who has reviewed this study?

This project has been reviewed by, and received ethics clearance through, a subcommittee of the University of Oxford Central University Research Ethics Committee CIA-22HT-077.

Who do I contact if I have a concern or I wish to complain?

If you have a concern about any aspect of this study, please speak to [redacted] on [redacted] or their supervisor [redacted] on [redacted], and we will do our best to answer your query. I/ We will acknowledge your concern within 10 working days and give you an indication of how it will be dealt

with. If you remain unhappy or wish to make a formal complaint, please contact the Chair of the Research Ethics Committee at the University of Oxford who will seek to resolve the matter as soon as possible Social Sciences & Humanities Interdivisional Research Ethics Committee; Email: ethics@socsci.ox.ac.uk; Address: Research Services, University of Oxford, Boundary Brook House, Churchill Drive, Headington, Oxford OX3 7GB

Please note that you may only participate in this survey if you are 18 years of age or over.

☐ I certify that I am 18 years of age or over

If you have read the information above and agree to participate with the understanding that the data you submit will be processed accordingly, please tick the box below to start.

☐ Yes, I agree to take part

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[1] Guidance is available within CUREC's Best Practice Guidance (06) on Internet-mediated research

[2] Guidance is available within CUREC's Best Practice Guidance (09) on Data collection, protection and management

Appendix I – Online Survey Advert

Online Survey Advert

Exploring the links between the increased use of digital technology, digital platforms, the digitisation of cultural artefact and classrooms in the cultural heritage education sector

Ethics Approval Reference: CIA-22HT-077

PARTICIPANTS NEEDED FOR ONLINE SURVEY

The aim of this study is to explore the relationship between the increased use of digital technology, cultural digital platforms, the digitisation of cultural artefact, artworks and spaces, and classrooms in the cultural heritage education sector. It will investigate if/how digital technology is changing the pedagogical and collaborative practices between cultural heritage institutions and schools/learning groups, regarding their onsite and offsite education and learning outreach programmes. The research seeks to provide insights into the sector's working practices highlighting common experiences, challenges, success and best practice. The research further seeks to understand the discourse within the sector regarding the sustained approaches and use of digital methods in the post-lockdown environment, along with future views regarding digital engagement methods. Lastly, the research will explore institutional policy regarding digital platforms and data in relation to learning practices within the sector.

I am looking for volunteers with current/recent experience (within the last 5 years) and relevant experience (hold a role that engages with and/or overseas education related design, delivery and decisions making) with the cultural heritage education sector.

You are invited to participate in a once-off online study. The survey, in which will you be asked to answer a series of multiple choice questions, should take no more than 15min.

If you are interested and would like more information please contact [redacted] at the Department of Education, University of Oxford, 15 Norham Gardens, Oxford on [redacted] There is no obligation to take part.

Thank you!