

**An Investigation into the Development of Future
Online Dance Archive Resources**

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Declaration

I, Bethany Johnstone confirm that the work presented in my thesis is my own. Where information has been derived from other sources, I confirm that this has been indicated in the thesis.

Abstract

Dance archives play an important role in maintaining a historical record of dance. The materials held within dance archives can be used to reflect, revive, study, or analyse dance. While it was apparent that dance archives hold a wealth of knowledge, how users access and use this knowledge in a digital environment needed further exploration. Building on prior research this thesis explores the decline in physical visitor numbers and how dance archives can draw their users back to dance archives by focusing on the development of online dance archive resources. This thesis explores dance researchers and their information-seeking behaviours to understand how best to develop future online dance archive resources, ensuring visibility, awareness, and longevity for the use of dance archive. Subsequently, it was also important to investigate how the working practices of dance archivists within the United Kingdom may or may not be affected by any future development of online dance archive resources. This thesis conducted a qualitative investigation to understanding how the information-seeking processes of dance researchers and the working practice and landscape of dance archivists could help to inform the development of future online dance archive resources.

Through a series of online questionnaires, virtual focus groups and online observations, this thesis was able to create a unique space for a discursive dialogue between dance researchers and dance archivists, to inform the creation of future online dance archive resources. The research proposes that the future of online dance archive resources should begin with the development of an online dance archive infrastructure. A digital infrastructure consisting of archival metadata which can later be enriched with aspirational features, inclusive of digital content, VR and AR experiences, and depositing capabilities. The research more importantly highlights how the future of online dance archive resource developments can only come to fruition when there is a collaborative communication of practice and research had by the academic, practitioner and industry communities. In creating

conversations, sharing working practices and processes, and supporting one another, future aspirations for dance and performing arts archives can become a rewarding reality.

Impact Statement

The research investigates both the working practice of dance archivists and the information-seeking processes of dance research to inform the creation of future online dance archive resources. The research holds dance researchers and dance archivists at its core to promote conversation between industry and research, regarding future developments of online dance archive resources. The work sought to open a dialogue between both the dance archive community and dance research community, which, up to this point, has seldom occurred and has largely remained outside of the context of research. The research provides valuable insights into the development of future online dance archive resources which can be taken forward both academically and professionally to make aspirational developments a rewarding reality.

The research provides a novel understanding of both the dance researchers' needs, preferences, and expectations as well as the working practice of dance archivists. It contributes to both theory and practice by identifying and contextualising the information-seeking process of dance researchers, which remained lacking. The research adds to an existing body of literature on information-seeking, retrieval and behaviours of researchers, by considering the often-overlooked information-seeking behaviours of dance researchers in both theory and practice.

Additionally, the research offers the archive sector new insights on dance archives' users: dance researchers. It demonstrates how an expansion of the exploration of other types of archive users beyond researchers could be beneficial for the archival sector. Moreover, the research also brought dance archivists' working practices to the forefront of archival discussions, which traditionally remained on the fringes. It provides original insights which can be taken forward and contextualised within the wider scope of archival literature. The research provides a unique outlook on how subject-specific archives and collections are situated within the wider archive sector.

Furthermore, these discussions can continue to contribute towards wider conversations on the working practice of archivists from a performing arts archivist's perspective.

Working within both the academic and professional industry of dance research and dance archives, has allowed me to uniquely bring these two communities into conversation within this thesis. Moreover, it has helped when feeding back the conversations and discussions conducted as part of this thesis, into the communities to demonstrate the importance of developing an online national performance archive database. It is intended that this research will continue to stimulate communication and engagement within the two communities through publications, conferences, symposiums, discussions and workshops to bridge the discursive gap between these communities. Furthermore, extending the promotion and awareness of the research beyond this thesis, will contribute to the working practices of dance archivists and understanding of information-seeking processes of dance researcher to a wider realm of contexts within archives, digital humanities and information science.

Focusing on the future, the research has the potential to affect change not only within the dance archive community, but contribute towards building wider relationships across the academic, practitioner and the professional communities. The findings from this thesis provide a baseline in understanding the field of dance archives which may feed into larger projects, policies and considerations across both the information and more importantly, the dance and performing arts archive sector. All of which will contribute to the future landscape of online dance archive resources. Moreover, also having the potential to be applied more widely to how performing arts collections are accessed, viewed, studied, and used by users. This thesis demonstrates the need for and direction of future online dance archive resources. The research argues that future work into the development of online dance archive resources can only be successful with a collaborative effort by dance researchers and dance archivists, as

well as a wider support from the performing arts, information science and digital humanities spheres. In initiating these conversations and sharing working practices and processes, this research demonstrates the power of community and collaboration in achieving aspirational realities.

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Table of Contents

Declaration	2
Abstract	3
Impact Statement.....	5
Acknowledgements.....	8
Table of Contents	10
List of Figures	13
List of Abbreviations	16
Chapter 1 Introduction	17
Chapter 2 Literature Review	24
2.1 Archive, Dance and Dance Archives.....	25
2.2 Information Behaviour Theory.....	42
Chapter 3 Research Methodology	79
3.1 Impact of the Covid-19 Pandemic.....	92
3.2 Research Samples	94
3.3 Ethical Considerations.....	99
3.4 Qualitative Research Methods.....	100
Chapter 4 Dance Researchers: Online Questionnaire Analysis	122
4.1 Information-Seeking Behaviour of Dance Researchers	128
4.2 Dance Researchers' Use of Archives and Dance Archives	153
4.3 Summary of Findings.....	168
Chapter 5 Dance Researchers: Online Focus Group and Virtual Think-Aloud Observations Analysis	173

5.1	Information Needs and Tasks	173
5.2	Information Sources and Search Strategies.....	175
5.3	Information Evaluation, Extraction and Use	189
5.4	Emotive Analysis: Confusion	196
5.5	Emotive Analysis: Uncertainty	198
5.6	Accessing Information.....	200
5.7	Dance Archives of the Future.....	207
5.8	Summary of Findings.....	213
Chapter 6	Dance Archives: Online Questionnaire Analysis	217
6.1	Dance Archivists	218
6.2	Archival Culture.....	221
6.3	Archival Practices	225
6.4	Archiving Dance.....	237
6.5	Digitisation	243
6.6	Use of Dance Archives.....	245
6.7	Engaging With The Dance Community	255
6.8	Summary of Findings.....	258
Chapter 7	Dance Archives: Online Focus Group Analysis.....	263
Chapter 8	Discussion.....	289
Chapter 9	Conclusion	334
	Bibliography	348
	Appendices	383
	Appendix A - E-flyers' distributed across social media.....	383

Appendix A.1	- E-Flyer used for the recruitment of dance students within the online questionnaire.	383
Appendix A.2	- E-Flyer used for the recruitment of dance academics within the online questionnaire.	384
Appendix A.3	- E-Flyer used for the recruitment of dance archive professionals within the online questionnaire.....	385
Appendix A.4	- E-Flyer used for the recruitment of dance students for the virtual focus group.	386
Appendix A.5	- E-Flyer used for the recruitment of dance academics for the virtual focus group.	387
Appendix A.6	- E Flyer used for the recruitment of dance archive professionals for the virtual focus group.	388
Appendix B	- Participant information sheet for online questionnaire in phase one.	389
Appendix C	- Participant consent form used within the online questionnaire in phase one.	393
Appendix D	- Screening questions used within the online questionnaire in phase one.	395
Appendix E	- Information sheet for participants of the focus group in phase one.	396
Appendix F	- Dance research focus group topic guide	399
Appendix G	- Archivists focus group topic guide	402
Appendix H	- Think-aloud observation participant information sheet.	404

List of Figures

Figure 2-1 Wilson's expanded general model of information behaviours. Reproduced from Wilson and Walsh (1996)	45
Figure 3-1 Original research methodology in diagrammatical form.	89
Figure 3-2 Amended research methodology in diagrammatical form.	90
Figure 3-3: Original Research Methodology in diagrammatical form.	91
Figure 3-4 Zoom Screenshot - a test screenshot showing a blurred image where a participant's screen would be visible, while the facilitator's screen is at top of Zoom window with camera off.	112
Figure 3-5 'Keep Talking' sign used within the think-aloud observations.	114
Figure 4-1 Dance researcher demographic by level of education and type of researcher.	124
Figure 4-2 Visualisation of Subject Matter of research from online questionnaire responses. Word Cloud has been generated using Voyant Tools.	127
Figure 4-3 Result from dance researcher online questionnaire indicating the starting point for dance researcher information-seeking process.	132
Figure 4-4 Responses from online questionnaire regarding dance researchers' information sources	136
Figure 4-5 Online questionnaire responses from dance researchers indicating how they felt at different stages of their information-seeking process.....	142
Figure 4-6 Online questionnaire responses showing dance researchers' level of awareness of dance archive.....	154
Figure 4-7 Online questionnaire responses showing how dance researchers visit dance archives.....	155
Figure 4-8 Online questionnaire responses showing dance researchers' level of satisfaction in their use of dance archives.....	165
Figure 4-9 Online questionnaire responses showing the interactive tools that dance researchers would find most useful.....	167
Figure 6-1 Questionnaire participant demographic.	218

Figure 6-2: Word Cloud generated from responses to question asking: ‘what other fields/disciplines have you worked with?’	220
Figure 6-3: Question 14 responses detailing the volume of each type of record within each participant’s archive or collection.	229
Figure 6-4 Results of Question 30 - Do you currently have any digitised dance archive material?	244
Figure 6-5 Question 32 results - Who uses the dance archive, collections or records the most?	246
Figure 6-6 Responses to question 41 - How often do users request information from you because they cannot find what they are looking for?	253
Figure 7-1: A collection of user expectations derived from the dance researcher questionnaire findings.	272
Figure 8-1: A Screenshot of the National Resources Centre for Dance online catalogue record for Choreutics papers from the Rudolf Laban Archive collection, accessed: Dec 2022.....	298
Figure 8-2 A wireframe of a proposed online collective dance archive resource using SEO and Linked data, created using Figma.	300
Figure 8-3 Screenshot from The National Archives whereby the archive structure of an item is displayed using a navigation bar at the top of a page.	308
Figure H-0-1 - Demonstration video of a think-aloud observation (Nielsen, 2012)	404

List of Tables

Table 4-1 Information assessment and evaluation criteria used by dance researchers.	149
Table 8-1 Comparison of information-seeking behaviour models among dance researchers.....	295
Table 8-2: Online questionnaire responses given to question 26 - What online/offline tools does your dance archive provide for users to search and access information about dance records or collections? The tools offered by participants have been underlined in the table.....	304

List of Abbreviations

APAC – Association of Performing Arts Collections

AR – Augmented Reality

AI – Artificial Intelligence

ATAP – American Theatre Archive Project

EDM – Europeana Data Model

GLAM – Galleries, Libraries, Archives and Museums

HEI – Higher Education Institution

ISP - Information-Seeking Process

IB – Information Behaviour

NI – Northern Ireland

NT – National Theatre

PAR – Practice as Research

SIS – Specialist Information Service

STR – Society for Theatre Research

TNA – The National Archives

TaNC – Towards a National Collection

UCL - University College London

UK – United Kingdom

VR – Virtual Reality

Chapter 1 Introduction

Dance archives play an important role in maintaining a historical record of dance. This is especially the case as dance is an ephemeral art form (Siegel, 1972; Reason, 2003; Lepecki, 2010; Schneider, 2012). The ephemerality of dance restricts it to the present, meaning dance disappears at the point it is performed (Schneider, 2001; Reason, 2006). Therefore, documenting dance for future spectators has become a near on impossible task to complete (Barba and Delconte, 1992; Phelan, 1996). Despite this, dance scholarship has continuously explored how to capture dance (Tembeck, 1981; Hutchinson-Guest, 1984; Brooks, 1987; McAuley, 1994; Johnson and Snyder, 1999; Reason, 2003; Carter, 2006; Smigel, 2006; Yeoh, 2013). These explorations have led to an abundance of materials being produced, notably documentation which is stored and preserved within dance archives and can be accessed by current or future users. Dance archives collect, store, organise and preserve documents, objects, audio or visual materials pertaining to dance. These materials provide tools to stimulate recollection about the history of dance. The materials held within dance archives can be used to reflect upon, revive, study, or analyse dance. Dance archives hold a wealth of knowledge; however, as this thesis argues, the question of how users can access and use this knowledge needs further consideration.

The research presented within this thesis builds on a Master's research project, conducted in 2017. The Master's research, entitled 'UK dance archives: a case for change', helped to identify the main user demographics of a key group that uses dance archives: dance researchers (students and scholars). The thesis was one of the first academic studies to focus on the identification of dance archive users. Prior to this, such insights had not been acknowledged, but rather, data remained only within individual archive institutions or organisations. The research was able to provide new insights into the behaviours and practices of dance archive users. Additionally, upon

further investigation, the research revealed that dance archive users, particularly dance students, when surveyed, were unaware that dance archives existed (Johnstone, 2017, u.p). My research helped to understand the reality of how a 'digital turn' (Nicholson, 2013) in dance archives could improve the visibility and awareness of dance archives more widely (Johnstone, 2017, u.p). Initially, the project proposed that the digitisation of dance archival content could offer dance archives increased visibility and could enhance the awareness of an online community of dance researchers concerning such content (Johnstone, 2017, u.p). Moreover, the study highlighted that if awareness of dance archives does not increase and dance archives are not used, then dance archives may soon become redundant. However, more importantly, the findings from the study showed that research conducted into the relationship between dance archives and their users was vital for both the security of dance archives and progress towards developing future online dance archive resources. Thus, this work prompted further research into understanding how future developments of dance archive resources may cater for the information needs, preferences, and expectations of their users, primarily dance researchers. Henceforth, I build upon these solid foundations in the form of a larger doctoral research project, as will be presented in this thesis.

Based on my previous research, it was understood that an exploration of the information behaviours of dance researchers would help to understand how best to develop future online dance archive resources, thus ensuring the visibility, awareness, and longevity of dance archives. Therefore, an examination of what the information behaviours of dance researchers are when searching for information, inside and outside of the archive, as well as how this process is conducted, needed to be carried out within this doctoral research project. However, with the development of future online dance archive resources as the focus for this investigation, it seemed important to also understand the working practices of dance archivists within the United Kingdom (UK) and Northern Ireland (NI). Moreover, it would also be beneficial to understand how the working practices of dance archivists may or may not be

affected by any future development of online dance archive resources. Thus, this endeavour seeks to understand how dance archives might approach the development of online archive resources in accordance with a sector wide 'digital turn'¹ (Nicholson, 2013). Consequently, based on the progression from my previous research, this doctoral research project came to fruition.

The doctoral research project presented within this thesis, aimed to understand the working practices and landscape of dance archives as well as the information-seeking processes of dance researchers to inform the development of future online dance archive resources. The research brought together both dance archivists and dance researchers to create a dialogue and to establish a way forward for the development of future online dance archive resources. A central research question underpinned the research, namely:

CRQ. How can the information-seeking processes of dance researchers, and the working practices and landscape of dance archivists, inform the development of future online dance archive resources.

Subsequently, three additional research questions were developed to guide this research project:

RQ1. How do dance researchers seek information and how can archive resources fit into their information-seeking process?

RQ2. How might the working practices of dance archivists affect and be affected by the development of future online dance archive resources?

¹ Digital technological capabilities have transformed the way we access archive material. The widespread adoption of the internet has driven digital transformations across various galleries, libraries, archives, and museums, collectively known as GLAM institutions. This 'digital turn', as described by Nicholson (2013), has ushered in new digital methodologies, explorations, and pedagogy within the arts and humanities.

RQ3. How can this all inform the creation of future online dance archive resources?

It was important to involve both dance archivists and dance researchers in the development of future online dance archive resources, as both affect and are affected by any new changes and developments required in the transition to the digital sphere. It is paramount that dance archivists help to develop, implement, and maintain any new online dance archive resources, keeping in mind that dance researchers are the primary users of dance archives. Therefore, the involvement of these two communities is pivotal to the methodological approach taken within this project, which offers a unique approach within the UK context, as is further explored within Chapter 2 of this thesis.

In bringing together both dance researchers and dance archivists, this thesis was able to provide new insights into both the working practices of dance archivists and information-seeking processes of dance researchers. Both dance researchers and dance archivists are two niche communities which are significantly underrepresented within existing literature. Therefore, this research contributes new knowledge to both the information-seeking and archive spheres of the literature.

My own unique positionality has allowed me to navigate two diverse research communities. I have been both a dance and information studies researcher, as well as having worked within the performing arts and wider archive sector, prior to my PhD research. This has provided me with first-hand experience to understand how the two communities work cohesively side-by-side, yet rarely work together for the benefit of archival development. My positionality therefore helped me bring these two communities together to engage in direct dialogue with one another, as well as to guide the research project. My experience of observing and working with the two communities helped create an open and discursive environment from which both dance researchers and dance archivists were able to share their own experiences.

However, I am conscious that my positionality may conceal some preconceptions which need to be actively addressed within the research. Despite this, it is hoped that by bringing these two communities into direct dialogue with one another, the future of online dance archives resources can be developed for the benefit of both dance researchers and dance archivists.

The thesis takes the form of nine chapters, including this introductory chapter, which detail the findings of research undertaken to understand the information-seeking processes of dance researchers, and the working practices of dance archivists. The aim of this endeavour is to inform the development of future online dance archive resources. The thesis begins with a literature review (Chapter 2). Chapter 2 explores the intersection between dance, archives, and information behaviour theory. The exploration of archival literature frames the context in which online dance archive resources may be developed or may operate. The literature review explores definitions and structures of the archive as well as the positionality of archivists, and how dance can and has been archived. These explorations seek to build an understanding of the relationship between archives and dance and the context in which online dance archive resources reside. Chapter 2 reviews literature that explores information behaviour models, as well as the extent of the information-seeking practices of performing arts or neighbouring disciplines, questioning whether this can inform the information-seeking behaviours of dance researchers. Both examinations of the literature shape the research methodology of the project.

Chapter 2 explores the research paradigm which shaped the research, methodological approach, and ethical considerations taken within the project. It details the three phases undertaken within this research project. The research project addresses how to bring these two distinct communities into a rare dialogue with one another, to enhance the development of future online dance archive resources, and thus, to provide a significant contribution to the current literature. Moreover, Chapter 2 identifies and provides justification for the qualitative research

methods and analysis employed within the project, exploring the trials and tribulations of conducting online questionnaires, virtual focus groups and online think-aloud observations. Furthermore, it outlines the impact of the global pandemic, Covid-19), on the proposed research methodology.

The thesis sequentially explores the findings of each phase of the research project across Chapters 4, 5, 6 and 7. The research project is divided up into three phases; each corresponding to one of three sub-research questions. Both Chapter 4 and Chapter 5 cover the collective explorations of dance researchers carried out within phase one of this research project, seeking answers to RQ1. Chapter 4 focuses specifically on providing a broad understanding of how dance researchers perceive their information-seeking behaviours and understand their relationship with dance archives through an online questionnaire. The online questionnaire supplements the more in-depth exploration of dance researchers carried out within the virtual focus group discussions and virtual think-aloud observations, sequentially discussed in Chapter 5 of this thesis. Thereafter, Chapter 5 explores dance researchers' information-seeking processes and their relationship with dance archives in more depth. It investigates how dance researchers perceive their own information-seeking processes and how this aligns with their observed information-seeking processes. Additionally, an exploration of dance researchers' relationship with dance archives is offered, elaborating on how dance researchers search, navigate, and access the dance archives online and offline. This includes an exploration of three common types of dance archives found online by dance researchers: Siobhan Davies Replay (2021), the University of Surrey (2008), and the Royal Opera House archive (2020). Chapter 4 and Chapter 5 culminate in the collective findings of phase one of the research project.

Similarly, both Chapter 6 and Chapter 7 offer a collective exploration of dance archivists' working practices, which were investigated during phase two of this research project. Chapter 6 draws on the results of an online questionnaire to broadly

understand the landscape and working practices of dance archives. In doing so, it provides an understanding of three areas of interest, which are further probed in the virtual focus group discussions in Chapter 7: the working practices of dance archive professionals, dance archive content, and users of dance archives. Chapter 7 provides a thorough understanding of how dance archives may or may not be affected by future online dance archive developments. Collectively, Chapter 6 and Chapter 7 elaborate on the collective findings of phase two of the research project, seeking answers to RQ2.

Sequentially, Chapter 8 reviews both the information-seeking behaviours of dance research and working practices of dance archivists' findings, to find a homogenous way of creating, developing, and implementing any future online dance archive resources. Chapter 8 metaphorically brings the two communities in direct dialogue with another to fundamentally answer RQ3. Thus, Chapter 8 offers the final phase of the project, a response to the overarching research question underpinning this research project. It speaks of potential future developments among online dance archive resources, highlighting the importance of collaboration between communities in developing promising online dance archive resources of the future.

The conclusion in Chapter 9 provides a synthesis of the thesis, outlining the limitations of the research project, the contribution to new knowledge, and the future direction for the development of online dance archive resources. Altogether, this thesis presents a comprehensive investigation into the information-seeking behaviours of dance researchers and working practices of dance archivists to inform the future development of online dance archive resources.

Chapter 2 Literature Review

The following literature review is shaped by a hermeneutic investigation of relevant literature for the purpose of framing and informing the analysis (Boell and Cecez-Kecmanovic, 2013). To gain a deeper understanding of the dance archive landscape, the literature under discussion explores the intersections of dance, archives and information behaviour theory. It is important to establish the landscape in which dance archives operate and situate themselves, as many aspects can affect their development. Thus, when thinking about the online development of dance archives, it is important to understand this context before moving forward. This thesis reviews the principles and conceptual theories underpinning the practices of archives, subsequently moving on to review literature on the practice of dance within the archive and how this might affect the content, structure and use of dance archives.

The literature review explores a number of core areas. First, it delves into archival theory by seeking to offer an understanding of the definitions and structure of the archive, as well as the positionality of archivists in how this affects the archiving of dance. Moreover, it examines literature on if and how dance can be archived, the concepts of ephemerality, the record and documentation, and how these might affect the archiving of dance. These explorations seek to enable readers to understand the working practices from which any future dance archive resource may be developed or may operate within. Second, the literature review investigates information behaviour theory, which is inclusive of information-seeking and information retrieval. From this, it engages in an exploration of the information-seeking behaviours of dance archive users, particularly dance researchers, to provide a comprehensive consideration of the use of future dance archive resources.

This chapter demonstrates the findings of the literature review and seeks to identify gaps in the literature for further exploration within the thesis. These gaps helped to

inform the framework adopted in this research project and to define the research question underpinning the study.

2.1 Archive, Dance and Dance Archives

It is important to first establish what is meant by the word archive, as the 'archive' and its definition are continuously debated. From Derrida (1996) and Foucault (2002) to Cook (1997, 2013), Taylor (2003), McKemish (2006) and Millar (2010), discussions continue to address and challenge what an archive is, how the archive is constructed and its connection to society. However, for the purpose of this research, a broad definition of an archive shall be adopted. An archive, as suggested by several scholars (Derrida, 1996; Steedman, 1998; Featherstone, 2006; Millar, 2010; Cunningham, 2017), is a place, or location, in which tangible documents and objects are collected, stored, organised and preserved for future users. James et al. (2018, p.1) note that archives impact every aspect of a society; 'underpinning academic research, fuelling the digital economy and inspiring innovation and creativity'. Thus, archives play an important role in society by collating and sustaining a historical trace of governments, organisations, communities and individuals.

The purpose of the archive is subjective and can also differ from archive to archive. However, an overarching purpose of an archive, as Millar suggests, is to 'prove rights, confirm obligations, verify events and substantiate claims' (2010, p.67). Millar's concept coincides with the notion that the archive can provide communities and individuals with evidence of their presence. Millar implies that without these archive records, a piece of the past may cease to exist. Historically, in Western culture, the archive has been a place to find 'authentic/official' knowledge (Rowat, 1993, p.198). Knowledge is most often found in tangible form, and, as already mentioned by Millar, these tangible records make it easier to provide evidence of rights, obligations, events and claims made. Intangible forms of heritage have been notably harder to archive and thus fewer traces of these exist. Within archival theory, it has been

argued that intangible forms of heritage tend to resist the physicality of the archive. As Logan explains, intangible heritage is 'embodied in people rather than in inanimate objects' (2007, p.33), a sentiment which is disputed within dance scholarship. Taylor (2003) and Schneider (2001) argue that intangible heritage cannot be separated from tangible heritage, and both maintain that intangible heritage is often accompanied by a tangible document: a record. Schneider arguably suggests that 'the archive depends upon the performance' (2001, p.101). Similarly, Taylor highlights that 'writing, though highly valued, was primarily a prompt to performance, a mnemonic aid' (2003, p.17).

There are many instances in which you find that a performance or an event (intangible heritage) influences the creation of the physical document (tangible heritage) held within the archive. Taylor provides various examples of how cultural performances, such as traditions and rituals have conventionally preceded the physical record. The most prominent example in Western culture is marriage (Taylor, 2003). Marriage in the West started as an oral tradition performed in a certain place. However, now it is accompanied by a paper document signed by the parties involved. Many traditions, rituals or celebrations started as oral traditions which are now, more often than not, accompanied by a paper or digital document to evidence the event. On a similar note, corporate and governmental organisations and institutions may also be said to record their oral activities, such as meetings through the formation of minutes. Similarly, with dance, documents such as programmes, posters or photographs may be seen as the physical evidence that the event took place. However, to what extent these provide evidence of the event will be explored later in this chapter. These too act as a trace of an event happening.

It is only in the last decade that intangible heritage has been similarly defined as concerned with the actions of human embodiment. UNESCO's² definition addresses

² United Nations Educational, Scientific and Cultural Organisation (UNESCO).

this by suggesting that intangible heritage refers to the ‘practices, representations, expressions, knowledge, skills... that communities, groups and, in some cases, individuals recognise as part of their cultural heritage’ (UNESCO, 2010, p.3). Therefore, if we use both Logan’s and UNESCO’s definitions, we may maintain that the existence of intangible forms of heritage is noticeably absent within archives. The absence of intangible heritage could potentially be due to the practices, representations and expressions of communities and/or individuals being somewhat performed and, therefore, ephemeral in nature. However, it could be questioned whether holding records of written compositions, audio or visual recordings, may be enough to form the basis of an intangible heritage held within the archive. Thus, how dance is archived and what it means to archive will be further explored later within this literature review.

In recent years, within the cultural heritage sector, there has been a shift away from the ‘isolated view of heritage as the physical-tangible manifestation of national cultural identities’ (Kenderdine and Shaw, 2017, p.221), towards thinking about the preservation of intangible heritage, a shift that Kenderdine and Shaw suggest was prompted by *UNESCO’s Convention for the Safeguarding of the Intangible Heritage* (UNESCO, 2003). UNESCO outlined five categories of intangible heritage: oral tradition and expressions; performing arts; social practices; knowledge and practices concerning nature and the universe; and traditional craftsmanship (UNESCO, 2003). The recognition that the performing arts are a form of intangible heritage in UNESCO’s Convention is significant and will help to secure future policies on safeguarding in this area. However, projects so far have focused on more global and pressing issues, notably the safeguarding of folkloric and indigenous cultures (UNESCO, 2010).³ Consequently, dance, which falls under the performing arts umbrella, has yet to be recognised by UNESCO as a core aspect of their most pressing

³ It is recognised here that some folkloric and indigenous dance and performance may be safeguarded under this category within UNESCO, yet within the context of our discussion on dance performance more widely, not all dance performance would be considered for safeguarding by UNESCO.

projects. Therefore, dance cannot rely on UNESCO to presently safeguard its intangible heritage, unless it falls under the remit of folkloric or indigenous practices. For now, the performing arts, and in particular dance, will have to undertake its own safeguarding. Thus, the responsibility of safeguarding dance heritage falls upon the archivist and dance community.

As Reason highlights, 'live performance is grounded in fear that, 'without efforts to preserve the history and heritage of the art form it will forever languish as trivial and not worthy of serious research' (2003, p.84). Reason continues by citing theatre critic, Michelle Porter, who suggests that 'without efforts to preserve the history and heritage of the art form [dance] it will forever languish as trivial and not worthy of serious research' (2003, p.83). This sentiment, although expressed back in 2001, is beginning to ring true within academia. For instance, even before the pandemic, in 2019 alone, the research community witnessed a series of closures and governmental funding cuts to many of the UK's dance and theatre departments within universities and organisations (Hemley, 2019; One Dance UK, 2019). Sadly, Porter's predictions are beginning to manifest. Thus, without the knowledge or awareness of where to find such significant evidence of dance history, researchers are unable to 'prove rights', 'verify events' or 'substantiate claims' pertaining to dance (Millar, 2010, p.67). The historical value of dance is seemingly undermined within the wider context of society.

By exploring the ephemerality of dance conceptually, we can further understand its impact on archiving dance. Tracing the existence of the past can be difficult when it comes to dance. Dance is frequently referred to as being ephemeral, meaning it leaves nothing in its wake; as Siegel (1972) suggests, performance or dance 'vanishes'. Themes, such as, vanishing (Siegel, 1972; Lepecki, 2010), disappearance (Schneider, 2001; Reason, 2006a) and memories (Reason, 2003), are frequently used within scholarship to question the degree to which a dance performance ceases to exist after the point at which it is performed. Peggy Phelan suggests that

'performance's only life is in the present. Performance cannot be saved, recorded or documented, or otherwise participate in the circulation of representations of representations: once it does so, it becomes something other than performance' (1996, p.146). As Phelan reports, the ephemeral constrains performance, or in our case, dance, to the present and nothing is able to live beyond this. The ephemerality of dance performance causes many problems when it comes to documenting and archiving dance.⁴ The intangibility and ephemerality of dance performance makes it increasingly hard to collect, store, organise and preserve within an archive. The cruel nature of dance performance, rooted in ephemerality, means that the 'moment' cannot seemingly be recorded and saved. However, further literature contests this notion.

Alternatively, Schneider argues performance can remain, but it 'remains *differently*' (2001, p.105). Schneider, like many other scholars (Fraleigh, 1987; Parviainen, 2002; Foster, 2004; Sheets-Johnstone, 2011; Weiss, 2013), believes that the body holds knowledge; knowledge that can be transmitted from body to body over time. Typically, the archive would want performance to only remain in a tangible form, yet Schneider suggests that a performance remains when it is re-enacted or reperformed through body-to-body transmission. It has long been believed that dance is an oral tradition that has been passed down from body to body. Thus, within the dance community the body of a dancer or choreographer is also an archive, just a different type of archive (Lepecki, 2010). The notion of the body as an archive in dance scholarship has been expressed in myriad forms. Besson and Vionnet (2023) argue that the body's movements and physicality embody and transmit historical and cultural narratives, making the body an active repository of knowledge. This sentiment is shared by many other dance scholars (Fraleigh, 1987; Halprin, 2002; Taylor, 2003; Foster, 2004; Lepecki, 2010; Goodridge, 2011; Weiss, 2013; Griffiths,

⁴ For an example of such discussions see Pavis (1992), Siegel (1972) and Schneider (2001).

2014). Furthermore, Candelario (2018) suggests that the choreographic process itself can function as a form of archival practice, a sentiment echoed by Charalambous (2022). In exploring embodied approaches to archiving dance, Charalambous (2022) focuses on the ephemeral nature of dance and the ways in which memory and transformation are captured within the dancer's body. Charalambous (2022) suggests that the archive, formed as it is through the challenges of disappearance and characterised by its dynamic nature, should be viewed as an evolving entity. Embodied knowledge is layered first by the choreographer, then by the multiple dancers who embody the choreography over the lifetime of a dance work, and finally by those entrusted with the processes of revival and restaging of the work. Each provides a new layer of knowledge to the next, all of which contributes to the tradition of body-to-body transmission of knowledge within dance.

Griffiths (2014) discusses how knowledge, memory, and experience are crucial in the recreation and preservation of dance works, thus underscoring the importance of experiential knowledge and the performative aspects of dance as key components of the archival process. Griffiths (2014) might have us believe that just the archival process of accession and cataloguing help commit the item or document to the archive. However, it is also important to note that experimental practices and choreographic processes act in a similar way, whereby knowledge can be found or deposited in the working embodied knowledge of the dancers or practitioners.

Collectively, the body of literature based on the body as the archive, exemplifies the intrinsic relationship between the body and the archive, highlighting the dynamic and participatory nature of dance preservation and the crucial role of embodied knowledge in maintaining cultural heritage. Therefore, Schneider's notion that performance remains, but remains differently, disrupts the Western notion of the archive as a place where tangible, 'savable' documents or objects are kept and preserved. The intangibility of dance means that it constantly challenges the logic of

the traditional notion of the archive; a tension therefore remains between the archive and dance.

Dance archives, much like regular archives, look to collect, store, preserve and provide access to documents and objects relating to dance. However, as previously mentioned, the ephemeral nature of dance means that these activities are more difficult to undertake than in other disciplines. If a performance is constantly disappearing once it has been executed, then how can a performance be archived? How can the existence of the event be 'verified' or provide evidence for future audiences to study or analyse? It is imperative to review the literature on dance and documentation to understand how dance is currently documented. However, it is important to first explore the conceptual understanding of documentation within archival theory before seeking to understand what constitutes documentation within the context of dance.

Within archival theory, the document and its meaning has changed over time. A document once simply meant a 'textual record' (Buckland, 1997, p.804). However, this simplistic meaning has been challenged by several scholars (Buckland, 1997; Briet and Martinet, 2006; Lund and Buckland, 2008; Otlet, 2021), who remind us that when it comes to research, 'someone may wish to observe: events, processes, images and objects as well as textual records' (Buckland, 1997, p.804). This school of thought has changed what a document now stands for: objects as well as textual documents. However, it is Briet (2006, p.10) who specifically outlines that a document could be any 'concrete or symbolic indexical sign, preserved or recorded towards the ends of representing, of reconstituting, or of providing a physical or intellectual phenomenon'. Briet insinuates that for a phenomenon to be considered a document, it must be recorded in a form that can be preserved, stored and accessed for analysis at a later date. Briet's notion is emulated by Barba et al. (1992, p.77), who suggest that performance does not live beyond the present and the performer has a 'responsibility towards those "spectators" who have never seen them'. Reed (2006)

further develops Briet's and Barba et al.'s notion, suggesting that, '[they] are agreed statements, from the present to the future, which say that this is collectively and officially agreed to say what happened, was done and was said' (Reed, 2006, p.326). Briet (2006), Barba et al. (1992) and Reed (2006) all conclude that unless a phenomenon is documented, the trace of the event or activity will be jeopardised by time.

Within archival theory there are 'fuzzy boundaries' between what constitutes a document and record (Yeo, 2007, p.317). The term record causes 'troubles' as it is a homonym, holding various meaning across disciplines or subjects (Yeo, 2007, p.315). Yet within many of these disciplines there is a common denominator: the activity. Each discipline, as Yeo suggests, 'acknowledge[s] a close connection between records and the activities of individuals, families, communities, or organisations' (Yeo, 2007, p.318). Within archival theory, a record is 'a document made or received in the course of a practical activity as an instrument or a by-product of such activity and set aside for action or reference' (InterPARES, 2019). InterPARES' definition is similar to many definitions found within archival theory (European Commission et al., 2008; International Council on Archives, 2016a). Yeo recognises that professionals within the field of archives tend to 'emphasise the roles of evidence, contextual provenance, integrity and authenticity' as being integral to the concept of a record (Yeo, 2007, p.318). Provenance refers to 'the origin or source of something, or as the person, agency or office of origin that created, acquired, used and retained a body of records in the course of their work or life' (Millar, 2010, p.46). Without contextual provenance, the authenticity and integrity of the item would be compromised (Seadle, 2012). Thereby, if authenticity and integrity are compromised, the item cannot be used as evidence. The four concepts work simultaneously, ensuring that the activity is documented and is publicly remembered. Battley et al, highlights how records 'can help communities construct and preserve their collective memory...act as evidence' (2014, p.155). This is an important concept when thinking about dance. Although the ephemeral nature of dance performance means dance is hard to

document, there are artefacts which can provide evidence of the event, thus providing the dance community with a history.

The difference, therefore, between the record and document is that the document becomes a record through the archival process designation as a record. In the archival continuum, understanding the record is conceived at the point of creation or even before creation; therefore, 'recordness' is identified and designated. As McKemish (2006, p.3) describes, we can view 'recordkeeping and archiving as a form of witnessing and memory making, a particular way of evidencing and memorializing our individual and collective lives'. It is through this process of archiving objects and textual documents that a collective memory of a performance, event or activity of a community is created. From acquiring and appraising items, to cataloguing and making them available, each stage adds a layer of data about the document which sees objects become records. For instance, during cataloguing, metadata are added to the document to provide supplementary information about the document. Metadata is 'a statement about a potentially informative object' (Pomerantz, 2015, p.26). As Schaffner denotes metadata is made up of two types of data: 'ofness' and 'aboutness' (2009b, p.6). Metadata is predominately used when working with digital records and provides statements about the document; often archive metadata outlines statements about the document's creation, lineage and format – the 'ofness', rather than detailing the contents of the document – the 'aboutness'. A document's metadata can warrant the record's provenance, integrity and authenticity (Duff, 1995; MacNeil, 2009). The process by which a document becomes a record in the archive can contribute towards preserving an individual's, community's or organisation's history. How then does the field of dance approach the preservation of its own history? How is dance documented and preserved within the archives? How are performances constructed through the archive for the future spectator? It is vital to return to the field of dance to understand how dance is documented.

Dance scholarship has continually discussed how to document a dance performance. Johnson and Fuller-Snyder suggest that the field of dance is the 'most complex of all the arts to document' (1999, p.1). There is a 'multidimensionality' to dance that must be documented (Johnson and Snyder, 1999, p.6). By multidimensional, they mean that dance does not unilaterally concern the body, but the body in relation to time and space. In-depth discussions within the literature demonstrate this complexity when documenting dance. This complexity includes being able to document the body (or bodies), its dynamism, as well as the multitude of external entities which interact with or are significant to a performance in various formats. The evolutionary nature of dance documentation has shown how this unilateral thinking has developed over time, from documenting the steps of court dances to the anatomical depiction of human movement through time and space. Methods of documenting dance have evolved as dance itself has evolved (Hutchinson-Guest, 2013). Literature from scholars such as Tembeck (1981), Hutchinson-Guest (1984, 1989, 2013), Brooks (1987), Carter (2006), McAudley (1994), Reason (2006a), Smigel (2006), Yeoh (2013) and Buscher and Cramer (2017) all identify and explore the different ways dance has been documented over time, particularly as genres, methodologies and technologies have evolved.

Traditionally, dance has been passed from body to body. However, one of the first known methodologies for documenting dance textually within the field was notation. Dance notation systems date from as early as the fifteenth century right through to the twenty-first century (Hutchinson-Guest, 1989). Dance notations were primarily textual documents in which dance masters, choreographers and even dancers themselves noted down various elements of dance, such as movements and choreographies. Signs, symbols, illustrations, words or letters have all been used to depict dance in notation systems. Early notation systems tended to represent only the footwork of the dancer. For instance, Hutchinson-Guest (2013, p.1) outlines that one of the earliest dance notation systems, as employed in the example of *Basse Dance*, used letters as 'abbreviations for the name of the steps' in the Basse Dance.

Notation systems developed later often included a more detailed depiction of human movement within space and time. For instance, the twentieth century saw the development of more complex systems, which noted the anatomical analysis of human movement. One key example from this time was Laban's Movement Analysis, which broke down movement into its simplest form; this in turn allowed performers increased freedom for experimentation (Hutchinson-Guest, 2013).

Dance notation allows practitioners to relive, restage or revive choreographies. However, the skills involved with learning or translating such complex systems, such as Labanotation or Benesh notation, have limited the accessibility and usage of these types of documents by future spectators. For the same reason, when technology, such as photography and video began to emerge, the production and use of dance notations began to wane.

Since the twentieth century, practitioners or researchers have chosen to capture dance performance through visual/audio aids such as film, video, or, photography (Birringer, 2002). For the practitioner, video technology has become a more affordable, quick and reliable way of documenting the journey of a choreography from rehearsal to performance. For users, videos and films provide a quick, accessible tool to re-live performances of the past. For instance, video and film⁵ performances can be found within archive collections, providing users with, as Reason explains, 'a memory of the live event'. Taylor (2003, p.20) shares Reason's sentiment when explaining that, 'a video of a performance is not a performance, though it often

⁵ See collections such as DESH, Sadler's Wells (V&A theatre collections, 1974-2012); Moving Image materials relating to Sylvia Bodmer and her work (Trinity Laban library and archive, 1960-1989), the video recording of the film 'Ballet Rambert in China' featuring extracts of performances of 'Les Sylphides' and the 'Gala Performance' by Ballet Rambert, recorded in China (Rambert Archives, 1957), and photographs of Swan Lake ('Photographs of Swan Lake – Photographs – Metropolitan Ballet Archive – Archives Hub', 2018).

comes to replace the performance as a thing in itself'. Here, Taylor suggests that the video is often the object used to explore the performance or live event, as it is the closest of all documentation methods to providing the user with a repeated version of the event. The way the video visually and audibly replays the event to the spectator replicates how an audience member may experience the performance at that time. Although the video/film of a performance cannot holistically recreate the entire immersive experience of a performance, it can provide a close representation. Taylor acknowledges that although video/film comes to replace the performance, '[it] is part of the archive; what it [the video] represents is part of the repertoire' (2003, p.20), a trace of the repertoire to be stored within the archive. Video and film are media which enable a live performance to be shared, stored and collected. It is important to remember, as Melzer (1995) and Reason (2006b) remind us, that film is a mediated version of the live event. Although it offers a gateway for future spectators to relive a performance in time and space, the recording is 'not objective' (Melzer, 1995, p.152). Often, the recording's main purpose is not to represent the live performance, but rather, to fulfil commercial and/or press-related obligations. Therefore, visual representations of past live performance events should be viewed with caution.

The ephemerality of the performance complicates the way it is archived, as it will always seem as though something is missing within the archive. From an archival viewpoint, this audio-visual representation would be considered an archival trace of the performance. This is where the tension between dance and archives comes into play. As Phelan (1996) suggests, something that is a 'representation of a representation' cannot stand in for the performance that has passed. Moreover, Phelan questions whether the intangible performance can ever reside within the archive at all. Audio-visual representations are a good way to fill this gap but are nothing other than representations of the choreographer's work seen through the lens of a director or cinematographer, or in other words, a cultural representation of the performance. Therefore, it should be reiterated that audio-visual representations of live performance events should be viewed with caution by their users.

Furthermore, emerging technologies offer dance another form of documentation and include technologies, such as motion capture and holographic imagery. Although many practitioners are exploring the capabilities of such technology for choreographic purposes, how these technologies may be used in the future – to relive, review, revive, study or analyse performances – is thought provoking. Similar to film, video, or photography, emerging technologies may be a useful audio-visual resource for researchers and users in the future. Emerging technologies may be developed which could help explore various aspects of dance, such as movement, techniques and choreographic ideas, to accompany the intangible act of passing dance from one body to another. However, for now, technology is only a point of interest for collaboration and creation of new choreographic works (Motion Bank, 2016; Coventry University, 2018; ‘Living Archive’, 2019; Mondot and Bardainne, 2020; Salas, 2020).

The different types of documentation explored within the field of dance focus primarily on attempting to document the body and its movements. As a result, other aspects which come under the umbrella of dance performance are noticeably absent from discussions on documentation. As Oke highlights, ‘if archivists apply themselves to documenting significant performances as the official record of a dance work, then they would be missing the documentation of the rehearsal and creation process’ (2017, p.199). Oke insinuates that by only focusing on documenting the performance, we are missing other vital elements which could help others to understand the context surrounding a dance performance. Oke implies that we need to approach dance archiving as broadly as possible to capture ‘the choreographer’s ideas of the dance work, the performers’ ideas of the dance work; the additional contributors’ idea of the dance work [and]; the audiences’, theorists’ and critics’ idea of the dance work’ (Oke, 2017, p.199). A dance performance is not just constructed from the body and its movements, but as Reason implies, ‘anything remotely associated with the performance can belong in an archive’ (2003, p.83). Thereby, looking more broadly to dance performance archives, we should consider documents pertaining to the

‘processes of creation, of production and of reception’ (Reason, 2003, p.83). Therefore, Oke and Reason propose that dance archives should be focusing on providing an understanding of the evolutionary process of dance, from conception to audience reception, rather than just focusing on the performance itself.

In America, the Dance Heritage Coalition (DHC) offers an alternative conceptual framework for archiving dance. The DHC splits dance into: ‘*the process*’, ‘*the performance*’ and the ‘*cultural impact*’ (2006), similar categories to those highlighted by Oke and Reason. The DHC’s categorisation of dance provides future spectators with material pertaining to the ‘processes of creation, of production and of reception’ (Reason, 2003, p.83), thus allowing them to understand the evolutionary process of dance from conception to audience reception. For instance, future spectators should be able to use the archive material to understand choices made during the rehearsal process, which may have had an impact on the performance, but also to understand how performances were received by audiences of the time. The DHC’s term, *process*, in the context of dance, refers to the choreographic process⁶ – the path leading the choreographer from stimuli to production. However, there is ambiguity in the use of this term, as it can also refer to the production process – the staging of the performance.⁷ Conversely, Reason (2003) separates the two concepts here into creation and production, thus minimising the ambiguity of the term ‘process’.

Performance, in the DHC context, refers to the event; however, there are many features which constitute a *performance*. For instance, these could include the dance movement content produced by choreographer(s), dancer(s) or participant(s); inanimate objects such as scenery, props, or costumes; and lighting designs and musical accompaniments within a performance. In a similar vein to the DHC’s definition, Reason’s (2003) usage of the term, ‘performance’, however broad, also

6 For a selection of literature on the choreographic process, see Humphrey (1959); Johnson Jones (1999); Ashley (2003) and Butterworth (2009).

7 See Hopgood (2015) for an overview of the production process.

covers all elements of a production or performance. Thus, there is relative agreement on this term.

As demonstrated, the DHC term *performance*, like *process*, covers an umbrella of items. Lastly, *cultural impact* refers to the reception of the performance within society, a notion which Reason also accounts for. This may include responses from reviewers, critics and scholars, but may also include audience responses to dance. Records from before and after a performance often provide us with insights into how it was received within society. Documents relating to cultural impact are more likely to be tangible objects in the form of programmes, newspaper cuttings, blog posts and journal articles. Hence, engagement is related to tangible archival documents.

Although unconventional within archival structures, this framework offers an alternative – albeit problematic – way to archive dance. For instance, it does not support unconventional dance genres, such as contemporary, improvised, or site-specific dance. Dance genres, similar in nature to improvisation or site-specific dance, evolve over time, or are not set within a particular venue. Therefore, these types of performances may not be the same every time they are performed. This notion of performance evolution is one reason why Phelan and many other contemporary choreographers believe that dance should not be documented. While objects attributing to the dance *performance* and *cultural impact* are easier to archive as they come in more tangible forms, the movement and development process appear to be problematic to the archive. Through this extensive review of documentation, it has become clear that within archives, documentation exists to depict the performance. Documents such as notation, films and videos all offer the researcher or spectator the chance to relive the movement of the dance performed.

Cultural impact in this context refers to the social reception of the performance. Documents related to cultural impact can provide reflections on, reviews of and reactions to the performance. These types of documents, such as, posters, brochures,

reviews, oral histories, blogs or programmes, could all provide insights into how the performance was promoted or received within society during a specific time period. Many of these types of materials tend to fall under the category known as ephemera. Ephemera, according to Makepeace, is 'the collective name given to material which carries a verbal or illustrative process, not in a standard book, pamphlet or periodical format' (1985, p.10). Makepeace continues to suggest that ephemera may be characterised as 'a transient document produced for a specific purpose and not intended to survive the topicality of its message or event to which it related' (1985, p.10). As Manzella and Watkins explain, 'performance leaves behind all variety of ephemera, including announcements, press releases, reviews, photographs and correspondence' (2011, p.30). The different types of documents within Manzella and Watkins' idea of ephemera link back to how the performance was received by, or presented to, the public.

This literature review, thus far, has demonstrated that dance archives currently provide an abundance of records documenting every aspect of dance, including the performance. Thus, dance archive content is fruitful for those who might want to use the collection. In developing future online dance archive resources, our attention must turn to understanding who dance archive users are and how users are accessing dance archives. Being able to understand who dance archive users are quite a difficult task as dance archives tend to fall under an umbrella of terms, if acknowledged at all, when it comes to UK national archive surveys. Across national archive visitor reports conducted in the UK, the majority of visitors to UK archives tended to use the archive for family history research or local history research, with a lower proportion of visitors using the archive for academic research (CIPA – The Chartered Institute of Public Finance and Accountancy, 2019, 2014). However, my own Master's research project in 2017 surveyed dance archives in the UK, and found that the majority of visitors to dance archives were dance students and scholars (Johnstone, 2017). Thus, my findings highlighted that dance archive users' purpose for visiting, accessing and using dance archives is quite different from that of general archive users and the

wider dance archive sector. This should be kept in mind going forward within this study.

Archives are steeped in traditions, policies, and standards, which ensure that archive records maintain provenance, integrity and authenticity as custodians of the past. However, it is these traditions, policies and standards which may generate conflict when it comes to how dance materials are presented and accessed by users. Currently, it is not known if the way dance archive professionals organise or present archive materials is useful or logical for users when searching for information. Based on the premise that archival resources are presented to users using national guideline data, which ensures that top archive users are family or local historians, then it is likely that dance archive collections are not presented in a useful or logical manner for the academic researcher. Thus, understanding user engagement in the context of dance archives will be an integral part of the investigation for this study. While it is apparent that dance archives hold a wealth of knowledge, how users access and use this knowledge requires further consideration.

Several studies outside of the dance archive sector have highlighted that users rely heavily upon archivists' knowledge about the collections to navigate and locate materials (Johnson and Duff, 2005; Anthony, 2006; Duff and Fox, 2006). Archivists are used as a source of knowledge, directing users to the materials most relevant for their information quests. Therefore, archivists' time is consumed by answering and locating user requests. This may indicate that there is a misalignment with the way dance archive users are using the dance archive resources, systems or structures for information-seeking. Any consideration for developing future online dance archive resources needs to consider this provocation more closely by asking: how are dance researchers searching for information in the dance archive? An exploration of this may, in turn, result in archivists reaping back valuable time which could be spent on more useful activities, such as, developing catalogues or ensuring longevity and access to materials for future spectators. The question of whether dance archivists

are the only point of access for dance students and scholars to the archives remains unexplored and thus is considered within this study. By turning towards information behaviour theory, the next section of the literature review may yield further insights into how dance archive users, specifically dance researchers, are searching for information both inside and outside of the archive. An exploration of information behaviour theory may also help others understand how dance researchers seek information, and how this may be applied to the development of future online dance archive resources.

2.2 Information Behaviour Theory

Information is anything which can inform a person's thinking (Marchionini, 1995), and is considered to be vital to human existence (Case, 2008). Within the information science literature, there are many different concepts of information – *information-as-thing*, *information-as-knowledge* and *information-as-process* (Buckland, 1991) – all of which contribute to the way information is seen, used and reproduced. From the beginning of time, human beings have gathered information to help them make vital decisions. Marchionini states that 'to seek information, people seek to change the state of their knowledge' (1995, p.5).

The interaction between information and humans has been at the centre of information science for many years, as explained by Bawden and Robinson (2012). Initially, the focus for many investigative studies was on understanding human information behaviours in everyday contexts. Over time, this has extended to include further examinations into cognitive, psychological and action-based models of information behaviour within multiple contexts and among diverse groups of people. Throughout the exploration of information behaviour, the field of information science has developed over 73 different models, demonstrating the vastness of the

field.⁸ For the purpose of rigour and concision, this thesis adopted the strategy of evaluating fundamental information-seeking models within the field, such as Wilson (1981a; 1996; 1999), Ellis (1989; 1993) and Kuhlthau (1991, 2004). These information behaviour models still underpin the work of many information-seeking behaviour studies today, as will become more evident throughout this section of the literature review. Moreover, the thesis also reviews the literature of related researcher disciplines such as the performing arts and humanities to understand the development of researchers' information-seeking behaviour patterns, which may be applicable to dance researchers. By looking at the information behaviour models, and particularly information-seeking models of dance researchers, and related studies, the primary aim is to gain further understanding of how dance researchers search for information inside and outside of the archive.

Information behaviour is a broad term, interlaced with subjects such as information-seeking and retrieval, as well as information need and use. The term information behaviour is said to have been coined by Wilson (2000), who describes it as 'the totality of human behaviour in relation to the sources and channels of information, including both active and passive information-seeking and use' (2000, p. 49). Wilson suggests that information-seeking and use are connected. Similarly, Bates (2010, p.2381) asserts that information behaviour refers to 'the many ways in which human beings interact with the information, in particular the ways in which people seek information to use and utilize'. Pettigrew et al. (2001) extend Bates' (2010) concept to include information need and production, suggesting that information behaviour is 'the study of how people need, seek, give and use information in different contexts, including the workplace and everyday living' (2001, p.44). These three definitions offer a wide-ranging concept of information behaviour. The definitions include several concepts, notably seeking, searching, retrieving, needs and use, all of which

⁸ For a full exploration of the many information behaviour models, see Bawden and Robinson (2012).

can be found within the field of information behaviour.⁹ Therefore, when thinking about the information behaviours of dance researchers, we need to simultaneously be aware of how information-seeking, searching, needs and use may affect, and effect, the development of future online dance archival resources.

2.2.1 Information Behaviour Models

Over time, several information behaviour models have been developed, and it is fair to say that the process of differentiating between these models is topic dependent. Studies began by exploring single facets (Wilson, 1981a) and information behaviours, such as psychological or environmental impacts on information behaviours, while others developed information models based on multidimensional explorations (Sonnenwald and Iivonen, 1999; Fidel et al., 2004). Information-seeking behaviour models (Ellis, 1989; Ellis et al., 1993; Savolainen, 1995; Dervin, 1998; Vakkari, 1999; Kuhlthau, 2005; Vakkari, 2003) grew from more general models of information behaviour studies, as did more in-depth explorations of information retrieval (Ingwersen, 1996; Ingwersen and Järvelin, 2006). These earlier models have become tools for exploring the lives, identities and practices of various types of communities (Choo et al., 1999; Meho and Tibbo, 2003; Niedźwiedzka, 2003; Godbold, 2006; Robson and Robinson, 2013; Case and Given, 2016). This has led to an influx of information behaviour models being adopted and extended over a sustained period of time, none more so than Wilson's general information behaviour model (1981b; 1996; 1999).

Prior to Wilson's model, information behaviour models focused on information systems or sources. Wilson proposed a model which focused on the user and their needs. Wilson's general information behaviour model, as seen in **Error! Reference source not found.**, highlights the interconnection between information behaviours,

⁹ See additional literature by Pettigrew et al. (2001), Ingwersen and Järvelin (2006) and Spink and Cole (2006).

seeking and retrieval. The model purports that barriers, such as a person's environment and psychology, may affect the way that the person seeks information. The model notes that after information has been acquired, it can be deemed useful and put into practice, or not useful and stored within the realm of a person's knowledge bank for possible later use, perhaps as part of knowledge exchange.

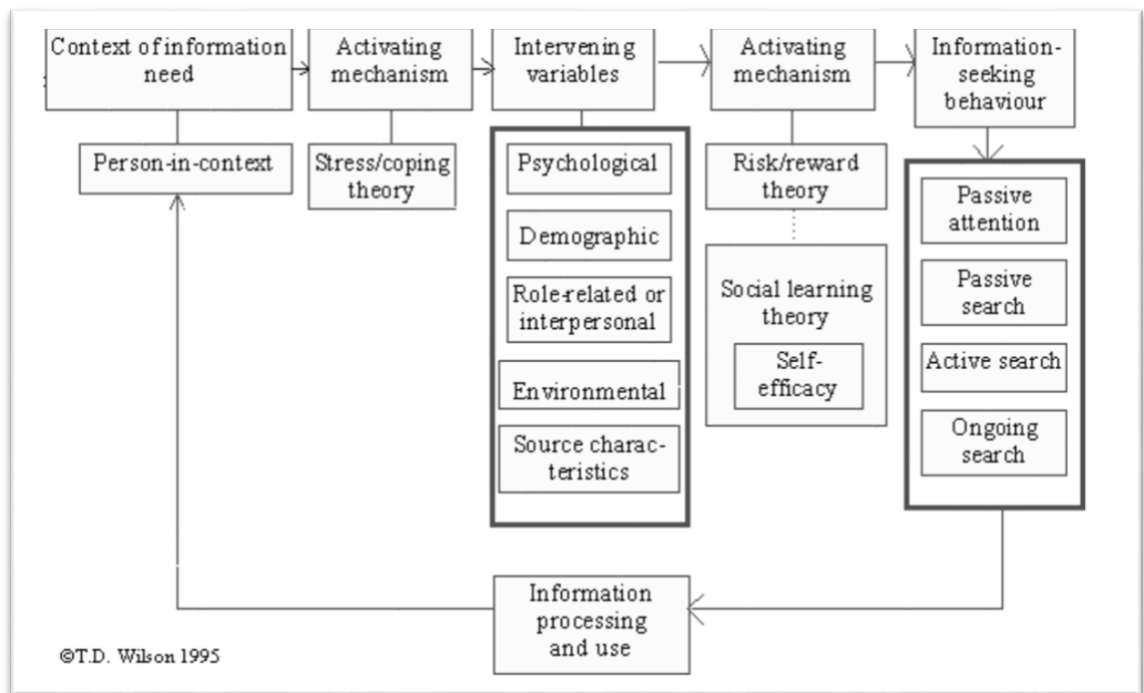


Figure 2-1 Wilson's expanded general model of information behaviours. Reproduced from Wilson and Walsh (1996)

From a more negative standpoint, the field of information science has considered Wilson's model to be too 'generic', but on a more positive note, it is viewed as 'hospitable for incorporating other models' (Wang, 2011, p.24). Wilson (1999) himself suggests that other models of information-seeking, retrieval and searching fit into different parts of his own information behaviour model. Wilson observes that 'the models of Ellis and Kuhlthau relate to the active search mode of information-seeking behaviour' (1999, p.257). A notable strength of Wilson's model is its ability to reduce confusion about motivations and processes within the field of information-

seeking behaviour (Bawden, 2006). It offers simplicity and clarity as a model, which is what makes the model useful within user studies today (Bawden, 2006).

Wilson's model remained uncontested until Wilson (2005) challenged scholars to evaluate, test and remodel his framework to develop a 'newer' general information behaviour model. Various scholars rose to the challenge and provided integrated general information behaviour models based on existing literature (Sonnenwald and Iivonen, 1999; Davies and Williams, 2013; Robson and Robinson, 2013; Agarwal, 2022). In their attempt to develop a more current model of information seeking, scholars such as Agarwal (2022) have reported that many of the earlier information-seeking models came from a '*user-centred paradigm*' whereas the newer information-seeking literature would seek to explore a '*system-centred*' paradigm. Wilson's models sit within the user-centred paradigm which Agarwal speaks of; therefore, it remains devoid of the qualities of a system-centred paradigm, which may be recognised within the information retrieval literature. However, current literature has called for a *unification* of both user-centred and system-centred design when exploring and modelling the information seeking of users (Robson and Robinson, 2013; Agarwal, 2022). Therefore, by looking at both dance researchers (users) and dance archivists (systems), this study seeks to provide commentary on a unified progression for the future development of online dance archive resources.

Reflecting on Wilson's model, and for the purpose of this thesis, it would be beneficial to refine our understanding of the information-seeking behaviours of dance researchers. As already described, this thesis is primarily concerned with the information-seeking choices made by dance researchers, including their information needs, seeking and use. However, Wilson's model shows that this study needs to consider various aspects, such as understanding the motivations behind the information needs people have when seeking to find answers, the places people engage with to seek information, as well as other factors which continue to affect the

information-seeking behaviours of dance researchers. Thus, in line with this thesis's focus on the information-seeking behaviours of dance researchers, it would be beneficial to move away from generic information behaviour models, to explore literature surrounding information-seeking behaviours, and those most closely related to dance researchers. However, first this literature review will continue in its exploration of wider information-seeking models.

2.2.2 Information-seeking

For Large et al. (1998), Case (2008) and Bawden and Robinson (2009), information-seeking is the process of looking for information for a particular purpose. Large et al. suggest that 'seeking information is a fundamental human function, vital to survival' (1998, p.27), a concept that many other theorists agree with within the field of information science.¹⁰ Borrowing from Marchionini (1995), Large et al. (1998) suggest that to plan and carry out actions, we must have an understanding of the world; understandings are generated from information already obtained or that can be gathered from our surroundings. Similarly, Case suggests that information-seeking refers to the process of making the 'conscious effort to acquire information in response to a need or gap in your knowledge' (2008, p.5), thus, linking information-seeking with a reason or purpose for carrying out the task. Large et al. (1998) note that searching for information is completely dependent on the individual who is seeking the information, therefore contesting the notion that information seekers should be generalised as a homogeneous group of people. For Large et al. (1998) information-seeking behaviours should be investigated in the context of smaller groups of people. Generalising information-seeking behaviours is not recommended; thus, researchers tend to conduct research into specific groups of people. This thesis takes a similar methodological approach by investigating dance researchers.

¹⁰ For a historical understanding of how information-seeking is innate, see literature by Large et al (1998); Ridley et al. (2009) and Chowdhury (2010).

As Large et al. outline, 'in order to carry out a search for any kind of information, it is necessary to progress through a series of steps, typically called the search process' (1998, p.31). The work carried out within the field of information-seeking does just that. It identifies and explores the ways in which groups of people or individuals search for information. It then uses the findings to either design new or improved information services or systems.

Within the field of information-seeking behaviours, various models have been developed to explain how different types of users search for information. As this thesis has already established, information behaviour models are dependent on their context and models found within the information-seeking literature. Savolainen's (1995) everyday life information-seeking behaviour model (ELIS) consists of looking at how ordinary citizens engage with non-work related information. Bystrom and Jarvelin's (1995) model explores information-seeking behaviours that happen within the workplace. However, Savolainen, Bystrom and Javelin are contextually beyond the scope of this thesis, which rather focuses on information-seeking models that enrich the investigations surrounding academic researchers.

There are two noteworthy models which deal with the information search process of academics and students, namely Ellis' information-seeking model (1989; 1993) and Kuhlthau's (1991) information-seeking model (1991). Consequently, they may prove to be useful when thinking about the context of dance researchers. A key information-seeking behaviour model is that of Ellis (1989) who created a model of behaviour based on his study of social science and humanities scholars. Scholars are outlined as one type of dance researcher, the other being students. It is imperative to understand how this seminal work underpins many theories concerning academic searching behaviours.

Initially, Ellis observed six different types of information activities which researchers typically carried out during his study:

1. **Starting**: activities characteristic of the initial search for information;
2. **Chaining**: following chains of citations or other forms of referential connection between materials;
3. **Browsing**: semi-directed searching in an area of potential interest;
4. **Differentiating**: using differences between sources as filters on the nature and quality of the material examined;
5. **Monitoring**: maintaining awareness of developments in a field through the monitoring of particular sources;
6. **Extracting**: systematically working through a particular source to locate material of interest. (Ellis, 1989, p.178)

Ellis (1989) does not identify any specific 'sequence' for navigating these six activities but rather outlines relationships where certain activities can be found. For instance, as Ellis states, 'starting may lead to chaining, differentiating may play a role in identifying sources for monitoring, or extracting may complement monitoring'. However, Ellis is clear that 'the model does not, therefore, constitute a hierarchic sequence for classifying individual information-seeking patterns' (1989, p.179). Later, Ellis, Cox and Hall (1993) extended the six stages to include two new stages: 'verifying: activities associated with checking the accuracy of information; ending: activities characteristic of information-seeking at the end of a topic or project' (1993, p.359). This extension showed that academic scientists followed a similar pattern of behaviour to social and humanities scholars with regards to their information-seeking process. Therefore, this shows that patterns and trends may provide a useful way of thinking about the performing arts and dance researchers within this thesis.

Ellis's behavioural model has been compared, somewhat generically, to the 'research lifecycle' of all researchers (Wang, 2011, p.21). Bawden and Robinson note that the model 'has been one of the most tested of all information behaviour models' (2012, p.194) within the fields of science and humanities. However, as will be explored, there is little evidence from the information-seeking literature to indicate that this model is also the way performing arts researchers, or more specifically dance researchers, conduct research.

Ellis's model has been critiqued on the basis that it only studies academics of a certain level, who work in a particular way due to the nature of their role within academia. Thus, this raises questions when thinking about dance researchers. What differences or similarities are there between dance academics and dance students? How might accommodating for such differences affect the development of future online dance archive resources? Ellis's study does not extend beyond the realm of academic scholars to other members of academia, such as undergraduate or postgraduate students. Although Ellis's model pre-dates digital contexts, it is still continually used as a theoretical lens for many information-seeking studies (Meho and Tibbo, 2003; Makri and Warwick, 2010; Kundu, 2017; Bukhari et al., 2018). The application of Ellis's model to current research is attributed to the notion that the model is not based on any one information source but can be applied regardless of the context or format in which the seeker is searching for information (Case and Given, 2016). Thus, the information-seeking model has become the basis for studying academic researchers such as dance scholars, as is the case in this study. Looking beyond Ellis's model, towards models which provide insights into the information-seeking processes of students, this literature review will now move to explore Kuhlthau's information-seeking model.

Kuhlthau's (1991, 2004) information-seeking model was devised over a sustained period of time, during which the information search process of students was studied. Kuhlthau's information-seeking model is known to encompass a more holistic approach to understanding the information-seeking process of students, as it consists of constructing meaning through thoughts, feelings and actions. Kuhlthau's information-seeking behaviour model identifies six common stages in students' 'process of information-seeking for a complex task' (2005, p.230). The model describes the thoughts, feelings and actions involved at each stage of the process:

Initiation – a person becomes aware of a lack of knowledge or understanding, making uncertainty and apprehension common.

Selection – a general area, topic, or problem is identified, and initial uncertainty often gives way to a brief sense of optimism and a readiness to begin the search.

Exploration – inconsistent, incompatible information is encountered and uncertainty, confusion, and doubt frequently increase.

Formulation – a focused perspective is formed, and uncertainty diminishes as confidence begins to increase.

Collection – information pertinent to the focused perspective is gathered and uncertainty subsides as interest and involvement in the project deepens.

Presentation – the search is complete, with a new understanding enabling the person to explain his or her learning to others, or in some way to put the learning to use. (Kuhlthau, 2005, p.231)

It is noted that unlike Ellis' model, Kuhlthau's model purports there is a 'logical sequence to all information-seeking behaviour' (Spink and Zimmer, 2008, p.213). Spink and Zimmer express that Kuhlthau's model looks at the cognitive intention and development through the information-seeking process and assumes that 'the user attempts to find meaning from information' (2008, p.213). A level of cognitive thinking which Ellis' model does not account for. It provides a qualitative understanding of the information-seeking process of students which had not been seen before. Thus, Kuhlthau's study is able to ascertain why some actions were or were not taken by students through studying their thoughts and feelings during their information-seeking process. This qualitative understanding is a concept which is of interest to this study when investigating the information behaviour of dance researchers. Kuhlthau et al (2008), revisited the model in the wake of Web 2.0 and expressed that the information-seeking model remained relevant but some changes had been noted between students. Some students 'engaged with the collected information more analytically' than before (Kuhlthau et al., 2008). Thus, showing how the abundance of information had changed the way students consumed information during their information-seeking processes. However, the information-seeking process of students largely remained the same. Both Ellis and Kuhlthau offer information-seeking models from which to study and analyse the dance researchers' information-seeking processes. The models offer a theoretical lens which can be

overlaid within this project to understand if dance researchers conform to a similar way of searching for information. This study will provide new commentary on the relevance of the information-seeking models in the wake of their exploration of dance researchers. Moreover, it will also help to understand whether dance researchers do or do not conform, helping to understand how future online dance archive resources need to be adapted or developed accordingly.

It has been noted that both Ellis' and Kuhlthau's studies were conducted before the introduction of the internet (Taylor, 2012). Kuhlthau's and Ellis' studies therefore do not accommodate for current generations which now use the Internet as an information source. However, this is not to discredit them in the wake of the internet, as various studies have shown how relevant the information-seeking models still are (Makri and Warwick, 2010). Additionally, the study was conducted with students, these were American college students, thus whether the same process applied to students in higher education remains to be seen. Therefore, no models accommodate for the modern information-seeking process of higher education students and academic scholars/researchers. However, many studies have investigated the information-seeking processes of students and scholars with the Internet, across a variety of disciplines (Griffiths and Brophy, 2005; Jamali and Nicholas, 2010; Makri and Warwick, 2010; White, 2016; Spezi, 2016; Nicholas et al., 2009, 2017; Weber, Becker, et al., 2018). Weiler (2005) studies a broad range of Generation Y¹¹ students and highlighted that the information-seeking need is an important element to the process of information-seeking. Weiler noted that whilst students' initial port of call for seeking information is using 'real people', it is closely followed by the 'Internet' (2005, p.50); an observation noted in various other studies as being a predominant feature of the information-seeking process of students (Kibirige and DePalo, 2000; Griffiths and Brophy, 2005; George et al., 2006). Taylor (2012) notes that the users are faced with new problems which have not been

11 For the purpose of this paper generation Y is taken from Weiler's definition meaning 'those born between 1980 and 1994' (Weiler, 2005, p.46)

addressed within Kuhlthau's original model. Taylor highlights that users 'exist in a noisy, media-driven world, a condition that may lead to issues with filtering what is valid and important to their task' (2012, p.2). Similarly, Weiler notes that '... 'infoglut' and questionable validity were cited as the most common current obstacle to finding information' (2005, p.50). Some may attribute what Taylor and Weiler's suggest to information overload¹²; an aspect of information science which could complement and complicate Kuhlthau's notion of uncertainty. There is plenty of information-seeking literature which generically explores various disciplines; it is important to narrow this exploration down to explore that of humanities, arts and performing arts students and scholars. This range of disciplines are those most usually found grouped together. Our exploration should help to reveal similarities or differences between humanities, arts and performing arts students and scholars to those of dance researchers. However, before this investigation, it is important to explore the literature on information retrieval in order to know how the development of future dance archive resources may be affected by dance researchers' interaction with it.

2.2.3 Information retrieval

Information retrieval, as we have seen within this literature review, is a subset of information-seeking behaviours. Information retrieval, according to Chowdhury, is 'concerned with all activities related to the organisation of, processing of, and access to, information of all forms and formats' (2010, p.1). Therefore, it is important to consider how dance archives are giving access and allowing interaction to the information within dance archive material. Manning et al suggests the process of information retrieval is 'finding material (usually documents) of an unstructured

¹² Information overload refers to the definition provided by Bawden and Robinson (2009) in which they state it is when 'an individual's efficiency in using information in their work is hampered by the amount of relevant, and potentially useful, information available to them...the feeling of overload is usually associated with a loss of control over the situation, and sometimes with feelings of being overwhelmed' (2009, pp.182-183).

nature (usually text) that satisfies a need from within large collections (usually computers)' (2009, p.1). Initially, within the literature, it was recognised that information retrieval was an activity carried out by a limited few, such as 'librarians, paralegals and professional searchers' (Manning et al., 2009, p.1), but with the introduction and current explosion of the internet use, information retrieval now extends to a much wider range of people. Büttcher et al expresses that 'Information retrieval is concerned with the 'representing', 'searching', and 'manipulating' large collections of electronic text and other human language data' (2016, p.2). Chowdhury (2010), Manning et al (2009) and Büttcher et al (2016) definitions show a progression of the literature, yet all clearly focus their definitions to include elements of human-computer interaction. Human computer interaction impacts the formulation of information systems and services, and studies of information retrieval.

In understanding information retrieval systems, the literature proposes three domains: searching, interface and indexing (Bawden and Robinson, 2012). Each aspect helps to understand the infrastructure in which information retrieval systems are designed, developed, and used. Indexing is an aspect which is of least interest for the purpose of this thesis, as it is more about the arrangement or cataloguing of information. In the case of this study, it should be kept in mind that the indexing component of any future dance archive resource should come from the dance archive catalogues already in place. The importance of archive catalogue structures has been outlined within the archival literature at the beginning of this literature review. Archive catalogues consist of metadata prescribed by certain catalogue standards (Shepherd and Smith, 2000). This is the index format future dance archive resources should be working within.

The information retrieval literature suggests searching within information retrieval systems that are dependent on both the formation of the query and the search strategy employed by the seeker. In simple terms, Information retrieval is based on the process of a user inputting a query into a machine. Information retrieval systems

are often built using one of three models: Boolean, vector and probabilistic¹³. Therefore, the type of search string the users' use will be impacted by the type of system it is modelled on and will affect the results they are given. This search string is often termed as an information query and derives from the information need of the seeker (Manning et al., 2009). Within the information retrieval literature there is an extensive exploration into the information query and its formation (Salton et al., 1983; ter Hofstede et al., 1996; Aula, 2003; Bendersky et al., 2012). Literature states that users' queries are related to the task which they are trying to fulfil, which drives the need for information (Marchionini, 1995; Vakkari, 1999; Li and Belkin, 2008). The development of the search string in relation to both fulfilling the gap in knowledge and information need. Belkin et al proposes that this gap is called the anonymous state of knowledge (ASK). ASK is concerned with knowing there is a gap but not knowing how to fill it, or not knowing how to search for the type of knowledge that can help to fill it (Belkin et al., 1982). In turn, this leads the information seeker to employ many different search strategies whilst searching for information they need. Search strategies such as browsing, keyword searching, Berrypicking¹⁴, building blocks¹⁵, pearl growing¹⁶, successive fractions¹⁷ or quick searching¹⁸ (Bates, 1989; Choo et al., 1999; Bawden and Robinson, 2012; Dempsey and Valenti, 2016; Hinostroza et al., 2018). Kibirige and DePalo (2000) suggests that the more

13 Boolean information retrieval systems rely on terms, such as, AND, OR, NOT, to find connections between documents. Vector-based systems generate results based on similarity between the user's query and documents. A probabilistic-based system relies on generating results based the relevance of the documents index to the query searched.

14 Berrypicking (Bates, 1989) involves the information seekers using search terms find information related to their information need. The new information they find helps them to modify their search terms until the information need has been fulfilled.

15 Building blocks (Bawden and Robinson, 2012) is a search strategy that involves the seeker using Boolean terms to search via topics. This usually involves the seeker starting with a refined topic which they believe has the smallest number of results. This is repeated until there is a small enough results list to scan.

16 Pearl Growing (Bawden and Robinson, 2012) involves starting with a known document and reviewing the indexed terms and using these as a point of search. This is continued until the seeker find no new information.

17 Successive fractions (Bawden and Robinson, 2012) involves the seeker examining the result of an initial search and identifying new terms which may be related and adding these to the search terms. This method involves using Boolean terms to construct the search strings.

18 Quick searching (Bawden and Robinson, 2012) involves the seeker using topic search terms and linking them using Boolean terms.

experienced the users are in using the information system, the more likely they will be able to articulate their information needs and find the information they need to fulfil a need or task. Therefore, it could be suggested that dance scholars would be more successful than undergraduates students when searching for information. This notion should be explored further within this study. It would be interesting to be able to make a distinction on whether there is a different level of skill in the construction of the search from dance scholar to dance student. Thus, also being able to understand if there are different search strategies employed depending on the varying level of research among dance researchers.

The information retrieval literature, notes the web as one of the most used types of information retrieval systems, particularly search engines such as Google, Yahoo or Bing (Büttcher et al., 2016). However, digital libraries, local, enterprise and desktop search systems can all help individuals find information (Büttcher et al., 2016). Most search engines are query based and rely on the user inputting words or a string of words relating to the information they are seeking (2016, p.2). This is where the differing search strategies would come into play for information seekers. Technology and search platforms are constantly evolving. Therefore, focus is being given to that of search systems, particularly search engines, dealing with natural-language queries of information seekers. Accordingly, recent studies have explored natural language processing and users' query (Corcoglioni et al., 2016; Li and Lu, 2016; Azevedo et al., 2020; Wang et al., 2022). The growing popularity of more advanced technologies, such as, generative artificial intelligence (AI), integrating into information-seeking tools and research platforms, will also contribute to the impact and nature of searching for information for researchers (Gaur et al., 2022; Jin et al., 2023; Capra and Arguello, 2023). The literature remains computationally focused; improving the search and retrieval of the information for users by understanding how users search using natural language requires improvement. Thus, the research is helping to break down the barrier between humans and computers, whereby searching for information is easier. As a result of this ongoing research focus, information search

systems are becoming more attuned to the everyday language of their users and thus improving the information search results given back to users or seekers.

The exploration of the literature thus far has shown that to understand the dance researcher's information-seeking process the project will have to think about the needs, uses, and search strategies that have been employed by dance researchers in their past and present research projects. In doing so, this will contribute to an understanding of future developments of online dance archive resources, and what dance researchers find useful during their quest for information. However, the literature thus far has not provided us with any studies relating to the context of dance. Therefore, the literature review will focus on an exploration of neighbouring disciplines to understand how information-seeking behaviours may be applicable to dance researchers.

2.2.4 Information-seeking behaviours of humanities researchers

The literature concerning dance researchers is limited, yet there is significant work which explores the information behaviour of scientists¹⁹, social scientists²⁰, humanities²¹ and the arts²² researchers. The arts and humanities are often coupled together within academia. Therefore, it is natural to turn to this neighbouring field of study to understand their information-seeking behaviours and question if there are any information-seeking behaviours patterns which could be similar to dance researchers. Studies of humanities scholars are more predominant within the field of information science. The literature regarding the information behaviour of

19 For an example of such literature see: Ellis et al (1993); Lambert and Loiselle (2007); Jamali and Nicholas (2010) and Sahu and Singh (2013).

20 For an example of such literature see: Ellis (1993); Ellis and Haugan (1997); Meho and Tibbo (2003); Krampen et al. (2011) and Randhawa (2015).

21 For an example of such literature see: Stone (1982); Bates et al. (1993); Waite (1999); Buchanan et al. (2005) Barret (2005a) and Warwick et al. (2008).

22 For an example of such literature see: Stam (1989); Hemming (2008); Mason and Robinson (2011); Medaille (2010); Meszaros (2010) and Dougan (2012).

humanities scholars suggest that their practices are varied and wide ranging (Watson-Boone, 1994; Stone, 1982; 2007; Warwick, 2012). Both found that humanities scholars rely heavily on colleagues and networks around them for information at the start of their information-seeking process. Similarly, Brockman et al (2005) and Lönnqvist (2007) both found that humanities scholars rely heavily on colleagues and networks around them for information at the start of their information-seeking process. Similarly, Brockman et al (2001) and Watson-Boone (1994) also note the importance of the professional community around the humanities scholars within the research process. Buchanan et al suggests that 'more experienced researchers' rely on colleagues and personal contacts as it provides information about new knowledge 'before they are formally reported' (2005, p.7). Brockman et al (2001) also notes that interdisciplinary networks can also be beneficial to a researcher, as it may provide new insight or resources within a field of study. Resources, such as, emails and mailing lists were mentioned as a way for humanities researchers' to keep up with current research trends within their field (Palmer and Neumann, 2002).

The information-seeking literature also highlights that humanities scholars consult a wide range of sources within their information search process. Brockman et al claims that humanists work with a wide range of material to 'verify ideas or claims' (2001, p.31). Similarly, Buchanan et al (2005) notes that humanities scholars like to verify their sources, ideas, and claims by using tools, such as the Internet. The Internet provides a wide range of material at the humanist's fingertips irrelevant of the distance of materials. Buchanan et al found that the Internet was humanities scholars 'starting point for more specific [search] strategies', asserting that the Internet 'could provide sources for chaining, quotations and checking bibliographic data' (2005, p.223). Therefore, it comes as no surprise that many libraries, journals, museums and archives now provide humanities scholars with digital surrogates for them to consult during their research process. Palmer et al highlights that technology plays a 'consistent' yet 'minor role within process of collecting and examining documentary sources' (2002, p.101). This could be attributed to the fact that humanities scholars

will often use archival or museum artefacts as their primary sources of study. While research is being conducted to improve the service of delivering digital surrogates, it has been highlighted that they are not yet sufficient enough to replace the real thing during research (Barata, 2004; Craig-McFeely, 2008; Conway, 2011).

The information-seeking literature demonstrates that humanities scholars are more akin to Ellis' information-seeking behaviour model. Buchanan et al (2005) found that the humanities scholars would, as Ellis terms, use *chaining* which involved using 'references and citations in known works to find unknown ones' (2005, p.224). This would also be used at the beginning of a humanities scholar's information-seeking process. This method of information-seeking has been identified as a dominant behaviour by other researchers studying the information-seeking behaviours of humanities scholars (Brockman et al., 2001; Green, 2000). Warwick (2012) notes that humanities scholars have less systematic searching behaviours and are more inclined to 'browse for information' (2012, p.3). Sukovic suggests that humanities and social scientists' scholars 'conduct evolving searches' (2008, p.74). Warwick (2012) and Sukovic (2008) both align these information-seeking techniques with Bates's information search strategy, *berry-picking*²³. By associating Bates with Warwick, it is easy to understand why many studies label the information-seeking behaviours of humanities scholars as sporadic (Foster and Ford, 2003; Buchanan et al., 2005). Brockman et al extends this observation and lays the fault with the developers of information retrieval systems by claiming that libraries, in particular, need to do further work to 'assemble information resources in a way that allows for scholars to search across them, rather than digging around' (2001, p.18). This poses a question as to whether or not libraries and archives systems are currently offering scholars, particularly dance researchers, sophisticated searching facilities, that are similar to the Internet, as Brockman et al (2001) is suggesting. A similar provocation at the beginning of this report. Sukovic highlights that 'while scholars need to work in an

²³ Berry Picking refer to when information seekers are extracting information from more than one source for use. The seeker will pick information from various sources to construct and shape their research.

environment that can provide exploration and discovery, they also need a clear understanding of the provenance and quality of information that will become their research data' (2008, p.76). Information sources from libraries, archives and museums can provide clarity to scholars. Sukovic's observations highlight that an information system developed for humanities scholars needs to promote exploration and discovery, but also promote provenance, clarity and validation of its sources if they are to be a useful resource for scholars to work with. Consequently, it seems that Sukovic provides a criterion here which should be considered when analysing the information retrieval systems that exist within the information-seeking process of dance researchers; moreover, when thinking about the development of future information systems for dance researchers.

Overall, studies, such as Barrett (2005a) and Warwick et al (2006) both conclude that humanities scholars do not prefer digital over traditional resources. The findings of the LAIRAH project conducted by Warwick et al (2006) expands on the different types of information research to reveal much about the information-seeking behaviour of humanities scholars. The project report finds that humanities scholars do not favour digital information sources over traditional sources of information, such as, libraries and archives. This is a similar finding throughout the literature of humanities scholars (Tahir et al., 2010). Although, Warwick et al (2006) does highlight the variety of information sources used are extremely wide ranging and hold different properties which benefit the humanities scholar. For instance, the Internet can help to locate information efficiently, but the archive provides the sense of joy and excitement of a tactile object which scholars can immerse themselves in and explore physically. To this point, this physicality of objects has not been replaced by a digital surrogate. Digitization of archive, library and museum artefacts is well underway, and much focus has been on improving the quality of the digital surrogate for the purpose of the researcher (Rimmer et al., 2008). However, the studies presented so far have been based on humanities scholars, and therefore do not provide information into the behaviour of humanities students. Further investigation of the literature can help

us address the difference and similarities between the information-seeking behaviours of students and scholars.

Information sources, both print and electronic, have also been explored within the literature regarding the information-seeking behaviours of humanities students. Barrett's study outlines students use different types of information sources, including 'online journals, OPACs, discipline specific CD-ROMs, Internet search engines and web sites' (2005a, p.326). Liu found that graduate humanities students 'are heavy users of library electronic resources' and are most likely to start their information-seeking process for assignments at an online library resource (2006, p.586). The online library as a starting point could be attributed to the online library having more credible and specific information relating to topics. The information-seeking literature highlighted that a wide range of information sources are highly valued by humanities students, as electronic resources help to eradicate the time and travel costs which they might incur whilst searching for information (Liu, 2006). Barrett's finding means humanities students aligned with wider 'existing undergraduate [information-seeking] models of research' (2005a, p.328). However, Lui (2006) finds that undergraduate humanities students will use the Internet despite noting that it might be unreliable. Both humanities students and scholars have noted primary sources are valuable to their research process. The students in Barrett's study explained that primary sources help to validate their research 'hypothesis and theories' (2005a, p.327). Thus, solidifying the notion that archives and the material they hold are important sources of information.

The information-seeking behaviour of humanities students in higher education has explicitly explored preference for both print and electronic resources. Barrett (2005a) highlights that humanities students (undergraduate and postgraduate) are likely to use a variety of electronic sources within their information-seeking process. This is similar to the information-seeking practices of humanities scholars (Brockman et al., 2001; Buchanan et al., 2005). The literature highlights that there is neither a

preference for a particular kind of resource, but humanities students tend to use a combination of print and electronic resources when completing academic assignments and tasks. Dilevko and Gottlieb (2002), in their survey of undergraduate students, suggest that they are more likely to use a mixture of both print and electronic resources within an academic task in comparison to other undergraduate students in other disciplines. Liu emphasises that undergraduate humanities students are more likely to supplement their 'print resources with online resources' (2006, p.588). Liu highlights that the primary reasons for this is because of the 'the need for current information coverage of materials not published in print and the desire to find complete resources' (2006, p.588). However, there is reason to believe that electronic resources, in particular the Internet, are used by humanities students as a first port of call when searching for information for academic related tasks. Graham and Metaxas (2003) found that humanity students preferred to use the Internet to begin their information-seeking process for academic related tasks. However, this is a limited finding as it is based on only one type of humanities student. The information-seeking literature therefore demonstrates that humanities students' preference is similar to those associated with humanities scholars.

Within the information-seeking behaviours literature, people are considered another important source of information for humanities students. Barrett's study highlighted that most humanity students only learned of different types of information sources from 'supervisors and colleagues', implying that humanity students value academic relationships and networks as a reliable source of information (2005a, p.326). Correspondingly, Liu's (2006) study found that graduate students regarded their lecturers and supervisors as an important source of information. The academic networks which surround both students and scholars are highly regarded as an important information resource. Therefore, we can deem this as a key information-seeking trait for both humanity students and scholars, and might consider if this trait carries through to dance researchers having a similar regard for such networks.

Turning to the information-seeking process of humanities students, like humanities scholars, students followed citations during their search for information. Barrett (2005a) found that citation 'chasing' helped students to deal with information overload. The information was more targeted and they were able to find information closely related to their topic. Little literature is able to suggest this is the same for other types of researchers. The literature review, thus far, has shown that students and scholars in the humanities exhibit very similar information-seeking behaviour. Both are inclined to have a wide range of sources, which they use for searching, including online and offline resources. Both have preference for electronic and print material. However, it appears that humanities students are uncertain about the credibility or reliability of online information. This level of judgment comes with experience as humanities scholars are able to judge the credibility or reliability of sources and make firm decisions about information sources they use.

In terms of offering insights into the information-seeking behaviours of humanities researchers, there appears to be a decade-long gap within the literature concerning both new and old research. This gap raises questions about whether the information-seeking behaviours observed a decade ago among humanities researchers remain valid. The reviewed literature on humanities researchers seems outdated. However, emerging from within the digital humanities sector are smaller investigations focused on the use and development of existing resources, rather than specific user behaviour studies or suggestive developments of information systems that might traditionally have been found within the information-seeking behaviour literature (Kamposiori et al., 2017; Kamposiori, 2018; Bailey-Ross, 2021). Nevertheless, the limited amount of more current scholarship implies that our understanding of the information-seeking behaviours of humanities researchers cannot be dismissed. Thus, the reviewed literature should be considered with caution in the context of this study. Furthermore, the literature on information-seeking behaviour of humanities researchers reviewed helps to guide our thinking into the information-seeking behaviours of dance researchers to a certain extent. It helps to understand that there

may be a consensus between dance students and scholars information-seeking behaviours when exploring information sources used, preferences for digital material and behaviours exhibited like those found for humanities researchers. Moreover, an exploration of the level of experience and how this impacts the information-seeking process should also be considered, as this had a considerable impact on humanities researchers'. These aspects would help shape the future development of online dance archive resources.

2.2.5 Information-seeking behaviours of arts and performing arts researchers

Moving away from humanities researchers, the literature review takes a closer examination of arts' researchers, a discipline closer than most to dance. Approximately twenty years ago, Bates (1996) identified a gap in the information-seeking literature suggesting that performing arts and interdisciplinary researchers' information-seeking behaviours were unexplored. Fast forward twenty years, little progress has been made. Arts researchers are more researched than any other researchers falling under the umbrella of art and performing arts. Cobbledick (1996) was one of the first investigative studies to investigate the information-seeking practice of arts researchers. Cobbledick conducted interviews with four types of artists: a sculptor, a painter, a metalsmith and fibre artist (Cobbledick, 1996). The study found that much like humanities researchers, artists browsed, consulted and used a wide range of information sources in their work. This initial finding is also consistent within more recent literature (Mason and Robinson, 2011; Hemmig, 2008). Cobbledick insinuates that it is the creative process of the art researchers which impacts the information-seeking path they take. Cobbledick concludes that there are five different information needs categories associated with arts researchers: inspiration needs, visual information needs, technical, need for information on current developments and information relating to shows, commissions and sales (Cobbledick, 1996). These five categories mean the information sources arts researchers interact with are far and wide-reaching. For

instance, Cobbledick notes that while the sculptor uses libraries, peers and OPAC to research historical and cultural elements, other arts researchers are using print material, such as books and photographs, live models, and one's own imagination or creation by chance. This relationship between creative task and information-seeking process could align with dance researchers, more specifically dance practitioners. Dance researchers' tasks may be as wide ranging as arts researchers, and thus the information-seeking paths of dance researchers may be just as diverse as those found within Cobbledick's study. Therefore, being able to identify the information needs and tasks of dance researchers is important.

Cobbledick identifies search strategies employed by arts researchers also vary depending on the motive of the research. Cobbledick continually describes arts researchers 'browsing' for information. Browsing is a general search strategy which results in researchers finding a range of multimedia sources of information. Hence why this may be considered as the most productive search strategy by arts researchers, whose research tasks and needs are wide-ranging. Browsing happens, as Cobbledick suggests, only within the library setting or while searching printed material. Alternatively, Cobbledick outlines that arts researchers' information searching strategy within the studio is more of a 'happy accident of serendipitous discovery' (Cobbledick, 1996). Similarly, Littrell implies the reason that arts researchers browse for information is 'because traditional search techniques are text orientated and artists are notorious for using discovery as a primary tool' (2001, p.293). Both the terms 'browsing', and 'discovery' denote that arts researchers tend to find information purely by chance. As we have previously identified, browsing is a key stage within Ellis' and Kuhlthau information-seeking models of both students and scholars. Therefore, the prominence of browsing, exploration and discovery extend further than researchers found within Ellis' and Kuhlthau's sample of researchers, inclusive of arts researchers. Despite the difference of the term, browsing, exploration and discovery, all allow for the researcher to serendipitously search for information which is free and denoted by chance.

Serendipity is a factor in information-seeking literature which can lead to innovation and creativity (Erdelez et al., 2011; Foster and Ellis, 2014; Makri et al., 2014). Serendipity is qualified as the unexpected encounter of the information which may lead to an *aha!* moment, which may lead the researcher to find new insight or valuable information (Makri et al., 2014; Agarwal, 2015; McCay-Peet and Toms, 2015). Various factors affect serendipitous discovery from environmental to personal (Björneborn, 2017; Heinström and Sormunen, 2020). It has also been noted that serendipity discovery is a particular behaviour attributed to the creative research processes and thus development of digital tools should involve understanding how the tools can be help research achieve discovery of new information (Makri and Warwick, 2010; Makri et al., 2014; Agarwal, 2015; McCay-Peet and Toms, 2015; Heinström and Sormunen, 2020). However, Tredinnick and Laybats (2022) suggests opportunities for enhancing serendipitous discovery can be had through further development of information retrieval systems. Some developments to information retrieval systems could include an increase in hypertext, as well as developing resource description frameworks or entity-relationship models to show related context which the user may not be familiar with. Serendipitous discovery is reported to be widely experienced among interdisciplinary researchers (Foster and Ford, 2003). With this in mind, and the notion that arts researchers' tasks are interdisciplinary in nature, it could be afforded that serendipity features highly within arts researchers' information-seeking processes. Whether or not serendipitous discovery is attributed to dance researchers remains to be seen. However, as with arts researchers, it may be assumed that dance researchers follow suit. This should be considered further when exploring information-seeking behaviours of dance researchers.

Similar to the humanities researchers, the literature exploring arts researchers outlined people as an essential information source (Cobbledick, 1996). From using live models as a source of inspiration to draw from, to consulting colleagues and manufactures for technical information. It appears as though consultation of people,

colleagues or professional networks is an information-seeking trait no matter the background of the researcher. From sciences to the humanities, including the arts, researchers appear to consult with people within their professional environment. Therefore, it is only natural to assume that dance researchers would fall into this category as well. However, to be able to qualify this finding with evidence from dance researchers, it would be beneficial to undertake further research.

Print materials were considered a 'predominant' source of information in Cobbedick's study (1996, p.361). However, it has been noted that in recent years, and due to the introduction of the Internet, there has been a change in the types of information sources used by arts researchers. Mason and Robinson noted that 'the internet is integral to their [artists] information access and communication, and is, more often than not, the first resource consulted' (Mason and Robinson, 2011). This does not mean that arts researchers do not use print material now, but both resources are heavily relied upon by arts researchers. However, one limitation to Cobbedick's study is that it does not investigate the information searching strategies employed by the artistic researcher. The study only focuses on the needs and sources of information which are identified and used by the artistic researcher. This limitation does not help in being able to comment on or inform the development of future online dance archive resources. Therefore, investigating dance researchers' preference for print or the Internet, as well as search strategies employed should be further explored within our study. If dance researchers search strategies are not identified, then we are unable to provide recommendations on the development of online dance archive resources.

Within the information-seeking literature, there are only a handful of studies which investigate performing arts researchers. Medaille states that there has been 'a lesser amount of research' (2010, p.329) on the information-seeking behaviours of theatre scholars, while Robinson notes there is little known about the practices of 'dancers and their research needs' (2016, p.779). However, far more scholarship investigates

theatre scholars and students, than dance researchers. Khan (1994) notes that theatre artists were seen to have a problem with information from libraries. It seems that the structure of the library systems was unfamiliar to researchers. Therefore, Khan (1994) notes a tension between the theatre artists and the library as a source of information. However, this study does not identify the information-seeking process of theatre researchers; yet it does highlight that information systems and research should look into the creativity and information-seeking process and practices of theatre professionals.

Medaille's study (2010) provides the most detailed account of the information-seeking process of theatre professionals. Medaille found theatre artists 'conduct extensive research using a variety of sources' (2010, p.334). Here, parallels can be drawn to the information-seeking process of humanities scholars and students. It appears both humanities researchers and theatre professionals draw on information sources that are wide ranging. Similar to humanities researchers, theatre professionals search for information which is interdisciplinary. Medaille notes that theatre artists' research projects are wide-ranging in subject matter. For example, Medaille notes that 'a director's research includes studies of culture, history, performance style, criticism and foreign languages' whereas a 'designer may conduct research into history, culture, art, image, fashion and building materials' (2010, p.334). Moreover, this highlights a direct correlation between the task and the information-seeking process. Additionally, Medaille identified people as an important source of information, both 'personal contacts and professional networks' (2010, p.339) were regularly used by theatre artists. This study highlighted theatre researchers, like humanities researchers, similarly regard people as a valuable source of information.

Mayer (2015) investigated the researcher needs and information-seeking behaviours of performing arts students with regards to library services. Mayer interviewed 30 university level students studying theatre, music and dance. Mayer's study aimed to

identify the information-seeking behaviours of performing arts students and the role of the library service within this process. Mayer concluded that dance students, in particular, noted that research took place practically in their bodies rather than a theoretical exploration through books or journals. Across the study, all performing arts students identified that the first source of information they turned to was the Internet (Mayer, 2015). This demonstrates how the information-seeking behaviours of performing artists differs from that within the humanities. Humanities students and scholars preferred to start with library online resources or speaking to colleagues, alternatively all performing arts students and scholars begin their information-seeking process with a survey of the Internet. However, Mayer also revealed that although the Internet was heavily relied upon, performing arts students used it with caution. Mayer found that the performing arts students and especially dance students were confused and frustrated about the 'credibility' of sources (Mayer, 2015, p.421). Some even extended their argument to suggest that information sources used online were often 'unreliable' because of the uncertainty regarding its credibility (Mayer, 2015, p.423). However, Mayer's study does not fully investigate how performing arts students are evaluating the information they find. Therefore, understanding the uncertainty around the information credibility remains unexplored.

Mayer concluded that performing arts students outlined four types of information needs with regards to the improvement of library services; more multimedia sources, primary and interdisciplinary information sources, assist effective search strategies and help with understanding how to leverage information from online sources. Although these are specific to library services, it does outline key components about the information behaviour of performing arts students. These findings were similar to that of arts researchers in Cobbley's study (1996). The need for primary and interdisciplinary sources is similar to those found within the humanities and artist students (Stone, 1982; Lönnqvist, 2007; Warwick, 2012; Cobbley, 1996; Brockman et al., 2001). Thus, demonstrating how wide ranging the performing arts students

research projects and information-seeking needs extend. Students in Mayer's study felt that their search strategies were not very effective both online and within the library resources. Mayer (2015) highlighted that students only found material for use within online environments through both serendipitous discovery and browsing, similar to that of arts researchers found within Coddledick's study (1996). This section has explored those disciplines which neighbour dance, however, do not explicitly explore dance researchers as their main focus. This literature review will move onto explore existing literature which include or are exclusively regarding dance researchers.

2.2.6 Information-seeking behaviours of dance researchers

Within the information-seeking literature there are very few examples of studies concerning dance researchers exclusively (Grattino, 1996; Robinson, 2016). In the early 1990s, Grattino's MA thesis began to shed some light on the information-seeking behaviours of dance researchers. Since 2016, Robinson's study continued with this investigation into one type of dance researcher. However, both studies only investigate dance faculty and exclude dance students from the investigation. Grattino (1996) surveyed a range of dance professionals including faculty, students, administrators and freelance dancers. They found that the main source of information for dance professionals was their colleagues; a similar finding to that of humanities and performing arts students and scholars (Watson-Boone, 1994; Buchanan et al., 2005; Barrett, 2005a; Liu, 2006; Lönnqvist, 2007; Mayer, 2015). Grattino also highlighted other sources of information such as 'books, videos, professional journals, and recorded music' as sources most used by dance professionals (1996, p.26). The least used information source were online references. However, it should be noted that Grattino's study was conducted in the late 1990s when computers and the Internet were less likely to be freely available for people to use; scholars found very little use for the internet during this period. Therefore,

consulting more recent literature would help to understand if these are still the only sources used by dance researchers today.

More recently, Robinson (2016) has attempted to fill this literature gap. Robinson's study (2016) investigated the research behaviours of dance faculty²⁴ members and their use of the library services. Robinson (2016) noted limiting factors to the study, both the sample size and sample geographical location; suggesting 'generalisations' about dance scholars cannot be made from the study. However, Robinson found that the dance faculty tended to categorise themselves as either a 'text-based scholar' or 'performance artists' (2016, p.782). Consequently, these two types of dance faculty members carry out research differently. Similarly, as seen in neighbouring disciplines, Robinson (2016) found that dance faculty engage in a diverse range of research topics. While Robinson's study does not explicitly explore the use or need of information, it does infer how information is searched and applied in a range of projects. Robinson (2016) found performance-based research ranges from identity, politics and gender, to sexuality and religion, while text-based research often centred around subjects pertaining to history, politics, criticism, movement and popular culture. Despite this snippet of information concerning needs of the dance faculty, a considerable amount of attention is still needed to understand the needs of dance researchers further and to include dance students into the equation.

Robinson (2016) indirectly outlines the diversity of information sources used by the dance faculty during their information-seeking process. Robinson highlighted that dance faculty members used books (print/digital), journals (print/digital), live performances, professional networks, company websites, audio and visual content resources (physical/digital). The diverse range of sources are similar to that found within other studies, those that have explored other performing arts researchers

²⁴ Faculty members include professors, associate professors, adjunct associates, lecturers, PhD and MFA students.

(Mayer, 2015; Medaille, 2010; Cobbledick, 1996). Robinson's exploration of format preferences also allows for an understanding towards choice of information source to be indirectly made clearer. Robinson found that the dance faculty tended to shy away from digital library interfaces that are not particularly 'user-friendly' or aesthetically pleasing (2016, p.785). Although no further information about which digital library resources participants are referring to was given, it does highlight two key factors which affect the choices made by the dance faculty; physical appearance and user experience. Unfortunately, Robinson does not further probe this finding. Therefore, additional research is needed to understand whether this is a common trend among all dance researchers. Additionally, further exploration is needed to identify and understand the online information preferences of dance scholars and students. This would, in turn, lead to a thorough understanding of future developments of online archive resources that could further accommodate dance researcher preferences. By accommodating for dance researcher's preferences within the development of future online dance archive resources, dance researchers are more likely to use the online archival resource. Moreover, increasing awareness and visibility of the dance archives and increasing visitor (physical and digital) numbers.

Robinson questioned participants on format preference of video and music. Video and audio were highlighted as two important sources of information used by dance faculty members. Robinson concluded that all participants accessed and used video and music either digitally or online (2016). Robinson noted YouTube as 'their primary source for finding videos' (2016, p.785). However, some participants stated 'impermanence', 'copyright infractions', lack of quality and content hindered their use of YouTube videos (2016, p.786). However, it appears that the ease of access to video material, on sites like YouTube, outweighed the negative attributes when it comes to using them for research and teaching purposes. Furthermore, research into the preference of sites, like YouTube, by dance researchers has potential for further exploration. Preference for accessing music was divided within Robinson's study

(2016); half using iTunes and the other using CDs or live musicians. Robinson's findings on preferences of materials was extremely dependent on the research project. Thus, conclusions on preferences on audio and visual material lack conviction.

Among the dance faculty, within Robinson's study (2016), there was a unanimous preference for online access to sources of information. Dance faculty all agreed that they would like to see greater access to all types of resources. A finding which contradicts earlier studies (Cobbledick, 1996; Grattino, 1996). Robinson suggested that the 'the Internet has driven this desire for online access' (2016, p.788). Similar to literature already reviewed, the impact and advancement of technology, particularly the Internet, has had on researchers and given rise to an increase in information-on-demand fuelled culture (Weiler, 2005; George et al., 2006; Kibirige and DePalo, 2000). Therefore, unlike humanists', the dance faculty are increasingly wanting more online access due to the nature of their research. Whether this want for increased online access to information resources extends to dance students remains unexplored. Robinson qualified why dance faculties want more online access, including: travel – highlighting the need for remote access to material – time – not having time to go to the library or archive – and cost – the expense of travelling to view resources. A new finding highlighted by Robinson's study was that participants wanted 'archives of choreographers to be more readily available' (2016, p.788). This significant finding adds to the notion that archives are not visible online to dance faculty and improvements are needed regarding their online presence. While Robinson's study focused primarily on the role of the library, the findings demonstrated a significant need for dance archive resources to become digital too. A finding which no other study has yet to highlight. Robinson's study (2016) does indicate a want for online dance archive material by the dance faculty, whether this extends to all dance researchers remains to be seen and should be further explored. Additionally, the finding highlights that there is potential for further use of dance archives by dance researchers within their information-seeking process. Thus,

understanding dance researchers' awareness, interaction and use of dance archives (either online and offline) would significantly help towards shaping the development of online dance archives resources in the future.

The search strategies found to be employed by the dance faculty were similar to those used by arts' scholars. Robinson identified that dance faculty preferred to 'browse or discover new information' (2016, p.787). Robinson's participants explained that current search tools do not allow for them to browse or discover new information; divulging that specificity was the key to finding information. As previously noted within the literature review, the concept of serendipitous discovery of information is a trait of interdisciplinary researchers. Seemingly Robinson's study highlights dance faculty members follow the same trend. Contrary to previous studies outlined within this literature review, Robinson noted that only one dance faculty member preferred a 'google search' for finding information (2016, p.788). This finding remained unexplored within Robinson's study. Yet, it would be useful to qualify if this is a shared preference for dance researchers, seeing as Robinson's sample size was relatively small in comparison with other studies.

Browsing seems to be a common trait of dance archive users. Whatley and Davies address browsing as a feature of dance archive users during the collaborative creation of a digital dance archive project; *RePlay* (Siobhan Davis, 2021). Whatley and Davies suggest that users (particularly dance practitioners) of dance archives may wish to use *RePlay* as a place of discovery, as such they built *RePlay* accordingly (Whatley, 2013). Although *RePlay* now sits obsolete, *RePlay* had various inbuilt features, such as, single search box, 'scrapbooks' and 'kitchens' that allowed the user to discover their own search journeys through the archive (Whatley, 2013). *RePlay* was built in a way that was similar to the choreographic process of a dance practitioner. For Davies and Whatley, 'the user would be able to 'peel open' the choreography and access all the many layers of construction to see how the dance develops from research to rehearsal to final work' (Whatley, 2013, p.99). Similar in

nature to that exhibited in the dance heritage coalition's dance archive, *RePlay* was able to demonstrate the choreographic work from creation to audience reception. The kitchens and scrapbooks allowed users to engage, collate and interact with archive material in a variety of ways. *RePlay* allowed users to browse collections and related material often leading to serendipitous discoveries about related or unrelated material. However, Whatley talks in general about dance archive users, therefore we can only assume that dance researchers fall into this generalisation. Yet, it is evident from both Robinson's study that browsing is an important element attributed to the dance faculty. However, further study is needed to qualify whether or not dance researchers follow suit of the general dance archive user of Whatley's project (2013, 2017) or dance faculty within the Robinson's study (2016).

Overall the information-seeking literature does not provide a full understanding of the information-seeking process of dance researchers in which to help underpin the development of future online dance archive resources. Robinson (2016) and Mayer's (2015) studies into the dance faculty are a starting point for the field. However, with both studies limited by their sample, generalities regarding information-seeking behaviours of dance researchers cannot be inferred. Therefore, this thesis asks: *how do dance researchers seek information and how does this inform the development of future online dance archive resources?* This question is denoted as research question 1 (RQ1), forms the first part of the central research question (CRQ) within this project. The CRQ within this research project asks: *How can the information-seeking processes of dance researchers, and the working practice and landscape of dance archivists', inform the development of future online dance archive resources.* Thus, it is clear to see how RQ1 subsequently derives from the first part of the CRQ. Moreover, becoming phase one of the research project presented within this thesis.

Phase one of the project aims to fill the gap in the literature by providing a comprehensive investigation of the information-seeking behaviours of dance researchers within the United Kingdom (UK) and Northern Ireland (NI). The literature,

so far, has suggested that dance researchers' information-seeking needs may dictate the information-seeking processes, sources and strategies employed. However, it has demonstrated that if dance researchers' projects are as interdisciplinary as other researchers, then browsing and serendipitous discovery may feature highly within their information-seeking process. However, the literature remains inconclusive and potentially outdated in its understanding of which information sources and preferences dance researchers use. Therefore, this thesis will look towards filling this gap in the literature and investigate the dance researchers' information-seeking behaviours through identifying the information-seeking needs, sources and strategies employed. Additionally, when trying to understand how user behaviour may impact the development of online dance archive resources, it is paramount to understand how dance archives are currently being used by dance researchers. This detailed exploration of dance researchers' information-seeking behaviours, inclusive of their use of dance archives, will help provide the dance archive community with an understanding of their users and help to plan for the development of future online dance archive resources.

The literature review has also shown that dance archives tend to be overlooked within wider archive discussions due to their size and scope in comparison to other archives within the sector. This literature review demonstrated that the granularity of data collected within the wider archive sector does not go far enough as to include smaller archives, such as dance. Thus, a detailed understanding of dance archives is lacking; making it difficult to gauge a comprehensive understanding of the dance archive landscape. The literature review, however, has shown how different in use, access and development dance archives may be in comparison to other archive disciplines. Therefore, further investigation into dance archives would significantly help toward their understanding and recognition further. This thesis aims to fill the gap in the literature on dance archives and provide commentary on the dance archive sector by exploring the extent, content and use of dance archive collections within the UK and NI. In doing so, it will help to provide an overview of dance archives in the

UK and NI, to further understand the challenges and restrictions they face when considering future developments of online dance archive resources. Henceforth, the second research question, RQ2, guides the exploration by asking: *How might the working practices of dance archivists affect and be affected by the development of future online dance archive resources?* Just like RQ1, RQ2 derives sequentially from the CRQ and underpins the second phase of the project.

It is important to be able to provide a shared space in which both dance archivists and dance researchers are able to be in direct dialogue with one another in order to find a way forward in developing dance archive resources. Moreover, any future development of dance archive resources affect both dance archivists and dance researchers. Across this literature review, this dialogue has not been carried out. Previous studies have had a tendency to distance users from those who create information systems or for those communities in which to manage the information systems being created. Therefore, by creating a dialogue between both dance researchers and dance archivists, using a qualitative methodology, this thesis will be creating new conversations to the benefit of both dance archives and dance researchers alike. Having worked across both sectors, dance research and archives, it has been apparent that creating a dialogue between these two communities on dance archives' development can be unproductive. Both communities consult the future development from their own perspectives. Therefore, this thesis aims to consult and work with the two communities separately and position their discussions concerning the future of dance archive resources alongside one another. To find a path forward, this will be carried out in the third and final phase of the project. The final phase of the project brings together the findings and discussion from both dance researcher and dance archivists to seek answers to research question 3, RQ3: *How can this all inform the creation of future online dance archive resources?* The prospect of phase three will mean that both user (dance researchers) and creator (dance archivists) are accommodated for when understanding how the sector can develop

future online dance archive resources, potentially increasing awareness and use of dance archives overall but also satisfy the dance researchers' quest for information.

Chapter 3 Research Methodology

This chapter explores the research paradigm, methodological approach, and ethical considerations which shaped this thesis. Furthermore, the chapter identifies and provides justification for the data collection methods and analysis techniques employed. The research project explores how to bring two polarised communities together to enhance the development of future online dance archive resources. Within the thesis, so far, we have been able to identify that further research is needed into the practice and landscape of dance archives and the information-seeking processes of dance researchers. In turn, this will help to establish a way forward for the development of future online dance archive resources. Thus, the central research question (CRQ) underpinning this research project is: How can the information-seeking processes of dance researchers, and the working practices and landscape of dance archivists, inform the development of future online dance archive resources? The central research question is separated into three research sub-questions, which guide this research project: (RQ1) *How do dance researchers seek information and how can dance archive resources fit into their information-seeking processes?* (RQ2) *How might the working practices of dance archivists affect and be affected by the development of future online dance archive resources?* (RQ3) *How can this all inform the creation of future online dance archive resources?*

Subsequently, this chapter aims to outline the methodological approach taken within this project and how these three subsequent sub-questions help to frame the different phases of the project. From the outset and based on a review of the literature, it was important to involve both dance archivists and dance researchers in the development of future online dance archive resources, as both are affected by any new changes and developments possibly required. It is paramount that dance archivists help to develop, implement, and maintain any new online dance archive

resources, while dance researchers, as we have seen, are the primary users of dance archives. Therefore, involvement of the two communities is pivotal to the methodological approach taken within this project. Consequently, the choice of methodological approach is driven by creating a discursive interaction between both dance archivists and dance researchers, generating a conversation that has been lacking in previous studies.

The most apparent methodological choices for bringing together both dance researchers and dance archivists in conversation with one another would be action research or participatory action research. Action research situates itself within real-world problems and seeks to find common solutions. As a methodology, it is often cyclic in nature and is used to bring about change and improvement in real-world situations (Lewin, 1948; McNiff, 2013). Action research relies on an iterative process of planning, action, observation, and reflection. It is regarded as a reflective practice through which researchers, individuals or organisations can affect change (Costello, 2003). Action research, as Rowley suggests, 'depends upon a collaborative problem-solving relationship between the researcher and the client with the aim of both solving the problem and generating new knowledge' (2004, p.212). Thus, this research project similarly aims to bring together both groups to solve the problem of the stagnate development of online dance archive resources.

Alternatively, participatory action research (PAR) was also considered as an adequate methodology for this research project. Similarly, PAR achieves its goal through a 'cyclical process of exploration, knowledge construction and action at different moments throughout the research process' (McIntyre, 2008, p.1). PAR adopts a more collaborative approach towards working with the communities to find a resolution, whilst also being reflective on the research process, an aspect which action research does not achieve until the end of the process. Within PAR there is an emphasis on the 'participation' rather than the 'involvement' of those working to find a solution or action with regards to a problem (McTaggart, 1997). Participants' voices take

centre-stage within PAR and are used to aid the decision-making process, alongside the insights of the researcher. This contrasts with action research, where the researcher directs the project, reflecting and interacting with the communities taking part.

As action research and PAR are dependent on their subjects being in direct conversation with one another to form some sort of action for change, both are seemingly a suitable choice for this research project. However, as previous researchers have observed, when dance researchers and dance archivists are brought together in the context of conferences, workshops or study days, conversations are generally unproductive towards, in particular with regards to identifying common approaches for the transition to the digital realm. Therefore, action research and PAR were dismissed as research methodologies for this project, as it rests within the realm of exploration, which may potentially affect change but does not seek to initiate or test any action.

Based on the above observations, an alternative collaborative approach needed to be identified for bringing dance researchers and dance archivists together. To encourage a direct dialogue between these groups, the study implemented a qualitative approach to understanding the information behaviours patterns in depth, as well as the landscape and practices of dance archivists, with the aim of identifying a common approach to the development of future online dance archive resources. A qualitative approach helped to understand the two schools of thought affected by any future online development and acted as a collaborative approach to finding a solution, similar to that found within any action or PAR research approach. Over a sustained period of time, the project could therefore play a role in producing an action research study on influencing digital change within the sector, which could affect the development of the digital infrastructure of dance collections. However, for now, the project adopts a qualitative approach and first aims to understand how the information-seeking processes of dance researchers and dance archival working

practices are affected, and may be affected, by the development of future online dance archive resources.

This research project focuses on questioning the information-seeking processes of dance researchers, and practices or landscape of dance archivists, to reflectively understand the direction needed for the development of future online dance archive resources. It is this questioning and reflective practice which sees the research working from a phenomenological paradigm. Phenomenological exploration is understood to be a 'primarily philosophic method for questioning', typically derived from 'lived experiences of human existence' (Van Manen, 2014, p.29). It is often seen as not only a research method, but also a way of thinking, which underpins an approach to research design. As a methodological approach, it 'allows for the unearthing of phenomena from the perspective of how people interpret and attribute meaning to their existence' (Frechette et al., 2020, p.1). There are several branches of phenomenological thought that underpin the philosophy. Yet, this thesis focuses on the teachings and thinking of three predominant theorists. The three strands differ by way of thinking about how the person(s) are affected by (descriptive) or affect the 'lifeworld' around them (interpretative). The three phenomenological approaches that have been considered are that of Husserl, Heidegger and Merleau-Ponty.

Phenomenology is considered to be split into two parallel ways of thinking: descriptive and Interpretative, added to by Merleau-Ponty's strand. Initially conceived by Husserl (1931, 2014), descriptive phenomenology explores how human beings experience the world around them. Husserl suggests that objects are only perceived in a particular way because of humans' conscious interaction with the world. Moreover, Husserl sets out the notion that humans take the world for granted, until it is disrupted (O'Connor, 2022). Descriptive phenomenology probes the depth of consciousness and how one appears to view or make sense of the world. Husserl's way of thinking is explored through the concepts of epoché, reduction, bracketing,

space and time (Husserl, 1931). However, as a methodological approach, it is important within descriptive phenomenology for the researcher to 'refrain' from influencing participants; thus, this approach must operate by removing all the 'assumptive detritus' (Butler, 2016, p.2035). This is what Husserl described as the epoché.

Reduction is used to strip these influencing assumptions and views from the researcher before observing phenomena within the field. It acts as a reflective practice a researcher can employ to study phenomena. As Van Manen recalls, Husserl's aim was 'to capture experience in its primordial origin or essence, without interpreting, explaining, or theorizing' (Van Manen, 2017, p.775). It is noted that pure descriptive phenomenological approaches to research do not involve reviewing literature, as this may affect the interaction between the researcher and objects of study. Thus, the theorising of the object derives from the research and study of the phenomenon itself.

It is this reduction of theory, interpretation, and explanation, which means that descriptive phenomenology is ill-suited as a working paradigm for this research. While this thesis aims to look at how dance researchers interact with information, it is not the only concern. The study also seeks to investigate the landscape and practices of dance archivists to further understand how the information-seeking processes of dance researchers can be enhanced through the development of online dance archive resources. Much of dance archivists' practices are enshrouded by theoretical underpinnings often out of their control. Therefore, descriptive phenomenology would be unsuitable for such an endeavour, as seeking to understand archival theory would distract from understanding the working practices of dance archivists. Nevertheless, it would aid an understanding of the information-seeking processes of dance researchers. Alternatively, exploring the interpretative strand of phenomenology may help to further define the research paradigm underpinning this research project.

Interpretative phenomenology comes from the writings of Heidegger. Heideggerian phenomenology insists that the 'understanding of individuals cannot occur in isolation of their culture, social context or historical period in which they live' (Wojnar and Swanson, 2007, p.174). If Husserl's phenomenology looked at the 'what' in human experience, then Heidegger looked at the 'how' or 'why' of human experience. Heidegger suggested that lived experience exists under layers of *vergessenheit*, or forgetfulness (Gorner, 2007). The idea of interpretative phenomenology is to be able to find a way to uncover the experience of the phenomena encased within these layers (Frechette et al., 2020). This is achieved through a circular investigative process. Conventionally, the interpretative paradigm is naturally linked to that of phenomenology, as the researcher seeks to 'systematically gather information on a particular phenomenon from the perspective of insiders' (Lapan et al., 2012, p.6). The 'interpretive process is circular, moving back-and-forth between the whole and its parts, and between the investigators' forestructure of understanding and what was learnt by the investigation (Wojnar and Swanson, 2007, p.174). It is this reflective analysis which provides the research with a phenomenological standpoint and lends a reflective questioning quality to the research design.

Interpretative phenomenology is premised on the idea that researchers and participants come with their own perspectives which need to be carefully understood or negated in order to 'cogenerate an understanding of the phenomenon being studied' (Wojnar and Swanson, 2007, p.175). This may be more commonly played out within action or PAR research methods, where the researcher is part of the research, influencing change. All agendas and contexts would play a significant role in the action produced. However, in part, this study looks to uncover the interaction between the dance researcher and the dance archive. It must therefore consider what preconceived ideas each has about the other in order to be able to unpack and move past them to develop future online dance archive resources. Consequently, interpretative phenomenology does serve this study more so than descriptive. It

serves as a reminder to be reflective in understanding how the phenomena is being studied, information-seeking behaviour of dance researchers and the practice and landscape of dance archivists, may have a significant impact on participants' awareness, use, and interaction with the dance archive. Therefore, the Heideggerian interpretative phenomenological approach to studying dance researchers and dance archivists plays a subservient role within this research project.

Alternatively, Merleau-Ponty offered an approach which considers a phenomenological approach derived from human behaviour. Merleau-Ponty built on the work of both Husserl and Heidegger, to suggest that 'human behaviour cannot be defined without reference to meaning and consciousness' (Matthews, 2006, p.73). Unlike the work of behaviourists, such as neurological and psychological sciences, Merleau-Ponty suggested that human behaviour is not separate from embodied meaning; rather, he asserted that behind every action, whether purposeful or reflexive, is a meaning or conscious response. Consequently, Matthews summarises Merleau-Ponty approach by suggesting that:

'Living animals [inclusive of humans] of all kinds behave in meaningful ways, because living organisms, as such, have needs and disinterests, and so purpose for their movements...Human beings use language and other forms of symbolism: they can therefore give explicit expression to the meaning which their actions have for them. This means that the purpose behind human behaviour can be more complex, differentiated and individual' (Matthews, 2006, p.75)

Similarly, this thesis stems from a phenomenological approach most akin to Merleau-Ponty, in that it aims to study the information-seeking behaviours of dance researchers and practices of dance archivists to investigate the real-world development of online dance archive resources. Reflectively, as demonstrated within the literature review, dance researchers' awareness and use of dance archives is almost non-existent. Therefore, if dance archives are to work towards the future

development of online dance archive resources, an investigation of dance researchers' information-seeking behaviours should be conducted.

The study aims to go beyond identifying the information-seeking actions of dance researchers by incorporating an exploration of the thoughts and feelings that accompany their actions, all of which can help feed into the development of future online dance archives. Subsequently, this process could aid in developing a more nuanced understanding of why dance researchers are not aware of dance archives and could thus lead to change within the sector.

The thesis offers an informed approach to increasing awareness and use of dance archives. Similarly, the study aims to investigate how dance archivists' practices and their environment can affect, and be affected, by the development of future online dance archive resources. The investigation into dance archivists' working landscape reveals much in the way of the constraints that impact their ability to develop online dance archive materials for users' access and consumption. In resonance with this point, Merleau-Ponty's work encourages us to reflect on how humans interact with or create dance archive, to identify nuances or patterns of behaviour where improvements or developments can be made for the benefit of dance archive access and use.

A phenomenological paradigm focuses on being able to 'understand and explain human and social reality' (Crotty, 2014, p.66). Qualitative research methods enable this exploration, as they help the researcher to understand why certain behaviours have been exhibited by participants. In essence, they help provide the reasoning behind the phenomena under study. This study worked to consult both dance researchers and dance archivists separately, positioning their separate discussions alongside one another, to explore the transition into the digital realm. Thus, the thesis aimed to provide insider knowledge and perspectives on how they engage, view, construct or behave when it comes to dance archives and wider information

sources. The purpose of this was to provide commentary on the development of future online dance archive resources. The choice to carry out a qualitative research project meant that both users (dance researchers) and creators (dance archivists) were consulted, and accommodated for, when seeking to understand how the sector can develop future online dance archive resources.

Research on information-seeking behaviours characteristically falls under the interpretative research domain, aiming to produce 'an understanding of the context of information systems, and the process whereby the information system influences and is influenced by its context' (Howcroft and Trauth, 2005, p.83). Within information science, as Trauth notes, 'interpretivism is the lens most frequently influencing the choice of qualitative methods' (2000, p.7). As such, working from within the information studies realm, this study also chose to use qualitative methods and tools to provide a rich understanding of the information-seeking processes of dance researchers, as well as the working practices of dance archivists. Dance researchers have widely employed qualitative methods, as they enable participants to explain actions and choices in relation to their information-seeking behaviours (Pickard, 2007). Similarly, qualitative methods were coupled with quantitative methods to survey and contextualise the working landscape of dance archives across the UK. Overall, this led to improved reflections on the actions, thoughts and feelings of dance researchers, which were analysed and used to provide commentary on how dance researchers would like to see online dance archives accommodate their needs and preferences. Moreover, it also led to new insights from the UK-based dance archive community on their practices and the landscape in which they work, constructing, developing and advocating for dance archives both online and offline.

It is not unusual for qualitative methodologies to take a bottom-up approach 'known as induction', whereby, 'the qualitative researcher collects evidence and uses it to develop an explanation of events, to establish a theory based on the phenomena' (Gorman and Clayton, 2005, p.7). Unlike the quantitative researcher, the qualitative

researcher can be more flexible in their approach to studying an event or phenomenon (Gorman and Clayton, 2005, p.7), but that is not to say that qualitative research is 'amorphous or without distinct features and boundaries' (Gorman and Clayton, 2005, p.7). The qualitative researcher 'allows the [research] design to emerge as the study progresses' (Pickard, 2007, p.16). Working within the realms of qualitative methodology allows the research to adopt a progressive and evolving nature to studying its subject.

Similarly, this study took an evolutionary phased approach with regards to its research design. Initially, the project took a four-phased approach, as seen in Figure 3-1. However, within a month of launching phase one of the project, the UK went into lockdown and both the archive sector and dance researcher community moved somewhat offline, becoming hard to reach. The research collection of phases one and two were significantly impacted, and all data collection schedules had to be amended accordingly. As a result, the research project was condensed into three phases, which can be seen in Figure 3-2. The arrows within the diagram reveal how each phase feeds into the next, thus demonstrating the progressive nature of the study. The research project begins with phase one, focusing on dance researchers; phase two, focusing on dance archive professionals; and phase three, which draws from the findings of phase one and phase two to theoretically analyse the possibilities of future developments for online archive resources.

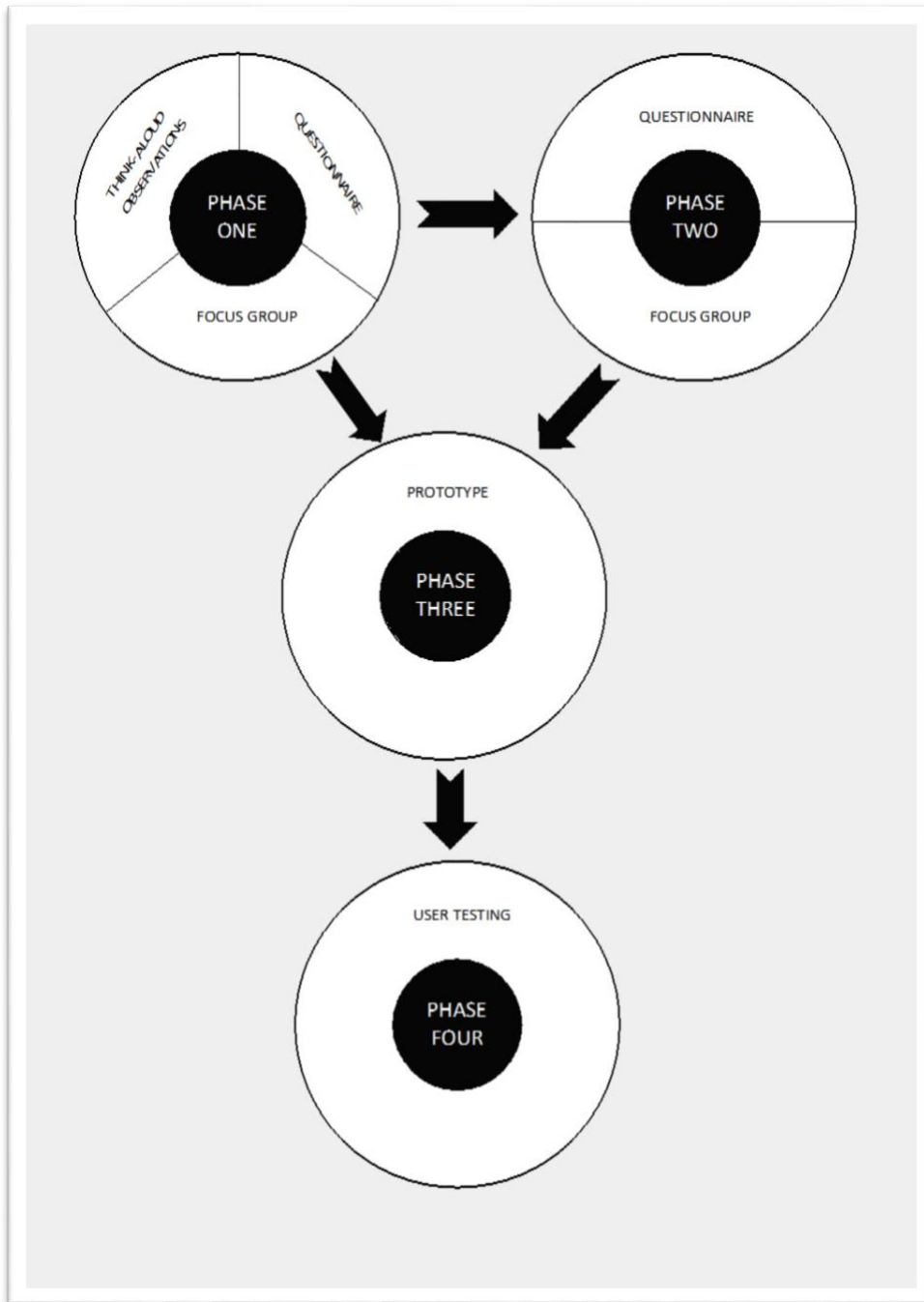


Figure 3-1 Original research methodology in diagrammatical form.

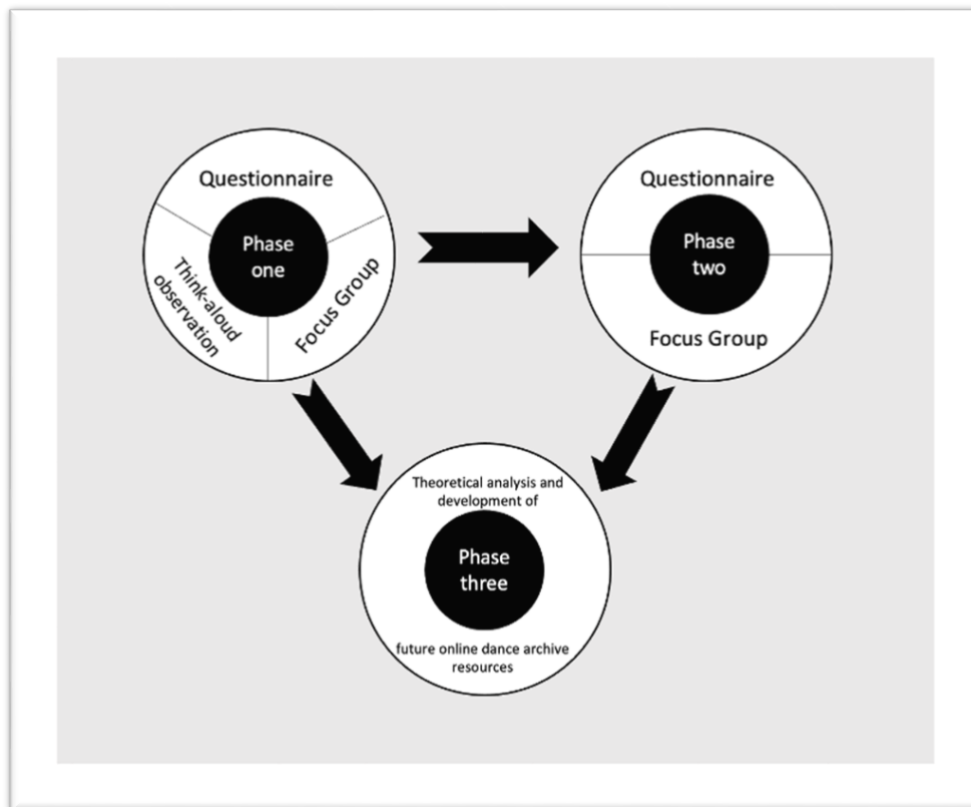


Figure 3-2 Amended research methodology in diagrammatical form.

Phase one of the research aimed to identify and understand the information-seeking behaviours of dance researchers. The information behaviour literature has shown how important it is to understand the context, needs, and preferences of users when developing information systems for resources. When approaching the development of future online dance archive resources, initially there needs to be ‘an understanding of the human-information interaction of their intended users’ (Fidel and Pejtersen, 2004, p.2). Therefore, the subsequent research question underpinning phase one was: RQ1. *how do dance researchers seek information and how can dance archive resources inform their information-seeking processes?* This was the first research sub-question, as outlined earlier in this chapter. As identified within the literature review, understanding how dance researchers seek information and their use of dance archives is imperative when developing online dance archive resources that accommodate their needs, actions and preferences. The existing literature does not

go far enough in helping to understand the information-seeking behaviours of dance researchers. By examining their behaviours in more depth, in phase one of this study, it was hoped that it would be able to provide guidance on how dance archivists should approach future developments related to online resources, increasing user awareness and usage. In turn, this research would fulfil an important gap in the literature. This is not just needed by dance archivists but also professionals working on the development of information systems and services aimed at dance researchers more widely. The aim of phase one was to identify the consistent patterns of behaviour exhibited by dance researchers when searching for information. The research not only focused on their behaviours, but also the thoughts and feelings which accompanied those actions. This was investigated to reveal why dance researchers exhibited certain behaviours. Consequently, both Chapter 4 and Chapter 5 encapsulate phase one of the project, which aimed to provide a comprehensive understanding of the information-seeking behaviours of dance researchers.

Phase two of the research project, found in Chapter 6 and Chapter 7 of this thesis, subsequently aimed to investigate the working practices and landscape of dance archivists in the UK. Whilst it is important to understand the information-seeking behaviours of dance researchers, it is also vital to examine the working landscape and practices of dance archivists. As we have seen within the literature, working practices are often neglected because of how niche they are considered. Therefore, more research is needed on the scope of the dance archive landscape and how dance archivists' practices may differ to those also within the archive sector more widely. Therefore, a subsequent research sub-question within phase two became: *RQ2. How might the practices of dance archivists affect and be affected by the development of future online dance archive resources?* As such, phase two aimed to examine the landscape in which dance archives exist and to investigate dance archivists' practices, thus allowing us to understand how their practices may or may not be affected by the development of any future online dance archive resources. As seen in the literature review, minimal research has been conducted into dance archive

professionals, dance archives, and dance archive users. Thereby, the second phase of this project aimed to investigate how the background and training of dance archivists may affect the content or development of dance archives, the scope of dance archives, and the contents that are made available for dance researchers to understand how dance archivists perceive their users. Similarly, the parameters for phase two focused specifically on dance archives within the United Kingdom (UK) and Northern Ireland (NI), coinciding with the boundaries set for the investigation of dance researchers.

3.1 Impact of the Covid-19 Pandemic

Initially, this research project had set out to analyse the findings within phase one and two and create a prototype of a new online dance archive resource, as can be seen within Figure 3-1. Thus, a fourth phase would have taken this prototype back to dance researchers and dance archivists for user testing. It was thought that this would have provided the field with a first practical look at a future online dance archive resource for the benefit of both dance archives and dance archive users. However, the initial research methodology had to be revised due to the onset of a global pandemic.

Within one month of launching phase one of the project, the World Health Organization declared a global pandemic in response to the outbreak of Coronavirus (COVID-19), simultaneously, the UK government declared a national lockdown (World Health Organisation, 2020; Johnson, 2020). This meant that organisations and institutions nationwide were closed. Slowly, organisations and institutions began to migrate to a virtual space of communication, teaching and providing online services to users. Both the archive sector and dance researchers became hard to engage with. Dance researchers were seamlessly hidden behind virtual institution walls during their time teaching, studying and researching. The dance archivists were, like many

other sectors, furloughed²⁵, meaning members of staff were unable to carry out their work because of the closure to their workplace. In effect, the archive sector was closed to the public for many months, as many archivists on furlough were restricted by the organisation, from answering emails or conducting business as usual, yet were still paid a proportion or all their income. With the world of communication becoming increasingly virtual the pandemic saw information overload through virtual means of communication which significantly impacted the recruitment of participants, as explained later in this chapter. All of these factors significantly impacted phases one and two of the research project. The research methodology and data collection schedules therefore had to be amended accordingly.

Accordingly, the original phases, three and four of the research project, were unattainable within the timeframe and restraints of a doctoral research project during a global pandemic. Therefore, no prototype was to be built and no user testing would be carried out. The final phase of this project became a theoretical analysis of the development of future online dance archive resources. The amended research methodology can be seen in diagrammatical form in Figure 3-2. Phase three of the research project culminated in reviewing the findings from both phase one with dance researchers and phase two with dance archive professionals. The final phase of the research project became an amalgamation of findings to inform the development of future online dance archive resources. Phase three, found within Chapter 8 of this thesis, explored both the dance researchers' information-seeking behaviours and dance archivists' practice to find a path forward for the future development of online dance archive resources. This chapter will continue to explore how this research methodology was conducted. It shall explore the recruitment of participants, as well as the qualitative methods adopted to carry out this research.

²⁵ Furlough refers to the UK government's Coronavirus Retention Scheme – a scheme which mean workers may take a temporary absence of work but ensures 'workers in any part of the UK can retain their job, even if their employer cannot afford to pay them' allowing workers to keep their job while the coronavirus (COVID-19) pandemic continued (Sunak, 2020).

Further details of the effect the global pandemic had on the research project will be explored over the course of this chapter.

3.2 Research Samples

Purposeful sampling, as Creswell outlines, refers to ‘a group of people that can best inform the researcher about the research problem under examination’ (2013, p.147). As we have mentioned, the purpose of the research was to understand how the information-seeking processes of dance researchers, and the working practice and landscape of dance archivists’, can help to inform the development of future online dance archive resources. The two different groups of people under examination within this study were: dance researchers and dance archivists.

To ensure a representative sample of dance researchers was acquired, the Higher Education Statistics Agency (HESA) datasets were utilised to understand the scope of dance researchers within the UK and Northern Ireland. HESA’s datasets revealed that, in the academic year 2018/2019, there were a total of 567 academics with dance listed as their primary discipline. Additionally, there were 4,004 dance students in higher education across the UK and Northern Ireland, comprising 3,417 undergraduates and 587 postgraduates (Higher education Statistical Agency, 2018b, 2018a)²⁶. Therefore, HESA’s statistics offer a baseline for identifying a representative sample of dance researchers within the UK and Northern Ireland, encompassing at least 10% of each type of researcher within the study to be fully representative of the sample of dance researchers.

Prior to this research study, the extent to which archives within the UK and Northern Ireland housed dance-related collections or materials was unclear. To address this gap and contextualise the sample of dance archivists needed for the study, a UK

²⁶ This data was acquired through an information request to Higher Education Statistics Agency in 2018.

dance archive collection database was compiled. Information for this database was gathered from publicly available online sources, with the UK Theatre Collections Database (Association of Performing Arts Collections, 2009) serving as the initial foundation. The dataset compiled details archives across the UK which hold dance, or dance-related, collections, material or items. It provides details on the archive name, geographical location. In addition, it surveys the archives catalogue both online and offline, detailing whether catalogues can be found online or offline and which software the archive has used to produce the catalogue. This information was gathered both from publicly information and further investigated through corresponding with the archives via email. Moreover, the dataset provides a link to the search tool provided by the archive online which users can use to search the archive for information, lists metadata and interface affordances and outlines particular collections, material or items related to dance which can be found from such a search tool²⁷. The subsequent development and extension of this list revealed that over sixty archives within the UK and Northern Ireland contain dance-related collections or materials. This newly compiled database provided a statistical understanding of dance archives that had previously been unavailable. Furthermore, it facilitated an informed decision regarding the recruitment pool of dance archivists for the study. The UK and Northern Ireland dance archive collections database is now available in the UCL repository for future research purposes (Johnstone, 2024).

To ensure a purposeful sample of both dance researchers and dance archivists was included in the study, criteria were developed. The creation of these criteria helped to further delineate the group of individuals under investigation. Consequently, two different sets of criteria were established to define the participant samples in phase one and phase two of this research project. The literature review highlighted that dance students and academics had been the primary user of dance archives.

²⁷ A basic search for words such as ‘dance’ or ‘performance’ were used to locate material relating to dance within the archive searching facilities. This forms the listed dance, or dance-related collections value within the dataset.

Therefore, the criterion for phase one was drawn accordingly. However, upon closer inspection, dance students as a category was too broad and did not reflect the differences that may appear between students at different levels within higher education. This category needed further consideration. When referring to dance students within this study, we were referring to undergraduate, postgraduate (taught) and postgraduate (research) students studying dance within a Higher Education Institute (HEI) setting. Dance students were defined by the level of study as it was thought this may help to find differing patterns of information-seeking behaviour between the various types of dance students recruited. Consequently, dance students were categorised as either undergraduate or postgraduate (both taught and research). By splitting the dance students into these categories, it enabled us to analyse the information-seeking behaviours exhibited between the different student levels, as well as analysing them collectively. Resultantly, the sample criterion for phase one required participants to be either: *an undergraduate, a postgraduate (taught or research) dance student in HEI, or an academic researcher whose research primarily lay within the field of dance*. These categories ensured dance students and academics of differing levels were able to participate within the study. For the remainder of this study, dance students and academics are collectively termed as dance researchers, unless stated otherwise.

The second criterion drawn for the recruitment of participants within phase two of the study was simplistic, in that it aimed to engage with archive professionals working with dance collections, or within a dance archive. The study recognised that the role of the archivist may be different within various organisations and institutions and tried to accommodate for these differentiations by using the collective term 'archive professionals' within the development of the recruitment criteria. Therefore, professional within this study includes those who work to care for dance archive material or collections regardless of their job title. For instance, archive professionals may include part-time archivists, assistant archivists, record keepers or collection managers. Therefore, by asking for a sample of archive professionals, it included

those working within dance archives to come forward and participate within the study. As such, the criterion for dance archive professionals included: *any archive professionals working within a dance specific archive or with dance specific collections or material within the parameters of the UK and NI*. The criterion was kept broad in the hope that the study could gain the support and interest from a range of institutions from across the UK and NI despite the ambiguous terming of their role within the archive.

The recruitment of dance researchers and dance archivists was dependent on participants being recruited through self-identification; meaning that the sample was random. E-flyers were generated which included details of how participants could identify themselves (see Appendix A for e-flyers used). Previous cross-disciplinary studies have outlined the effectiveness of social media for recruitment of smaller populations (Baltar and Brunet, 2012; Andrews, 2012; Gelinas et al., 2017). To recruit participants, this study took a similar approach and published the E-flyer on social media platforms to engage dance researchers and dance archive professionals from across the UK and NI (both of which can be seen in the Appendix A.3 and Appendix A.5). Social media was used to recruit participants for all aspects of this study: the online questionnaire, focus groups, and think-aloud observations. E-flyers were circulated across a plethora of online platforms including various social media platforms, such as Facebook, Twitter and Instagram. Social media posts were distributed every week from the researcher's personal account. Various organisations associated with both the dance researchers and archivists were tagged, and as a result, the tweets were retweeted gaining a wider audience reception. One Dance UK²⁸ provided space on their website to advertise for participants for the research project. The posting was also distributed across their social media platforms. Social media recruitment worked relatively well in gaining participants from both the

²⁸ One dance UK are an online dance sector organisation who 'support' and 'advocate' dance research, performances, education, health and wellbeing, and opportunities (One Dance UK, 2020). One Dance UK is a central hub for the dance sector within the UK.

archive and researcher community. Moreover, the same E-flyers were distributed via email to HEIs across the UK where a dance programme could be identified. Primarily using UCAS, One Dance UK and other high education websites, the dataset of HEI admin, head of departments and programme leaders were compiled. Subsequently, the distributors within HEI were asked to circulate the E-flyer to both students and staff within departments and across dance programmes and dance departments. Accumulatively, these avenues were all helpful in the recruitment of dance researchers participants, particularly dance students.

To engage with dance academics and dance archive professionals, JiscMail was employed to recruit these specific communities. JiscMail is an 'email discussion list for the UK education and research communities'; an online resource for engaging with an online academic community (JISC, 2000). The response from mailing lists were known to be a useful tool in targeting the main communication streams of dance academics and archive professionals (Johnstone, 2017, u.p; Courage and Harvell, 2013; Taylor and Jensen, 2018). Therefore, E-flyers and emails were sent through various mailing lists attributed to dance and performing arts research and archive community mailing lists. JiscMail emails were distributed once every two weeks in the hope to recruit participants. Again, JiscMail worked relatively well in gaining participants from both the archive and researcher community.

During the recruitment of participants for the focus groups, as previously noted, the pandemic began and the UK went into a national lockdown with many professions and sectors furloughed. At the point of participant recruitment, and during the launch of the online questionnaires, archivists began to be furloughed and were told they were not allowed to monitor or answer archive emails. Therefore, participants uptake within the research study was slow within an extremely niche sample pool. As a result, the number of dance archive professionals answering the online questionnaire was noticeably lower than expected. The study had 17 participants take part in the online questionnaire in total and 5 participants in the archivists focus

group. The sample of dance archive professionals span only those within the south and south east. Therefore, further scope for research should be consider in understanding whether the thoughts, opinions and experiences shared within this study extend to a wider sample of dance archivists across the UK and NI. Additionally, HEIs communities were hidden behind online walls, as the HEI transitioned to online learning. HEIs email streams and social media streams became saturated and pandemic related. Resultantly, the recruitment for dance researchers suffered and thus the participant sample was significantly smaller than was expected. The dance researcher online questionnaire had 46 participants in total, and 5 participants taking part in both the online focus group and online think-aloud study. The sample of dance researchers crosses all four categories of dance researchers: UG, PGT, PGR and DS. A sample which is yet to be study collectively within literature. Nevertheless, the small sample provides a step forward in providing an insight into both dance researchers and dance archivists which had not been seen collaboratively before. Thus, as smaller sample size means that the experiences and opinions of dance researcher expressed within this study is only representative of a limited number of dance researchers within the UK and NI. The study provides room for growth, a foundation in which to further explore the information-seeking processes of dance researchers and working practices dance archivists.

3.3 Ethical Considerations

Ethical considerations related to participants were vital to this study, as both the dance researcher and dance archivist communities are relatively small in size. Due to the nature of the sample size, participants would have been easily recognisable through their contributions to this study. For instance, there are only a small number of dance archives within the UK and NI; if participants discussed specific collections, readers may have been able to identify the participant. Therefore, all data collected within the online questionnaires were anonymised, while all data within the online

focus groups and virtual think-aloud observations were pseudonymised. Additionally, All dance researchers and dance archivists were provided with an information sheet and consent form prior to the online questionnaire, virtual focus groups and virtual think-aloud observations, to ethically obtain consent for their participation (see, Appendix B Appendix C, Appendix E and Appendix H).

Pseudonymisation of participants was implemented across the online focus groups and think-aloud observations, ensuring identities were not compromised whilst allowing findings to be analysed. A coding system was devised which assigned a unique ID code to each participant. The ID code was an acronym based on the type of dance researcher or archive professional. For example, participants were assigned either UG (undergraduate dance student), PG (postgraduate dance student), or DS (dance scholar), followed by a number starting from 1. The ID codes helped to keep the dance researchers' identities anonymous but allowed the data to be analysed accordingly. A similar coding system was adopted for archive professionals, ensuring anonymity throughout the focus groups transcription and analysis, and assigning a number after the word 'archivists'. The findings of the study were analysed by category, then cross-analysed to observe overarching patterns and themes related to behaviours and practices. For instance, dance researchers' behaviour patterns were analysed by level of study and also collectively, by comparing across the sample. The measures taken to ensure the research was conducted ethically were approved by University College London's Ethics Committee (ethics application number: 15717/001).

3.4 Qualitative Research Methods

A qualitative research methodology was adopted to further understand the practices of dance archivists and information-seeking processes of dance researchers. As a result, three qualitative research methods were used across this study to gather and investigate the information-seeking processes of dance researchers and working

practices of dance archive professionals: online questionnaires, focus groups and think-aloud observations.

3.4.1 Online Questionnaires

Qualitative research tends to shy away from questionnaires as a research method, as it is thought to produce quantitative data (Kaplan and Duchon, 1988). However, questionnaires, as Pickard suggests, enable a researcher to 'reach a large and geographically dispersed community at low cost' (2007, p.207). Therefore, questionnaire design is paramount in qualitative research, as questionnaires have the potential to unearth descriptive information from participants about their experiences or practices. Different types of questions can be combined to produce different types of data. Closed questions²⁹ tend to produce quantifiable data and can be helpful for a researcher to gain consensus on a topic among a particular population. Open-ended questions are qualitative, whereby participants can provide a 'more detailed or personal response' to a topic (Pickard, 2007, p.219). Similarly, this study adopted an approach whereby closed questions, such as dichotomous, multiple dichotomous or rank order, were supplemented with open-ended questions to provide an understanding of a participant's choice. Thus, this made the online questionnaire more qualitative in its exploration of both the information-seeking processes of dance researchers and the working practice of dance archivists.

Online questionnaires offer the researcher a virtual gateway to engage with dispersed communities (Gunter et al., 2002). Conducting questionnaires online can benefit the participant and researcher. By conducting questionnaires in the virtual world, the 'absence of an interviewer tends to free the respondents to answer... more honestly' and can also guarantee participant anonymity (Ritter and Sue, 2007, p.8). Online questionnaires also allow participants to partake in their own time and at their

²⁹ Closed questions offer participants pre-assigned categories from which to select according to which best aligns with their views (Pickard, 2007).

own pace, leading to an increased response rate (Nulty, 2008; Manzo and Burke, 2012). Therefore, all questionnaires were conducted online to reach a wider and more dispersed participant sample across the UK. The online questionnaires were constructed using a software ethically approved by UCL: Opinio. Opinio generated a link to the online questionnaire, which was then distributed via social media, websites and email, similar to the distribution of participant recruitment adverts, as outlined above.

Online questionnaires were used in phases one and two to provide a substantial overview of the information-seeking behaviours of dance researchers, and the practices of dance archivists, as demonstrated in Figure 3-2. The online questionnaires in phases one and two were used in one of two ways: to develop focus points for and to contextualise the findings of the focus groups used later within the study. At the start of the online questionnaire, a set of screening questions was used to ensure that participants fulfilled the purposeful sample criteria. Additionally, at the end of the questionnaire, participants were asked if they would like to partake in the subsequent focus group, with the hope that this would increase participant recruitment. Although the response from dance researchers on the final question was low, it became a useful tool for the recruitment of archivists.

The online questionnaire for phase one focused on surveying dance researchers and their understanding of their own information-seeking behaviours. The online questionnaire offered a way to understand how dance researchers understood their own information-seeking practices. The online questionnaire results were analysed in accordance with the online focus group and virtual think-aloud observations to investigate whether dance researchers understand their own information-seeking practices, and whether this concurs with their searching behaviours when seeking information online, offline, and within archives.

Although the information behaviour literature has stated to delineate efficient information systems generally, this thesis specifically seeks to understand the thoughts, choices and actions behind the information-seeking behaviours of dance researchers. Therefore, the online questionnaire in phase one aimed to investigate three different areas of information-seeking behaviours: information needs and processes, search strategies and sources, and the role of the archive within dance researchers' information-seeking processes. The literature reviewed in Chapter 2 of this thesis suggested that dance researchers' information-seeking needs may dictate the information-seeking processes, sources and strategies employed. Therefore, by exploring the information needs that drive dance researchers' information-seeking processes, the questionnaire sought to understand why certain searching behaviours are being used and exhibited by dance researchers before being further probed within the focus group and virtual think-aloud observations.

Additionally, current scholarship has not developed a full or up-to-date understanding of surrounding information sources or the preferences of dance researchers. Thus, it was vital to explore dance researchers' understanding of which sources and strategies they use and apply during their information-seeking processes in a digital age, to provide a significant contribution to existing literature. Moreover, one of the most important explorations of phase one, and particularly the last section of the online questionnaire, came from the lack of understanding regarding dance researchers' engagement with dance archives (online and offline). Thus, framing the last section of the online questionnaire, the online focus group helped to inform any future developments of online dance archive resources.

These areas helped to offer a preliminary mapping of the routes, actions and thoughts taken by dance researchers when searching for information during a research project. Overall, the online questionnaire in phase one was employed to provide a baseline understanding of the information-seeking behaviour patterns of dance researchers. However, it should be noted that the online questionnaire would

only provide an understanding of how dance researchers perceive their information-seeking processes and interactions with the archive. Thus, a comparison with insights gained from the online focus group and virtual think-aloud observations was needed to understand if the dance researchers' perceived information-seeking behaviours were congruent with their actual information-seeking behaviours. Moreover, the online questionnaire conducted with dance researchers provided key areas for further investigation in phase one's online focus group and helped with the design of the virtual think-aloud observations.

The online questionnaire in phase two of the study, driven by the limited literature on dance archives, aimed to further investigate the working practices of dance archivists within the UK. Therefore, the online questionnaire in phase two aimed to marginally satisfy the gap within the literature by investigating three areas of interest: the practices of dance archive professionals, dance archives, and users of dance archives. These three areas aimed to help understand dance archivists and their approach to archiving, archives and their contents, and dance archives' understanding and engagement with their users. Moreover, it aimed to provide an understanding of how archives may or may not be affected by the future development of an online archive resource. Quantitative data produced from the online questionnaires were analysed for key trends and patterns, while the more qualitative data were thematically analysed to provide insights on both the information-seeking processes of dance researchers and the working practices of dance archivists. Despite the pandemic and the effect this had on the online questionnaires in both phases one and two, both were completed by a moderate participant sample, thus enabling this study to form a surface-level understanding of both dance researchers' information-seeking processes and the working practices of dance archive professionals. In turn, this provided key areas worthy of further investigation in the focus groups.

3.4.2 Virtual Focus Groups

Qualitative research typically uses focus groups as a method to gather opinions and to gain an in-depth understanding of participants' attitudes, perspectives and experiences on a particular topic (Gorman and Clayton, 2005; Krueger and Casey, 2009). Additionally, focus groups are said to offer the researcher a means of collecting a large set of data in a short period of time and at low cost (Gorman and Clayton, 2005; Bethlehem and Biffignandi, 2012). The focus groups were conducted to gain a more in-depth understanding of the information-seeking behaviours of dance researchers and working practices of dance archivists within the UK. The insights gained were explored in tandem with the quantitative responses within the online questionnaires.

The focus group conducted with dance researchers in phase one aimed to expand on the findings of the online questionnaire to further understand the information-seeking trends and patterns of dance researchers. It aimed to adopt a similar structure to the online questionnaires and focused on three areas of interest: information needs and processes, search strategies and sources, and the role of the archive within dance researchers' information-seeking processes. However, the primary concern for the focus group discussion was to understand dance researchers' awareness, engagement and interaction with dance archives, a vital aspect which may have remained undisclosed within the online questionnaire if participants had not interacted with archives before. The findings from the online questionnaires and focus group in phase one aimed to provide a comprehensive understanding of how dance researchers understood their own information-seeking processes and relationship with dance archives. Insights from the questionnaires and focus group discussion were compared and analysed in conjunction with the think-aloud observations later within phase one, thus providing a comprehensive method of identifying and understanding the information-seeking behaviours of dance researchers and a base for the future development of online dance archive resources.

The focus group in phase two similarly aimed to further investigate the practices and experiences of dance archive professionals and the archives they engaged with. Comparatively, the focus group aimed to investigate three aspects of the dance archive landscape: the archivists, the archive, and their users. The focus group aimed to understand and challenge current archival practices and to facilitate discussions concerning archive users, with a particular focus on dance archivists who were transitioning to the digital realm. The focus group attempted to create a collective dance archive discussion, and innovative approach that has not been integrated into previous research.

When designing a focus group, it is commonplace to have small groups of around 6-10 participants (Morgan, 1996; Greenbaum, 1998; Gorman and Clayton, 2005; Krueger and Casey, 2009). It is suggested that 'smaller groups allow for a greater contribution from each individual participant' (Bender and Ewbank, 1994, p.65). Krueger and Casey highlight that 'the accepted rule-of-thumb is to plan three or four focus groups with each type or category' (2009, p.21). Initially, this study aimed for each focus group to consist of 6-10 participants, lasting between 1-2 hours, which is consistent with existing scholarship (Morgan, 1996; Greenbaum, 1998; Gorman and Clayton, 2005; Krueger and Casey, 2009; Hennink, 2011; Taylor, 2016). Three focus groups were proposed for phase one to reflect the dance researcher categories: 1) dance academics/scholars, 2) undergraduate dance students and 3) postgraduate dance students. By separating the dance researchers into these categories, it was hoped that this would allow for a cross-examination of the findings by level of study. However, as a result of the pandemic, it was difficult to recruit dance researchers within HEI, as mentioned, and thus the participant sample size reflected this. Moreover, the focus groups were initially planned to take place in-person at University College London, within the information studies department . However, with the burgeoning pandemic and restrictions still in place, at the height of the research, the focus groups had to become virtual. Thus, all focus groups within this

study took place via Zoom, an online platform which facilitates peer-to-peer audio and visual calls, meetings and conferencing (Zoom Video Communications, 2023).

Virtual focus groups were carried out in both phases one and two of this study to complement the findings of the online questionnaire. Phase one's virtual focus group was conducted with five dance researchers: two undergraduate dance students (one at the beginning and the other at the end of their undergraduate course), and three dance academics. All dance researchers were from different HEIs across the UK. This study had intended to include postgraduate dance students, but unfortunately, the willing postgraduate participants did not attend on the day of the virtual focus group, thus bringing the sample size down further. Although this study had attempted to ensure that every dance researcher category had a voice, this was not possible. Therefore, with the absence of the postgraduate experience and small participant numbers, the study was limited, in that it could not comment widely on the experiences of dance researchers. Assumptions can only be made through interpretation of the online questionnaire and virtual focus group data. However, there is scope in the future to extend this study to include postgraduate dance students, as well as a larger population of dance researchers from across the UK.

Similarly, the virtual focus group in phase two initially proposed to have a mixture of dance archivists from across the UK. However, the sample size was affected by the onset of the pandemic and furlough restrictions that were in place. Consequently, phase two's virtual focus group consisted of five dance archivists from dance archives or archives in which dance collections resided within the South of England. It is noted that because of the small sample size, discussions are not representative of all dance archives across the UK and generalisations cannot be made as to whether the experiences and opinions are the same across dance archives within the UK. As a result, this study seeks to provide an initial knowledge base on dance archivists' experiences, which can be built upon in the future to represent the experiences of all dance archivists from across the UK and NI.

It is widely recognised within the literature that focus groups can be constrained by several factors, most of which stem from participants' behaviours (Gibbs, 1997; Greenbaum, 1998; Smithson, 2000; Gorman and Clayton, 2005; Krueger and Casey, 2009; Hennink, 2011). Three main behaviour traits can be identified by participants during focus groups which can stifle discussions: participants wanting to agree with the facilitator, participants dominating discussions, or participants feeling reluctant to contribute (Ritchie et al., 2013). The facilitator plays a vital role in reducing the possibility of these limitations and managing the flow of the discussion (Bender and Ewbank, 1994; Greenbaum, 1998; Gorman and Clayton, 2005). Therefore, the facilitator should be equipped with tools to keep the discussion flowing and 'promote debate' (Gibbs, 1997). For instance, a facilitator can invite reluctant participants to speak, noting down their thoughts or views on the discussion topic (Pickard, 2007).

Bringing the focus groups into the virtual space offered certain advantages and led to me being able to facilitate contributions from participants through the use of the platform's emotive features. At the time of conducting the focus group, Zoom was a somewhat new platform being widely adopted within society, and participants were still familiarising themselves with its capabilities. Before the focus group began, I walked participants through the video conferencing features (Zoom), highlighting features such as how to use the chat, change the gallery view, raise and lower a hand, use various reactions – if and when they agreed or disagreed with a discussion or the sentiments shared – and most importantly, encouraging all participants to stay unmuted throughout the focus group. Additionally, all participants were asked to have their cameras and microphones on to ensure fellow participants could see one another, promote a community space, and encourage discussion. However, some choose to have their microphones muted at different interval throughout the focus group discussion.

If in-person focus groups had been conducted, emotive responses such as gestures and facial expressions may have offered subtle nuances read through body language,

which may have been missed out on in an online setting. However, the use of additional Zoom features brought about a new level of interaction for participants, as they could show emotional responses to certain topics, sentiments, opinions and experiences. Nevertheless, conducting the focus groups online also had its limitations. For instance, participants fell into a pattern of answering the questions in turn rather than being discursive, thus offering a less natural flow of discussion than would have been observed in face-to-face interactions. The virtual focus group was a new premise for most of the participants and the mixture of both students and academics in one discussion meant the discursive dynamic was unusual in the first instance. In phase one's virtual focus group, the undergraduate students were less likely to speak first, unless prompted, while dance academics were poised to give their opinions and share their experiences. However, during phase two's focus group with dance archivists this dynamism was less evident. Participants fell into a pattern of sharing their thoughts, opinions, and experiences at the beginning of the focus group, but as the focus group discussion went on it became more discursive.

Another tool to stimulate focus group discussions is the preparation of a list of guiding questions for the facilitator to have in advance. Typically, guiding questions or topic guides, as noted within the literature, can help to encourage participants to share further details on a particular topic under investigation. Having at least 10-12 open-ended questions, with added guiding questions prepared in advance, can help to facilitate the discussion and prompt participants to explain answers, provide examples and draw from their own experiences. Therefore, this study produced a set of guiding questions to aid the focus group discussions (these can be seen in Appendix F and Appendix G). The guiding questions for each focus group in both phases one and phase two aligned with each phase's main aims and objectives, as previously outlined in this chapter. The topic guides or guiding questions were constructed after the results of the online questionnaires had been analysed, thus enabling a further understanding of the information-seeking processes of dance researchers and working practices of dance archivists.

Across the study, some standardisation was ensured: all virtual focus groups were recorded (visually and audibly) and manually transcribed. It is recommended that focus groups should be video recorded, as it is often hard to differentiate between speakers (Pickard, 2007; Ritchie et al., 2013). Initially, the choice was made to only audio record the focus group, as ?. However, changes made to how the focus groups were conducted, during the pandemic, enhanced how the data were captured. The virtual focus groups could now also be video recorded to the benefit of the research study being conducted during the pandemic. The video and audio recordings meant that I did not have to take notes about body language or key thoughts throughout the investigation.

A thematic analysis of all focus group discussions was completed to highlight key topics, concerns or experiences of dance researchers and archive professionals. The methodology for the thematic analysis of both the focus group transcripts and think-aloud observation transcripts will be discussed later within this chapter. For now, I will set out the purpose and protocol of the think-aloud observations, conducted as part of phase one of the research project.

3.4.3 Virtual Think-Aloud Observations

A think-aloud observation, as Charters explains, 'is a research method in which participants speak aloud any words in their mind as they complete a task' (2003, p.68). Think-aloud observations are typically used within usability studies, to understand how users engage with specific systems or software. However, within this study, the method was adopted to analyse the information-seeking processes that dance researchers undergo during a research project or task related to their research. Branch suggests that researchers looking to understand the phenomena behind information-seeking processes should use think-aloud studies as they 'provide rich data' (2000, p.389).

The think-aloud observations, which were conducted in phase one, aimed to investigate the dance researchers' information-seeking processes, allowing for a more detailed set of data to be collected on the subconscious actions or decisions of users. Foddy implies that social science research has never been very useful in seeking to understand if 'respondents' behaviour is congruent with their attitudes' (1994, p.3). Yet, think-aloud observations may help to bridge this gap, allowing us to observe whether what participants say and do are coherent. The think-aloud observations were compared with the responses within both the virtual focus group and online questionnaires, to understand if dance researchers' behaviours were congruent with their perceived experiences, thus providing a complete understanding of the information-seeking processes of dance researchers. The think-aloud observations used a concurrent as opposed to a retrospective verbalisation, as dance researchers were asked to work on a task while verbalising their thoughts concurrently.

The literature states that tasks chosen for participants in think-aloud observations can have an impact on the outcome. As Charter highlights, 'a task for a think-aloud study needs to be chosen with care, keeping the participants' cognitive abilities in mind' (2003, p.71). Ericsson and Simon (1980) note that demanding tasks can interfere with the verbalisation, but simple tasks may also lead the verbalisation to be untraceable due to the automaticity of the task. In choosing what task participants should carry out within the think-aloud observations, the results of the online questionnaire were reviewed. From this review, it was identified that the range of research work differed greatly. Thus, participants were asked to carry out research work in relation to a task or assignment they were currently working on, or that was typical of their practice as a dance researcher. The decision to let participants choose the task further helped to understand the type of tasks participants would typically undertake as part of their practice, subsequently helping this study to further identify dance researchers' information need. It is anticipated that the tasks participants

chose to do were similar to a wider sample of dance researchers. Thus, the choice of task was contextualised with regards to the responses of both the online questionnaire and virtual focus group.

At the beginning of the think-aloud observation, as is customary, I briefed participants on what the observation required them to do, and supplied participants with an information sheet regarding the process (Ericsson and Simon, 1980; Austin and Delaney, 1998). I also gave them time to ask any further questions before the think-aloud observation started (see Appendix H). Each think-aloud observation took approximately 45-60 minutes each. Therefore, two types of data collection were gathered: screen and audio recording. The screen recording provided data regarding the actions dance researchers carry out online, recording data such as visual cues, keywords and phrases used when searching, mouse clicks and scrolling, and

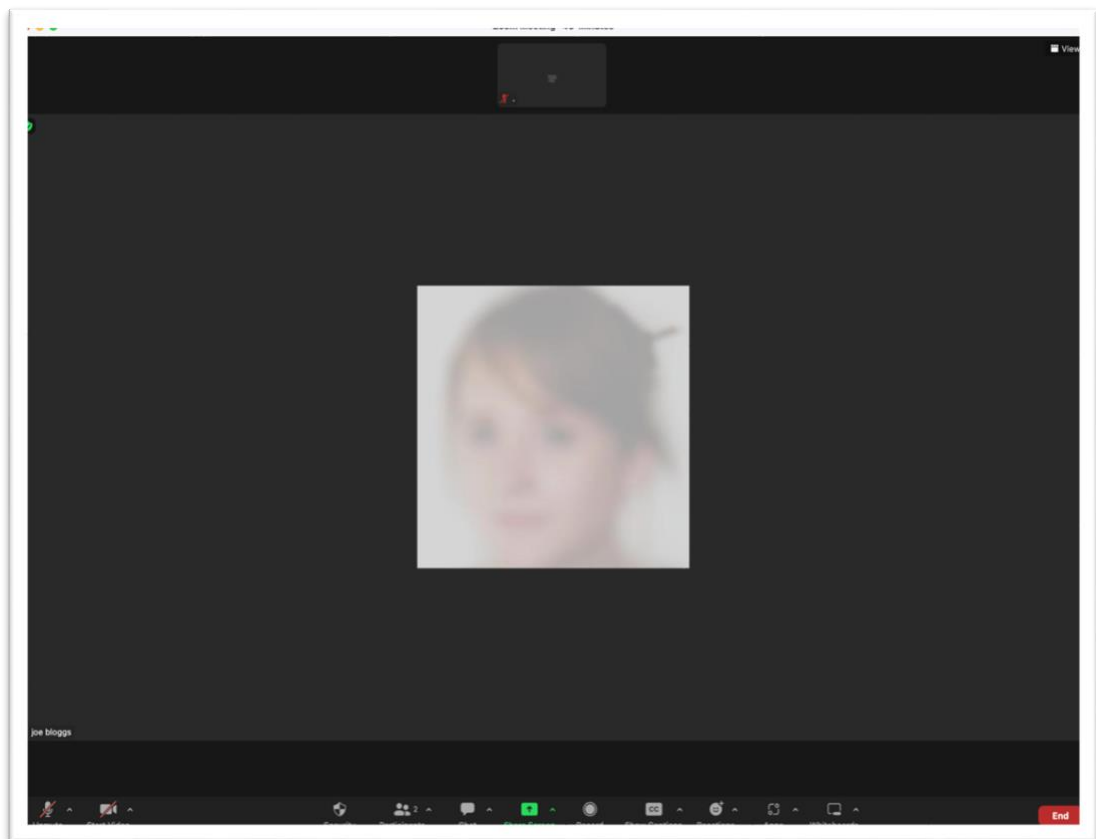


Figure 3-4 Zoom Screenshot - a test screenshot showing a blurred image where a participant's screen would be visible, while the facilitator's screen is at top of Zoom window with camera off.

identification of online sources. The audio recording captured participants' verbalisations as they navigated the task. Both screen and audio recording were captured using Zoom's recording features. By capturing the thoughts and actions alongside one another, a more succinct understanding of the dance researcher's information-seeking behaviours was gained. By conducting visual and audio data collections as part of one method, I was able to identify both the practical and cognitive processes involved in dance researchers' information-seeking process in real-time.

The think-aloud literature suggests that any communication with participants may affect the data gathered (Ericsson and Simon, 1980; Sugirin, 1999; Nielsen et al., 2002; Cooke, 2010). Hence, a facilitator being in the room alongside the participant, to observe and take notes, is a drawback for think-aloud studies, as participants may be aware they are being watched, thus changing their natural behaviour accordingly. Therefore, the move from in-person to virtual benefitted the think-aloud observations within this study. The facilitator's camera could be turned off, meaning participants would see a black box on their screen. This black box would become submerged into the background due to the nature of screen appearance on Zoom (a test image can be seen in Figure 3-4). Furthermore, when participants shared their screens during the think-aloud observations, the facilitator could observe and record their information-seeking processes, as they would only see a black box. The black box of the facilitator's camera could be placed anywhere on the participant's local screen. Most dance researchers used additional workspaces in addition to the desktop on their local computers, meaning Zoom was running in the background

rather than in their main working space. Therefore, the facilitator was seemingly invisible to participants.



Figure 3-5 'Keep Talking' sign used within the think-aloud observations.

Additionally, another point that needs to be attended to with regards to think-aloud observations is ensuring participants verbalise thoughts, actions and experiences throughout the whole observation period. The literature highlights several studies that make use of a 'keep talking' sign to prompt participants to speak without being invasive (Ericsson and Simon, 1980; Sugirin, 1999; Boren and Ramey, 2000; Pontis and Blandford, 2015). For instance, Sugirin raised a 'KEEP TALKING' sign after more than 30 seconds of verbal silence to remind participants to talk (1999, p.3). Boren and Ramsey highlight that the prompt 'should be as short and nondirective as possible', but should not increase participants' 'awareness of the researcher's presence' (2000, p.263). This study adopted a similar method to Sugirin, that is, if participants were silent for more than 30 seconds, then the facilitator would turn their camera on and present a green 'keep talking' sign (as seen in Figure 3-5). The sign was intended to promote verbalisation and increase the amount of data collected. However, across

the think-aloud observations, the sign became redundant due to the successful verbalisation of dance researchers.

Dance researchers, as Robinson (2016) highlights, are generally not just text-based researchers but may also be performance-based researchers. A performance-based researcher may want to use their body as an information source, and their research process may only be carried out in a studio space. The virtual think-aloud observations accommodated this eventuality by asking participants prior to the observations where they would like to carry out their information-seeking task. If participants wanted to use the floor space and their bodies during the task, the facilitator would observe and review the practice by analysing their use of action, space, time and movement dynamics. The aim was to infer how the dance researcher used their body to locate information. Despite this planning, such an approach was not necessary, as all participants chose to conduct their information search using a computer. Thus, participants were asked to share their screen, stay unmuted, whilst the observation was screen-recorded using Zoom's own features. Similar to the virtual focus groups, the audio was transcribed and actions were added to the transcriptions for review by participants.

Prior to the data collection period, the process of conducting think-aloud observations online had never been engaged in. Thus, this research provides a new insight into how think-aloud observations might be carried out in virtual spaces. This study provides a foundation for future research to build upon when conducting virtual think-aloud observations. Therefore, to facilitate this work, I will here provide an insight into the limitations and further provocations of this method.

The first limitation was in relation to using Zoom's screen recording feature. The facilitator turned on the recording feature on Zoom and asked participants to share their screen. Zoom was reliable for capturing the audio and visual material being exhibited by participants. However, screen-recording was limiting as it was often hard

to see actions carried out off screen. For instance, it was difficult for the facilitator to see keyboard shortcuts, mouse clicks or handwritten notes upon transcribing, when analysing the recordings. Therefore, think-aloud studies beyond this research may want to utilise additional computer features and software to accommodate for unseen screen actions. A computer's in-built accessibility features should be explored as they allow for the user to have their keyboard present on screen. The on-screen keyboard shows what keys are being pressed in real-time. Moreover, this would help researchers to capture, analyse and understand unseen offscreen actions, such as, if the users capture information through any shorthand keyboard features such as command+C for copy and Command+V for paste. Additionally, the facilitator should ask participants to send a copy of any notes they have written by hand to cross-examine alongside the think-aloud observation. In the context of this research, some participants had collected handwritten notes; however, these were not analysed as part of the data collected (as they had not been required to be submitted as part of the study).

The virtual think-aloud observations, virtual focus group and online questionnaire in phase one aimed to provide a comprehensive understanding of the information-seeking behaviours of dance researchers, both practically and cognitively. The data collected within phases one and two were transcribed and thematically analysed within phase three of this research project.

This chapter will continue by outlining the process of thematic analysis which was chosen for both the virtual focus groups and think-aloud observations conducted within phases one and two, with the aim of unearthing the information-seeking processes of dance researchers and the working practices of dance archivists.

3.4.4 Thematic Analysis

Thematic analysis was carried out on both the focus group and think-aloud observation transcriptions within both phases one and two of this study. Thematic

analysis offers the researcher a systematic way of ‘identifying, organising and offering insight into patterns of meaning across a set of data’ (Braun and Clarke, 2012, p.57). It is often conducted through various cycles of coding. A code can be a ‘word or short phrase that symbolically assigns summative, salient, essence-capturing, and/or evocative attributes for a portion of language-based or visual data’ (Saldana et al., 2011, p.4). Coding of data can be achieved through the identification of patterns, with particular lenses, filters and angles (Saldana et al., 2011). Coding allows the data to be broken apart and analysed in more depth and for the researcher to closely study a particular phenomenon. The cyclical nature of coding data will lead to categories being formed; from these, themes and concepts can be derived from the data until assertions and theory are finally attributed. This study used thematic coding and analysis to derive patterns of information-seeking behaviours among dance researchers and also to gather a shared understanding of the working practices of dance archivists.

Within this study, thematic coding and analysis was used as a method for analysing the focus group and think-aloud observation transcripts. The focus groups and think-aloud observations were all audio and visually recorded via Zoom and transcribed verbatim. Within the focus group transcriptions of both phases one and two, ellipses (...) were used when there was a pause in the participant’s speech, while square brackets [] were used to highlight social interactions, unheard interactions, and time checks. Furthermore, two forward slashes // were used to show when there was a crossover in speech between participants, and rounded brackets () were used to overlay the topic question guide or to outline the facilitator’s actions within the transcript. Similarly, the think-aloud observation transcriptions used ellipses (...) to indicate when participants paused or hesitated, while non-verbal actions were placed inside square brackets, and actions carried out by the facilitator were in rounded brackets (). Furthermore, *KT* was used to indicate when the ‘keep talking’ sign was used to prompt participants. Verbatim transcripts were produced with minimal cleaning of the data to ensure the full transcript was as revealing as possible; this is

consistent with much of the literature on thematic analysis (Braun and Clarke, 2006; Saldana et al., 2011; Braun and Clarke, 2012).

Qualitative thematic coding and analysis can be carried out in one of two ways. Thematic analysis can either be described as inductive or deductive. Braun and Clarke (2012, p.58) provide a succinct definition of both inductive and deductive coding and analysis:

‘An inductive approach to data coding and analysis is a bottom-up approach and is driven by what is in the data. What this means is that the codes and themes derive from the content of the data themselves – so that what is mapped by the researcher during the analysis closely matches the content of the data. In contrast, a deductive approach to data coding and analysis is a top-down approach, where the researcher brings to the data a series of concepts, ideas, or topics that they use to code and interpret the data’

This study used an inductive approach for both the focus groups and think-aloud observations conducted in phases one and two. Arguably, no single approach can be adopted by a researcher; realistically, researchers always ‘bring something to the data’ when they code and analyse it (Braun and Clarke, 2012). The thematic analysis was driven by the project’s main aim: to understand how the information-seeking processes of dance researchers and the working practices and landscape of dance archivists can help to inform the development of future online dance archive resources. Thus, thematic coding and analysis was used in quite different ways when it came to identifying patterns, themes and experiences within the transcripts.

Literature states that the purpose of any thematic analysis should be to find data relevant to ‘particular research questions’ (Braun and Clarke, 2012). Therefore, the focus group transcription was analysed from phase one, which aimed to find relevant data attributed to the first of the three research sub-questions: *how do dance researchers seek information and how can dance archive resources inform their*

information-seeking processes? This included analysing the transcripts for associated data relating to the information-seeking behaviours of dance researchers and any data that could aid in understanding the relationship between dance researchers and the archive. Similarly, the focus group transcript from phase two was thematically analysed for relevant data in accordance with the second research question: *how might the practices of dance archivists affect and be affected by the development of future online dance archive resources?* The thematic analysis of both the dance researchers' and dance archivists' focus groups underwent several cycles of coding before key codes and categories were consolidated into themes, all of which were further examined and explored within phase three.

The thematic analysis of the think-aloud observations was more deductive in its approach. The purpose of the observations was to exhibit dance researchers' information-seeking processes in action. Therefore, this thematic analysis explored the data collected within the transcripts specifically for patterns and commonalities across the observations relating to dance researchers' information-seeking behaviours, such as specific actions and thoughts. The thematic coding and analysis of the think-aloud observation transcripts followed a similar cyclical process of coding to that of the focus groups. Several cycles of coding allowed for key trends and patterns in behaviour to emerge, which led to assertions that could be made related to the information-seeking behaviours of dance researchers. The findings from the thematic analysis were cross-examined with data from the focus groups to further understand how dance researchers seek information and their relationship with dance archives. By analysing both the think-aloud observations and focus groups side by side, it was possible to gain a more in-depth understanding of whether dance researchers perceived information-seeking processes as congruent with their actual information-seeking processes, thus providing a more solid base for future developments in online archive resources.

Phase three of this study aimed to evaluate the findings of phases one and two and how they may help to inform the development of future online dance archive resources. Consequently, Chapter 8 of this thesis aims to bring the discussions of both dance researchers and dance archivists together into one discursive dialogue – a dialogue which aims to find a way for dance archives to transition into the digital. It seeks to ask what this may look like for each party and how it might be achieved. By placing the findings from both phases one and two alongside each other, a novel discussion was generated.

Phase three aimed to look at possibilities for the development of future dance archive resources. It drew from the needs, expectations and behaviour patterns of dance researchers, and the environments, needs and challenges faced by dance archivists, to provide guidance for the sector on building future online dance archive resources. This phase offered the study an opportunity to reimagine dance archive resources for the future, drawing from dance researchers, dance archivists and the wider context of society. It sought to identify ways for dance archives to transition into the digital realm and create more accommodating and beneficial developments for future online dance archive resources.

The methodological approach that this research has taken has been influenced by various aspects beyond the control of the researcher, from social interactions to pandemics. It has brought about new challenges concerning established qualitative methods, questioned recruitment processes, and has sought to shape new ways of doing research in post-pandemic times.

To summarise, this research project aimed to understand how the information-seeking processes of dance researchers and the working practices and landscape of dance archivists can help to inform the development of future online dance archive resources. The research took a qualitative approach in its efforts to understand both the information-seeking processes of dance researchers and working practices of

dance archivists, as they transition into the digital realm. It worked to create conversations with both communities that had not been voiced publicly before, thus enhancing the understanding of both dance researchers and dance archivists alike.

Previous research had failed to gain a full understanding of the information-seeking behaviours of dance researchers or had a tendency to be solely quantitative in nature. This study aimed to fill this gap and provide the field with a comprehensive qualitative study into dance researchers' information-seeking behaviours. Additionally, this study took a step in the direction of filling the gap within the literature to understand the contextual landscape of dance archives, in which any newly developed online dance archive resource would be placed. These previously unseen conversations between dance researchers and dance archivists thus contribute new knowledge and insights for both academia and industry with particular regards to archives and their users. The conversations engaged in as part of this research hold the potential to impact archives and research alike, as well as the development of future online dance archive resources. By offering such a comprehensive study and seeking to create a previously unseen dialogue between dance researchers and dance archivists, it is hoped that the future development of online dance archive resources will benefit.

Chapter 4 Dance Researchers: Online Questionnaire Analysis

Phase one of this research began with the launch of an online questionnaire for dance researchers. The aim of the questionnaire was to gain a broader understanding of how dance researchers perceived their information-seeking behaviours and to understand their relationship with dance archives. The online questionnaire was used to contextualise the focus group discussions. The results of both interventions were brought together to understand whether dance researchers' perceived understanding of their own information-seeking behaviours was congruent with their actual information-seeking behaviours.

The online questionnaire was split thematically into three sections. Each section investigated a different area of interest regarding the information-seeking behaviours of dance researchers: information needs and processes, search strategies and information sources, and the role of the archive within their information-seeking processes. The questionnaire began with a set of screening questions to determine whether willing participants fitted the recruitment criterion as outlined in Chapter 3. The screening questions included a participant consent form, which can be seen in Appendix C and Appendix D, asking participants if they agreed to take part in the study. Following this came the 'getting to know you questions', which aimed to screen whether participants were dance students within higher education or dance academics within the UK and NI. If not, then participants were thanked for their interest in taking part and the questionnaire ended. Alternatively, if participants fitted the criterion for taking part, then the online questionnaire began.

The first section of the online questionnaire was designed to help understand and identify the information needs of dance researchers. It focused on identifying the purpose, subject matter and task, all of which are pertinent for understanding the

information needs of dance researchers. The information-seeking literature suggests that by understanding the information needs of dance researchers, one can understand various resulting behaviours during their information-seeking process. In total, the online questionnaire was completed by 46 participants: 26 academics working within the field of dance, 8 postgraduate (research) dance students, 6 postgraduate (taught) dance students and 6 undergraduate dance students. Although the number of participants who took part in the online questionnaire was relatively small, combined with the online focus groups and think-aloud observations, it was possible to gain valuable qualitative evidence of information-seeking behaviour trends across a range of dance researchers. Figure 4-1 provides a visualisation of the participants by level of education and the type of dance researcher they described themselves as.

As the literature highlights, dance researchers' information behaviours may be impacted by their research identity. Consequently, the online questionnaire asked participants to identify which type of researcher they believed themselves to be. Within the online questionnaire, 50% of both undergraduate dance students and postgraduate (research) dance students defined themselves as practice-based dance researchers, while 50% of postgraduate (taught) dance students defined themselves as a mixture of text-based and practice-based dance researchers. Most dance academics categorised themselves as text-based dance researchers. To what extent this impacts the way dance researchers search for information will be further explored within this chapter.

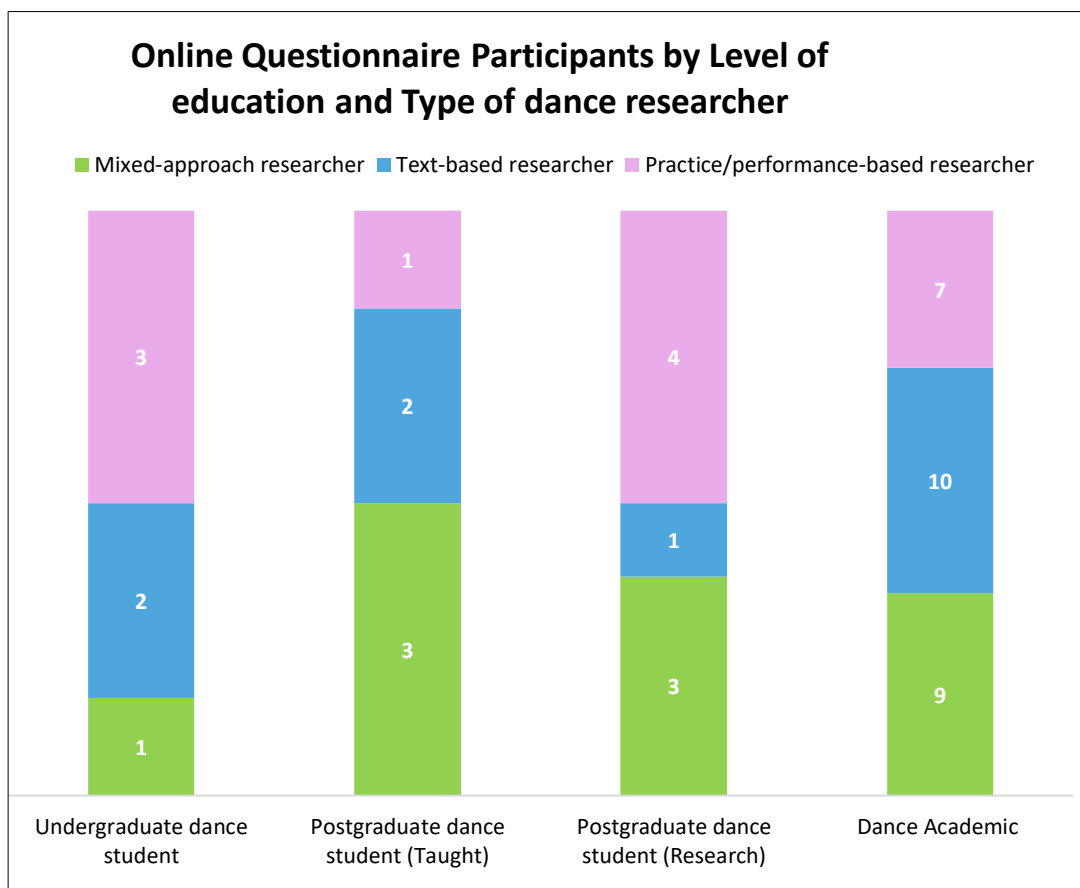


Figure 4-1 Dance researcher demographic by level of education and type of researcher.

The questionnaire first explored the purpose of dance research. Overall, only 21% of dance researchers recorded that the purpose of conducting research was to fulfil a course requirement. Across the other groups, the related figures were 66% of undergraduate dance students, 50% of postgraduate (taught) dance students, 60% of postgraduate (research) dance students, 43% of mixed-approach dance researchers, 40% of practice-based dance researchers, and 26% of text-based researchers. Nonetheless, when exploring the data by type of researcher, it was clear that the purpose of carrying out research was less attributed to a course assignment as the researchers progressed to the upper levels of education in HEI. Thus, when returning to the data, it is evident that there is a clear shift in purpose, concurrent with the level of education, as secondary purposes were identified.

A secondary purpose for carrying out research was described by undergraduate dance students as the development of knowledge. This notion became more prevalent as the education level increased. For instance, 50% of postgraduate (taught) dance students and 66% of postgraduate (research) dance students highlighted knowledge development as their main purpose. Overall, 41% of the surveyed dance researchers suggested the same purpose. However, unlike undergraduate, postgraduate (research) and postgraduate (taught) dance students, dance academics made it clear whose knowledge was being developed.

Although 38% of dance academics indicated they had a desire to contribute towards a growing body of knowledge, which inadvertently would benefit the development of other people's knowledge, 26% of dance academics suggested that the purpose of their research was to develop their own personal knowledge. This indicated that the more advanced in the education system dance researchers are, the more likely their information needs are to be defined by whether they want to contribute new knowledge. For instance, this idea is synonymous with the work of a PhD thesis, whose insights can be carried into an academic career. The dance academic is constantly questioning, researching, studying and thus contributing new knowledge within scholarship; developing both their own knowledge and other's knowledge of a particular topic. As such, the data from this questionnaire clearly demonstrates this point. The pressure on contributing new knowledge may have an impact on the way academic and postgraduate research students might search for, evaluate and use information. A further exploration of why this is the case is not offered here due to space limitations, but the questions and discussions brought forward later in this thesis may help to disclose such understandings.

The online questionnaire moved on to explore the subject matter of the research carried out by dance researchers. This varied greatly from participant to participant. Figure 4-2 provides a Word Cloud visualisation of dance researchers' subject matter.

The Word Cloud shows a range of topics, including choreography, philosophy, anthropology and history. The weight of the words exhibited in Figure 4-2, shows a range of topics studied by dance researchers including, choreography, philosophy, anthropology and history. The weight of the words exhibited in Figure 4-2 shows the dominant topical areas of study, such as choreography, anthropology and philosophy, through to less popular areas of study, such as somatic practice, wellbeing and women in dance. Across all participant responses, there were no fewer than five different subject areas attributed to dance researchers. Cultural studies and anthropology featured high in the list of responses from both undergraduate dance and postgraduate (taught) dance students. Both postgraduate (research) dance students and dance academics noted practice as their primary subject matter for research projects. However, the subject matter of postgraduate (research) dance students and dance academics was wide-ranging. Nonetheless, the exploration of the data as related to the differing types of dance researchers reveals more about the breadth of subject matter undertaken by dance researchers.

The responses from the online questionnaire showed that there was a correlation between the type of dance researcher and research areas studied. For instance, the subject matter of 60% of text-based dance researchers surveyed overtly covered research topics relating to history, science and anthropology, whereas all practice-

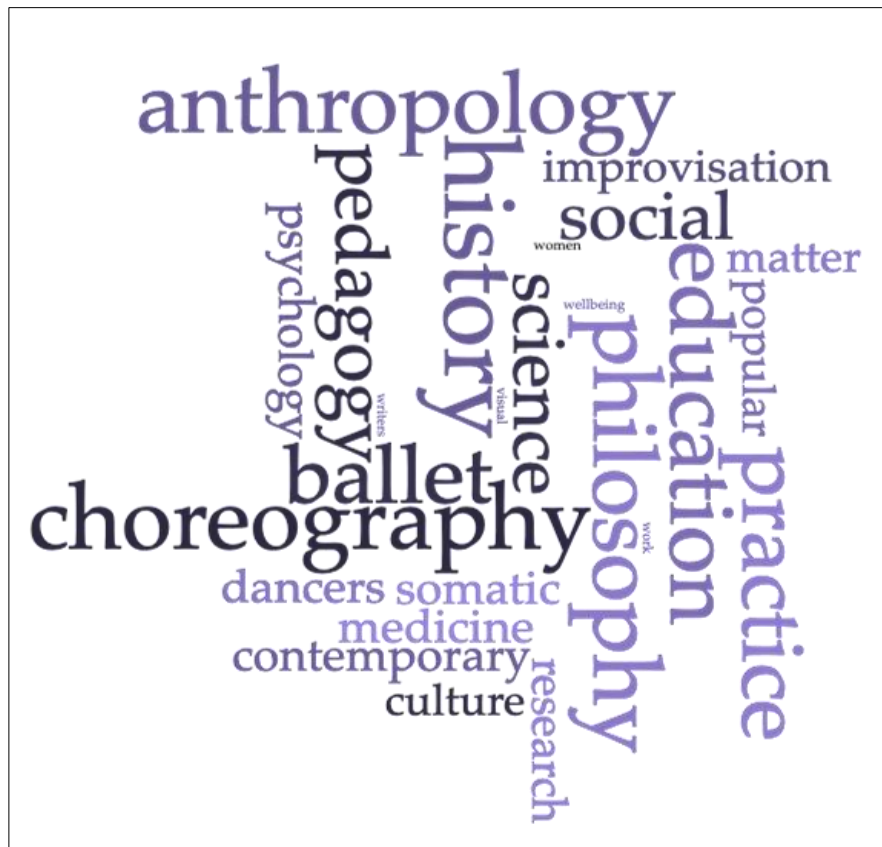


Figure 4-2 Visualisation of Subject Matter of research from online questionnaire responses. Word Cloud has been generated using Voyant Tools.

based dance researchers noted that the subject matter of their research tended to lie within areas such as practice (including choreography, somatic practice and improvisation), pedagogy and psychology. Furthermore, the pre-conceived notion concerning the relationship between the type of dance researcher and research areas studied, as outlined within the literature, was confirmed when all mixed-approach dance researchers revealed that their research investigated areas such as practice³⁰ and sociocultural studies. However, it should be noted that there were a few outliers within the responses, suggesting that the topic areas extended beyond the stereotypical constraints associated with either practice-based or text-based researchers. By looking at the type of researcher and the subject of their research,

³⁰ Practice participants noted the following areas of interest: choreography, community dance, improvisation, site-specific research, improvisation, ballet, embodied practices, and practice-as-research.

we can learn a lot more than if we purely analyse subject type by examining the education of dance researchers.

Overall, the first set of questions showed that dance researchers' information-seeking needs are driven by either their need to fulfil a course requirement or the pursuit of new knowledge. Additionally, the responses demonstrated how wide-ranging and potentially interdisciplinary the subject matter of dance researchers can be. However, how this might affect the information-seeking processes of dance researchers cannot be attributed from these questions alone. For instance, does the interdisciplinary nature of the research affect the variety of information sources dance researchers consult, or does the pressure of creating new knowledge affect the evaluative methods they use? This is just one of a number of questions which remain unanswered for now. Therefore, further exploration and reasoning may be attributed to this question by analysing further responses within the questionnaire and more widely across the findings of this thesis.

4.1 Information-Seeking Behaviour of Dance Researchers

The online questionnaire continued to explore the information-seeking processes of dance researchers in more depth. It began by investigating various parts of the information-seeking process, exploring how dance researchers begin their information search, the strategies and sources they employ, and how they end their information search. It must be reiterated that the responses from the online questionnaire reflect how dance researchers perceive their information-seeking behaviours and thus will be compared alongside the findings from the focus group and think-aloud observations.

4.1.1 Beginning the Search for Information

One of the primary aims of this online questionnaire was to identify how dance researchers search for information. In identifying this aim, I sought to answer RQ1, as outlined at the start of this thesis: *How do dance researchers seek information and how can dance archive resources inform their information-seeking processes?*

The first section of the questionnaire showed the transition between dance researchers defining their information needs and how that translates and shapes the information-seeking process. Dance researchers all indicated that they 'often' knew what they were looking for when starting their information search. Here, dance researchers were able to choose from a list of options ranging from, 'I have a clear idea of what I am looking for' to 'I never know what I am looking for'. Dance researchers' decision to choose 'I often know what I am looking for' shows some confidence in being able to identify what information they need to fulfil the task, or how they might go about searching for the information needed.

Within the literature, it is known that occasionally not knowing what you are looking for can lead the researcher to reformulate the information need throughout the information search process, until the information which is needed is refined, recognised and found (Marchionini, 1995; Vakkari, 1999; Li and Belkin, 2008). As the literature recognises, this reformulation of the information need is carried out because the information need of the researcher is too broad (Bates, 1989; Marchionini and White, 2007; Taylor, 2012). However, this broad information search, as evidenced within the literature, in many cases is refined over the course of the information search. It can only be inferred here that dance researchers may not know exactly what they are looking for but have a broader sense of their information need here, such as topic or type of information needed to fill the gap in the knowledge. Additionally, it is unknown whether dance researchers refine this broad information need as the information search progresses. The focus group discussion and think-

aloud observation might help to further understand what happens to the information need over the course of the information search.

The online questionnaire was not only interested in the actions and thoughts of the dance researchers but also the feelings associated with their information-seeking processes, since the emotions dance researchers express can help infer problem areas and successes in relation to information systems. Irrespective of type of researcher or level of education, 54% of dance researchers expressed that they experienced some level of uncertainty at the start of an information-seeking process. Paradoxically, 47% of dance researchers also felt optimistic at the start of their information-seeking process. This could suggest that the uncertainty relates to researchers not completely knowing what they are looking for at the start of an information-seeking process, although is debatable as to whether uncertainty is perceived as a wholly negative state. Within the information-seeking literature, there is evidence to suggest that uncertainty at the early stage of research is a common trend (Wilson, 1999; Kuhlthau, 2004; Anderson et al., 2006). Kuhlthau suggests that uncertainty 'is a cognitive state that commonly causes affective symptoms of anxiety and lack of confidence' and which is commonly experienced at the start of an information search. The start of the information-seeking process is often vexed by 'vague thoughts, anxious feeling and exploratory actions' (Kuhlthau, 1993, p.352). Kuhlthau (2004) highlights that uncertainty decreases only when understanding increases as the information-seeking process progresses. Moreover, it comes as no surprise that in the current study, feelings of uncertainty manifested in the dance researchers at the beginning of their information-seeking processes. In due course, the thesis will explore to what extent this uncertainty increases or decreases across the information-seeking process. For now though, the online questionnaire responses suggest that dance researchers have a similar relationship with uncertainty to that which already exists within the information-seeking literature.

Alternatively, the level of optimism also expressed by dance researchers suggests that they were not fraught with uncertainty but were aware that by going into an information-seeking process, they may find something new or need to be open to the possibility that they may unearth unexpected information. Intriguingly, practice-based researchers entered research with less of an idea about what they wanted to find, in comparison to the other types of dance researchers. Thus, the level of uncertainty increased here. This may be attributed to the type of exploration they were conducting, namely exploring a concept through movement. This lack of knowing what they wanted to find led dance researchers to experience more uncertainty about whether they would be able to answer their research question and fulfil their research need. However, the practice-based researchers were also optimistic in their belief that their practice would help to find the information.

The online questionnaire responses showed that dance researchers take different first steps when starting their information search. All dance researchers identified the use of three sources of information at the start of the search: people, Internet and libraries. However, the first step when searching for information is slightly different for dance researchers at different levels of education. Figure 4-3 provides a visualisation of the places in which dance researchers start their information-seeking process; using an online search engine was the clear choice for dance researchers, overall. A similar finding was identified in the information-seeking behaviour literature of neighbouring disciplines, such as the performing arts and humanities (Kibirige and DePalo, 2000; Buchanan et al., 2005; Griffiths and Brophy, 2005; George et al., 2006).

When analysing the responses by level of education, it can be seen that for 66% of undergraduate dance students, the first step in the information search was to talk to lecturers. It could be inferred that undergraduate dance students tend to use people as their starting point due to their lack of experience. Thus, they seek advice from those around them, such as lecturers or programme leaders, to know where to begin

their information search. However, this can only be inferred and more evidence from the focus group and think-aloud observations may help to clarify this point. Additionally, there was a difference between research and taught postgraduate dance students' first steps in the information search, with 83% of postgraduate (taught) dance students visiting an online library, 75% of postgraduate (research) dance students using an online search engine, and 50% of dance academics starting their information search using an online search engine. Postgraduate researchers often straddle the line between being students and becoming academics. While their information need is to fulfil a course requirement, often that requirement is to develop a new contribution to knowledge, as already discussed within this chapter. Therefore, it comes as no surprise that the starting point of postgraduate (research) students' information-seeking process would be most similar to that of dance academics and less akin to postgraduate (taught) dance students.

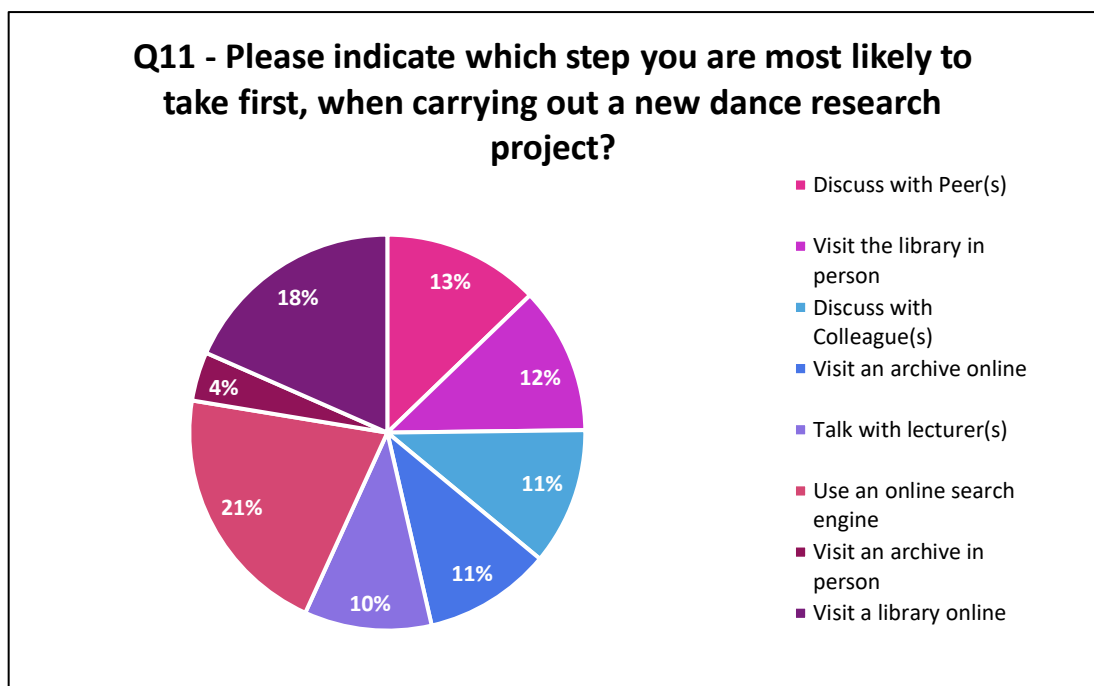


Figure 4-3 Result from dance researcher online questionnaire indicating the starting point for dance researcher information-seeking process.

In addition to exploring the responses by level of education, it is also interesting to note the starting point by type of researcher. Similarly, the top three starting points for dance researchers, by type of researcher, were found to be people, the Internet and libraries. Notably, 73% of text-based dance researchers suggested that their first step into the information search was to use an online search engine. Interestingly, 50% of practice-based dance researchers expressed the same view. Practice-based research tends to come with a certain level of assumption that the research is rooted in the movement of one's own body, movement of other bodies, or the body(s) as a method of doing research. Therefore, most would assume that practice-based dance researchers start their information-seeking with people, via either their own embodiment or the embodiment of others. Yet, the responses in this online questionnaire suggest that practice-based dance researchers first use the search engine when carrying out research. Nonetheless, 62% of mixed-approach dance researchers suggested that their first step in the information search was to visit the library. It is interesting to note that people are not the first steps within any of these three types of researchers' information-seeking processes. Yet, it is only when defined by level of education that people appear as an important first step for the undergraduate student. Therefore, regardless of differing type of dance researcher or level of education, dance researchers first stepping into information searching begin with either people, the Internet or libraries.

On reflection, the information-seeking literature supports the results of the online questionnaire. The process of using familiar sources and 'informal contacts' as a means of initiating research on a new or unfamiliar topic, as the dance researchers use, is attributed to starting (Ellis, 1989). Starting is recognised as the initial stage of information-seeking carried out by users. This concept is attributed to many types of users throughout the information-seeking literature, from social scientists to humanities researchers (Ellis, 1993; Watson-Boone, 1994; Buchanan et al., 2005; Barrett, 2005b). Therefore, we can assume that dance researchers follow a similar pattern of information-seeking behaviour. The extent to which the information-

seeking behaviours of dance researchers will continue to follow Ellis' information-seeking model (1993) information-seeking model and the behaviours of neighbouring disciplines such as the humanities is yet to be understood. However, further questions within the online questionnaire, focus group and think-aloud observations will help to understand this point further.

Thus far, the questionnaire findings were based on dance researchers' experiences of completed dance research projects. Dance researchers were asked to reflect on their approach to researching unfamiliar or new topic areas; the purpose of this was to mitigate common assumptions about the beginning of the information-seeking process. Overall, 54% of dance researchers noted they would begin by conducting a literature review on unfamiliar or new topic areas, irrespective of the type of researcher, or their level of education. Furthermore, 66% of undergraduate dance students, 50% of postgraduate (research) dance students and 61% of dance academics all expressed the same sentiment. However, 50% of postgraduate (taught) dance students suggested that they would ask people in their professional networks about the subject first. Moreover, the findings from this questionnaire indirectly suggest that libraries, the Internet, and people, are still popular sources of information utilised at the start of an information-seeking process when the researcher is less familiar with the research topic.

The findings within the first section of the questionnaire demonstrate that dance researchers information-seeking patterns of behaviour are most akin to Ellis's (1993) information-seeking model. Dance researchers exhibit behaviours most akin to *starting* when conducting dance research by using sources that are most familiar to them, notably the people around them, the Internet and libraries. It is also clear that postgraduate (research) dance students follow a similar behaviour pattern to academics. It is also clear that undergraduate dance students are less likely to have the confidence to begin a search for information online and would rather discuss their approach to conducting the information search with people. The information

behaviour literature suggests that an initial interaction with people is synonymous with the practice of students (Kibirige and DePalo, 2000; Griffiths and Brophy, 2005; Weiler, 2005; George et al., 2006). However, the literature also suggests that while students' initial port of call for seeking information is using 'real people', this is closely followed by the 'Internet' (Weiler, 2005, p.50). demonstrating a sense of cohesion with the responses offered by postgraduate students within this study. From these initial findings, an understanding of the sources and strategies employed by dance researchers would help to identify if dance researchers information-seeking differs from the patterns recognised within Ellis's (1993) model and literature of neighbouring disciplines, such as the performing arts and humanities.

4.1.2 The Process of Searching for Information

The online questionnaire moved on to investigate the dance researchers' online information preferences, sources, search strategies, formats and information content. The information-seeking literature implies that the Internet would be an integral part of dance researchers' online information-seeking processes. Therefore, before delving into further aspects of these processes, the online questionnaire moved on to explore how often dance researchers used the Internet as part of their information search, to ensure alignment with the literature. Overall, the online questionnaire found that 89% of dance researchers used the Internet to seek information for research purposes. Delving further into the responses of the online questionnaire, it was revealed that 63% of dance researchers 'always' used the Internet during a search for information, while 28% of dance researchers claimed they 'often' use the Internet during their search for information. These findings, coupled with the responses from earlier in the online questionnaire, show that the Internet plays a significant role in dance researchers' information-seeking processes, and thus supports the findings of the information behaviour literature highlighted in Chapter 2.

The online questionnaire then moved on to explore the information sources and formats most searched and used by dance researchers during an information search. The questionnaire responses revealed that all dance researchers looked for textual documents online, such as, journal articles, books, or academic texts. All dance researchers surveyed identified online journals as the most prominent source of information used. This suggests that online journal articles are the most popular type of textual document dance researchers search for during research projects. Figure 4-4 demonstrates the range of information sources used by dance researchers during their information-seeking process. From this we can see that books, online search

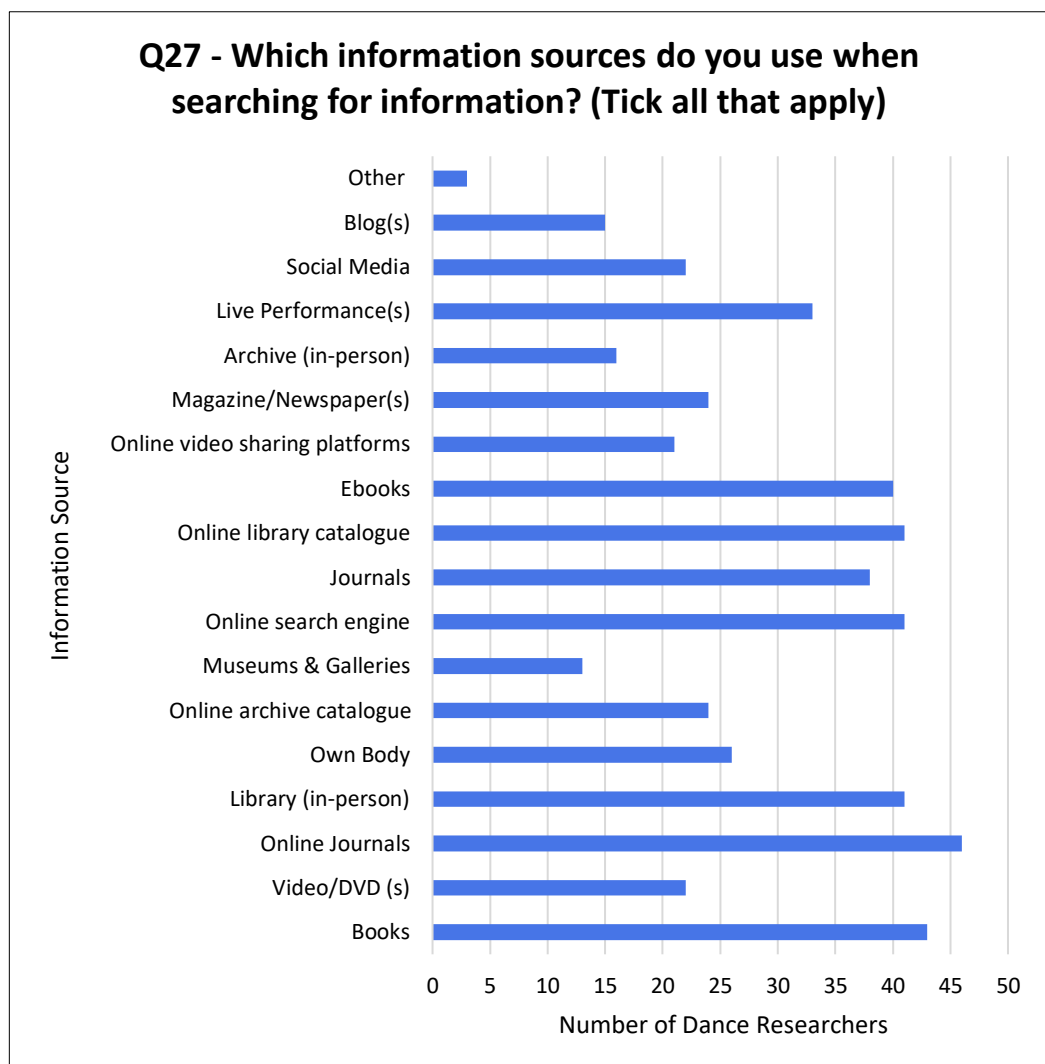


Figure 4-4 Responses from online questionnaire regarding dance researchers' information sources

engines and both online and offline libraries are important information sources for dance researchers. Additionally, the responses provide an insight into the use of archives. Figure 4-4 shows that online archive catalogues were more favourably used during an information search than physical archives. Therefore, we can observe that dance researchers prefer to have online information sources at their disposal, but, more importantly, online dance archive resources are preferred over physical archives. Moreover, this demonstrates that dance archives would be well placed to develop more online archive resources going forward.

When exploring the information source responses by level of education, some distinction can be made. In the first instance of searching for information online, 38% of all dance academics omitted the fact that they would first use online journals. Moreover, 37.5% of postgraduate (research) students and 50% of postgraduate (taught) dance students would first use online journals. Furthermore, 50% of undergraduate dance students suggested that an online search engine (i.e. Google) was their first source of information used. However, there is no indication from these results as to whether there is a path from online search engines to online journals in the information-seeking process of dance researchers. For instance the question remains as to whether dance researchers start from a search engine and use it to find online journals, or just begin constructing their information search using online journals. The think-aloud observations will help to clarify this pathway and to understand whether there are any pathways to and from search engines or online journals during dance researchers' information search.

Dance researchers were asked to name three websites they used within their information-seeking process. The three websites listed by dance researchers were, online journals, with 45% of dance researchers using them, online libraries, with 50% of dance researchers using them, and Google/Google scholar, with 63% of dance researchers declaring use. The use of Google or Google scholar featured highly within

the information-seeking process of undergraduate dance students, postgraduate (taught) dance students and postgraduate (research) dance students. These findings offer several provocations, such as: What do these online platforms offer dance researchers? Why are they so popular amongst dance researchers? How can we draw from their success to improve the online presence of dance archives and create new online dance archive resources? These provocations will be subsequently explored in the analysis of the focus group and think-aloud observations to understand how their use and features help or hinder dance researchers in their quest for information. These conjectures may then feed into the future development of online dance archive resources. However, the next set of questions from the online questionnaire helped to understand how dance researchers interacted with such information sources and systems by evaluating dance researchers' information search strategies.

It is important to explore the search strategies employed by dance researchers as these can aid an understanding of how information needs are formulated and how information is retrieved by dance researchers, thus working towards future developments of online dance archive resources. Thus, the second section of the questionnaire aimed to understand the strategies employed by dance researchers when searching for information. The online questionnaire found that 84% of dance researchers used keywords when constructing a search for information; 74% noted that this was 'often' a successful method of searching for them. Existing literature on keyword searching or formulation of keywords suggests that the keywords used to search for information evolve (Salton et al., 1983; ter Hofstede et al., 1996; Aula, 2003; Bendersky et al., 2012), thus leading to the evolution of information needs. Keywords can be constructed using various methods, such as the use of Boolean terms, and the construction of a keyword search may be affected by the model underlying the information system, as we have already seen in Chapter 2 of this thesis. While keyword searching is identified as a key search strategy for dance researchers, how keyword searches are constructed and used in relation to information needs and information systems remains unknown. Therefore, further

attempts will be made to understand the search strategies within the analysis of the focus group discussion and think-aloud observations. It is hoped that the observations will help to fulfil this understanding of dance researchers' use of keyword searching as a search strategy during their information-seeking process.

Another information-seeking strategy used by dance researchers was revealed through the online questionnaire, namely that 50% of dance researchers 'often' found themselves following citations, references or links, during their information-seeking process. This process can be attributed to a type of information searching known as *chaining*. Chaining, as we have seen within the literature review, is an attribute of Ellis's (1993) information-seeking model, thus demonstrating that dance researchers continue to follow a similar information-seeking pattern to other kinds of researchers, in particular those working within the humanities and social sciences (Wang, 2011; Bawden and Robinson, 2012).

Additionally, postgraduate dance students (taught) noted another strategy employed when searching for information. Like the other dance researchers within the online questionnaire, postgraduate dance students (taught) also followed links, citations and references. However, 50% of postgraduate dance students (taught) also noted that they found information through browsing websites. Browsing is also a concept found within the information-seeking literature and across the information-seeking behaviour models of various researchers. Browsing can lead the researcher to find new information, and may lead to various other search strategies, such as, Berry-picking, pearl growing, or quick searching as explored earlier within Chapter 2 of this thesis. Therefore, it is no surprise that it features within the information-seeking process of dance researchers. However, we are yet to understand if academics, undergraduate dance students and postgraduate (research) students also acknowledge browsing as part of their information-seeking process. Thus, uncertainty still remains over whether browsing or chaining are attributed to the information-seeking process of dance researchers more widely. Thus, a further

exploration of dance researchers will be engaged in when analysing the results of the focus group and think-aloud observations to try and confirm such behaviours. However, Ellis's model should be acknowledged as this thesis continues in its exploration of the information-seeking patterns of dance researchers, especially when attempting to gain an understanding of whether dance researchers deviate from the same behaviour patterns.

Within this section of the questionnaire, dance researchers were asked to also identify which type of information they found most challenging to find during an information search. A myriad of responses were offered, and no consensus could be reached from the findings, other than that dance researchers often found subject-specific materials hard to find. However, by analysing the responses by level and type of dance researcher, it became easier to identify collective problem areas. All undergraduate dance students noted production records as one of the most challenging types of information to find. A total of 66% of undergraduate dance students found company records hard to find. Additionally, 50% of undergraduate dance students also found it hard to find programmes. Equally, postgraduate (taught) dance students found both video and cast lists the most challenging types of information to search for, while 38% of postgraduate (research) dance students identified movement- or practice- related materials as the most challenging type of information to find, closely followed by older materials. For example, literature on journal articles and dancers' perspectives on choreographic work were noted as difficult to locate. Furthermore, 46% of dance academics identified video materials of dance performances as the most challenging type of information to locate, alongside movement related materials. These responses suggest that visual representations of dance are harder for dance researchers to find, as collectively dance academics, postgraduate (research) dance students and postgraduate (taught) dance students identified videos and movement/practice related materials as the most challenging to source. From the literature reviewed in Chapter 2, it can also be suggested that these problematic topic areas all exist within dance archives.

However, the online questionnaire in phase two may aid in understanding whether access to these types of dance archive materials is as easy as possible, and whether they need further advocacy online. Therefore, a comparison of the dance archives' content and the responses given here would be useful in identifying how online dance archive resources of the future might accommodate their dance researchers' information needs and formats further in the future.

Dance researchers are often associated with practice-based research, as already mentioned earlier in this chapter. Therefore, this online questionnaire also sought to understand how and if the body is considered an important information source for dance researchers. The online questionnaire revealed that 60% of dance researchers used their own body as a source of information during a research project. However, it is unclear as to how often they used their body to search for information. Moreover, there was some discrepancy between dance researchers concerning the level of importance of the body within the information-seeking process. The responses showed a range of answers from 'always' important to 'rarely' important. This mixed response was consistent, regardless of the researchers' level of education. While 33% of undergraduate dance students stated that the body was 'often' important, another 33% suggested that the body was 'rarely' important to their information-seeking process. Moreover, 33% of postgraduate (taught) dance students regarded the body as less important than undergraduate dance students, with 33% of postgraduate (taught) dance students noting the body as 'rarely' important, and another 33% noting that it was 'sometimes' important to their information-seeking process. Alternatively, 62% of postgraduate (research) dance students recognised the body as 'always' an important source of information. However, like the undergraduate dance students, dance academics were diverse in their opinion, with 26% regarding the body as 'always' important and another 26% regarding the body as 'rarely' important as a source of information. Alternatively, when reviewing the questionnaire responses by type of researcher, rather than level of education, some clarity was offered as to this discrepancy in the data. Further

examination showed that 80% of text-based dance researchers regarded the body as either 'rarely' or 'sometimes' an important source of information, whilst 80% of performance-based dance researchers regarded the body as either 'always' or 'often' important during the information-seeking process. Moreover, 43% of mixed-approach dance researchers regarded the body as 'always' an important source of information. These findings are more in-line with what was expected from the dance researchers. Practice-based dance researchers are more likely to regard the body as an important tool in their practice and draw on it as a source of information more regularly than those who regard themselves as text-based dance researchers.

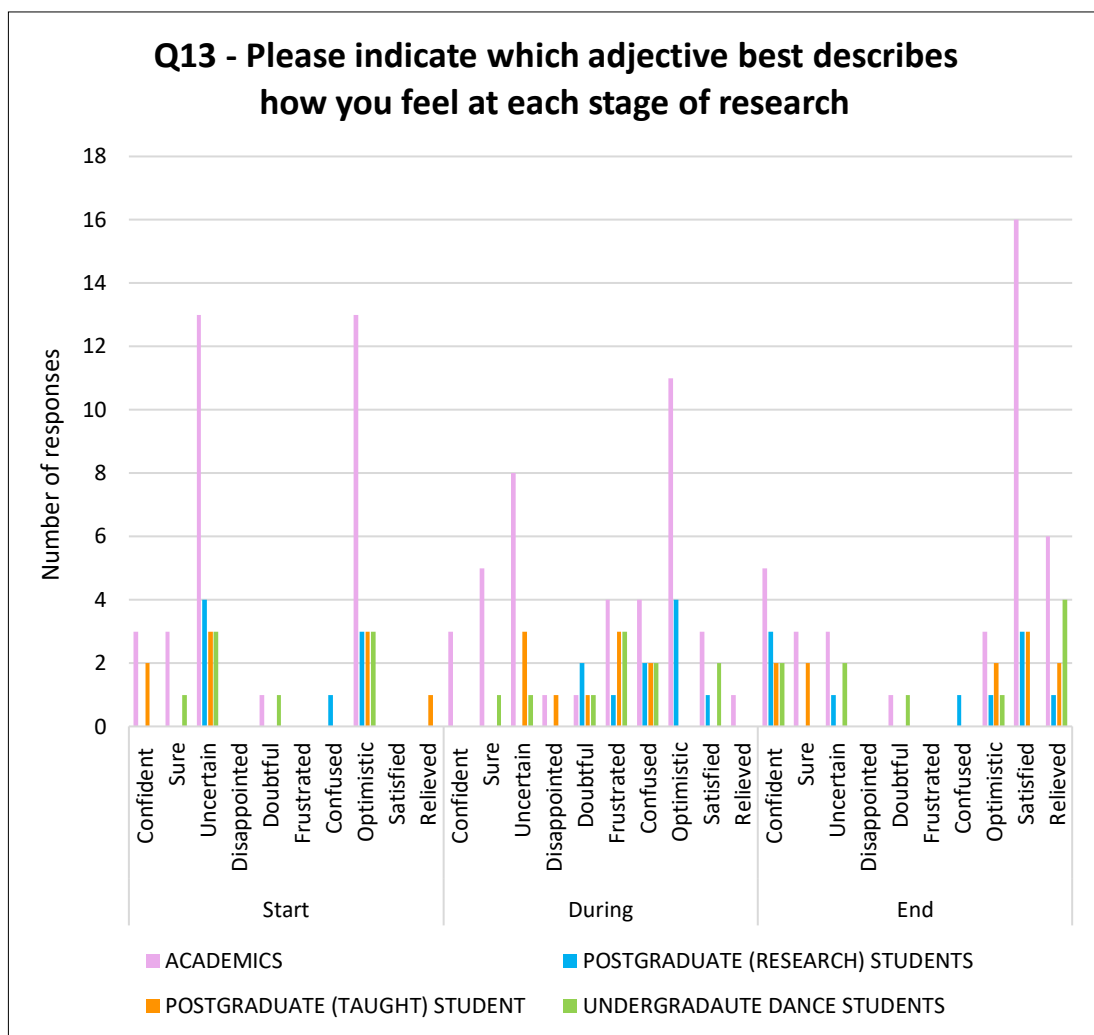


Figure 4-5 Online questionnaire responses from dance researchers indicating how they felt at different stages of their information-seeking process.

However, how the body is used as a source of information still remains unclear; thus, this topic will be further explored in the analysis of the focus groups and observations.

This study aimed to not only look at the actions of dance researchers during their information-seeking process, but also to understand their thoughts and emotive experiences. The online questionnaire therefore continued to explore how dance researchers interpreted their emotive journey throughout their information-seeking process. As noted earlier in this chapter, collectively, dance researchers commence their research projects with high levels of both uncertainty and optimism. Figure 4-5 details how dance researchers described their emotions across their information-seeking process, detailing emotions at the start, middle and end. The online questionnaire responses showed that as dance researchers progressed in their information search, those using uncertainty to describe their emotional state decreased. During the information-seeking process different emotions began to be used to describe the dance researcher's emotional state. For academics, optimism was used to describe their emotive state at the start of their information-seeking process, as seen in Figure 4-5, but the frequency of its usage lowered slightly during the information-seeking process, when frustration and confusion began to describe their emotional state. Similarly, more postgraduate (research) dance students indicated feeling optimistic during an information search. The change in emotional state could be related to their success in finding information. However, further reasoning and observation would be needed to clarify this assumption. Like the academics, postgraduate (research) dance students saw an increase in the use of words such as confusion, doubt and frustration to describe the emotive state felt during their information-seeking process. Meanwhile, postgraduate (taught) dance students and undergraduate dance students used the word 'optimistic' to describe their primary feeling during the information search. Among postgraduate (taught) dance students, the choice of word, 'uncertainty', remained frequent, as did frustration and confusion.

The online questionnaire directly asked dance researchers to provide details of what their frustrations were during the information-seeking process. The responses outlined a preliminary understanding of where their frustration came from. For 46% of academics, frustration came from the lack of time they had to search due to competing commitments; lack of research time; lack of time to order resources or to explore them thoroughly within an archive; or lack of time to pursue the consumption, extraction or evaluation of a range of relevant information avenues. Similarly, 42% of academics suggested frustration also came from a lack of access to information due to limited open access publications as well as primary and secondary sources being in libraries and archives across various sites. Furthermore, 50% of postgraduate (research) dance students suggested that limited access and time caused frustration for them, attributing lack of access to open access materials, out-of-print materials, or full access to materials that were restricted or hidden behind paywalls, as core areas of discontent. Similarly, they described their unhappiness with the lack of available time to read information due to too much information being presented to them when they searched for materials. For 50% of postgraduate (taught) dance students, frustrations came from too much, or too little, information being returned to them. Additionally, 50% of postgraduate (taught) dance students suggested that it can be very difficult to find relevant information. For 83% of undergraduate dance students, it was frustrating when they were either over or underwhelmed by the amount of information found during an information search. Moreover, 50% of undergraduate dance students also became frustrated when trying to access materials. Undergraduate dance students discussed their frustration with materials that were inaccessible because of their inability to find the information they were looking for straight away, or because they had no way of accessing the material found during an information search.

Finding too much literature can be attributed to what the information behaviour literature equates to information overload (Weiler, 2005; Taylor, 2012). Indeed, too

much information may mean that your search is too broad and thus may need to be narrowed down. Similarly, not finding enough information may mean that the information seeker may need to broaden their information search remit. While finding relevant information seems to be a common issue for many, this may be attributed to the lack of information searching skills and inexperience in searching for information. Refining the information need may take longer if you have not had experience in being able to change the search terms, look outside the sphere, or know how to refine the search terms you are looking for. This may be why undergraduate and postgraduate (taught) dance students found it hard to locate information they needed in a sea of information, thus ending up with too much or too little information to consume, review, evaluate and extract for use. This skill set comes with experience and teaching, which both postgraduate (research) dance students and academics acquire throughout their academic research career. These skills are evidently gained by dance researchers, as the results of the online questionnaire demonstrate.

The online questionnaire responses, relating to academics and postgraduate (research) dance students, suggest that they possess the information search skills required to search for information and show they are less likely to feel negative during an information-seeking process. The findings show that 50% of postgraduate (research) students and 42% of dance academics reported feeling optimistic during an information-seeking process. Frustrations, as we have seen, are less likely to come from searching for information, but more likely to stem from the lack of time to search for materials, as well as lack of access. The online questionnaire, however, does not address the causation of confusion and doubt for dance researchers. Thus, further exploration within the focus groups and observations may help to clarify this emotive response from the dance researchers.

The findings from this section of the questionnaire reveal much in the way of dance researchers' online preferences, sources, search strategies, and the formats and content of information they engage with. This section of the online questionnaire has clearly demonstrated a shift away from people and networks as a preferred source of information for dance researchers, and more towards the Internet. The information-seeking behaviour literature, outlined in Chapter 2, noted people and networks as the preferred choices for dance researchers. Although these areas are still important, they are less likely to be the first choice of information source for dance researchers in these times. A reason for such a change may be attributed to time. Dance researchers suggested that the Internet provided information in a timesaving manner. Dance researchers no longer had to visit the library and archives in person to search for information they needed, but could use the time they would have spent travelling to such places to search from within the comfort of their place of work, office, or home. As seen within this section, dance researchers preferred to utilise online dance archive catalogues over visiting in-person archives. They also noted that online journals, online libraries and search engines were their preferred choice for information-seeking. Thus, dance researchers shared information preferences which can be attributed to more recent information-seeking trends shared among researchers of different disciplines (Georgas, 2014; Pontis and Blandford, 2015; Spezi, 2016; Weber, Becker, et al., 2018; Weber et al., 2019).

Additionally, this section of the online questionnaire analysis has revealed two important information-seeking traits of dance researchers: keyword searching and browsing. Both of these search strategies are in accordance with those of students and scholars within the information-seeking literature (Kibirige and DePalo, 2000; Nicholas et al., 2006; Du and Evans, 2011; Ge, 2017; Moore and Singley, 2019). Keyword searching is a search strategy employed by all dance researchers; yet, to date, it has not been recognised as a trait of dance researchers. Therefore, questions still remain with regards to how dance researchers use keyword searching to their advantage. For instance, the information literature tells us that the ways in which

researchers interact with information can relate to their understanding of their information needs. Thus, with limited knowledge on how dance researchers construct their keyword search, it is difficult to know whether this method of searching is successful or not for them. Such information could not be gleaned from the initial questionnaire responses alone; however, subsequent responses demonstrated that the lower level of skills or experience the dance researchers possessed in being able to reshape their search query, the more likely they were to become over or underwhelmed according to the results they were provided with. However, this is only a presumptive conclusion for now; dance researchers' use of keyword searching requires further exploration within the analysis of subsequent focus group discussions and think-aloud observations, to recognise if this is a behaviour trait of dance researchers.

As mentioned earlier in this chapter, browsing was another information search strategy that dance researchers employed; yet, little else is known about this method of searching. However, the literature tells us that browsing for information has been a behaviour attributed to dance and performing arts researchers for some time. Browsing, as the literature suggests, can lead to the discovery of new information beyond the remit of the topic or project in question, leading to creative and innovative developments (Erdelez et al., 2011; Foster and Ellis, 2014; Agarwal, 2015; McCay-Peet and Toms, 2015). As a concept, browsing is mentioned across various information-seeking studies involving a range of researchers. Therefore, it can be assumed that dance researchers follow a similar pattern of searching observed by a wider remit of researchers. However, what remains unclear following the last section of the online questionnaire responses is to what extent dance researchers follow other information-seeking models.

Similar to the last section, responses to this section demonstrated that dance researchers are continuing to exhibit patterns of behaviour akin to Ellis' (1993) and Kuhlthau's (2005) information-seeking models. Across the two sections of the

questionnaire, dance researchers showed that they exhibit characteristics such as starting, chaining and browsing, as identified in Ellis's model of information-seeking behaviour. Similarly, dance researchers' information-seeking behaviours also evidenced characteristics such as initiation, selection, exploration and potentially formulation, as discussed in Kuhlthau's (2005) information-seeking model. Both Kuhlthau's (2005) and Ellis' (1989; 1993) models follow a very similar description of these stages of information-seeking, and thus it is not uncommon to recognise that dance researchers could fit into either of these information-seeking models as they have been ascribed to extend to the wider lifecycle of the researcher within the literature (Wang, 2011; Allam et al., 2019).

From the responses, so far, it is still unclear to what extent dance researchers follow Kuhlthau's or Ellis's model, or whether their approach to information-seeking differs from the patterns recognised within these models. Thus, as this chapter moves on to explore the end of the dance researcher's information-seeking process, it will become clearer whether or not dance researchers remain within the frameworks of these models or differ somewhat.

4.1.3 End of the Information-Seeking Process

It is important to understand and explore how dance researchers know when their information-seeking process is coming to an end. According to the literature, ending the information search involves evaluating, extracting and using information for the purpose of the derived information needs. Therefore, the online questionnaire continued to explore this stage of the information-seeking process with dance researchers.

This section of the questionnaire began by seeking to understand how dance researchers evaluate the information they can potentially use in the potential research project. From the responses, a loose criterion can be formed, which dance researchers use when evaluating information. Notably, there was little consensus

among dance researchers about how they evaluate online information. However, examining the responses by level of education offers an insight into how dance researchers of differing levels evaluate this information. The questionnaire responses revealed that undergraduate dance students were inclined to analyse the reliability of information against existing literature, in addition to noting the author and date of the information found online. Furthermore, postgraduate (taught) dance students assessed the citations referenced in both the bibliography and number of times the article was cited. Additionally, postgraduate (taught) dance students also considered the author, structure of the content, and credibility of the information source before proceeding to use the information within their own research.

	Undergraduate dance students	Postgraduate (taught) dance students	Postgraduate (research) dance students	Dance Academics
Author	X	X	X	X
Date	X	X	X	X
Information Source (e.g., Publisher or Journal)		X	X	X
Structure and Content of information		X	X	X
Bibliography and References		X	X	X
Peer-reviewed				X
Compare with other literature	X		X	X

Table 4-1 Information assessment and evaluation criteria used by dance researchers.

Similarly, postgraduate (research) dance students contextualised the paper against other literature, in addition to noting the author and arguments formulated within the information source. Moreover, dance academics' criterion of checking information sources, particularly articles, was extensive. The findings showed six criterion shared by dance academics, including: the source of paper/publisher, author, if the paper was peer-reviewed, the date, the literature or bibliography used and the structure of the content. Table 4-1 below outlines all the components dance researchers collectively use to assess and evaluate information against, as well as demonstrating the components used by each different type of dance researcher. As Table 4-1 shows as the level of dance researchers education increased, so did the list of components which the dance researchers used to evaluate the information they found. While the structure of the argument and content of the paper were important factors for postgraduate (research and taught) dance students, this was less likely to be an important component for undergraduate dance students. Similar attributes have been found among students and scholars within the literature, when assessing usable information (Liu and Huang, 2005; Jamali et al., 2014; Tenopir et al., 2019; Habiba and Islam, 2022).

While evaluation of usable information is an important component of the end of the information-seeking process, it is also important to understand and identify when dance researchers know they have enough information to stop, or in other words, know they have fulfilled a research project remit. Responses to this area of concern in the questionnaire indicated that the point at which this knowledge is reached is highly subjective for dance researchers. However, when the responses were analysed by level of education, some similarities were observed. There was a mixed response from undergraduate dance students, with 50% of undergraduate dance students indicating that they could stop their information search when they felt they had enough information to write. The other half of undergraduate dance students implied that they never know when to stop the information-seeking process. No consensus

was reached on this topic among the postgraduate (taught) dance students. Rather, a mixture of responses was observed, including, when the dance researcher noticed that no new literature could be found, when they felt they could answer the research question, when they had factchecked everything they had found, or the deadline depicted when the researcher needed to finish their research.

For postgraduate (research) dance students, the development of a body of knowledge was the indication that they had finished their information-seeking process. Postgraduate (research) dance students suggested that this would involve making sure arguments and discussions were sufficiently covered and that they had a unique perspective, specific to the field. However, postgraduate (research) dance students also suggested that they knew when to stop as they saw repetition in the literature, or the deadline of the task dictated when they needed to. A large majority of dance academics suggested that they did not know when to stop the information-seeking process. Dance academics also suggested that knowing when to stop often occurred when they had exhausted all available resources; often, the end of the information-seeking process was dictated by a deadline.

The mixture of responses from dance researchers shows how much of a grey area this can be for researchers generally. Kuhlthau (1991) detailed that the ending of the information search comes when the seeker is able to collect the information they need 'effectively and efficiently', to gather material on the focused topic or task, and to present this in the necessary manner according to the requirements of the task. The actions involved at the collection stage, as suggested by Kuhlthau are selecting information and making detailed notes (1991). Similarly, Ellis et al (1993) note that ending the information-seeking process is akin to the actions associated with preparing to present the thoughts and observations made through the development of published papers. However, neither Kuhlthau nor Ellis are able to suggest how researchers can formally recognise they have enough information to move towards

the presentation stage within their information-seeking models. This decision still seems to be subjective to researchers. Researchers may need to go between the selecting and collecting phase as they begin to progress into the presentation phase and back again, if they realise that the presentation phase is missing information. Therefore, when the dance researchers suggested that the deadline of the task usually depicted when the information-seeking process stopped for them, this may be the most formalised stopping point for them to engage with. However, this assertion is speculative thus far, and further analysis of discussions with dance researchers during the focus groups and think-aloud observations may reveal other factors which may explain why their information-seeking process stops.

Despite not knowing when to stop searching or not being fully aware of how to evaluate information for use, dance researchers felt significantly more positive when evaluating their feelings at the end of the information-seeking process. As shown previously in **Error! Reference source not found.**, 50% of postgraduate (taught) dance students, 37% of postgraduate (research) dance students and 61% of dance academics suggested they felt satisfied by the end of their information-seeking process. Similarly, 66% of undergraduate dance students felt relieved at the end of the process. Any ideas about what drives this sense of relief and satisfaction among dance researchers in higher education can only be presumed at this point, although a similar sense of relief was identified in Kuhlthau's (2005) study with high school students. This finding shows that dance researchers have fulfilled their information need and presented the results to the best of their ability or to the extent needed to complete the task.

Across the online questionnaire, it has been revealed that dance researchers loosely follow a similar pattern of information-seeking behaviour to that described in the models of both Kuhlthau and Ellis. However, the reason for their choices in behaviour often remain unclear when examining the online questionnaire alone. Thus, further

exploration will be offered with regards to the focus group data to understand the dance researchers perceived information-seeking behaviours.

The online questionnaire has also demonstrated that questions still remain unanswered concerning the evolution of information needs, pathways to and from information sources, and information preferences for features of particular information sources such as online journals, libraries and Google Scholar. Moreover, further exploration is needed to gain a more detailed understanding of search strategies employed by dance researchers, including how search queries evolve. Additionally, the online questionnaire responses suggest there is still little understanding of the emotive responses of dance researchers during the information-seeking process. Therefore, contextualising the responses from the online questionnaire with data from the focus group discussions will help to delve deeper into the understanding of how dance researchers perceive their information-seeking process. Consequently, comparing the responses and findings of both the online questionnaire and focus groups with the think-aloud observations will help to understand whether dance researchers' perceived information-seeking behaviours are congruent with their actual information-seeking behaviours.

4.2 Dance Researchers' Use of Archives and Dance Archives

Across this exploration of information-seeking behaviour so far, little has been uncovered about the information-seeking behaviours of dance researchers within archives. What has been revealed is that dance researchers have a preference for engaging with online archives rather than physically visiting archives. It had been anticipated that little else would be understood about dance researchers' awareness of, engagement with and use of dance archives unless explicitly investigated further. Thus, with the focus of this thesis being the development of online dance archives, the last section of the online questionnaire explored dance researchers' awareness of, preferences, and interactions with dance archives more closely.

The final section of the online questionnaire began by seeking to understand if and how dance researchers used archives, and more specifically, dance archives for research purposes; specifically, it asked about dance researchers' previous use of dance archives. As can be seen in Figure 4-6, the online questionnaire revealed that 50% of undergraduate dance students were aware dance archives existed. Comparatively, all postgraduate (research) dance students, 83% of postgraduate (taught) dance students, and 96% of academics were aware dance archives existed. It should be noted that if dance researchers answered 'no' to having used archives, then the online questionnaire terminated, but those who had used archives were further questioned about their use. There was a significant drop-off rate after all 46 participants answered the initial two questions, after which only 28 participants completed the remaining questions. Reflectively, it would have been more comprehensive to also continue to question those who had not used archives further to understand why. However, this exploration of non-use of archives and dance archives became a consideration during the focus group discussion, thus not excluding such discussions from the research altogether.

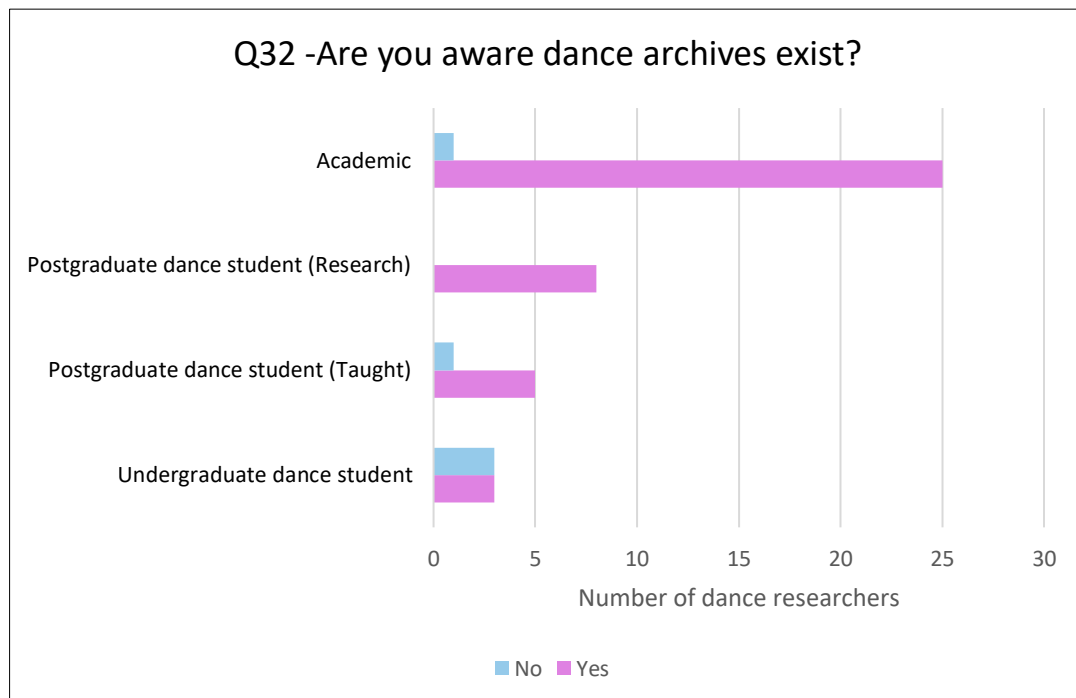


Figure 4-6 Online questionnaire responses showing dance researchers' level of awareness of dance archive.

The online questionnaire continued by seeking to understand whether, of the 28 dance researchers that responded, any of them had visited dance archives online, offline, or if they had never visited dance archives at all. Figure 4-7 shows that 10 academics had visited a dance archive in-person, 6 had visited online, and 2 had never visited an archive before. Moreover, 3 postgraduate (research) dance students had also visited a dance archive in-person and 2 had visited a dance archive online. Furthermore, 2 postgraduate (taught) dance students had visited a dance archive in-person, while one had visited an archive online; another stated that they had never been to a dance archive. Only one undergraduate dance student disclosed that they had visited a dance archive online. Therefore, despite the strong preference for searching an online archive catalogue online, as outlined earlier in the questionnaire, it appears that most dance researchers have visited dance archives offline. There could be many factors why thus the case is, such as, the need to visit physical archive materials, and dance archives having little to no access to archive catalogues or archive materials online. At this time, these are only hypotheses as it is evident that online archives overall are still preferred. Thus, further questions within this online

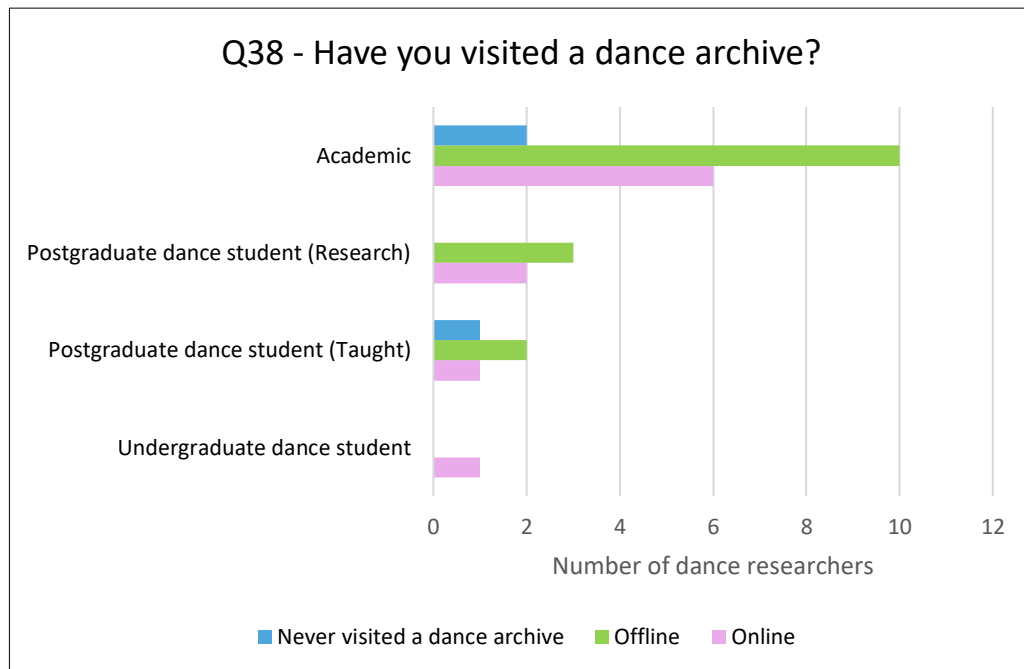


Figure 4-7 Online questionnaire responses showing how dance researchers visit dance archives.

questionnaire may provide justification for the in-person visits made by dance researchers.

Comparatively, the online questionnaire also found that there was a strong awareness of archives, with 93% of text-based dance researchers being aware that archives existed; 80% of text-based dance researchers had only visited a dance archive offline. Similarly, practice-based dance researchers had a strong awareness of archives, with 80% aware of their existence. However, only 33% had visited a dance archive; 20% had visited offline and 13% had visited online. A significantly lower population of practice-based dance researchers had visited a dance archive, thus bringing up questions concerning whether text-based dance research projects lend themselves toward more use of dance archive materials than practice-based research projects. Similar to the text-based dance researchers, mixed-approach dance researchers generally had a strong awareness of archives, with 93% aware that they existed. There was a mixed response as regards to how mixed-approach dance researchers visited dance archives, with a slim majority suggesting they visited dance archives online.

The online questionnaire continued by exploring the frequency at which dance researchers visited a dance archive during a research project and some of the inhibiting factors associated with these visits. Overall, the responses showed a consensus between a majority of dance researchers, with 78% suggesting they would visit a dance archive one to five times during a single project. The question of how often dance researchers visited dance archives may correlate with *how* they visited: either online or offline. For instance, the undergraduate dance students disclosed that they visited the dance archive online typically 5 to 10 times during a research project, and thus, were more likely to conduct research online. Conversely, 77% of dance academics, all postgraduate (research) dance students, and 75% of postgraduate (taught) dance students, indicated that they typically visited a dance

archive one to five times during a research project, suggesting that they tended to visit dance archives offline. Dance researchers were further probed on what factors may inhibit them from visiting dance archives in-person. For 71% of dance researchers, visiting was often inhibited by time and by other limiting factors, including lack of funding (32% of dance researchers) and proximity to the archive (42% of dance researchers). Consequently, time constraints, lack of funding or not being local to the archive inhibited the number of times a dance researcher would be likely to visit an archive during a research project. Thus, when accessing a dance archive online, as undergraduate dance students prefer to do, dance researchers would be able to visit more frequently as travel time and cost would be negated from the research equation. However, it is not known why dance researchers feel the need to travel to the archives to access materials. It can only be presumed that archive catalogues and archive materials are yet to be made available online. Whether this is the reason remains unclear, and therefore dance researchers were asked further questions within the focus group, notably what they were going to the archive to access, and how making such facilities available online would enhance their use of dance archives. In turn, the online questionnaire continued by exploring how dance researchers accessed archive catalogues and materials within dance archives.

Access is also an important part of understanding dance researchers' engagement with dance archives. The online questionnaire in this section aimed to understand how dance researchers know which dance archive to visit to fulfil their information needs and how dance archives can be accessed. The responses revealed that dance researchers employed different methods to find where information was located. Moreover, 38% of academics suggested that they tended to check the published online information to know whether the archive had the information they needed. For instance, they suggested that this might include checking online catalogues and information published on the archive's website. Academics also stated that they would locate dance archives through conversations with people to fulfil their information needs; furthermore, in some cases, their institution was associated with

a particular archive, and they even noted that otherwise they would not know where dance archives could be found. Only three postgraduate (research) dance students answered this question and thus suggested that they found relevant dance archives through either a Google search, checking directly with the archive, their website, or by contacting archivists for the information directly. Similarly, only three out of the four postgraduate (taught) dance students answered this question. One postgraduate (taught) student suggested they would know which archive to visit, while another revealed that they would use the dance archive's online guide to check whether it had the information they needed.

Notably, the last participant suggested they would not know which dance archive had the information they needed. The undergraduate dance students would draw on prior knowledge of dance archive use and then use their search bar to find information they needed on the dance archives' website. Online searching for dance archive guidance and information was most prominent among all dance researchers. In some form, dance researchers would inadvertently check online information or approach the dance archives in search of information regarding their information needs.

Alternatively, the next most popular response across dance researchers was that they often do not know where to find dance archives to support their information-seeking needs. The responses across the remainder of the questions of the online questionnaire suggested that although the awareness of dance archives exists among dance researchers, knowing where to find them and their holdings is still problematic if not online. If dance researchers do not know which dance archive to go to for specific material, then they are less likely to visit, either online or in-person. However, if dance archives have an online presence, then they are more likely to be noticed, visited and used by dance researchers. The question of to what extent dance archives provide this online information about their archive, its contents and how it can be searched or accessed will be further explored within the analysis of the online

questionnaire and focus group discussion with dance archivists in phase two of this study. This understanding will help to gauge if dance archives and their contents are both available to and visible for dance researchers online, to what extent it is searchable online, and whether or not dance researchers are aware of dance archives' online presence.

The questionnaire next explored dance researchers' use of archives, and more specifically dance archives. Dance researchers were first questioned about their use of archives in general. A total of 65% of dance researchers had used an archive for research purposes, of which 43% of dance researchers had used a non-dance specific archive. The questionnaire continued on to explore the purpose of dance researchers' engagement with dance archives. Only a few reasons were offered. The purpose of dance researchers' engagement with the archives was subjective, and thus no prominent purpose can be attributed to dance researchers' use of dance archives. However, by looking at the responses given, by different level of education, the primary purpose for visiting and using dance archives becomes clearer. For 50% of dance academics and 60% of postgraduate (research) dance students, the purpose of this engagement was to find subject-specific information. Alternatively, for 50% of postgraduate (taught) dance students, the purpose was to complete an assignment. Moreover, the one undergraduate dance student revealed that their purpose was to look for data. Dance academics also noted that dance archives aided their teaching, as well as enabling them to find material that could not be found online or digitally. The latter response is interesting as this corresponds with the responses given earlier in the questionnaire, as to why they visit dance archives in-person, notably because dance researchers cannot find the information they want online. Thus, this suggests that the archive material they need cannot be accessed online. The purpose of dance researchers' engagement is quite narrow in that each type is looking for specific information relating to either a subject (e.g., dance), a specific assignment, or more generally for some data relating to a subject or topic.

Additionally, it was noteworthy to explore the differences between text- and performance-based dance researchers' purposeful use of dance archives. Text-based dance researchers used dance archives to find dance documentation, newspapers or magazine articles, as well as information about performances. In contrast, practice-based dance researchers noted that their use of dance archives extended towards finding information on a particular company or theatre, and more specifically, to finding information on lighting plans. The purposes for engaging with dance archives relate back to the information needs outlined at the start of this chapter, thus demonstrating that dance researchers are using and can use dance archives within their information-seeking process, if they know where to find them and what their archive content consists of. Dance researchers' responses suggest that dance archives offer information specific to their field of study, which cannot be found anywhere else online. Often that information is a primary source of information relating to various aspect of dance, including performance, choreography, reviews and more, which they may not be able to find anywhere else online. Thus, this demonstrates that dance archives would have a more prominent place within the information-seeking process of many dance researchers if their online visibility was clearer. This insight enables us to understand how dance archives can fit into the dance researchers' information-seeking process, which relates back to RQ1, outlined as part of the subsequent research questions within phase one. From the online questionnaire, we can see that dance archives have the information dance researchers want, but accessing dance archives and their materials relies, at the moment, on them being visible online. Therefore, the development of online dance archive resources becomes increasingly important and validates this research project's mandate even further.

The online questionnaire continued to explore dance researchers' use of archive catalogues and how they navigate their way through the archive when searching for information. Dance researchers were questioned on their use and preferred features of the archive catalogues they liked. The online questionnaire revealed that 85% of

dance researchers had used an archive catalogue to find information within an archive. Additionally, 71% of dance researchers had used an online archive catalogue. These initial responses suggest that dance researchers are more than likely to engage with archive catalogues in an online capacity. Next the online questionnaire asked dance researchers to list three features of an archive catalogue they liked. The questionnaire provided a multitude of responses from dance researchers, including: searchability, digital content, contact information for the archive, description of archive material, ability to see change over time, ability to browse, and accessibility of archive content. The three catalogue features most liked by all dance researchers were: digital content (17% of dance researchers), description of archive material (17% of dance researchers), and accessibility information of archive content (10% of dance researchers). These features are in line with dance researchers' information preferences for online content of dance archive materials. For instance, an increase in digital content in online dance archives would mean that dance researchers could search, view, and access dance archive content for information they need, negating the need to travel, and in turn negating the funding and time issue related to accessing and searching dance archives. To what extent these features are made available, or are catered for, by dance archives in an online capacity remains unknown. Therefore, further investigation will be carried through and explored with dance archivists within the online questionnaire and focus group in phase two of this study.

The online questionnaire enabled a more in-depth analysis of the degree to which dance researchers navigate and find information. Moreover, the questionnaire also explored which features of dance archives dance researchers found helpful or unhelpful. The responses suggested that 64% of dance researchers did not have any trouble accessing dance archive materials. However, further responses showed that some issues were identified by dance researchers. Within the online questionnaire, the undergraduate dance students noted that dance archives were easy to navigate, and remarked on their utilisation of the search bar function within the archive. The

undergraduate dance students also suggested that the ability to search by topic and year was helpful. Alternatively, postgraduate (taught) dance students' responses were mixed. For 50% of postgraduate (taught) dance students, it was easy to find information, whilst the other half suggested that it was hard to find information. However, postgraduate (taught) dance students offered little insight into why they were so undecided. Only one of the four postgraduate (taught) dance students offered an insight into why the dance archives were easy to navigate; they suggested that it was easy 'when you know what you are looking for'. Finding information or navigating dance archives was described as easy by 77% of dance academics and 60% of postgraduate (research) dance students. Two main explanations for ease of navigation were offered by postgraduate (research) dance students, which included: the use of 'effective' search functions and help from the archivists. These two responses provide an insight into how postgraduate (research) dance students navigate dance archives. The use of the online search function allows postgraduate (research) students to employ their preferred method of searching through keyword, as found earlier in this study. However, the effectiveness of the search within the online archive depends on all archive information being online and also the search strategy employed by the dance researcher while using the search function. To what degree all archive content is listed online remains to be seen; thus, further investigations will be carried forward into the online questionnaire and focus group with dance archivists.

Additionally, from earlier in the online questionnaire, it became clearer that there are still unknown aspects related to the search strategies employed by dance researchers. Thus, further conclusions cannot be made about the effectiveness of these strategies, or how dance archivists assist dance researchers in their information-seeking processes within the dance archive. The online questionnaire offers only a limited understanding of how dance researchers navigate dance archives, as it provides only a surface level understanding of how dance researchers experience 'searching' within a dance archive. Further questions within the online

questionnaire anticipated that dance archivists would be used to search and navigate the archive, and therefore the online questionnaire in phase two may help to improve understanding of how archivists help dance researchers to find information in the dance archive. Nevertheless, further investigation within the focus group discussion and observations will help to offer some conclusions on the responses outlined here, regarding how dance researchers search and navigate dance archives.

The support and guidance provided by archivists within dance archives is often regarded as pivotal in unlocking the contents for dance researchers. Therefore, the online questionnaire continued by exploring the role of archivists. The responses showed that 30% of all dance researchers found archivists 'often' useful during an information search. Moreover, 19% of all dance researchers claimed archivists were 'always' useful when trying to find information within the archive. These responses indicate that dance researchers may find navigating the archive easier with the help of archivists. This preliminary finding suggests that without the knowledge of archivists, dance researchers would struggle to navigate dance archives during an information search. It may be assumed here that providing extra support for users of the archive may put extra pressure on archivists' role, support which could be negated through the improvement of online dance archive resources. However, this finding requires further investigation across the study, to fully understand the support and guidance dance archivists provide to dance researchers when helping to find information and navigate dance archives.

The online questionnaire continued by exploring dance researchers' information preferences for dance archives, as well as how satisfied dance researchers felt when using dance archives. The online questionnaire first explored format preferences for dance archive materials. For 65% of all dance researchers, digital materials were preferred. Additionally, all dance researchers were in agreement that they would like to see more digital content from dance archives, which coincides with the earlier finding where dance researchers stated that they would like to see more digital

content from dance archives. When further questioned on digital content, 92% of all dance researchers were willing to log in to be able to access digital content from dance archives online. Dance researchers were also questioned on the features of online dance archives which they disliked. By investigating the dislikes of dance researchers, it is hoped that a more in-depth understanding will be offered of their preferences for online dance archives, thus working towards the future development of online dance archive resources.

A variety of responses were observed among dance researchers regarding their dislikes. These included the lack of available digital content, the lack of stimulation they get from online dance archive material engagement, and the interface of online dance archives, notably the amount of information open to them at an item level. However, most interestingly, a larger proportion of academics also suggested that they could not answer as they had not used an online dance archive before. Again, this reaffirms the fact that academics are more likely to engage with dance archives in-person. Moreover, postgraduate (research) dance students, like academics, detailed their lack of sensory engagement with dance archive materials as their top dislike related to online archive materials. This was followed by dance researchers not being able to download items and not having enough information about the content of archive materials online. Furthermore, postgraduate (taught) dance students listed the lack of digital content, including images of the archive material, as the only discerning feature of online dance archives. These responses offer a further understanding of what dance researchers would benefit from more in the promotion of online dance archives, namely increasing the amount of digital content and offering more item level description. The tactility of dance archive material being online could be alleviated through the increasing use and development of digital surrogates and digital tools produced for dance researchers. Improving online archive content could eradicate many of the discerning features of online dance archives, but of course funding for such improvements may be unavailable. As mentioned in Chapter 3 of this thesis, dance researchers' preferences and expectations were put

to the dance archivists within the focus group to explore how the sector might collectively accommodate them, which will be explored later in the thesis.

Alongside understanding dance researchers' format preferences and dislikes with regards to online dance archives, the questionnaire also aimed to understand how satisfied dance researchers were with dance archives. It did so by using a scale ranging from 'completely satisfied' to 'less satisfied'. Figure 4-8 shows the level of satisfaction by dance researcher. Overall, 57% of all dance researchers stated they felt 'satisfied' with dance archives currently online, showing that there is room for improvement; yet, the available standard works sufficiently to serve a purpose for dance researchers during their information-seeking process.

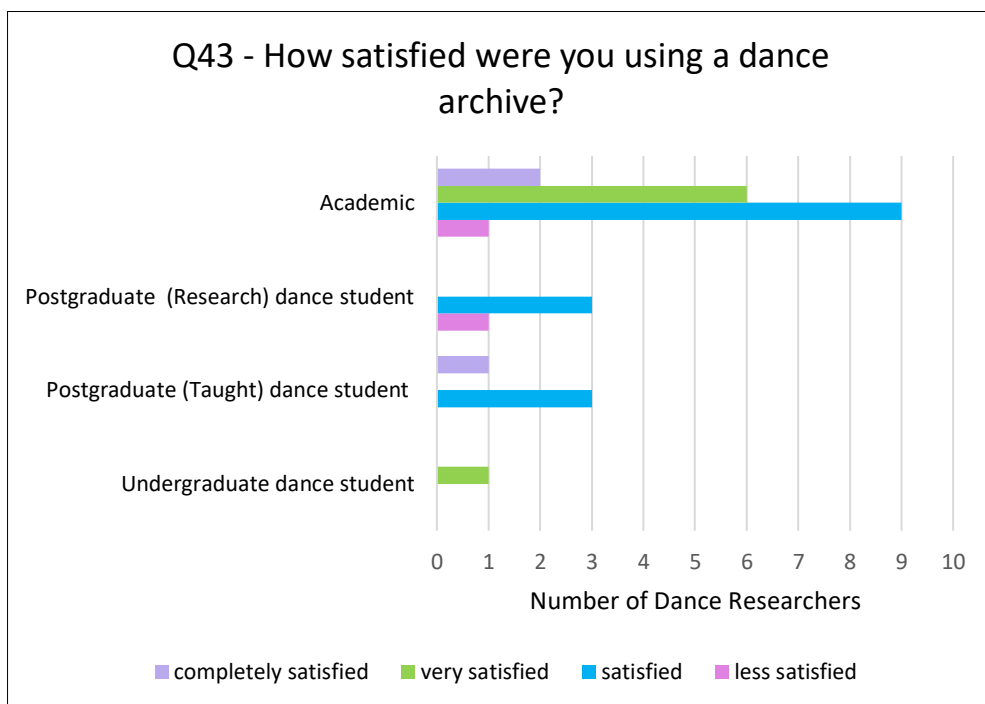


Figure 4-8 Online questionnaire responses showing dance researchers' level of satisfaction in their use of dance archives.

Further analysis showed that all the dance researchers found what information they needed, if not more. However, dance academics and postgraduate (taught) dance students offered a further insight into their level of satisfaction when suggesting that some of the positive attributes of their dance archive experience were obtained when

dance archives helped them find what they needed through '1:1' sessions with staff. Thus, this suggests that dance archives offered 'excellent facilities'. Subsequently, dance academics cited time as one limiting factor of the archive experience. Dance academics suggested that time often inhibited how much information/material they could view in one day and that in some cases not all the material they wanted to view was available. This points to the advantages of increasing the number of digital surrogates or offering better searching facilities which allow for dance researchers to browse the archive. These elements could be explored as more insights into dance archives and dance researchers evolve within this study. However, these findings do suggest some suggested improvements or developments for future online dance archive resources which could aid dance researchers' awareness and use of dance archives.

The final section of the online questionnaire proceeded to ask dance researchers to propose their own suggestions for dance archives, notably to improve their online presence and to promote more usage among the dance researcher community. The online questionnaire revealed that 57% of all dance researchers would like to see proposed improvements, such as more promotion of archive materials to their institutions or universities through blogs, mailing lists, or newsletters, in addition to keeping users updated on projects, collections, and new arrivals. Dance researchers also suggested they would like to see more digital content, which corroborates earlier findings in this online questionnaire, and for dance archives to increase their searchable presence online, for instance, through Google. Digital content featured highly, as expected, when it came to suggested improvements for online dance archive resources. Therefore, a pre-emptive question was put to dance researchers regarding the digital content and interactive features they would like to see in the future. The responses revealed that 96% of dance researchers would like to see more digital images of archive materials online, of which 92% of dance researchers would be willing to log in to view such digital content. Dance researchers were further surveyed on the tools they would most like to see for digital surrogates, if they were

made available. Figure 4-9 shows the tools that dance researchers identified as most useful. The three most useful tools were: having the ability to save materials, having the ability to zoom, and having an annotation tool to use on digital surrogate archive materials. Outside of these three tools, dance researchers also regarded slow motion, time markers, and commenting and analysing tools as useful when provided with digital archive material. The responses identify the future developments which could be made to support dance researchers' interaction with digital surrogate archive material.

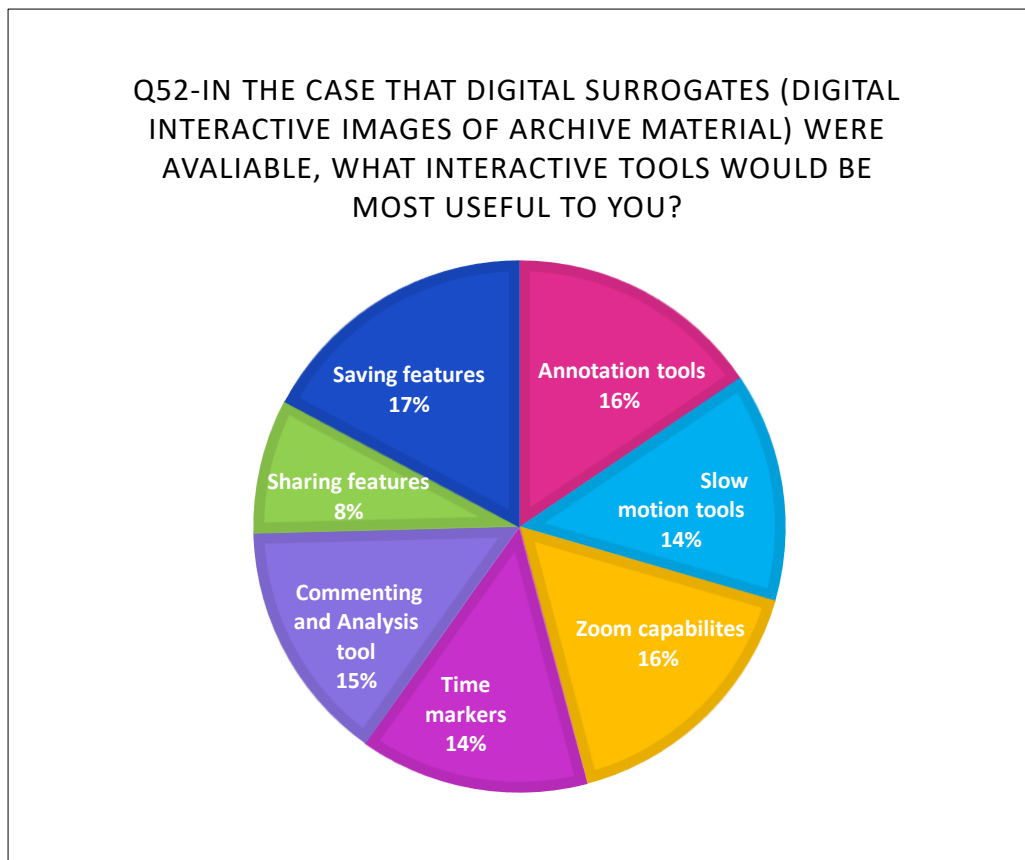


Figure 4-9 Online questionnaire responses showing the interactive tools that dance researchers would find most useful.

The last section of the online questionnaire has attempted to understand dance researchers' awareness of, preferences, and interaction with dance archives more

closely. The online questionnaire revealed that although dance researchers are aware dance archives exist, they find it difficult to know where they can be found beyond a simple Google search or word-of-mouth recommendations. Thus, this relates back to the question of how dance archives are engaging with users and advocating their collections online. Further understanding will be gained on this topic from the discussion with dance archivists in phase two of this study.

Additionally, the online questionnaire responses demonstrated a sense of cohesion with dance researchers' information-seeking preference for online materials, both within the archive searching process and more widely online. Although there is an apparent need for online dance archive materials, what remains unclear is whether the current lack of availability of online dance archive materials is the key reason why dance researchers continue to search archives in-person or use dance archivists to help them navigate the archive.

The online questionnaire in this section explored how dance researchers access catalogues and materials within dance archives. A further understanding of what features, digital content, descriptions of archive materials and accessibility information, are made available or are catered for by dance archives in an online capacity is needed and will be explored within the discussions and observations in phase one, as well as being carried through to phase two of this study.

4.3 Summary of Findings

This chapter engaged in an analysis of the responses from the online questionnaire, to give a sense of what the information-seeking process of dance researchers looks like. The online questionnaire has outlined that the information-seeking behaviours of dance researchers appear to align with those discussed in the information-seeking models of Kuhlthau (2004) and Ellis (1989; 1993); furthermore, they follow similar

patterns to those attributed to researchers more widely. The findings of this online questionnaire have revealed that the information needs of dance researchers are formulated by whether they want to change, develop or contribute new knowledge. For students, these information needs are derived by the requirements of course assignments, whereas for academics, they are driven by developing or contributing new knowledge to the field. Indeed, these information-seeking behaviours are generally attributed to students and scholars across the information-seeking literature (Griffiths and Brophy, 2005; Marchionini and White, 2007; Jamali and Asadi, 2010; Spezi, 2016; Ge, 2017; Nicholas et al., 2017; Weber, Becker, et al., 2018). The findings also highlighted that the information needs of dance researchers are wide-ranging, as suggested by existing information behaviour literature regarding performing arts researchers (Cobbledick, 1996; Medaille, 2010; Robinson, 2016). However, what is still unclear from these initial findings is what happens to the information needs over the course of the information search. While the literature notes that the information needs of researchers tend to evolve and be reshaped as the information-seeking process plays out, this questionnaire cannot come to the same conclusion. Therefore, the research will continue to explore what happens to the information needs of dance researchers across the online questionnaire and think-aloud observations within phase one of this study.

Information sources such as people, online libraries and the Internet were found to be key starting resources within dance researchers' information search. People and online libraries were also found to be important features of both Cobbledick's (1996) and Robinson's (2016) studies concerning performing arts and dance faculties. However, unlike these studies, the online questionnaire disclosed how integral online searching or the Internet was to the information-seeking process of dance researchers. With the internet becoming more integrated into every aspect of our lives within society, it comes as no surprise that online searching has become a prominent feature within dance researchers' information-seeking process. Similar to Mason and Robinson (2011), the online questionnaire revealed that the Internet is

an important starting reference for dance researchers, and online searching is integral to their information-seeking process. However, the online questionnaire was unable to clarify the pathways and relationships between information sources used and taken by dance researchers across their information-seeking process. Therefore, questions still remain as to whether there is a path from online search engines to online journals in the information-seeking process of dance researchers, or in other words, whether dance researchers start from a search engine and use it to find online journals. Therefore, further investigation is needed into the information-seeking process of dance researchers to understand these pathways and to help develop future online archive resources.

The existing information-seeking literature was not able to provide any insights into the searching strategies of dance researchers in an online setting. Therefore, the online questionnaire was able to provide important new insights for the field. The questionnaire revealed that dance researchers had a keen preference and leniency towards search strategies, including keyword searching, browsing and chaining. The questionnaire revealed that keyword searching was dance researchers' primary method of searching, and dance researchers suggested that the method had a 'good' success rate. These search strategies and methods of information searching resonate with several of the major information-seeking models within the information-seeking literature (Ellis, 1989; Kuhlthau, 1991; Ellis et al., 1993). However, the question of how dance researchers employ these methods requires further investigation within the think-aloud observation and the focus group discussion.

The think-aloud observation, it is hoped, will be able to provide significant details on keyword and search query construction and evolution as well as being able to identify whether browsing is conducted in a particular way, adhering to already known methods of searching, such as, Berry-picking, pearl growing or quick searching. This could in turn provide answers to the question of whether dance researchers are able to utilise the information search systems for their own information needs. By

understanding the search strategies employed by dance researchers, further comment can be offered on the future development of online dance archive resources whereby information retrieval is a main priority.

Within the wider information behaviour literature, and particularly that involving performing arts researchers, information-seeking behaviours tend to be investigated to the benefit of information services such as online libraries (Kuhlthau, 2004; Medaille, 2010; Mayer, 2015). The application of these findings may extend beyond this remit, but the initial intention is to support information services. The interaction between users and archives has been explored more in those fields of study closely associated with archives, such as the humanities (particularly history). Therefore, the online questionnaire began to provide initial insights into dance researchers' relationship with the archive, which have not been previously explored.

The online questionnaire should have been open to those who had never engaged with dance archives before to gain another valuable insight not revealed within dance researchers' relationship with dance archives. This would have helped to understand why some dance researchers felt they were not able to connect with and use dance archives at all. As already mentioned, this will be a topic of interest to take forward into the focus group and think-aloud observations. However, despite this, the online questionnaire engaged with a gap in knowledge concerning dance researchers' awareness of, engagement with and use of dance archives.

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questionnaire engaged with a gap in knowledge concerning dance researchers;' awareness of, engagement with and use of dance archives.

Overall, the online questionnaire set out to provide an initial understanding of how dance researchers perceived their information-seeking process by investigating three areas: information needs and processes, search strategies and information sources, and the role of the archive within dance researchers' information-seeking process. Ultimately, the findings provided new insights, but also highlighted areas of further investigation which will be taken forward in the subsequent phases of this project.

The findings from the online questionnaire only provide a 'perceived' idea of the information-seeking behaviours of dance researchers, as the questions asked dance researchers to reflect on their own behaviours. Thus, the online focus group and virtual think-aloud observations, found in Chapter 5, will help to explore these questions, and may help to further understand whether dance researchers' perceived information-seeking behaviours are congruent with their actual information-seeking behaviours. Thus, by addressing these points, this project will offer contributions concerning how future developments of online dance archive resources might support the information-seeking behaviours of dance researchers.

Chapter 5 Dance Researchers: Online Focus Group and Virtual Think- Aloud Observations Analysis

Phase one of this research aimed to understand how the information-seeking processes of dance researchers can help to inform the development of future online dance archive resources, thus aligning with both RQ1 and the central research question. Within phase one so far, the online questionnaire has provided a baseline understanding of the information-seeking processes of dance researchers. However, various areas remain unclear, notably evaluating how information needs evolve, identifying pathways from one information source to another, as well as understanding further details of the search strategies employed and how dance archives can be used and further integrated into the information-seeking processes of dance researchers. Therefore, a focus group discussion was additionally conducted with a range of dance researchers studying or working within the field of dance in the UK, as outlined in Chapter 3 of this thesis. The focus group aimed to further explore the responses given in the online questionnaire, as well as to further understand how dance researchers perceived their information-seeking processes. It was also vital to understand whether dance researchers' perceived information-seeking behaviours were congruent with their observed information-seeking behaviours. Therefore, phase one also included think-aloud observations, conducted with the same participants as those in the focus group. Both the focus group and think-aloud observations were transcribed and thematically analysed. Thus, the findings form the basis of this chapter.

5.1 Information Needs and Tasks

The think-aloud observations were carried out by five dance researchers: two undergraduate dance students and three dance academics. As mentioned in Chapter 3, it is recognised that the postgraduate (taught/research) dance student voice is

absent from this study. Thus, there is further scope to extending the work beyond this thesis.

The think-aloud observations were conducted within a four-week timeframe after the initial focus group. Prior to the observations, dance researchers were asked to choose where they wanted to carry out their information-seeking task. This decision was given to the dance researchers based on previous evidence from the online questionnaire that some dance researchers who are practice-based may want to carry out a more exploratory information-seeking process through their bodies. However, all dance researchers chose to use their computers to carry out their information-seeking process.³¹ Several factors may have contributed to this choice. Firstly, it is plausible that participants were constrained by pandemic-related restrictions, thereby limiting their ability to engage in information-seeking practices within traditional dance settings. Alternatively, it could be posited that the embodiment and exploration of knowledge through physical practice may parallel the methods employed by conventional researchers within the realm of digital environments. Moreover, another plausible explanation is that more physical practices may follow or complement explorations within the digital environment, suggesting a sequential or complementary relationship between the two modes of engagement. Importantly, it should be noted that these interpretations are based solely on the findings of this study, and further investigation into the reasons behind this choice would surpass the scope of this thesis. However, the choice of using the computer to carry out their information-seeking processes was in line with findings from the wider information-seeking literature associated with researchers.

Dance researchers were also asked to verbally describe what it was they would be looking for before embarking on their information-seeking process. This was the first

³¹ The choice of where dance researchers carried out their information-seeking process was left to dance researchers, to ensure inclusivity for those who might want to use the studio space and/or their body.

time dance researchers had been asked to formalise and communicate their information needs. A formalised information need is a statement constructed by the information-seeker, explaining their information need (Taylor, 2017). By asking dance researchers to formalise their information need verbally, it helped them to identify the information need, topic, and task they were attempting to undertake. One undergraduate dance student suggested that they were researching 'the use of text in dance' (UG1), while the other undergraduate dance student verbalised that they were specifically interested in finding out which of the four conservatoires in the UK was the 'oldest' (UG2). Similarly, the academics demonstrated a range of information needs. One academic was looking for audience responses via Twitter pertaining to a particular work, 'Lover's Rock' (DS1), while another academic was looking for information relating to '19th-century philosophies and ideas that contributed to dance' for a book chapter they were undertaking (DS3). Another academic displayed a significant range of information needs with a range of tasks that they were aiming to get through within the timeframe, including: learning how to reference personal communications in academia, looking for examples of book reviews to structurally analyse, and looking for other performative works on the specific topic of fertility (DS2). The initial observation demonstrated that the information needs of dance researchers ranged widely. However, it also helped to understand the types of task that dance researchers undertake. Both undergraduate dance students were researching for a specific assignment related to their course. The academic responses showed the complexity and range of tasks exhibited by dance academics, ranging from conducting fieldwork, writing (book chapters and reviews), to helping their students with particular writing formalities.

5.2 Information Sources and Search Strategies

The initial starting points observed helped to identify how wide-ranging dance researchers' information needs are, regardless of their level of education. The

information needs of dance researchers is otherwise unexplored within existing information-seeking literature. Thus, these observations offer new insights as regards how dance researchers formalise and verbalise their information needs. The information-seeking literature suggests that formalised information needs tend to evolve as the information-seeking process evolves (Marchionini and White, 2007; Taylor, 2017; Ruthven, 2019). To what extent these initial information needs evolve or become fulfilled remains unclear at this stage of the analysis, but further explorations of the observation data should help to provide further details on the development of dance researchers' information needs.

The think-aloud observations also provided an insight into which information sources dance researchers used within their information-seeking process. The Internet was a key starting point for all dance researchers within the think-aloud observations. There was one exception to this finding: an academic who began their search for information using a physical book within their home office. However, despite the synonymous use of the Internet, dance researchers started their information search at different places online. One undergraduate dance student started with four pre-determined websites already open on their screen, while the remainder of the dance researchers began with an index-based search engine, Google. While the Internet was the key starting point for dance researchers in their information search, it was observed that Google specifically became their key starter reference. However, the observations also revealed that of those who used Google first to search for information, it was also the default browser that appeared as they opened their browsers. Therefore, Google indirectly became the dance researchers' starter reference. To what extent dance researchers may choose Google over other search platforms remains to be seen. However, later in the study, two dance researchers were observed initiating a search for new information needs using Google, thus further supporting the notion that Google is considered a key starter reference for dance researchers.

Google is noted as being the 'primary brand' associated with the Internet (Rowlands et al., 2008). Thus, it comes as no surprise that it featured prominently across the information-seeking processes of dance researchers. Typically, Google is where information seekers tend to begin their search (Jamali and Asadi, 2010; Alharbi et al., 2013; Georgas, 2014). However, the dance researchers' starting point identified within the observations differed from previous information-seeking studies involving performing arts researchers. For instance, Grattino (1996), Medaille (2010), and Robinson (2016) all suggested that performing arts researchers reach out to their social or academic networks for information prior to engaging with any other sources. However, as Robinson pointed out, these studies were conducted before the Internet had become accessible to researchers. The information-seeking literature suggests that the information needs of researchers tend to arise when participants are at their screens rather than in physical settings, such as libraries, everyday settings where they engage in face-to-face conversations, and classrooms, as previously witnessed in the pre-electronic era (Marchionini and White, 2007). However, this study's finding seems to be a comment on how electronic devices are now more integrated into researchers' physical setting. Thus, the choice to start an information search online using a search engine is now common practice among not only everyday information seekers, but also among academic researchers, beyond the discipline of dance and the performing arts (Griffiths and Brophy, 2005; Warwick et al., 2009; Du and Evans, 2011; Kemman et al., 2013; Catalano, 2013; Georgas, 2014; Weber, Becker, et al., 2018). Scholars within disciplines closest to the arts, such as the humanities, are found to use Google as their starting point from which they can either begin their search or use it to transition to other websites (Kemman et al., 2013). Like humanities scholars, dance researchers were also observed transitioning from Google to other websites. Therefore, what would previously have been thought of as a method for dance researchers to access and locate new or relevant information, through close networks and colleagues, has been replaced with the Internet and, in particular, Google. The observations also revealed that when Google did not satisfy the dance researchers' information search needs, they proceeded to use other citation index

search engines, such as online library catalogues, online journals and Google Scholar. Thus, Google helped dance researchers to transition to online library catalogues, online journals or Google Scholar.

Keyword searching was observed across most of the dance researchers' information searches within the think-aloud observations, as well as being discussed in the focus group. Therefore, keyword searching was noted as a primary search strategy used by dance researchers across multiple websites, inclusive of Google/Google Scholar, online journals and online libraries. The dance researchers who started by using Google used it to either direct them to other familiar websites, or used it to conduct a 'basic' keyword search (DS2). The basic search for dance researchers is what might be termed free text searching, meaning that the dance researchers used words and phrases directly taken from their formalised information needs.

As explored within the literature review in Chapter 2 of this thesis, information seekers are known to reformulate their information search query until they are successful or find the information they need to fulfil their task (Bates, 1989; Du and Evans, 2011; Taylor, 2017). Thus, the think-aloud observations were able to provide an insight into how dance researchers turn their information need into a search query. Dance researchers were observed constructing a search query with broad terms relating to the topic of their information need. The initial search query tended to start with one or two search terms. However, in most cases, this did not prove successful. Similar to those observed in the wider literature, dance researchers found that a 'standard one-word or two-word search' generally 'return[ed] a list of search results that [was] too broad' for them (Weber, Becker, et al., 2018, p.911). Consequently, dance researchers were observed extending their search query from one word to include two or more words. One dance researcher began with the keyword 'references' as their search query or keyword when searching for information. After an initial skim read of the returned results, they proceeded to extend their search query to 'referencing personal communication'(DS2), adding

more words, which in turn refined the search query in line with their information need. This took the dance researcher from finding information about referencing in general, to information about how to specifically reference personal communications. The refining of keywords and phrases was used by dance researchers above any other filtering tools provided on many of the index and citation index search engines. Although both UG2 and DS2 were presented with filtering options on Google, Google scholar and the university library catalogue, each refined their search by changing their chosen keyword in the information system rather than filtering the returns by date, author or subject. This showed a clear preference for the use of keyword searching during an information search. However, this is not to say that filtering tools were not used at all within the information-seeking process. Rather, keyword searching was clearly the preferred method of searching, for dance researchers.

Dance researchers are not alone in their preference for keyword searching as a search strategy. Keyword searching is common among students and scholars alike, in disciplines that go beyond the performing arts (Warwick et al., 2009; Du and Evans, 2011; Catalano, 2013; Kemman et al., 2013; Weber, Becker, et al., 2018). Previous studies have indicated that students generally choose to use a basic or free text keyword search over any advanced search tools (Alharbi et al., 2013; Dempsey and Valenti, 2016; Weber, Becker, et al., 2018). However, within the current study, this behaviour extended towards academics too. Students' reluctance to use advanced search tools in the first instance has been attributed to their success in using simple keyword searching in their everyday lives (Weber, Becker, et al., 2018). The wider literature provides some context about how, or why, dance researchers use keyword searches. Generally, it has been noted that students opt for a keyword search, no matter which search facility they are using (Dalal et al., 2015; Dempsey and Valenti, 2016; Asher et al., 2017). Students have used keyword searches to find information even if the method offers low levels of success due to high yielding results. Moreover, uncertainty arises from these studies with particular regards to why students return

to this method if it is not successful. As previously mentioned in this chapter, when dance researchers opened their browser, the default homepage was Google. As Google plays such a key role in dance researchers' initial search stage, this may indicate why they use keyword searches despite the low success rate. Keyword searching has become ingrained within researchers' information-seeking practices, a finding that is reinforced among the dance researchers in this study. However, studies on humanities scholars challenge the idea that keyword searching produces low success rates, yet suggest that with the right skills, the method can be fruitful for the information seeker. The literature highlights that to be successful in using keyword searching, the information seeker needs to use more precise search terms, such as, author, date etc. (Bates, 2017; Wiberley and Jones, 2017). However, dance researchers were less likely to use terms associated with dates or authors within their keyword searches. Dance researchers were observed to use more conceptual/topical terms to increase their chance of success.

Keywords used by dance researchers aligned with what Buchanan et al (2005) expressed as 'conceptual terms'. Buchanan et al suggest that 'conceptual searches related to a discipline term' are problematic and less successful for humanities information seekers (2005, p.11). Conceptual keyword searching requires the information seeker to use phrases to improve the precision of results. As we have seen within the think-aloud observations, 'conceptual terms' were less problematic for dance researchers and helped increase their success rate. Additionally, conceptual keyword searching is associated with 'naïve' information seekers and is less likely to be seen in those who are more experienced at information searching (Buchanan et al., 2005). Again, this does not seem to be true of dance researchers; this conceptual keyword searching was seen across the observations, regardless of dance researchers' level of education. Therefore, it can only be assumed that conceptual terms have more relevance for dance researchers than what are considered 'proper words', or aspects of source information, such as, dates, people, or places. Dates, people and places are key aspects within archives which allow

information to be catalogued or found. Therefore, questions arise around how dance researchers' alternative keyword searching method might affect their ability to locate information in the archive context.

As the archive literature suggests, archive catalogues' metadata holds two types of information about the material: *ofness* and *aboutness*. *Ofness* is deemed the most useful way to search an archive catalogue. Thus, it is considered the most important metadata produced for archival materials and collections. However, if dance researchers' keyword searching goes against the grain of other researchers' approaches, and is inclusive of conceptual term searching which would naturally derive from the aboutness metadata held within archive catalogues, a question arises as to whether this is causing an issue when dance researchers search for information in the archive. It appears that dance researchers' search strategies are less likely to be effective within the archive. Further observations and discussions within this chapter and across this study will help to understand the degree to which this is true for dance researchers and whether this affects how dance archive resources need to be developed in the future.

The observations of dance researchers, thus far, have shown that Google acts as a tool to transition to other websites, and keyword searching is one of the most prominent search strategies employed. Both of these could have a profound effect on the visibility, development and use of online dance archives. From the literature review in Chapter 2, it can be seen that archives – whether speaking of them as institutions or organisations – can be located through Google, although the individual archive records within the catalogue are typically not as visible using search engines. Nevertheless, there may be relevant information held within collections that could cater for a wide range of dance researchers' needs, as has just been outlined. Therefore, archive collections are not visible online to the same extent that journal articles, for example, are, since these can be identified using a simple Google/Google Scholar search. Google Scholar has made this achievable as it is known to 'work with

publishers of scholarly information to index peer-reviewed papers, theses, preprints, abstracts, and technical reports from all disciplines of research and make them searchable on Google and Google Scholar' (Google, 2022). Although Google Scholar produces journal articles in return lists, it does, as Harzing suggests, miss out on other useful published scholarly work, such as, 'student guides, library guides and editorial notes', all of which can be just as useful to a researcher (Harzing, 2017).

Dance archives might learn from how journal article data has been utilised and made available on the semantic web to benefit their visibility; in turn, they could aim to adopt a similar strategy to benefit their own archive collection records. However, it is unclear from the archive literature, and this study so far, to what extent dance archives are capable of employing a similar strategy. Nevertheless, it is evident that dance researchers are less likely to go from Google to dance archives through a simple keyword search, unless they know that the information they want is within a specific archive. It has also become clear that dance researchers will use Google to transition to websites to find information they want or need. By fostering the connection between dance archive collections and Google result lists, as journal websites have done, this would significantly help drive traffic towards dance archive catalogues and websites in the future and increase the visibility of online dance archive collections for dance researchers.

Dance researchers used information filtering as another search strategy during their information-seeking process. Across various platforms, dance researchers began refining their search using various methods such as additional keywords, dates, hashtags, countries, journals, and formats. DS1 was observed setting parameters using Twitter's³² advanced search feature when search results were too broad. DS1 began to refine the search by setting specific hashtags such as, '#loversrock', then adding particular date ranges and other keywords, such as 'dancing', to find the

³² Twitter was renamed 'X' in July 2023.

information they were looking for. This set of parameters evolved as a result of dance researchers' evaluation of the returned search results. This iterative process of refining, specifically using keyword selection, was a common observation across all the dance researchers during their information-seeking process. Moreover, DS2 would begin with keyword searching, then refine the search to look for articles within a particular date range and by particular authors. Furthermore, UG1 would start their search with keywords and refine their search for particular formats, such as film or video recordings. Although we have already identified that the information need changes throughout an information search, a richer understanding of how it evolves for dance researchers can be identified.

Secondary to keyword searching is dance researchers' setting of parameters based on information already found, closely associated to their information need/topic. The information dance researchers find is then refined again using data more closely associated within *ofness*. Thus, this demonstrates that although dance researchers are conceptual searchers in the first instance, they tend to refine their search using more conventional methods associated with the wider remit of information seekers. However, the found information presented to dance researchers tends to shape the parameters applied to the next search phase until they find what they might be looking for. For instance, on Twitter, DS1 used a particular hashtag and thus began filtering their search accordingly. Additionally, DS2 had navigated to online journal articles of a similar nature to that which they were interested in and filtered according to the type of online article they were seeking: book reviews. Therefore, building on what has been explored previously in this chapter, it seems that *ofness* and *aboutness* information are both useful for dance researchers, but in unconventional ways. Moreover, dance researchers use *ofness* metadata as a refining tool rather than a dominant feature of their search strategy. This helps to understand how dance researchers might use archive data in a different way within the development of future online dance archive resources.

Across the think-aloud study, all dance researchers exhibited an information-seeking behaviour known as chaining. All dance researchers were observed following citations, links, and/or references. Both DS1 and UG1 commonly used citation index search engines, such as Google scholar or library catalogues, chaining through to various information points. DS2 followed references that were familiar to them, while UG1 followed only one citation from an index search and used the information they found to create another information search, to follow a citation/link and so forth. Chaining, within the information-seeking literature, is known to be carried out either forwards or backwards. Backwards chaining involves the seeker 'following up references or sources cited in material [they] consulted', while forward chaining involves the seeker 'identifying citations to material consulted or known' (Ellis, 1989, p.183). The think-aloud observations helped to reveal that dance researchers used only backwards chaining during their information-seeking processes. UG1, DS1 and DS2 all exhibited backwards chaining by clicking on citations, links, and/or references found within articles, tweets, and eBooks they were searching. Therefore, this suggests that dance researchers are interested in what shapes a piece of information rather than the significance of how many people have used the information; in other words, dance researchers may utilise it as an evaluative tool.

Dance researchers may chain backwards to evaluate the information and understand it within the wider information context. Alternatively, it may help dance researchers to find information related to new, or alternate, topics aligned with their own information needs. The reasons that dance researchers employ backwards chaining still remain unclear at this point in the study. Various reasons could be attributed to this practice, and thus further study should be conducted into this area.

An additional information-seeking search strategy that emerged from both the think-aloud observations and the focus group was the use of the 'find' tool located either within the participants' computer system or browser. The 'find' tool supplemented the dance researchers' method of keyword searching of websites and textual

documents online. During the think-aloud observations, both DS2 and UG1 used the 'find' tool on more than one occasion. The 'find' tool was activated either using 'Edit > Find', or, using the keyboard shortcuts 'control+F' or 'command+F', depending on the system being used. Both participants used unseen keyboard shortcuts to use the 'find' tool within the browser, thereby searching the online article or book. The use of the 'find' tool was also discussed within the focus group. Dance researchers agreed that when browsing through information online, they found it 'useful' to determine whether textual documents, or websites, had the information they were interested in. Additionally, dance researchers also suggested that they found it useful when the 'find' tool highlighted the matches of a search string in the text. Within the focus group discussion, DS1 highlighted that keyword searching in a document online is,

'Something that I use a lot in the Gallica database because I'm looking at text in French and I'm very slow at reading French, and so if I had to read all of those books from cover to cover to find what I needed my research would just never happen. So, being able to search within a document I think is absolutely key' (DS1).

Similarly, dance researchers also preferred it when search engines highlighted keywords in a different colour upon returning the results, as well as on the documents themselves when followed. Similar to the 'find' tool, when search engine results highlighted keywords from the search string, the highlighted text made it easy to see and locate the information when clicking on the document. However, dance researchers noted that when clicking into the document from a search engine results list, the highlighted keywords were lost. Thus, they would have to replicate the search again using the 'find' tool to locate the keywords within the website or online textual document. This lack of translation of highlighted keywords from results lists to resulting documents often caused confusion for the dance researchers.

Subsequently, UG1's think-aloud observation exemplified how the lack of highlighted keywords in the resultant webpage led to them deeming the information not useful and resulted in the participant discarding the information source completely. Both

UG1 and DS2 replicated this process on their system or browser using the 'find' tool when the returned results had no highlighted keywords. Searching and highlighting of keywords and phrases in the documents is therefore a strong preference shared by dance researchers. This preference also serves as a timesaving tool for dance researchers. Dance researchers would 'scroll' relatively fast through websites, articles, books, and tweets, searching for information associated with a topic or keywords during their observations. Thus, having keywords highlighted in the text helped to speed up this skim-reading process for relevant information. Dance researchers within the focus group highlighted how useful it would be for them if dance archives that contained digital content of textual records could be searched according to keywords. DS1 suggested that 'being able to search within a document, I think, is absolutely key', a sentiment shared by all dance researchers within the focus group.

Technologies, such as, optical character recognition (OCR), handwritten text recognition (HTR), or tagging, posit solutions to making dance archive records more searchable for users drawing on the search strategies employed by dance researchers (Blanke et al., 2012; Muehlberger et al., 2019; Neudecker et al., 2019; Poole, 2019). OCR renders archived documents easily searchable. However, this sort of technology can be costly for smaller archives, and is thus rarely implemented. Tagging of archive documents has also been introduced to help assign textual keywords to text, thus making them more searchable. However, these technologies are dependent upon dance archives having digital content available for the dance researchers to search, which is not always the case. To what extent dance archives have digital content available online remains unclear from the literature and thus requires further exploration within phase two of this research project. This would allow for a more comprehensive understanding of whether dance archives could implement such technologies online for dance researchers, and users more widely.

Dance researchers' semi-directed information-seeking could be attributed to what the information-seeking literature describes as browsing (Bates, 1989; Ellis, 1989; Kuhlthau, 2005). With the scope of the information being relatively broad, in the first instance, dance researchers loosely look for topic information associated with their needs. Information-seeking strategies such as area scanning using keywords and conceptual terms, footnote following, and backwards chaining, are all attributes of dance researchers' browsing process to satisfy their information needs. However, throughout the browsing stage, dance researchers showed a significant amount of self-awareness in connection with their information needs and search strategies. For instance, they were aware of how lost or distracted they could become when searching for information, although in the case of some academics, they stated that being lost could also lead to generative possibilities.

Serendipity is a concept closely associated with browsing, which may offer insights into the benefits of feeling lost. Serendipity relates to information seekers stumbling across new information they had not been looking for. Although it has been noted that serendipity does not appear in information behaviour models, it has a significant role to play in the construction of new knowledge (Foster and Ford, 2003; Agarwal, 2015). Various studies have concluded that among arts and humanities researchers, in particular, serendipity plays a role in building connections, discovering new things, and facilitating creativity (Cobbledick, 1996; Cory, 1997; Foster and Ford, 2003; Makri and Warwick, 2010; Makri et al., 2014; Race and Makri, 2016; Delgadillo and Lynch, 2017).

Serendipity was seen as a positive attribute among the dance researchers within the focus group. The academics within the group suggested that being lost allowed them to find new ways of seeing and opened new research avenues. However, being lost or encountering information outside of their information needs sometimes led them to become distracted. The academics discussed similar traits to those outlined by Erdelez (2005) on encountering information. Erdelez suggests that the path toward

information-seeking is disrupted by found information which is related to information needs for other projects. The seeker goes through five stages during an information encounter: *noticing, stopping, examining, capturing* and *returning* (Erdelez, 2005). This process was observed within two of the think-aloud observations with the dance academics. DS2 was observed looking for information related to their second information need, when they stopped to examine information relating to other projects – either their own or those of students. Moreover, DS2 examined the information (source, date, author), then captured the reference and link to the information, before returning to their own information-seeking. For DS2 this happened on more than one occasion within the think-aloud observation, thus inferring that information encountering or serendipity plays a role in dance researchers' information-seeking processes. Thus, this finding is consistent with previous literature investigating the information-seeking processes of performing arts researchers and dance researchers.

Within the think-aloud observations, dance researchers were able to identify when they were feeling lost during an information search and to bring their focus back whenever they became lost or distracted, by reiterating to themselves what it was they were looking for. DS1 and DS2 were able to identify when they were going off topic and were able to verbally ask themselves: 'what am I doing here...' (DS1), 'I'm interested in...' (DS1) or 'I just want to know...' (DS2), to recentre their focus and situate themselves within the search again. Moreover, UG1 was also able to realise when they had become disorientated or lost before navigating back to a place of familiarity, then reviewing what they were searching for using their notes. This heightened sense of awareness during the information search could be due to the dance researchers being aware that they were being observed. However, it could also suggest that dance researchers are in tune with their own embodied thoughts and feelings, due to the nature of their dance practice. Nevertheless, assumptions can only be made here, and further research into how dance researchers' embodied

practice affects their awareness of the related task during the information-seeking process, is needed.

5.3 Information Evaluation, Extraction and Use

During the think-aloud observations, dance researchers were observed extracting information for use or reference towards the end of their information-seeking processes. Significantly, notetaking was observed within DS1, DS2 and UG2's information-seeking process, as a tool for retaining focus within their search, but also as a means of collecting information. DS1, DS2 and UG2 were observed copy and pasting information they found online to a MS Word document. Moreover, UG1 and DS3 were also observed taking handwritten notes. However, it should be noted that the notes taken by UG1 and DS3 were not visible to the observer during the online think-aloud study.³³ Despite the way in which the notes were taken, all dance researchers were observed selecting information, both verbally and physically, during an information search. The verbal confirmation provided by the dance researchers allowed for the observer to understand when and what the participants were extracting during their search, even when the dance researchers' notes were not visible on screen. Four out of five dance researchers were observed using verbal phrases to indicate what information they were extracting. For instance, DS1, DS2, UG1 and UG2 used phrases like, 'I might capture that one...' (DS1), 'I might save this one...' (DS1), 'oh, this one says...' (UG1), 'this is super useful...' (UG1) or 'I think this is something I want to note...' (UG2). Thus, these phrases offered a glimpse of how the information was extracted during their notetaking. Notetaking benefitted the dance researchers at different stages of the information search. When dance researchers were feeling lost, distracted, or disorientated, all were observed taking

³³ Upon reflection, the study should have considered a way for participants to share the notes they took within the think-aloud observation. The notes could have helped to confirm what information was taken. It would also have been interesting to see the construction of the notes to show how dance researchers find connections, check the information they have found, and more.

some time to reflect back on their notes to regain focus or evaluate their information journey. Notetaking helped to reposition the dance researcher within their information search.

The verbal phrases used by participants were closely followed by them using tools and techniques to extract the information. The methods used varied across the different types of dance researchers. The academics tended to use 'copy and paste' or 'snipping' tools to record the information they had found, while UG1 explored features found on the platforms/websites they were using to store the information. For instance, UG1 used bookshelves on Google Books and their University library to save citation information or online books they wanted to read later. However, within the focus group, dance researchers discussed having an option to store information online or within websites, as UG1 had done within their think-aloud observation. Within the discussions, dance researchers suggested that they preferred to store information locally on their computers rather than online, as they tend to consult multiple information sources during an information search. Thus, storing useful information in multiple places online would be time-consuming for them when it came to aggregating and reviewing the collected information for use. Coincidentally, DS2 and UG1 were both observed using the save or download feature for online journal articles, which they found useful for later use. Alternatively, when those dance researchers who were taking only handwritten notes found these features useful, they would highlight the information on screen before continuing to note the information down, thus allowing the researcher to see the information they found useful.

The mixed modality workflow of the dance researchers here suggests that both online and offline considerations need to be made, when thinking about developing the type of resources dance researchers want or need within the context of dance archives. For instance, future online dance archive resources may allow the user to highlight information they find relevant and provide a place for users to aggregate

this information, via a click and drag tool, or similar means. The user can then transfer this information to a document which runs either as a sidebar across the website or within a background application on the website. This aggregating feature would pull the highlighted information into the document and attach a citation for said information. This document of collected information could then be either saved and downloaded in a format of choice locally on their desktop or could be copied to their handwritten notes. Similar technologies already exist for students and researchers alike in the form of browser extensions, such as, SimplifyNote and Chrome Notes³⁴.

Comparably, the focus group discussion saw a similar need for notes to exist outside of the information source. In their exploration of the three online dance archives given to them, dance researchers discussed the scrapbooking feature within SDR. Scrapbooking, for the dance researchers, meant having a place to store information they had found and any notes they had made during their search for information within the archive. Dance researchers liked the scrapbooking feature on SDR but suggested it was limited to only the information they found on SDR. Dance researchers suggested that having a standalone software or application for collecting archival materials would be useful, particularly as they tend to search across multiple archives. Thus, a further exploration of tools that can be developed is needed to understand how users' information-seeking preferences might be accommodated for within future online dance archive resources.

Often, the formulation of notes and subsequent review process would indicate that dance researchers were coming towards the end of their information search. Yet, towards the end of the time period of the think-aloud observations there was a mixture of behaviours still in play. It seemed as though 45 minutes for an information-seeking task was enough for some dance researchers to find what they were looking

³⁴ SimplifyNote (2023) and Chrome Notes (2023) are two examples of browser extensions which allows users to seamlessly import text, images and videos to a document (e.g., Google Doc) whilst conducting an information search.

for, while others showed no signs of being finished. DS1 and DS3 showed no sign of approaching the end of their information search beyond the searching and selecting stage; thus, these dance researchers had to be stopped. Moreover, DS2, UG1, and UG2 were all observed going through the process of checking and validating the information they had found to fulfil their task(s) before ending their information search and think-aloud observation altogether. Thus, the end of an information search process could be observed, during which time dance researchers checked the information they had found in accordance with their original information need or task.

One case in point was DS2. At the beginning of the task, DS2 had identified three different information needs they wanted to fulfil; this study was therefore able to observe the end of their information search several times. Thus, DS2's observation could demonstrate whether there was a pattern to the end of the information search that was consistent and identifiable within the other dance researchers' information-seeking processes.

On several occasions, before DS2 finished their chosen information search task, they verbally affirmed their confusion about the information. This confusion led the participant into the clarification or checking phase of the information search process whereby DS2 proceeded to validate the information they already had against other information sources. DS2 would check the content of the information, to try to understand whether or why there were a conflict in the found information, before offering conclusions on which piece of information they would use or that satisfied their information need. In one example, DS2 was observed viewing information relating to references found on University of Leeds's University library webpage. The information they found contradicted information they had already found in other information sources. DS2 was observed carrying out an evaluation of the source, checking the author of the information first, then checking the information against a more familiar and trusted information source they had used many times, before

making a judgement on the validity of information in question and how they would choose to reference. The dance research in this instance exhibited stages of finding information, checking, and evaluating the information before using the information within their own work. Again, within DS2's second information search task, they exhibited the same ending behaviour pattern. DS2 checked and evaluated the information to validate whether previously found information was correctly extracted. In this second search, DS2's checking and evaluation of the information led to confusion when reviewing their notes. DS2 noted that dates were missing from the information; thus, they went back to the original source to clarify the information and extract a date for their notes before evaluating the information for use and ending their search for this second task.

The behaviour patterns exhibited by DS2 at the end of the information search, as we have seen, consisted of checking and evaluating the information, before using it within their own work. Similar information behaviour patterns occurred in other dance researchers' observations. UG1 and UG2 were also observed checking information they had found. UG2 checked information they had found against information they had already noted down from previously visited information sources. However, unlike DS2, UG2 did not return to the original source to clarify information but relied heavily on their notes. Although UG2 did not check against other information sources to clarify the information they had found like DS2, the method used to validate information was the same. The degree to which the two dance researchers checked and validated the information they were unsure of might possibly reflect the level of experience each had gained over their researcher career. An academic, whose primary purpose is the generation of new knowledge, would be more accustomed to checking against other information sources before use, rather than the undergraduate dance student who may not have refined this process as much at the start of the academic journey. Thus, UG2 was more inclined to take notes related to information found as they went along and check or consolidate their findings at the end of their search by looking across their notes, than DS2, who would

check and validate the information they found against other information sources before putting the information into their notes for later use. This provides a clear understanding of how dance researchers at different levels may differ in their use of information.

Dance researchers indicated when they were finished their information-seeking process by suggesting they had 'enough' information to fulfil their need. DS2 used phrases such as, 'I think I have enough now...' or 'I think that's enough...', followed by 'I'm now going to move on to the next thing...'. This idea of having 'enough' is a clear indication that the participant had ended their information search. DS2 also explained that they were 'exhausting' the search, so they did not have to come back to the search topic again. Again, UG2 also used verbal phrases such as, 'I now have quite a clear idea on...' after reviewing notes at the end of their information search before verbally communicating, 'I wonder if that's kind of the end of it...'. This communication clearly shows that after reviewing the notes and in context of their information need, dance researchers were happy to end the information-seeking process.

The practices of the three dance researchers, as described above, help to clarify three factors which played a role in knowing when to stop an information search. The first indicator was that dance researchers were able to identify or recognise that they had 'enough' information to satisfy their information need or task. Moreover, the second indicator for dance researchers was when they felt they had exhausted the information search. Furthermore, the third and final indicator was the confidence dance researchers had in the knowledge they had found, which meant they felt able to move on to present this information, and to fulfil the task.

As mentioned in Chapter 4, neither Kuhlthau nor Ellis were able to suggest how researchers should formally recognise when they have enough information to move towards the presentation stage within their information-seeking models. However,

the think-aloud observations within this study have helped to provide new insights into this process for dance researchers. The observations were able to identify the point at which dance researchers were able to stop their information search. Dance researchers had an awareness of when they had gained enough information to satisfy their information need or were able to acknowledge when they were ready to stop searching for information. Dance researchers' self-awareness, again seen here at the end of their information-seeking process, helped them to formally recognise when their information search could end and when they were ready to move on to present the information in fulfilment of the task.

This chapter until now has explored the information-seeking actions and preferences exhibited by dance researchers. It has identified that dance researchers begin their information search online, primarily using Google. Moreover, it has helped to uncover various search strategies, such as keyword searching, browsing, and chaining, which feature commonly within the information-seeking processes of dance researchers. Furthermore, it has clearly outlined the importance that tools such as finding, highlighting and notetaking can have for dance researchers within the information-seeking process. However, the think-aloud observations and focus groups have yet to uncover areas where problems occur or how tools and resources may be developed for the dance researchers within the information-seeking process. Additionally, this thesis has yet to offer any insights into dance researchers' relationship with the archive, more specifically with dance archives. However, through thematically and emotively analysing the think-aloud observations and focus group discussions, this study will now contribute further to understanding dance researchers' relationship with the archive during their information-seeking process.

The thematic analysis of participants' information-seeking behaviours revealed three prominent emotions: confusion, uncertainty, and disorientation. These three emotions have also been outlined as a consistent feature of students' and academics' information-seeking behaviours within the context of wider information behaviour

models (Kuhlthau, 2004). These emotive themes were either highlighted directly or indirectly by participants on a number of occasions throughout the think-aloud observations and focus group discussions. The three terms took on various definitions, which, for the purpose of this research, it seems important to outline, before exploring the codes in more depth. Confusion was used when the dance researchers became bewildered or were unclear in their mind about something. Moreover, uncertainty was used when dance researchers exhibited a state of unsureness about something or someone. Furthermore, disorientation was employed when dance researchers exhibited feelings of being lost, specifically in relation to their sense of direction and addressing their information need. Having defined these emotive responses, the thesis will now move on to explore what made dance researchers feel confused, uncertain or disorientated within their information-seeking processes.

5.4 Emotive Analysis: Confusion

Within both the think-aloud observation and focus group discussions, confusion emerged as a multifaceted concept. Dance researchers either became confused about the information they had found, or the technology they were using. In relation to the former, they appeared to become confused when the information they found did not appear to match their previous knowledge, thus leading them to re-evaluate this knowledge by means of comparison. UG2 and DS2 were both observed being in a state of confusion when the information they found contradicted previously found information, or their own knowledge. Both dance researchers dealt with their confusion in a similar way. For UG2, they continued to read the rest of the information source for clarity, whilst also checking previously taken notes on the subject and comparing them, before deciding on which information they deemed correct. Alternatively, DS2 verified the new information by further searching, or by reviewing previously found information. While both methodologies involved

comparing the new information with older information, or searching for more answers, differences were observed in the behaviours of the academics and students. For instance, UG2 would only use a single resource to verify their information, whereas DS2 would use multiple resources to check its validity before progressing. This level of checking for validity may differ because of the level of experience of the dance researcher. The information literacy skills possessed by undergraduate students are significantly underdeveloped, as denoted by the information-seeking literature (Walraven et al., 2009; Weber, Hillmert, et al., 2018; Weber, Becker, et al., 2018). Information literacy skills develop over time, unless the undergraduate student is exposed to a significant information literacy programme offered by their university (Weber et al., 2019; Weber, Hillmert, et al., 2018). However, this tends not to be the case. Consequently, information literacy skills relating to verifying and evaluating information tend to develop with experience. Thus, the degree to which students and scholars check information differs according to the level of research experience and information literacy skills they have developed over time. Therefore, it comes as no surprise that within this study the dance scholars would be checking found information against several sources as opposed to just one, like the undergraduate dance students.

Dance researchers also expressed confusion concerning the technologies they were using, notably when the technology was either unfamiliar or when it performed unexpectedly. UG1, DS1 and DS2 all displayed signs of confusion when it came to the technologies, platforms, or websites they were using. For instance, UG1 was confused about unfamiliar websites or platforms. Moreover, the confusion emerged when the dance researcher encountered a new website or platform, and they were unsure how to navigate it to find the information they were looking for. This typically led UG1 to spend more time on the website trying to understand how it worked, instead of using the time to search for information. Alternatively, DS1 and DS2 displayed confusion when the technology or website completed an unexpected action. DS1, in one instance, tried to 'copy and paste' the search string which they

had just used on Twitter. When clicking into the search box to highlight the search string, it seemed to disappear. Thus, DS1 was forced to find an alternative way to capture the search string from their previous search on Twitter. This seemingly easy task became an inconvenience for the researchers, and although DS1 persisted to find a way to continue to capture the search string, this persistence may not always be evident.

Dance students may be less inclined to use the website or platform if unexpected actions occur or if they have a limited understanding of how the website can be navigated; this may lead them to reject the usefulness of the website altogether. The information-seeking literature suggests that it tends to be the 'found information' that causes confusion. However, in this study, as we have seen, it was the technology that became the source of confusion. Namely, the information platforms and interfaces which the users accessed information through were problematic for dance researchers, as previously mentioned. Therefore, this study shows that the systems and sources that dance researchers engage with are less intuitive to their information-seeking behaviours. Yet, despite this, dance researchers are able to find workarounds to use them. Therefore, developing online dance archive resources in accordance with the information-seeking behaviours of dance researchers is an important endeavour as it would significantly help to ensure their use.

5.5 Emotive Analysis: Uncertainty

Across the think-aloud observations and focus group discussions, there seemed to be an overlap between the emotions of uncertainty and confusion. The bewildered state of mind in turn indicated when dance researchers were unsure about the information they had found or the technology they were using. Thus, confusion was interchangeable with uncertainty. Similar to confusion, dance researchers became uncertain when they were unfamiliar with websites and technologies, notably when they were trying to utilise these to store, save and navigate to information during the

information-seeking process. Moreover, uncertainty was also evident when found information conflicted with their previously held knowledge or understanding. Furthermore, uncertainty was also attributed to the process of evaluating information for use. For dance researchers, this included: checking authors and dates, as well as comparing information across sources or seeking to ensure that all information sources had been exhausted. These aspects are very similar to situations when confusion appeared within the information-seeking process. There was no dominant pattern to the emotive behaviour which could help to understand why uncertainty and confusion overlapped. However, within UG1's think-aloud observation, when uncertainty and confusion overlapped, it prompted a new avenue of inquiry. This topic may be worthy of further investigation, as it was only observed within one dance researcher's information-seeking process. To what extent it extends to other dance researchers is beyond the scope of this thesis. Therefore, further research and a wider range of participants would help to uncover if this is an information-seeking trait of dance researchers more widely.

The emotive responses of the dance researchers, so far, have helped to understand that the interaction with information sources is important to their use. Notably, it has shown that dance researchers become stuck when using information websites, platforms or technologies that are not intuitive to their information-seeking behaviours. However, it is still relatively unclear as to whether dance researchers would be less likely to use those websites, platforms or technologies which are causing confusion or uncertainty for them. Based on the response of one dance researcher, we can assume that dance researchers are likely to explore and adapt their information-seeking behaviours according to the problems they are facing. Dance researchers might be likely to find workarounds and adapt their information-seeking behaviours to fulfil their search for information. However, as mentioned, this is based on only one dance researcher's observed behaviour. An extension of the participant sample would help to understand the tools, techniques, and workarounds of dance researchers, thus helping to further develop future online archive resources.

5.6 Accessing Information

Accessing information was a topic which featured across both the think-aloud observations and focus group discussions, as in many instances it caused confusion and frustration for dance researchers. Dance researchers discussed accessing information within the context of the archives but also more widely, focusing, in the first instance, on barriers which inhibited them from accessing information. DS2 and UG1 discussed how their institutional login gave them access to a wide range of information. They also noted that without their institutional login, they would have no idea where to access similar information for free. They discussed how the pandemic had highlighted how important this issue was, now more than ever. Additionally, UG1 expressed frustration concerning the cost incurred when accessing dance performance recordings. UG1 referenced the financial implications of buying performance recordings from an organisation's commercial outlet for the purpose of undertaking one or two assignments as a student. However, they did mention ways in which they had worked to reduce the cost of buying performance materials and offered solutions for the future. For instance, they had previously grouped together with fellow colleagues to buy resources, thus sharing the cost of subscriptions or performance materials. One possible future solution came from UG1, who suggested that dance and performance archives/organisations could provide a 'renting' option to access information. Dance researchers suggested that this option would ensure the availability of the materials over less trustworthy free streaming platforms, as well as reduce their cost. However, they also recognised that renting was still a form of payment to obtain information. Moreover, they acknowledged that this still adds some level of information privilege for those who can afford to access information and does not offer a full solution to the issue of acquiring performance materials.

Similar performing arts platforms began to offer performance materials online during the pandemic. To negate the potential of closing off performances to those who might be suffering financial difficulties during the pandemic, organisations began

using a pay-what-you-can or donations option for accessing performance materials. The National Theatre, for instance, profited from offering performances online with a donations option (The National Theatre, 2021). These seemingly free performances started to be closed off again behind paywalls as the pandemic ended, with organisations beginning to produce their own streaming platforms (e.g., NT Live, GlobePlayer and Marquee TV). To gain an understanding of how dance archives might provide a similar service for users, further consideration of the digital content they have made available as well as the implications copyright might have for providing such a service, is needed. Therefore, by investigating dance archives' content, digital content, and access, phase two of this research project will help to understand how performance collections can be opened up to users within the virtual environment.

The thematic analysis also helped to further understand the relationship between dance researchers and dance archives. In light of the literature review, it was assumed from the outset that the dance researchers taking part may not have had any with dance archives before. Thus, the focus group discussion was designed with this in mind and aimed to provide an insight into dance researchers' relationship with dance archives. Therefore, before the focus group discussion, all dance researchers were asked to explore three online dance archive platforms: the Royal Opera House archive (ROH), The National Resource Centre for Dance (NRCD), and Siobhan Davies RePlay (SDR). Each was chosen to represent one of three different types of online archives, which can be found across the archive sector: an online in-house dance archive (ROH), an online external repository where dance archive materials reside (NRCD), and a specifically designed online archive platform (SDR).³⁵ Additionally, this preliminary exploration offered additional insights for those who may not have encountered and used an online dance archive before. Within the focus group

³⁵ It should be noted that at the time of writing this thesis, two of the online dance archive platforms became obsolete due to funding and restructuring issues.

discussion, dance researchers expressed their experience using dance archives in terms of content, archivist engagement, and access.

Digital content was discussed by dance researchers in relation to access. The focus group highlighted that too often access to archival materials did not meet their expectations, which resulted in confusion or frustration. DS2 highlighted that their confusion and frustration came when they received a (newsletter/email) message highlighting that there was newly available 'online access to a resource'. However, when they clicked on the link, they found it only 'goes [into the] NRCD website, and actually there's no... there is nothing online, it's just that, it brings you to that [archive record in the catalogue], and then you have to go get it at the archive' (DS2). Indeed, dance researchers all agreed that this was a common experience.

Dance researchers presumed that being able to access archival materials online meant they would be able to explore digital replicas of the objects or collection. In essence, full online access would mean that the archive object is replicated online in a digital form for them to view and explore. However, within the context of this example, for archives, the 'resource' being made available is merely the archive catalogue record, thus leading dance researchers to feel confused. Aligning user expectations and archival practices, or platforms, would significantly reduce the risk of rejection from participants. The longer participants take to find alternative methods of using technologies, the more chance researchers/users are to cease using it; the same applies if the archive information is not aligned with the expectations of the user.

The Nielson Group suggest that direct link users, which is how DS2 would be termed, are less likely to disengage from the website content than other user groups (Nielson, 2008). However, when the content is not what is expected by the user or they cannot find what they are looking for, users will exhibit pogo-stick behaviour (Harley, 2015). This is when users go from a search engine to a deep link on a website then back to

the search engine when they cannot find what they are looking for. Pogo-stick behaviour 'is an indication that people are struggling to find relevant content' (Harley, 2015). Thus, to prevent users from employing pogo-sticking behaviour, the Nielson group suggest, to 'write plain-spoken links, using user-orientated language, instead of "teasing" links or links using your own internal language' (Harley, 2015). In regard to DS1's example, the language concerning what access to the archival material meant did not align with the archive's users. The link's description was ambiguous, and thus a simple relabelling of the link to 'new archive records have been added to catalogue' would have been more appropriate here. Therefore, developing archive resources that use opaque language for users, providing content they want, or improving the 'information scent' on homepages, can help align expectations and increase their use of dance archive resources in the future (Harley, 2015; Budiu, 2020).

The dance researchers continued to discuss access to information both generally and in relation to dance archives. Dance researchers highlighted how crucial it was for them to be fully aware of the availability of information, whether that be in relation to online library catalogues, online journal information generally, and even archive records. It also was important to dance researchers to know how they could access the information. During their think-aloud observation, UG1 expressed that information on the 'availability' of content provided by websites, archives and libraries would have been useful. Dance researchers, within the focus group, also discussed how websites of a similar nature to YouTube have the ability to withdraw information at any given moment. Therefore, the longevity of the information as a resource is typically questionable when using these kinds of websites. However, as no other websites provide performance material in a freely access manner, dance researchers feel compelled to use it. Consequently, it could be suggested that having a reputable source of information, like dance archives, with online digital content would somewhat negate this problem for researchers and provide them with material that exists for longer periods of time. In the think-aloud observation, UG1

continued to suggest that the library offered them the ability to check for physical access and the availability of items before going to retrieve them, an aspect which they found helpful. Additionally, UG1 noted that they would find it helpful to have a centralised search engine for multiple archives or multiple information sources, as it would offer them the ability to find information across a spectrum of information sources in one go. If this was combined with an availability checking tool, which could show availability as well as the type of access users have to view the material, this would provide dance researchers with a transparent understanding of what and how information can be accessed within the archive.

Dance researchers also explored how they accessed archive information. They suggested that the language used within archives was problematic for them, as it was too complicated and confusing. In the context of the three online dance archives, dance researchers highlighted that the NRCDC platform was the most difficult to understand and navigate due to the language used within the catalogue. At the time of writing this thesis, the NRCDC platform used CalmView, which many archives, including performing arts archives, use (such as the English National Ballet, Royal Albert Hall and Trinity Laban). DS1 explained how the language caused frustration and confusion:

‘the NRCDC one I didn't find intuitive at all. And it seemed as though you really had to kind of read the instructional text before you could figure out what the next step was and there were kind of, some sort of, opaque uses of language. Like there was a box that used the word ‘level’, for type, you know there was a drop down and I think only an archivist would know what they meant by ‘level’, ‘level’ of what I don't know. Then there was this term ‘refine search criteria’ [which] kept coming up and it didn't seem to actually mean, what I thought would be meant by ‘refine search criteria’. It seemed to come up with kind of Boolean operations, or all/at least/without, which is not what I would have thought refine search criteria would mean’ (DS1)

All dance researchers agreed with DS1 that the NRCDC was the hardest to understand and use in their search for information. When further probed on what the language

meant to them, DS1 explained that they had assumed the “refine search criteria” option would allow for them to select categories such as date ranges, topics, or performances, in the same way that they could on the ROH archive platform. The interpretation of the language used to present the archive to users misaligned with the users’ expectations. As previously mentioned, if user expectations and archive practices, or platforms, are aligned, this would significantly help to increase the use of (online) archives. It appears that dance researchers do not adapt their information-seeking strategies within the archive. Dance researchers still want to search conceptually within the archive, and yet the archive structure is limiting this. As a consequence, they would be less likely to use the archive platform because of this inability to search in their preferred way. Therefore, dance archives should be looking at ways to integrate archive structures and catalogue records to sit on the back end of archive platforms, while users should be able to search more conceptually at the front end of archive platforms. This would allow for both archivist and user to develop or search archive records according to their needs. This marriage of archive structure and user search behaviour needs to be at the forefront of the development of future online archive resources, to increase the use of online dance archives overall.

In response to dance researchers not being able to find information they want or need within the archive, dance researchers seek help from the archivist. Dance researchers discussed the support archivists provided them with when it came to navigating the archive. A reoccurring insight was that participants recognised the value of the knowledge that archivists have concerning their collections. They described how archivists’ knowledge should not be undervalued or dismissed. The discussion focused on how archivists can help provide another perspective on the research, as well as help to broaden, or narrow, a search for information. Dance researchers explained that archivists’ knowledge of their collections can be the springboard for enabling them to focus their search for information within the archive. Dance researchers suggested that sometimes online archives would showcase what archivists felt was important content from the archive, rather than

letting users browse or find other materials which were more relevant to them. Thus, this suggests that archivists' knowledge had to be approached with caution, as they had the potential to impose their own views and opinions on users. Despite this, dance researchers highlighted how useful the archivist and their knowledge can be in helping to find information that cuts across the archive structure. This cutting across the archive, DS2 claimed, helped to provide them with access to the archive and to a deeper understanding of its contents. It might be that the process of cataloguing archival material plays a role here too.

Another participant highlighted that the archivist had provided them with more archival materials than originally requested, again showing how the archivist's knowledge of the archive can exceed participants' expectations. Additionally, these discussions demonstrated that dance researchers felt supported by archivists, yet felt the online dance archive resources did not reflect this. Presently, online dance archive resources hinder rather than help users searching for information in the archive. It might be suggested that the process of cataloguing materials rarely provides the level of detail required by dance researchers for the kind of search they require. Thus, the language and structure inhibit the success of their search, leading to their use of dance archivists' knowledge. The level of detail which is captured may be inhibited by the amount of time awarded to such cataloguing projects within the archive and thus may never be achieved.

As previously outlined within this chapter, aboutness metadata (archive contents) may be more beneficial for dance researchers than ofness metadata (archive creation, lineage and format), but the development of such metadata may not be obtainable. Moreover, providing such in-depth metadata for catalogues is at the moment too time-consuming for archivists. However, this may change as digitised archives and AI automated descriptions become more prominent within the daily practices of dance archives (Theimer, 2018; Colavizza et al., 2021). For now, it seems that users' – in this case, dance researchers' – and dance archivists' expectations of

online dance archive resources are misaligned. Furthermore, this implies that dance archive resources in the future need to accommodate for both archivists and users to increase their usability. Being able to balance the language used and allow for information-seeking strategies in support of both dance researchers at the front end, and collection development at the back end of dance archive resources, would be of service here. In light of this new understanding, dance archives need to open up their contents for browsing rather than spotlight certain collections. Again, this is dependent on understanding what dance archive content (both digital and analogue) has to offer dance researchers, and more generally, users, as will be further explored in phase two of this research. Moreover, this phase will also seek to understand how future online dance resource development can accommodate both the information-seeking processes of dance researchers and the working practices of dance archivists.

5.7 Dance Archives of the Future

Within the focus group, dance researchers were offered the opportunity to discuss what the future dance archive might look like. Dance researchers discussed digital content, notetaking facilities, virtual reality and a collective search engine for dance archive collections and materials. Dance researchers began by discussing their preference for seeing more digital content from dance archives. DS3 noted that the ROH archive is known to house ‘millions of dance performances digitised, but it just doesn't have them in the archive [online], you have to go there if you want to see them’. Although dance researchers recognised that the archive may be constrained by a number of factors, which might hinder them from making this available online, they did not understand how other online platforms were able to make the same information freely available online. DS3 outlined how irritating it can be when the digital content of performances was not available online:

‘The collections on the [Royal] Opera House [archive web]site have no performances online; I imagine it's a copyright issue or some other issue.

But even so, nowadays so much stuff has been put on YouTube and I'm assuming if it's on YouTube that the copyrights are waived, um so, at least they haven't taken it down from YouTube which would suggest that copyrights had been waived' (DS3).

Confusion is caused when the archive is known to have the performance material at their disposal but has not made it available to view digitally online. A variety of reasons may be attributed to why this is the case, namely issues with the type of format, the storage location, or copyright attributed to the archival material. For example, the archival material that the ROH has may be in a format that cannot be made available online. The performance may require some form of digitisation to be completed before it can be made available, which would come at an expense to the archive. Take a video cassette recording, for example. For the archive, it would be cheaper to maintain a video player for users to view the recording, than attempting to take the material off the video cassette through an expensive, labour-intensive and potentially destructive digitisation process. Therefore, the archive would prioritise the archive item's condition over making it accessible. However, this sort of decision or reasoning is again unclear from users' perspective. It seems that users, particularly dance researchers, assume the recording is in a digital format, which can be reproduced. This may be an oversight on the part of the researchers, or it may be that not enough clarity is given as to why users need to access the archive in-person to view the recording. Alternatively, the rights of the archive item or collection may restrict it from being made available online. Copyright is another hugely inhibiting factor, for sharing or making archival materials available online for users may breach copyright laws. Copyright states that archives can only offer on-site viewing of all archival materials, whether the rights holder is known or unknown. In the event that archival material rights have been traced then the material is subject to rights holder stipulations and/or fees. For those where rights cannot be traced, and the archive has to show they have done an extensive search for rights holders, the material remains under copyright, and only on-site viewing can be engaged in. Furthermore, many organisations have begun to use 'takedown' policies to offer archival material

online where rights cannot be traced. Establishing a takedown disclaimer and process offers security for the archive by asking those who hold the rights to the document or object to come forward. If they so wish, the organisation/institution will take the document or object offline, or the rights holder can be paid royalties for the attributed work to be accessed by researchers. This process has benefitted various organisations, artists, practitioners, and users of archive items as it helps to collect information on the rights holder, whilst being able to publish a digital replica of the archive item online for users.

However, as privacy technologies improve, there may be new ways in the future that the laws may take into consideration and offer ways for archives to provide secure virtual onsite spaces to view copyrighted material. Companies such as Apple are utilising their custom-built platforms to inhibit the use of re-recording of their subscription-based recorded/digital content. Moreover, this means that if a person tries to (screen) record any of their content from one of their paid services, such as Apple Fitness or TV, then the person will see only a blank black screen. Exploiting a similar concept for archives in the future would be extremely ambitious due to lack of technological capability, funding, and resources; furthermore, a change in the law for copyrighted material would need to be implemented. Yet, potential for this sort of custom-built technology should not be ruled out altogether. Conversely, other technologies such as virtual private networks (VPNs) may also offer a solution for this confidential private viewing. VPNs offer many organisations and institutions the ability to provide a virtual space to view or use applications from the comfort of one's home or alternate office space. Moreover, a VPN could offer archives a way to connect the archive content restricted by copyright to a physical space outside the archive. Coupled with the technology implemented by Apple to inhibit screen recording of content archival material, this may enable material to be accessed for free by audiences so long as they are willing to log in and use archive VPN to access copyright material. To explore whether this would be a possibility, further exploration would be needed into copyright law as it relates to archive work, as well as the

possibilities of existing or new technologies, which is beyond the scope of this thesis. Therefore, we can only hope that with other technology companies interested in building such a platform, this could help to provide online access to archival materials in the future.

Yet, the lack of digital online content of archival material needs to be addressed as this is a significant reason dance researchers are not engaging with online dance archives. DS3 demonstrates this in their admission that the ROH online archive platform is 'useful up to a point, but not terribly, so I wouldn't rate that highly'. These futuristic implementations of technologies, such as VPNs and custom-built technologies, are dependent on various aspects, which may be out of the archive's control, so for now these remain an ambitious vision for the sector. The reasons for the lack of digital content have so far been assumptive, and therefore further exploration of what is inhibiting dance archives from producing online digital content will be explored with dance archivists within phase two of this study.

Dance researchers agreed that it would be useful to look across different archives and their collections when comparing information. Dance researchers discussed the need to have a single place to search for all dance archive items and collections – a collective dance search engine for dance archive materials. Dance researchers wanted a seamless integration of various archive databases online for them to search for information, an issue of relevance across a wider spectrum of gallery, library, archive, and museum (GLAM) users. As a result, *Towards a National Collection* (TaNC) has been commissioned by the ARHC to seamlessly link the UK's GLAM organisations into a 'unified virtual national collection' ('Towards a national collection – opening UK heritage to the world', n.d.). Creating a similar national dance archive collection by joining all dance archive collections into one searchable platform would supplement dance researchers' search process and allow them to look for information across multiple dance archives. On a similar note, van Zundert (2016) offers a solution not much dissimilar to TaNC. Van Sundered (2016) suggests that

progression is hindered when there is a lack of negotiation between the user and developer in the remodelling process. In van Zundert's (2016) example, the discussion is centred on the context of remodelling books in the digital setting. However, the same negotiation needs to happen within the development of future archive resources.

Dance archive content should be presented so that both researchers and computers can read, interpret, and annotate the data. Similar to what van Zundert (2016), proposes, the use of knowledge graphs would help to link dance archive metadata to relevant materials, which would be beneficial for archivists and researchers alike. They would help dance researchers find related material in a more search-friendly manner but also provide dance archives with a knowledge graph of data to enrich their archives. This could be achieved on an organisational level, but if done on a national scale, as in the case of TaNC, this would significantly open up dance archive collections to users in a searchable and interactive manner. However, dance researchers noted how ambitious it might be for archives to produce a collective dance search engine. Thus, they continued to stress the potential technology offers for the archive, noting that it can create many possibilities for collaboration, as well as the sharing and accessing of information; yet, dance archives do not offer tools and technologies as standard practice. Dance researchers felt dance archives were being lost in the background due to their failure to keep up with technology. However, it is important to note here that dance researchers showed much empathy for dance archives and understood why they were becoming lost, stating that dance archives were often confined by budgets and resources. Dance researchers continued to outline alternative developments which could be utilised and developed for the benefit of both archives and researchers.

When looking to the future, dance researchers suggested that the creation of dance archives that harness virtual reality or augmented reality could advance their interaction with dance archive materials. They discussed at length their sensorial

interaction with dance archive collections and materials when visiting in person, which they could not experience when viewing material online. DS1 talked at length about how physically engaging with the archive objects provided them with more information. They noted that often with dance archive materials, the object 'choreographs us as we use it', giving the example of a dance card. DS1 continued to suggest that information obtained 'is to a degree possible through digital formats [but] it takes a much greater leap of the imagination'.

Dance researchers explained that there was knowledge and information in knowing how big or small something was, how fragile the object was, and how the information in its original form was used by the intended recipient. They shared an interest in knowing the chain in which they were now participating when touching and reading documents or objects. Similarly, DS3 also noted the importance of physical engagement and the information gained from such interactions with archive objects. They suggested that when viewing a costume belonging to Lydia Lopokova (a famous Russian ballet dancer of Ballets Russes fame), the material of the costume gave an insight into how the dancer would have been able to move in it, as well as how the material would have 'behaved' differently than in current times. Again, DS3 offered another example, by stating that a dancer's shoe 'reveals much about the way that dancer performed'. From the physical object, dance researchers can extract a different sort of information, which can be just as valuable. DS2 suggested the potential that virtual reality can have in allowing the dance researcher to engage with the archive object in a more sensorial and practical way, without affecting the original object itself.

'I've also thought during today about virtual reality as one other way of...you put on your headset and you go into the archive and you can do all the things that we've been talking about we like to do in libraries, where you just sort of sit in the section and you just kind of find a book and then you open it up...and I'm sure virtual reality will start going in that direction' (DS2).

As DS2 suggests, VR or AR would offer dance researchers the chance to interact with archive objects in a different way. Haptic technologies are known to enable a more sensorial interaction, allowing those using them to experience and engage with objects as though they were the real thing. Thus, taking the archive into the realm of virtual reality and supplementing this with different kinds of haptic technologies, would offer a more interactive archive experience. However, dance researchers noted that these ideas were something to only dream about as they knew that it is hard for archives to develop such tools when budgets are so restricted. Thus, the use of haptic technologies might be something to explore for the future, in terms of enabling dance researchers to engage with dance archive objects differently.

5.8 Summary of Findings

Upon reflection, both the think-aloud observations and focus groups helped to understand the information-seeking behaviours of dance researchers in more depth. The findings showed that dance researchers' success in finding information associated with an information need was dependant on two things: whether the researcher possessed the skills to reformulate their need when interacting with the different information systems, and also, their familiarity with the information systems being used. If dance researchers have to invest time in understanding how to use the information system, they are less likely to use it. From the focus group discussion, we now know this is what is happening, leading dance researchers to move away from using dance archives. Therefore, when thinking about the development of future archive resources, van Zundert's writings are relevant to our thoughts here. Moreover, dance archive resources need to be built intuitively on current and future understandings of user behaviours, but should also take into consideration not just replicating the archive in the virtual space but enhancing it using technology. Additionally, if dance archive systems are designed without

thought for the longevity of the system, then the dance archive sector will continue to offer an obsolete and out-of-date system for users.

The observations and focus group discussions also revealed a further understanding of how dance researchers seek information, online and within the archive. Similar to the findings of the online questionnaire, dance researchers favour keyword searching, chaining and browsing for information, thus showing that their perceived understanding of their information-seeking process is congruent with their actual information-seeking process. This comes as no surprise, as the findings within this chapter have shown that dance researchers have a high level of awareness about themselves and their information-seeking preferences when carrying out research. The findings were able to provide further understanding about the search strategies, tools and techniques used by dance researchers, which were also discussed in Chapter 4 of this thesis. The online questionnaire found that dance researchers were using keyword searching; however, what was not understood was how or why this was applied within the information-seeking process. Dance researchers used keyword searching, supplemented with highlighting of the keyword, as it led to easier discoverability of information. This method allowed the dance researchers to quickly evaluate the information for relevance and inevitably sped up their information-seeking process. Upon finding information for use, dance researchers evaluated the information on a much deeper level, checking for validity by cross-referencing the information against other information before deciding whether to note, download or save the information they had found. Once dance researchers had exhausted all avenues of information-seeking they began ending their information search process. The exploration of the information-seeking processes of dance researchers discussed within this chapter highlights that dance researchers follow similar patterns of behaviour to those identified within Ellis's and Kuhlthau's information behaviour models. Therefore, where gaps still remain in the information-seeking process of dance researchers, we can comfortably assume that dance researchers will follow a pattern not too dissimilar to that found within the Ellis's or Kuhlthau's models. For

instance, the investigation of dance researchers' information-seeking process in phase one still does not account for how dance researchers use or present the information they find. A longer, more extensive investigation of dance researchers from information need impetus to information presentation would be recommended beyond this thesis. However, for now, we can look to other information-seeking models to understand how dance researchers might use or present the information they have found. Further analysis of the information-seeking processes identified within this chapter and across all findings of this thesis will be discussed as part of phase three.

Alternatively, analysis of the think-aloud observations and focus group discussion has demonstrated dance researchers' deep sense of empathy for dance archivists. It has shown that further communication is needed between these two communities in order for a further understanding of why dance archives are lacking in terms of transparency of language, digital content and access. However, it has also prompted further questioning for dance archivists within phase two of the research project. First it is important to understand the full extent of dance archives' contents to understand which information may be useful for dance researchers according to their information needs. It may help to understand whether there is a huge amount of useful performance recordings for dance researchers to utilise. Additionally, phase two will look into the structuring of dance archives to understand how to develop and utilise digital infrastructures for use. This exploration will help to understand if a remodelling of the dance archive is needed or whether the archive catalogue can be represented in a more unified, transparent and accessible way.

Phase two will ask what digital content is already available in digital format which can be published online as well as what is inhibiting dance archives from producing online digital content. Thus, by understanding the process of creating digital content and the restrictions dance archives are facing, we may better understand how dance archives can make their collections more freely available in digital form. This would

allow for a more comprehensive understanding of whether dance archives could implement such technologies as OCR, Zoom and annotation tools to supplement dance researchers' information-seeking preferences and expectations.

Phase two seeks to further understand the working practices of dance archivists to find a way forward in developing future online archive resources which cater for both dance researchers and dance archivists. Phase three will then bring the understanding of the information-seeking processes and working practices of dance archives into direct conversation to identify a way forward for developing future online dance archive resources.

Chapter 6 Dance Archives: Online Questionnaire Analysis

Phase two of the research project was launched with an online questionnaire which surveyed dance archives from across the UK and NI. This phase was driven by research question two (RQ2): *How might the working practices of dance archivists affect and be affected by the development of future online dance archive resources?* The combination of both the online questionnaire and focus group discussion sought to provide an understanding of the landscape of dance archives respectively by investigating three areas of interest: the practices of dance archive professionals, dance archives' contents, and users of dance archives. In investigating these three segments, the research aimed to provide insights into the participating dance archives' culture and practices, including both professional and personal ideologies of archiving, as well as cataloguing, digitisation, and use of dance archives. The first section of the online questionnaire aimed to understand who the participants were, and their workplace, as well as to provide an insight into their archives' working practices. The purpose of the preliminary questions, which asked about their archives' practices, was to gain insights into how their practices affected the archive and its users. The second section of the online questionnaire investigated dance archivists' practices within dance archives. This included practices such as accessioning, appraising, cataloguing and digitising archival materials. To evaluate these practices and how they were carried out from one archive to another, this section sought to understand the pressures and problems faced by dance archivists on a daily basis. Consequently, a comment could be offered on how new or future online archive resources might impede or improve time constraints, resources, or the workload of archivists. The third and final section of the online questionnaire aimed to investigate users and their usage of the dance archives. This section investigated the level of engagement dance archivists have with their users, as well as their awareness of their users' needs. By understanding the choices and practices of each participating dance archivist, collections and users will be able to inform discussions regarding future online dance archive resources. This would be beneficial to dance

researchers, users and dance archives alike. Thus, this chapter offers a foundation of knowledge and understanding to build on, with regards to the working practices of dance archivists.

6.1 Dance Archivists

Overall, 17 participants completed the online questionnaire. The questionnaire asked participants to describe their role within the archive. Figure 6-1 identifies the demographic of the participants by prescribed role, namely 12 'archivists', 1 'assistant archivist' and 4 'others'. The 'others' category includes cataloguer, librarian, and writer. Of those participants, 82% were in a paid position and 17% were in a voluntary position within the archive. A slim majority of 10 participants had taken the most conventional route into a career in archives, gaining a degree and postgraduate qualification in archives and record management. Meanwhile, 5 participants had taken specific training or educational routes into the archive position via 'other degree or postgraduate qualifications' (i.e., libraries, museum), and one participant selected 'other', claiming that they had a two-year diploma in librarianship. One

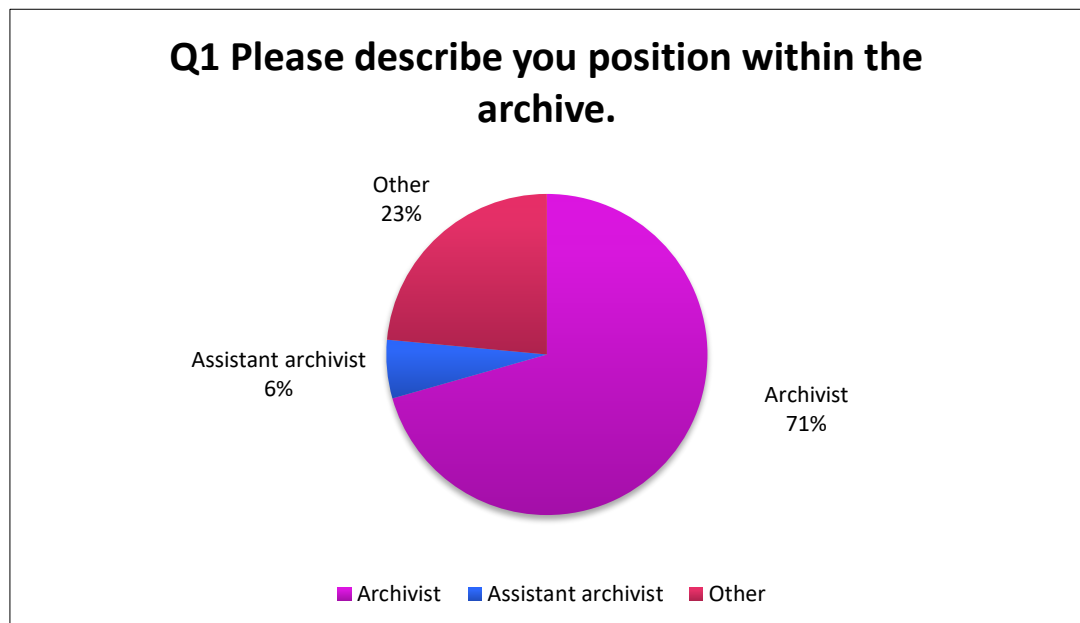


Figure 6-1 Questionnaire participant demographic.

participant had undertaken no specific training or education to gain their present role in the archive. These findings show how diverse routes into the profession can be for those working within dance archives or collections. The question of to what degree this affects the choices and practices of dance archivists will be further probed in the findings. Within the online questionnaire, 76% of participants highlighted that they had not always worked with dance archive materials. Across the participants, 41% had spent between '0-5 years' working with dance archives, collections, or records. The length of time at which participants had worked with dance archives, collections or records varied from '0-5 years' to '20 or more years'. To what degree the length of time an archivist spends with a collection influences the collection's development and accessibility remains unknown, yet this may become clearer as the chapter progresses.

At the start of the questionnaire, participants were asked if they had a background in dance and if they felt it was necessary to have a background or knowledge of dance whilst working in dance archives. In total, 58% of participants noted that they did not have a background in dance, and 76% of participants surveyed suggested that they did not think it necessary to have a background in or knowledge of dance. This raised an important question: would an understanding of dance, as a subject, be beneficial for archivists when developing collections and creating access to archive collections for users? Participants explained why they felt it was unnecessary to have a background or knowledge of dance whilst working in dance archives or with dance archive collections. Archivists' responses included, but were not restricted to, feeling they were 'less likely to impose... own thoughts onto researchers' or that a knowledge of archival practices and skills are applied universally across subjects. However, the responses from a later question noted that subject-specific knowledge was useful when it came to archiving dance. Additionally, 76% of participants surveyed referred to the importance of archival knowledge and practices across subjects. From this, 41% acknowledged the benefits of having a little knowledge or working knowledge that can be attained through experience with collections.

When surveyed, 76% of participants claimed they had not always worked with dance archive materials and came from fields such as science archive work, theatre, governmental administration, film and music, and beyond. The word cloud in Figure 6-2 demonstrates the full range of subjects/disciplines which participants identified. The range of subjects with which these archivists have dealt could be seen as reminiscent of the professional background of many other archivists. Archival training equips archivists with the tools to work with any archives, regardless of the subject of the material or collection (Cook and Schwartz, 2002; Miller, 2012; Vassilakaki and Moniarou-Papaconstantinou, 2017). In some cases, this may involve different subjects simultaneously. Therefore, it comes as no surprise to find that this is true of the archive professionals surveyed within this study. However, to what extent this may have an impact on the development of digital online dance archive resources remains unclear.

This section of the online questionnaire was able to provide insights into how diverse the role of the archivist and those coming to the role within dance archives can be. This diversity is also reflected in existing literature and across the archive profession. However, to what extent this diversity has an impact on the development of dance archives for users remains to be seen. Further responses may help to understand the impact of archivists and their understanding and engagement with dance on the direction of development of online dance archive resources. An exploration of the practice of archiving dance may help to understand this further.

6.2 Archival Culture

The questionnaire aimed to understand the ideologies and priorities of those working with dance archives to ascertain if these have an impact on dance archives, collections, or records. The International Council on Archives (ICA) outlines four universal aims that every archivist should aim to achieve. The four aims are:

'[1] To create a coherent collection through well-informed and proactive selection and collecting. [2] A coherent access program which ensures that anyone that wants to use the archive can easily find out about the collection and access its contents in a way convenient to their own needs. [3] Effective collection management ensures the long-term survival of collections, the creation of reliable and detailed information about the content of the collections and sustainable care to ensure the long-term survival of collections. [4] Collaboration with others to exploit synergies between archive collections and maximise opportunities for using and preserving collections' (International Council on Archives, 2016b).

The online questionnaire asked participants to rank these four aims in order of importance to them and their archive. In doing so, it sought to reveal the core values held by those caring for dance archives. The online questionnaire revealed that 64% of participants ranked aim three as of highest importance. ICA's aim three puts collection development, management and care at the forefront of archive work, thus showing that these areas should be the priority of dance archivists. However, for 52% of participants, the least important was aim four, which puts collaboration, and the use and preservation of archive collections at the forefront. Therefore, by asking archivists to rank these in terms of personal and professional importance, it became clear why the development of online dance archive resources may be only a second thought for archivists. Access and use of archive collections can be attributed to ICA's aim two, thus showing that access to and use of dance archives is important but always an afterthought. However, the question of how this may affect the future development of online dance archive resources, even though it is of high importance for the archive, will be carried forward into the discussion with archivists in the focus group.

The online questionnaire continued with a question which sought to qualify the ranking questions with a qualitative response provided by participants; the question asked, '*what does being a good archivist mean to you?*' Within this later question, similar conclusions were offered regarding 'effective collection management', with 70% of participants declaring behaviours and activities associated with collection

management within their response, thus qualifying the importance of effective collection management within the dance archive community. Access was also recognised as an important element of being a good archivist and considered important for archives, with 58% of participants attributing access to being a good archivist. Participants outlined that archive accessibility improves collaboration with others for the purpose of use and preservation. A focus on access, as well as care and management in facilitating access, is seen as a more modern approach to archiving. Participants identified their collections' level of accessibility as a measure of them being a good archivist, further corroborating this in their ranking of the ICA aim associated with access, as this aim was second highest in the list of importance. However, it remains unclear what is restricting the development of online dance archive resources within dance archives. Therefore, this area will be further explored in the focus group discussions with dance archivists. In exploring the current online archive outputs and why these are not visible to dance researchers, this may go some way in understanding how online dance archive resources can be developed in a more beneficial way for both archivists and users.

When classifying the types of archives participants' collections were attributed to, 52% classified their archive as 'general archives/museum/library, holding some dance collections'. This finding demonstrates that although dance archives do exist in the UK and NI, and 34% of participants claimed to be part of an in-house dance archive (either personal or company), many of the dance collections, materials, and items reside in a mixture of different types of archives, from 'repositories for performing arts' to 'record offices' or even 'university' archives. Therefore, searching for items that are dispersed across the country is ultimately very difficult and time consuming. It may prove more useful to provide a searchable database of dance archive holdings at an item or collection level for the whole of the UK and NI.

The questionnaire asked participants to think about all elements of dance, from creation to performance and reception, asking if this could all be archived. A total of

52% of participants 'extremely agree[d]' and 35% of participants 'somewhat agree[d]' with this statement. Some of the caveats outlined in the findings aligned with the ephemeral nature of dance and the sensorial experience of watching or being in the moment. Although participants suggested that dance could, and has been, recorded, they generally agreed that watching or re-watching a performance 'is never quite the same as being there', thus alluding to the sensorial and ephemeral experience of being part of a live event, which cannot be recreated, captured or archived. However, another participant provided an antidote for being unable to capture this ephemeral experience, suggesting that 'an archive can never fully replicate something but can leave traces for exploration'. It is these traces which archives collect that help archive users to piece together and understand the live event. Therefore, archiving dance becomes concerned with being able to collect and care for the traces of dance within the archive. Collecting everything is not a possibility in some instances, and therefore, we need to understand the criteria by which dance archives select and collect dance materials. As Harris (2002) suggests, we should be looking to the margins of the archives, as well as the margins of dance and performance, asking what is it that is underrepresented within the archive? What voices or traces of dance are not heard or cannot be found?

This section of the online questionnaire revealed much in the way of the archival culture in which dance archives are created. It is clear to see that collection development and access and use are two aspects which are important to dance archivists. While one of these areas seems, from the archival literature, to be present within dance archive collections' practices, the other remains unfulfilled. However, it remains unclear as to why access and use remain problematic for users of dance archives if they are a priority for dance archivists. This issue should be held within our thoughts as we move through the rest of this online questionnaire. If it remains unanswered, then a further exploration will be engaged in during the analysis of the focus group discussion with archivists.

6.3 Archival Practices

The online questionnaire next sought to understand the archival practices of selecting, collecting, accessioning, appraising, arranging and cataloguing materials within the context of dance archives. By understanding these practices, we may be able to understand how dance is being archived, which in turn could contribute to our understanding of how new online archive resources could benefit both dance archives and their users.

6.3.1 *Selecting and Collecting*

The online questionnaire aimed to understand the process of collecting and selecting that archivists undertake when it comes to dance archive materials. The online questionnaire probed participants on their collection strategies, as well as exploring what criteria archivists have when it comes to knowing what they will or will not accept into their archive. Additionally, the online questionnaire aimed to work towards understanding what archivists have collected within their archive holdings.

The online questionnaire began by questioning whether participants' archives had a collection strategy; 58% of participants answered 'yes', while 41% of participants answered 'no'. Those that answered 'yes' were asked to provide a summary or a copy of their collection policy to offer an understanding of the types of material each archive would be willing to take into its archive. From reviewing the brief summaries and collection policies contributed, it was revealed that 29% of participants would accept materials related to institutions or organisations, past and present. An additional 29% of participants would actively accept materials related to staff and students affiliated with their organisations or institutions; 17% of participants were unable to share their policy due to various reasons (furlough, policy still in draft, or no access). Furthermore, 11% of participants surveyed actively accepted materials related to teaching, learning or research at their institutions. Other features that participants noted within their collection policies were related to school records,

historical performances, personal papers, and original research within the performing arts sector. Interestingly, only one collection policy detailed a list of collections that they were actively looking to develop and which they were not accepting new materials on.

Collection policies are strongly aligned with the type of archive; therefore, they may differ from archive to archive. Moreover, collection policies tend to be broader in archives than, for instance, museums. However, the institutional focus plays heavily into archives' collection policies. Comparatively, these findings are similar to broader sector observations, as the collection criteria for dance archives are broad, as predicted, and tend to relate to institutions and organisations. In further analysing the collection policies provided within this questionnaire, the criteria detailed for records associated with organisations and institutions seem somewhat more formalised and aimed towards recordkeeping. However, upon digging deeper into the collections and the types of records that are specified within the collection policies, it might not be clear for donors to understand what the archives might be interested in and why some materials are accepted and others are not.

Alternatively, some participants that answered 'no' to having a collection strategy were questioned as to why not. The reasons were varied and related to lack of funding to actively acquire material into the archive, lack of resources (i.e., staff limitations), lack of subject knowledge on dance, and thus depending on external associates to help develop the collections, and participants considering their archive as a 'work in progress', in its early stages of development. Therefore, this poses further questions with regards to how funding, resources and subject knowledge affect the creation of a collection policy. The lack of collection policies for archives is alarming to some degree. It prompts further investigation into whether there are any formal processes which archives must go through to create a collection policy or if this is more of an informed judgement on the part of the archive. If an informal and/or subjective judgement is at play, what are the repercussions of this? It is

interesting to note that within this category, lack of subject knowledge plays an important role in having a collection strategy, thus strengthening the debate on whether subject specialist knowledge can have an impact on the development of the archive. Further explorations with dance archive professionals in the focus group could help to unpack this dilemma.

Despite only 41% of participants claiming to not have a collection strategy, a follow-up question revealed that 88% of participants had an idea of what the archive would or would not accept, thus offering an informal collection criterion. The descriptions they offered were quite diverse and dependant on aspects such as space or interest in the focus of the archive. For instance, participants would accept materials that were documentary-based, photographic, ephemeral, specific to a choreographer or country, with historical value and original. On the other hand, participants outlined some materials that they would avoid accepting, such as duplicate items they were unable to display, costumes or props (due to restrictions in storage space and possibly conservation concerns), materials not related to their institution (but still dance-related), materials of low value and published materials. Only one participant outlined that they will be considering the acceptance of digital or born-digital materials in the future. Two participants mentioned that acceptance of items is based on the result of 'accession meetings' held with staff in which they discuss the selection of materials going into the archive.

It is interesting to note archivists' strong focus on types of materials to collect. At first, it seems that dance archives have a quite narrowminded notion of what the archive can contain. For instance, the archive, according to some of these collection policies, deals with only documents or textual records. However, there may be other factors which impeded the collection of dance archive materials, which remain undisclosed here. This may indicate that dance archives lack storage capacity, facilities or technological specific skills to preserve such archive items within their collections. Moreover, not having funding, resources, or time to invest in making

these available online may become a secondary problem for archivists. This corresponds to the earlier question, whereby creating access and ensuring use of collections becomes less of a priority over collection management and development. Therefore, a number of questions need to be asked: Who are the archivists? What training do they require? and what resources are required to make this leap to online spaces becomes? These questions will be further explored across both this online questionnaire and the focus group.

Different materials can be collected and stored within the archive to provide a trace of dance. These materials can tell us a lot about what archives choose to select and collect. Therefore, the online questionnaire asked participants about what was within their dance archives and collections. The online questionnaire investigated what type of materials could be found and how much of each type were held. As Figure 6-3 demonstrates, all participants surveyed claimed to have photographs as part of their dance archives and collections. Film and Video, as well as programmes and administrative documents, featured highly across all dance archives and collections. Participants were not restricted to the categories listed, as the questionnaire offered participants the chance to expand this list. Participants divulged that their collections also included items such as personal documents, choreographic notes, scrapbooks, objects (pens, t-shirts, and bags), research notes, books, music scores, medals, and trophies, to name but a few. The type of documents outlined within this question show the extent to which dance archivists collect a historical trace of companies' or choreographers' performance work. From the archival literature, it was unclear as to whether dance archives were collecting such a broad array of items pertaining to the creation and performance of dance, as well as audience reception. However, this question is able to ascertain that dance archives collect widely, as Oke (2017) and Reason (2003), assert. In doing so, the question demonstrates the value of

such collections in providing dance with a historical trace and how significant these are to those who want to understand, review, study and analyse dance.

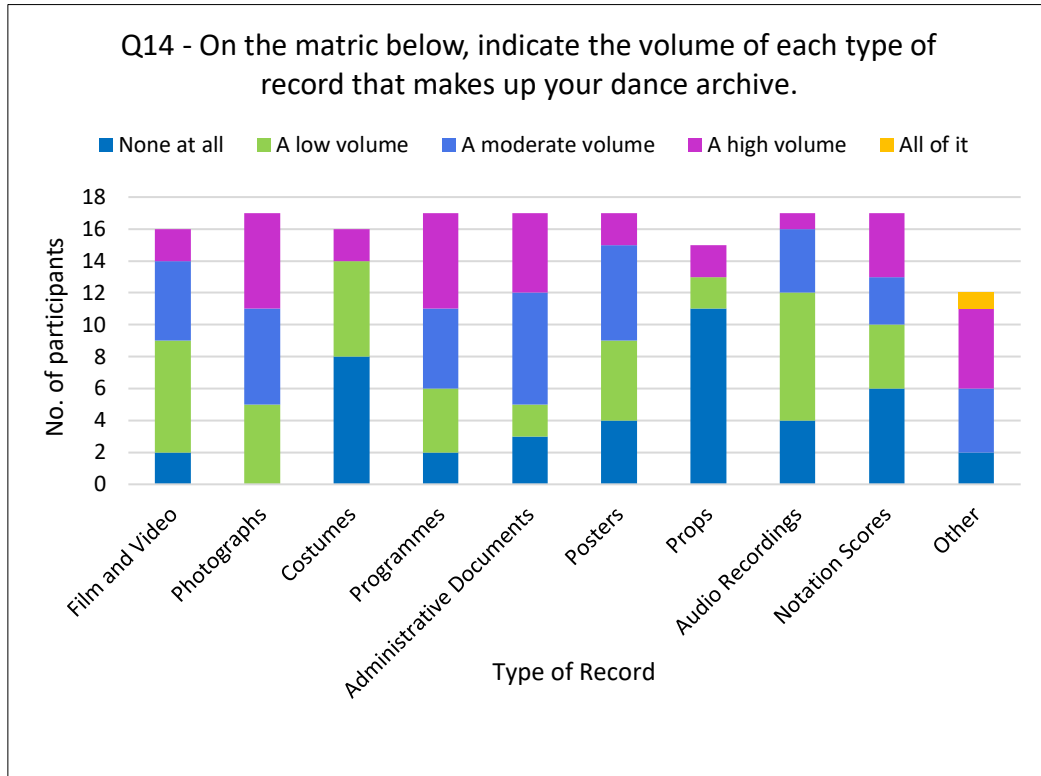


Figure 6-3: Question 14 responses detailing the volume of each type of record within each participant's archive or collection.

The online questionnaire proceeded to probe participants about how much of each type of record the participants had in their holding. The questionnaire found that photographs and programmes were two of the records that made up the highest volume of the archive's holding. In total, 82% of participants suggested administrative documents, closely followed by photographs and posters, which were of moderate volume with regards to their archive's/collection's holding. Film and video, costumes, audio recordings, and notation scores were all regarded as making up a low number of records in the archive's/collection's holdings. A total of 65% of participants suggested that props did not feature at all in their archive's/collection's holdings. These findings demonstrate that archivists still focus on paper-, or document-based (including photographs and possibly film) artefacts, but do not necessarily consider

digital sources or objects yet. These findings provide archivists and practitioners with a clear outline of what they need to be actively accessioning or donating into archives to improve the content and range of their archive collections. In turn, this will offer a more comprehensive archived history of dance.

This investigation into how dance archivists select and collect archival materials for accession into their archives has revealed that having a clear collection strategy seems essential. If archivists are not sure what they are collecting and why, then the process of collecting can become confusing and archives may end up with excessive amounts of records to catalogue which are beyond the parameters of the archive's interest. Whilst the collection strategies outlined in the findings are wide-ranging in type and topic, they provide the basis for archives to evaluate the materials coming into their holdings. The findings suggest that the parameters for collecting materials within dance archives include, materials associated with the organisation, materials created by those affiliated with the organisation, and materials created because of the organisation. As already mentioned, it is also worth considering why archives are choosing not to hold particular types of material, to better understand inhibiting factors on what traces of dance are archived. For instance, is it simply because it is beyond the scope of the archive that archives reject archival materials, or do other factors such as funding, resources, skills or space contribute to what materials an archive will collect? In probing participants about their archive's contents, we can identify the gaps which archives might want to address to form a more complete understanding of the role of dance. For instance, we found that film and audio recordings were featured significantly less than photographs or dance programmes, thus providing a clear indication of what dance archives might want to actively look for to improve their collections, or traces, within the archive, and to preserve a record of dance. The findings also highlight concerns relating to born-digital materials, which are being generated within the realm of dance currently. With only one archivist suggesting the collection of born-digital or digital materials, this leads us to question

how this will impact the backlog of work archivists already undertake within dance. With a whole genre of dance practitioners creating born-digital choreography or 'screendance' (as it is also known as), and practitioners now using digital methods to advertise, communicate, collaborate, and choreograph, it seems imperative that archivists look towards collecting these types of materials. It is known that the longevity of such born-digital materials is contentious, and therefore they may be lost if not collected and preserved. Dance archivists seem to be behind in joining the digital turn, but understanding why may be useful going forward. If this digital gap is not resolved then dance archivists present themselves with a new problem, which may adversely impact their future security.

6.3.2 Archival Accessioning

The online questionnaire aimed to understand the process of accessioning within dance archives. Moreover, the questionnaire aimed to understand problems that dance archivists may encounter during the accessioning process. While 47% of participants surveyed reported having no problems when accessioning dance materials into their archive, 41% of participants described a variety of problems encountered during this process³⁶.

Across the group of participants, there was a variety of problems which either inhibited the process of accessioning materials, slowed the process of accessioning down, or contributed to what was accessioned into the dance archives. Aspects noted included storage space, the amount of time it took to accession, and funding. Storage space was noted by 11% of the participants as being problematic for specific reasons, such as, not 'having enough space to store anything', as well as storing 'significant' but unusual, delicate items, such as, an 'item crafted from icing sugar'. Another participant noted that accessioning was a 'timely' activity. Another factor that

³⁶ Two participants did not answer this question at all.

inhibited the process of accessioning altogether was money, as one participant noted, 'some books can be very expensive'. Smaller dance archives may be unable to support additional costs due to restricted budgets. A total of 17% of participants referred to problems that slowed down the process of accessioning. For instance, two participants noted that accessing old or corrupt formats can be problematic; thus, trying to access materials can significantly delay the accessioning process. Preserving items such as costumes and memorabilia safely was noted as another factor by another participant. External factors that led to problems during the accessioning process were related to donors and the gathering of materials. For instance, one participant suggested that it was difficult to get donors to 'weed and list material' before donating it to the archive. Another participant suggested that actually 'gathering material from individuals' within a specific folk-dance society can be challenging. From these results, it becomes clearer that issues such as funding, resources and space are inhibiting the development of dance archive collections.

6.3.3 *Archive Appraisal*

The online questionnaire aimed to understand the appraisal process within dance archives. Moreover, it also aimed to understand the problems encountered by dance archivists during the appraisal of archival materials. Overall, 52% of participants surveyed suggested they had not encountered any problems when appraising dance materials in the archive. However, other participants experienced problems relating to evaluating materials' value, and research into the identification of items; furthermore, they experienced weeding and duplication problems, and issues related to time, copyright ownership, and storage capacity. Upon further analysis of these problems, 29% of participants had issues with establishing the value of items, whether it was understanding items' contextual or research value, as the information value of the item may be low within the archive (for instance 'props'). Overall, 11% of participants suggested that research was needed at an item level. This usually entailed the identification of performers in photos, dating programmes, and in some

cases the identification of the item's source. Additionally, another 11% of participants surveyed suggested that weeding out duplicates or 'obviously' irrelevant material became a problem during the appraisal stage. Less common problems included 'sorting out copyright ownership', the storage space used to store digital media collections, and again the time it took to carry out a 'proper appraisal'.

6.3.4 Archival Selecting, Arranging and Cataloguing

The online questionnaire aimed to understand the state of and approach used within dance archives and collections, when it came to appraising and cataloguing dance archive collections and materials. Therefore, this online questionnaire aimed to understand who was cataloguing, how they were cataloguing, how far along with cataloguing the material dance archives were, and their goals over the next three years. Firstly, in the online questionnaire, 70% of participants confided that the archivist is the one who lists or catalogues dance archive materials. Furthermore, 41% of participants suggested that it was a volunteer with dance knowledge. Moreover, 29% of participants listed a volunteer with dance knowledge and 29% of participants chose 'Other', citing 'library staff' or 'librarians', who would be tasked with listing or cataloguing dance archive materials. Cataloguing can be viewed as a timely activity, and thus the fact that archivists are tasked with this activity puts strain on other aspects of their role, such as creating access to collections and the development of digital content. Resources that could be utilised to increase the listing or cataloguing of dance archive materials could be those which featured lowest on the list, such as assistant archivists and interns with or without dance knowledge. The implication of those without dance knowledge appraising and cataloguing remains under-researched.

The online questionnaire then proceeded to understand the extent to which dance archives are catalogued already and their goals over the next three years. Participants revealed that dance archives were at mixed stages of cataloguing. The online

questionnaire revealed that 23% of participants claimed that 50-60% of their archive was catalogued; another 23% of participants claimed that 80-90% of their archive was catalogued. These were the two highest figures from the survey, yet the two percentages are quite wide in range, showing a disparity between archives and their state of cataloguing. Why there was such a discrepancy needs further investigation. Cataloguing rates could be dependent on many other impeding factors, such as time, funding, and resources, making the discrepancy difficult to determine. However, from existing surveys and reports from the archive sector, we can begin to understand that this is a wider archive problem (Tulloch et al., 2004), therefore strengthening the notion that further investigation into the impeding factors and how to deal with the backlog of cataloguing archival materials is still needed. Thus, this study will take this forward into the discussion with dance archive professionals to further understand the contributing factors of cataloguing backlog within dance archives specifically.

The online questionnaire asked participants whether their dance archive had a cataloguing goal over the next three years. Overall, 58% of the participants said yes, while 41% of the participants surveyed said no. Furthermore, participants who answered yes to the goal-setting question were subsequently probed further on what the cataloguing goal was. Archivists did not offer any agreed upon goals for cataloguing. However, some mentioned the following: funding applications to work on major projects; securing funding to help with the cataloguing process; the creation of priority lists of certain dance materials attributed with copyright/GDPR concerns; focusing on one collection per academic year; and clearing the growing backlog of material. Whilst these goals ranged from generic to specific, we can further understand what inhibits dance archives' cataloguing process. For instance, dance archives do not have the staff or funding to be able to have anyone other than archivists working on the cataloguing or listing of materials. Therefore, funded projects determine what does, or does not, take priority when it comes to cataloguing dance archives' collections and materials. Perhaps this then explains why there is

such a disparity in the range of archive cataloguing percentages in the earlier question. The more funding or resources the dance archives acquire, the more cataloguing activities can be carried out.

The online questionnaire further explored the varied problems that dance archivists encountered during the cataloguing of dance materials in their archive collections. The most commonly cited problem, mentioned by 29% of participants, was the detail on the records. For instance, participants noted language as problematic when it came to the lack of detail; records not being in English; needing a specialised translator to help with the cataloguing; variations in spelling over time; and use of abbreviations. Other details of the record, which participants noted as hindering the cataloguing process, were the lack of 'biographical information' for categorisation of dance materials. Moreover, 23% of participants also noted that a lack of standardisation and structure in archives inhibited the cataloguing process. Often, the structures of organisations changed over time; such structural changes can be problematic in that they can further increase the backlog of data migration from one system to another, in this instance cataloguing systems. Moreover, further problems that archivists noted included the lack of understanding of dance as a subject. For instance, cataloguing or indexing less famous dancer's or choreographers and understanding the 'subtleties of different types of dances'. However, these are less problematic when those cataloguing within the archive have some knowledge of dance. Lack of knowledge of dance terminology was noted by 17% of participants within the questionnaire as being problematic. This problem relating to archives' cataloguing process is reminiscent of a question posed earlier in this research: do archivists (particularly those working with dance materials) need specialised knowledge? Without the understanding of such dance terminology, dance genres and choreographers, it becomes difficult to understand the relationships between items, collections or even dance archive materials generally. Thus, although it can be said that archival training helps to provide the principles from which all archives are constructed and maintained, the answers posited here show the importance of

subject-specific knowledge during the cataloguing phase of archiving dance. Thus, having subject-specific knowledge seems to be beneficial when creating archive catalogue records for archivists describing the items or collections as well as users who will be using the catalogue records to search for information. In contrast, the online questionnaire also revealed less common cataloguing problems encountered by participants, namely related to classification and the duplication of material. Participants did not divulge any further information about these cataloguing problems but purely listed them as problems during the cataloguing process. This section of responses leads to further questions, such as: what are the implications of these cataloguing problems for archivists and how do they affect the long-term prospect of having a comprehensive catalogue which is beneficial for users? The implications of subject-specific knowledge, detail of catalogue records, as well as other factors for dance archive catalogue creation will be further explored with dance archivists in the focus group.

The online questionnaire moved on to examine how future developments of online dance archive resources may work with existing systems and tools within dance archives. Therefore, participants were questioned on which cataloguing software or systems were in use within their archives. Overall, 64% of participants selected 'other' from the list of software, 23% identified Adlib within use, and 11% identified their use of CALM. Upon further investigation into the majority – those who chose 'other' as their option – no consensual software was identified as in use in dance archives. The online questionnaire revealed a range of responses, from Excel spreadsheets, to, AtoM, to ArchiveHUB. One archive disclosed that they had no funds for a content management software and therefore used Google Drive or Google Docs to manually manage material. The lack of consensus in the use of software may prove difficult when thinking about the development of future online dance archive resources whilst catering for dance archives on mass.

The online cataloguing section of the questionnaire overall showed that this is where many problems lay for archivists when it came to archiving dance. The cataloguing processes, and the nature of items and collections within dance, make it difficult to catalogue at times, thus leading us to question whether dance archive collections require further individualistic guidance on archiving processes rather than following a blanket approach, as is currently found within the sector. Factors such as subject-specific knowledge, funding and resources impact the cataloguing of dance archive materials. However, the question of to what extent and how these problems can be resolved requires further examination within this research and will be taken forward into the focus group discussion with archivists.

6.4 Archiving Dance

The online questionnaire investigated the main challenges of archiving dance. The findings were mixed. Overall, 35% of participants surveyed mentioned preservation as a challenge, from preserving materials more generically, to long-term digital data preservation, as well as the preservation of specific materials such as photographs, and creators' lack of awareness about the preservation of materials. Another challenge noted was the format of archival materials, with 29% of participants mentioning this aspect. For instance, special media, digital preservation and multiple formats were problematic for some participants. Moreover, other participants were concerned that practitioners were not aware of the range of materials, across all formats, that may be of interest and worth keeping in an archive.

Other significant challenges outlined by 23% of participants were access and cataloguing, respectively. Insights into access challenges extended only to 'making it accessible'. However, participants divulged that cataloguing challenges extended from 'sheer volume' to 'historic misspellings', 'ensuring collections are described accurately' and having the time and space to catalogue. Less common challenges

among participants included copyright and permissions to use materials, practitioner awareness of what archiving was, capturing materials, and dance terminology.

Within the questionnaire, participants were also questioned on what they found most difficult to archive: the choreographic process, production or performance, and 'other'. Overall, 52% of participants surveyed selected 'other' when identifying the most difficult aspect of archiving dance. Upon further analysis, participants' qualification of their choice was the defining aspect. Those who specified 'other' suggested that their answer was not so much about dance, but rather concerned the items themselves. For instance, one participant qualifying their choice suggested that difficulties arose when there were 'gaps' in knowledge of the material rather than particular aspects of dance. Moreover, another participant suggested that difficulties arose when questions of 'ownership, origination, relevance start[ed] to emerge'; foreign language materials presented difficulties to archivists, as well as the lack of consistency in dance terminology. Alternatively, 47% of participants surveyed found that the 'choreographic process of dance work' was most difficult to archive. Reasonings behind this selection were related to choreographic notes and notation. For instance, one participant outlined the lack of donations of choreographic notes to archives, while other participants suggested the lack of notation skills among those within the archive, or researchers using the scores to be able to interpret, use and catalogue in a correct order. Another element outlined in relation to the choreographic process, which was missing rather than difficult to archive, was the 'collaborators', dancers', writers' etc.' perspectives, which were seemingly removed from the archive. Why these appear to be missing from the archive remains to be seen, and thus, further investigation is needed.

The online questionnaire explored aspects participants felt were poorly represented in their archive. While 29% of participants either said nothing was poorly represented or did not answer the question at all, 23% of participants did suggest that the choreographic process was poorly represented. Moreover, 11% of participants

suggested that choreographic material or choreography, in general, was poorly represented. Another 11% of participants suggested that either a specific genre or a genre beyond the scope of their archive was poorly represented. Other poorly represented aspects of dance included documents, such as 'correspondences and pedagogical notes' that are stored on personal devices (born-digital materials), recordings of performances, and where dance was not the main feature of their archive. Participants concluded that dance was poorly represented in comparison to other performing arts collections. Although the responses highlight gaps in archive collection, what is meant by poorly represented within archives remains unclear.

Reflecting on the literature reviewed Chapter 2, it becomes clear that areas outlined as poorly represented here are what the literature also outlined as the most difficult to capture: performance and choreographic materials. However, as the literature discussed, these materials can be and have been archived; indeed, sometimes, making these types of archival materials available to users is the issue at play, thus making it appear as though the archive has poorly represented areas within its archival make-up. Performance materials, such as, films, videos, notation or other forms of digital capture, may be restricted in use by factors such as copyright or the technological capacity of the archive. Therefore, it may be that the material is only *seemingly* poorly represented within the archive due to these inhibiting factors, rather than being completely absent from the archive. Therefore, exploring what is inhibiting the poorly represented areas of dance may be worth investigating with dance archivists within the focus group.

6.4.1 *Alternative Frameworks for Archiving Dance*

The online questionnaire explored how participants might feel towards a new or alternative archive structure. The structure that was presented to participants was taken from the Dance Heritage Coalition (DHC), which was explored within the literature review in Chapter 2. The DHC work closely with the New York Library Dance

Division to archive dance. The DHC proposed that dance should be archived according to 'process', 'performance' and 'cultural impact' (DanceUSA, 2020). Therefore, participants were asked to what extent they agreed that the DHC was the best way to organise dance in dance archives. Overall, 52% of archivists suggested that they only 'somewhat agree[d]', 29% suggested that they 'neither agree[d] or disagree[d]', 11% 'extremely agreed', while 5% respectively suggested that they either 'somewhat disagreed' or 'extremely disagreed' with the statement. Those who agreed, to some degree, with the statement suggested that while the 'framework seems very logical', it takes the context away from the collection by eliminating the original order. Similarly, in a later qualifying question, 23% of participants stated that the alternative framework for archiving dance would make 'logical' sense for archiving dance, while 17% noted that it would remove a lot of contextual information from the material. For instance, one participant noted that 'it ignored the creator's individual narratives', while another mentioned that it would 'take something away from the context of the collection if an archivist tries to pick it [original order of material] apart'. These two participants highlight the importance of the original order and the value and meaning it can add for researchers when seeking to understand the choreographer, donator, or archival material. Keeping the original order of archival material is attributed to the core principle of the archive structure, called *original order*, according to the literature (Millar, 2010). Original order favours materials being kept in the sequence in which they were last ordered before being transferred into the archive itself (Millar, 2010).

Additionally, 29% of participants suggested that there were many dependent factors to consider for this alternative framework. For instance, participants noted that which archival material goes into has a major influence on how the collection or material is archived. As one participant noted, 'yes in principle, but it also may depend on the specific archive and its history and its relationship with the organisation it is in'. It might be that the collection or material needs to adhere to 'house rules' and a standard way of cataloguing; furthermore, the archive might hold

more than just dance material. Therefore, if the dance material goes into an archive which houses other performing arts or more generic material, then the DHC framework would not work. It would not accommodate for other collections within the same archive.

Alternatively, one participant offered a solution, suggesting that the material could be 'mapped to a catalogue, for example, if each performance was a series, and materials relating to process, performance and reception were catalogued as a sub-series'; in this case, the DHC framework would work. Although original order, as well as other core archive structures, may be important to archivists, it remains to be seen whether these structures are beneficial to users. This idea of mapping through other frameworks in the archive is worthy of further exploration. Moreover, archival materials could be visually remapped when it comes to keeping the original order and visually remapped at the front-end or user-side of an archive's catalogue to provide more intuitive resources or databases for dance archive users. Thus, if the DHC's conceptual framework is more beneficial for users than mapping the two using technological means, this will benefit both dance archivists and dance researchers. Therefore, it may be useful to discuss this in phase three of the research project. By doing so, it may help to understand how best to serve the needs of both dance archivists and dance researchers when developing future online dance archive resources. For now, it seems as though dance archivists do not favour the DHC conceptual framework, as it goes against the means of core archive principles, and this must be kept in mind throughout this study.

6.4.2 Access to Dance Archives, Collections or Materials

The online questionnaire aimed to explore what access or tools, either online or offline, archives provide for their users to search and explore their dance archives, collections or materials. The online questionnaire began by asking participants about

the tools they provide for searching and accessing information about dance records and collections.

Overall, 52% of participants suggested that they provided users with an online catalogue – a website where they were able to search or access their catalogue. Furthermore, 64% of participants suggested that they provided their users with a variety of access points, from their archive webpage to external websites they contributed towards (i.e., ArenaPal, ArchiveHUB, YouTube and Theatricalia, to name but a few). Moreover, 17% of participants outlined that they had a catalogue for users to access but did not disclose whether this was online or offline. Meanwhile, 11% suggested that their material could be accessed through the university or library catalogue, which they were affiliated with. Overall, only 11% of participants described having no online access point for users to search. In these cases, the archivists were able to search on the user's behalf using in-house listings. The responses within this section demonstrate that while archives are providing users with an access point for their collections, the access point is primarily through an external organisation. This poses further questions: why are archives not using their own websites or building their own online catalogues to promote and create access to their collections? If they do not have resources to develop their own websites, then what or how do archivists promote archives online? As a user, an obvious place to search for archival material would be to Google the archives or archive items. If this was displayed in some format in an online website directly linked to the archive, then users would know where to find the material. If they must click through multiple links to find the information they are looking for, they would more than likely lose track of what they were originally searching for, or give up altogether, thinking that the material's information cannot be found at all, thus questioning its existence. Similarly, the Nielsen Norman Group outline the 3-click rule: if a user has to click more than 3 times to access information on a website then they are more likely to become

frustrated and give up on the task (Laubheimer, 2019)³⁷. Therefore, minimising the chaining of clicks for users should be considered here. The research will carry forward these thoughts, in seeking to understand the current online outputs of dance archives and the potential for further online dance archive resources, within the focus group with archivists.

6.5 Digitisation

The online questionnaire investigated the digitisation of dance archive materials to understand the extent to which dance archives can already, or have a willingness to, offer these, in the future. The questionnaire aimed to understand if archives had a digitisation strategy, whether they had digitised materials already, and what proportion of their archive was digitised already.

The online questionnaire first established whether the participants had a digitisation strategy, of which 82% of participants noted that they did not. The online questionnaire missed the opportunity to be able to provide further insight into why so many of the participants' archives did not have a digitisation strategy. Nevertheless, only 17% of participants suggested that they did have a digitisation strategy; these participants were asked to provide a brief summary or link to their digitisation policy. Two participants gave a brief description of their digitisation strategies, which included 'digitising the VCR cassette tapes' and 'depends on the archive resources'. These explanations were brief and provided no insight into the long-term strategy of the archives.

³⁷ However, it should be noted that this observation is based on minimal user testing or observation, and thus must be taken with caution.

The online questionnaire went on to consider if participants had any digitised dance archive material currently. Figure 6-4 shows that 71% of participants said yes, they did have digitised dance archive materials. Moreover, 29% of participants outlined that they did not have any digitised dance archive materials. Considering that a large proportion of participants did not have a digitisation strategy, it is alarming to see that a majority reported already having digitised archival materials. This poses a question: if dance archive materials are being digitised without a consideration of their care and preservation in the long-term, what impact will this have? Why are archives digitising without a long-term strategy, and for what purpose is digitised material being created? Upon further investigation of the digitisation of dance archive materials, we can see that 52% of participants reported that only 10-12% of their dance archive or collection are digitised; 35% reported having 0% digitised, and only 11% reported having 100% of their dance archives or collection materials digitised. There appears to be a gap in dance archives' consideration of digitisation, and what work has already been carried out to digitise dance archives, collections and materials. Further analysis within the focus groups may help to understand this disparity further.

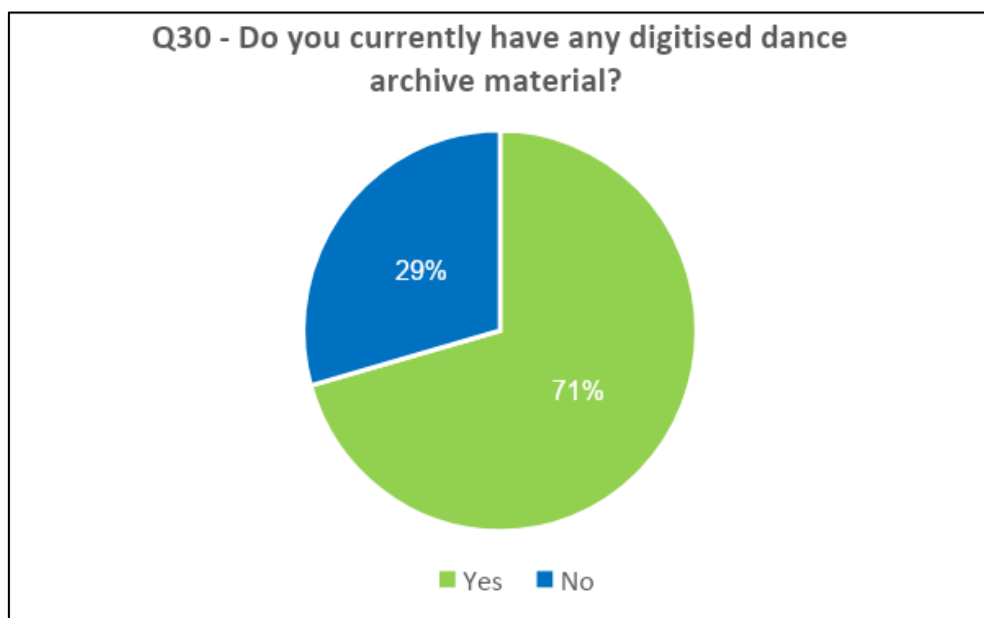


Figure 6-4 Results of Question 30 - Do you currently have any digitised dance archive material?

From the literature review, it was understood that most often dance archives would digitise materials on an ad-hoc basis. Therefore, this online questionnaire sought to investigate why this was the case. The questionnaire asked participants which collections were requested to be digitised on an ad-hoc basis. For 23% of participants, users requested photographic materials to be digitised. Moreover, 11% of participants noted content related to specific dance personalities. Less typical materials requested for digitisation included visuals and old syllabi. However, 47% of participants surveyed suggested that no digitisation requests had been made. It would be interesting to understand whether users of dance archives know that they are able to request digitised content, in addition to their experience of accessing digital content from dance archives.

When probed further on the dissemination of digitised content, the responses pertaining to why included: 'most of our material is born-digital, and therefore easy to provide', 'we are not allowed to transmit data due to copyright', 'N/A' – not applicable, or 'we are not asked to digitise'. Naturally, the copyright of the material impacts whether or not material can be digitised; yet, it is questionable as to whether this is the only reason archivists do not produce digital content. Moreover, could a service for digitised content be provided for users? Could the service provide the archive with a commercial outlet or does this have to be free because of potential copyright infringements? There are many implications or caveats of producing digital content, which remain underexplored within dance archives. Therefore, further explorations will be offered in the focus group analysis.

6.6 Use of Dance Archives

The online questionnaire aimed to address the current use of dance archives, asking dance archivists what measures they have in place to understand who is engaging with their archive, collections or records, and to what extent. It first looked to

understand who the archive professional believed to be using their archive, collections or records. As Figure 6-5 demonstrates, 64% of participants believed that dance academics used their archive, collections and records the most; 41% of participants respectively outlined that postgraduate dance students, general dance/performance enthusiasts and 'other' were the second most frequent users. Of those who stated 'other' within the survey, participants listed people, such as staff affiliated with the institutions, media outlets, alumni, and fashion designers; 11% of participants stated that they did not know who accessed them. It is interesting to note that this online questionnaire in some way corresponds with existing literature reviewed in Chapter 2.

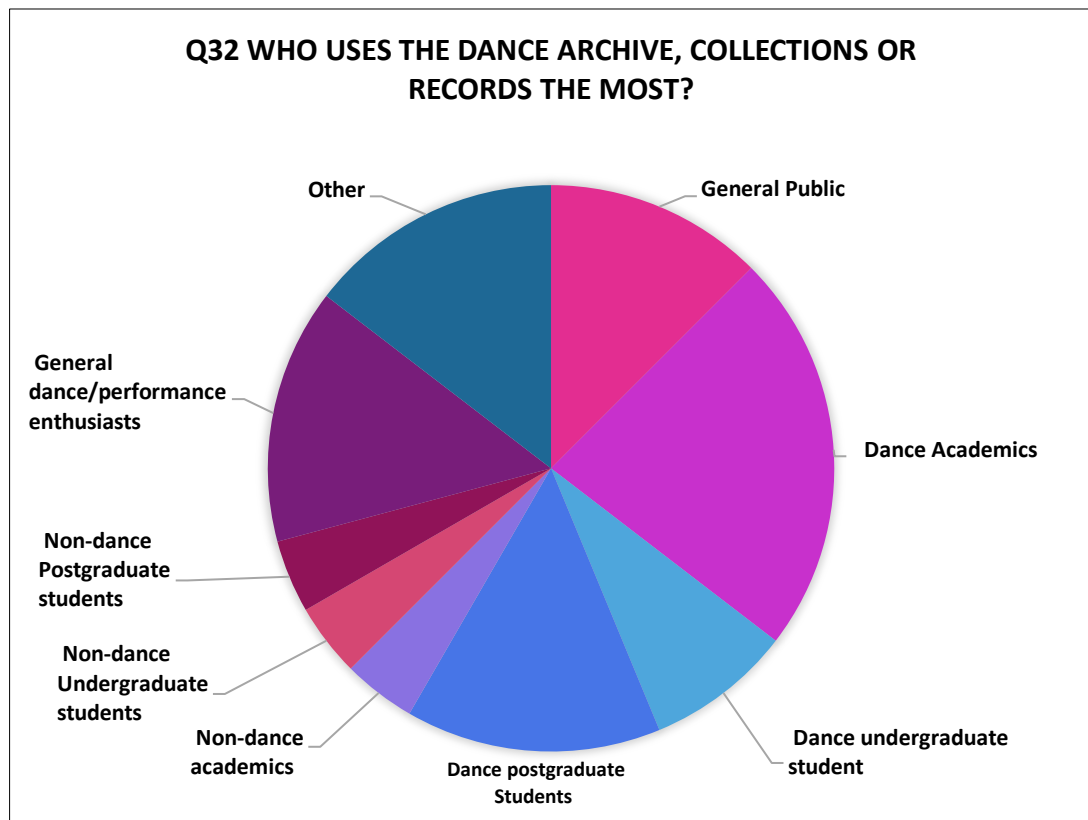


Figure 6-5 Question 32 results - Who uses the dance archive, collections or records the most?

The questionnaire went on to ask participants to provide a description of their typical dance archive user. This would corroborate their previous answer of who uses the archive most, providing a personal profile of the average user to keep in mind when thinking about future online dance archive resources. With 35% of participants declaring they have no 'typical' user or that their users are varied, the next step was to look towards the descriptions they provided of archive users to understand who a typical user was overall. For instance, 17% of participants used the word 'researcher' to describe their most typical user, while 11% of participants respectively mentioned that their typical user was either an 'academic' or someone with a 'specific enquiry'. Additionally, 29% of participants suggested that their typical user was 'students'; 11% suggested that they would be someone 'studying dance'. Therefore, it is possible to suggest that a typical user of a dance archive, collection, or records, would be a person researching dance with a specific enquiry. From this profiling, it can be inferred that a typical user might be a student studying dance. It can also be understood that typical users come to the archive with a 'specific enquiry', which 11% of participants shared. For these participants, the typical user tended to have an interest or enquiry related to the history of dance. Therefore, those in academia are more likely to use dance archives, collections, or records, as part of their research work or studies. Again, this corroborates the demographics of archive users, as outlined by archivists in their questionnaire responses and across the literature reviewed in Chapter 2.

The online questionnaire continued to investigate how dance archives were gathering information on the use of their archive and/or collections. Overall, 47% of participants stated that they used a registration form for tracking who attended the archive. However, this was not the only method employed; 41% of participants indicated that their archive kept some kind of 'log' or 'diary' of visitors, either a research log, daily visitor log/diary, or appointment diary, whilst logging loans and enquiries. Additionally, call-slips were also a method of tracking visitors, and were used by 17% of participants. However, less common methods of tracking visitor

numbers included Google analytics, spreadsheets of enquiries or archive items issued to researchers, and the statistical collection of materials consulted by visitors. Only one participant admitted that they did not keep track of their archive visitors. From these responses, it appears that archives employ many methods to gather information about their visitors. Therefore, a further question that can be asked includes: how many visitors do the archives have on average per month? There was no consensus on this question. However, by splitting participants' responses into archives reporting on physical archive visitors, online archive visitors and requests, as well as more generally reporting on visitors, it became clearer how many visitors participants had to their archive on average. Within the responses, 17% of participants disclosed that they had physical visitors, which on average ranged between one and three visitors per month. Moreover, 11% of participants noted that online requests and visitors ranged from seven or eight per week (online enquiries only) to 20,000 per month. There were limitations in the analysis of some measurements due to participants recording and measuring user engagement with the archive differently. This caused a disparity in the data, as some measured online enquiries rather than visits to an online website/catalogue per week, whereas some provided unique visitor data about visits to the online website/archive use.

For 29% of participants, they spoke generally about visitor numbers without disclosing if those visitors were online or offline. Of those 29% of participants, 11% regarded visitor numbers as low and those who disclosed visitor numbers in this category ranged from 4 to 30 visitors per month. Overall, during the online survey, 23% of participants regarded visitor numbers per month as 'very low', while others declared they had a range of two to five people per year visiting the archive. Again, this disparity and lack of transparency as regards who and how many visitors are using dance archives compares with that found in my own earlier study, on which this research is based ([Johnstone, 2017](#)). Therefore, we can see that the number of visitors to dance archives remains low. Aside from this, within the online questionnaire, participants were only able to offer an insight into large weekly and

monthly figures, while those referring to physical and undisclosed visitors to the archive were significantly lower and sometimes measured per year rather than per month. Overall, these statistics demonstrate that dance archives were seeing a lower number of visitors when speaking of physical visits, rather than online visits, thus demonstrating that users are more interested in engaging with online dance archives. This suggests that online audiences have a want or need for online dance archive content. Further explorations of users', in particular dance researchers', information behaviours in phase three of this study will help to understand this want or need further. However, for now, it is assumed that dance archive users want more online dance archive resources.

The online questionnaire built on the existing understanding of users to explore the use of online dance archive outputs, such as websites or online catalogues, which the archive may have. Overall, 76% of participants suggested that they had 'no idea' how many online visitors their dance archive's online output had per month. Of the remaining participants, one approximated that they had 30 visits per month to their 'ArchiveHUB', but over 5,000 visitors to their online 'ballet history timeline'. Moreover, another participant reported that they had between two and three 'email enquiries' per month, and another participant noted they had 20,000 visitors per month. As previously noted, we can see that there are larger figures associated with online access or archival outputs. This provides further clarification that there is a user-demand for online content from dance archives.

The online questionnaire explored which dance archive collection users requested the most. The response from participants again was varied; 41% of participants noted that users' requests tended to relate to dance personalities, for instance, 'Anna Pavlova', 'Margot Fonteyn' or 'Stephen Sondheim', to name but a few. Moreover, 11% of participants noted user requests for programmes and posters, while another 11% noted that user requests came from 'people associated with their organisation'. Furthermore, less common user requests suggested by participants included syllabus

materials, portfolios, performance records, and creation of dance performances. For 17% of participants, they did not know which of their collections or archive content was requested most. Again, as seen in an earlier question, a significant amount of dance archives seem to not be gathering information on their users. This is a great shame, as without this information, they are unable to fully understand how their dance archive collections are being used, or to what extent their needs may relate to how dance archive resources are developed. Thus, from this online questionnaire, it is difficult to understand whether those who do not have a working understanding of their users are those archives which have less visitors. For now, we can only assume this may be the case.

While it seems that it was important to think about who the dance archive users were, and what they were using the archive for, it was also important to understand some of the main challenges that archives faced when it came to their users. Participants' responses can be separated into two categories: challenges presented by users to the archive and challenges when it came to archives and the user. For 17% of participants, challenges presented themselves when users came to the archive. Of these participants, 11% suggested that one challenge was ensuring that users 'planned ahead' for their visit. Planning can ensure that archives are able to accommodate the users' requests and ensure they have everything they need upon arrival. This planning ahead could also extend to archives managing the expectations of users and providing them with rules and guidance on their experience when attending the archive, thus allowing users to work independently and safely within the archive space. Guidance has begun to appear within the sector on archives managing user expectations. The Association of Performing Arts Collections (APAC) and Society for Theatre Research (STR) provides joint guidance on this topic, which may prove useful here (Association of Performing Arts Collections, 2019). Managing user expectations can be as simple as knowing the rules of archives, requesting materials for viewing before visiting, or providing guidance on what visitors can and cannot do with the materials they view (such as taking images, sharing content on

social media etc). These practices may be obvious for those working with archive collections but may not be for those visiting and using dance archive collections. Thus, again we see a disparity between what archivists take for granted in their practice and what they expect visitors to know. This misaligned understanding may be something to consider moving forward into phase three of the research project which seeks to understand whether users' and archivists' expectations and communication styles are misaligned anywhere else within the archive.

Another challenge outlined by one participant was in relation to asking users to 'narrow down' their search. This participant noted that users tended to come to the archive with a broad or vague request for what they wanted to see. This type of request can be time consuming for the archivist, leading to archivists having to probe users for a more specific request. It may be assumed that there is a problem for users trying to find information within the archive, thus prompting questions such as: Are archives hard for dance researchers to navigate? What is it about dance archives that users are struggling with? Do archive structures allow for searching strategies most akin to those of dance researchers? These questions will be carried into phase three of the research project when analysing the information-seeking behaviours of dance researchers in relation to their use of dance archives. If these questions are addressed, then by optimising catalogue records for users' online browsing, dance researchers may be able to more easily 'narrow down' their search and reduce what they want to view in the archive, thus making this less of an issue for dance archive professionals. However, by understanding the information-seeking behaviours of dance researchers further in the focus group and think-aloud observations and bringing these thoughts into phase three of the project, it may be easier to understand why dance researchers' archive requests are overly vague or broad.

The online questionnaire continued to investigate the participants' main challenges when it came to users. In total, 23% of participants surveyed suggested that their main challenge with dance archive users was ensuring user numbers increased.

Additionally, 23% of participants noted that their main challenge was publicising the archive to attract more users. Two less common challenges outlined by participants were accessibility and the archive catalogue. One participant outlined how the two issues are interconnected and thus affect usage of the archive:

‘Making the collection more accessible which depends upon the catalogue being better, which depends on funding, which depends upon the archive being better known, which depends on the collection being more accessible...’

From the above quote, it is evident that the challenges facing the archive, with particular regard to increasing their visibility, are cyclical in nature. Throughout the questionnaire, we have seen that cataloguing is inhibited by lack of time, money and resources. Funding is inhibited by the status of the archive, and thus no funding means that organisations do not have the ability to increase the production of catalogues and digitisation projects, which in turn results in dance archives being less visible generally. The third least common challenge for archives regarding their users was having the physical space for them to access the archive. Dance archives tend to be much smaller; therefore, having the space for users to access their materials may be problematic if user numbers continually grow.

The online questionnaire also investigated the time-consuming nature of user requests within dance archives. With many dance archives not being online, user requests become the next form of communication between the archive and the user. It is thought that by looking into the user request channel of communication, we might be able to understand user behaviours within the archive setting. The questionnaire sought to find out how often users requested information from the archive because they could not find what they were looking for. Figure 6-6 demonstrates that 70% of participants suggested that users would ‘sometimes’ or ‘often’ request information from the archive, as they could not find what they were looking for. This question provides us with an insight into the information searching

behaviours of dance archive users. From this finding, it can be inferred that users experience difficulties when trying to find what they are looking for in the archive, and when they do, they go to the archivist or archive to help and support their search. Again, bringing this finding into the discussion with dance researchers as part of phase three of the project will help to further understand what it is users are struggling with when trying to find information within the archive. In turn, it is hoped that this will offer more beneficial recommendations for the development of future online dance archive resources.

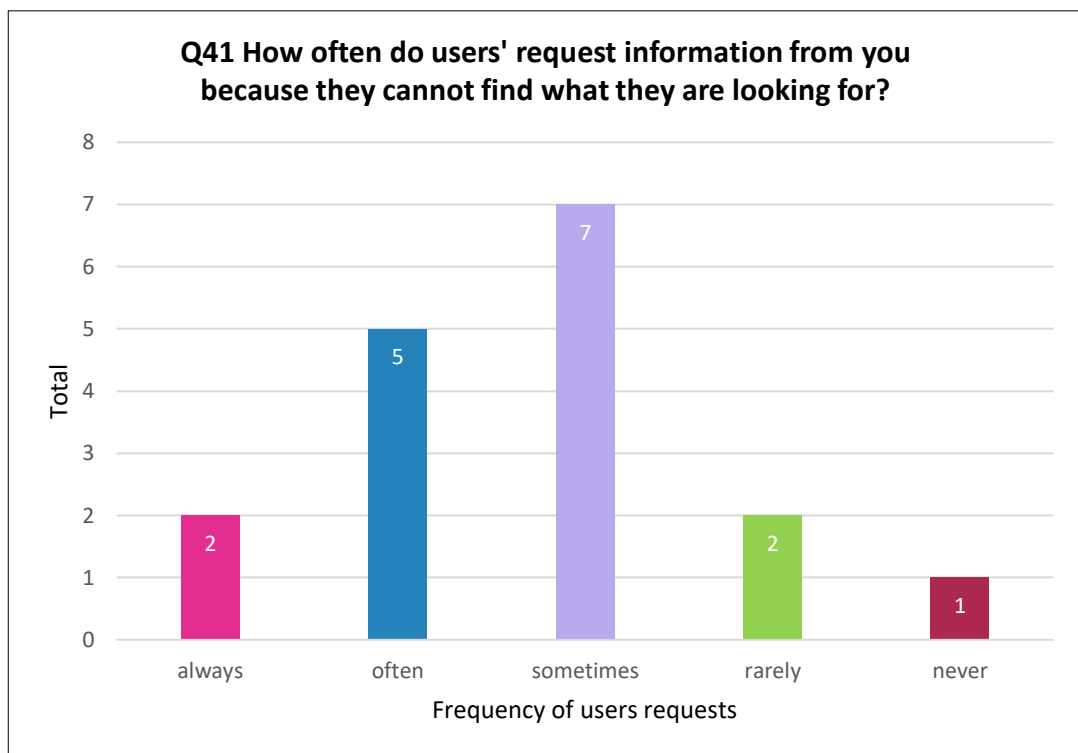


Figure 6-6 Responses to question 41 - How often do users request information from you because they cannot find what they are looking for?

The online questionnaire continued to explore who within the archive was responsible for answering user requests, to understand whose time was being impeded by such requests. In total, 52% of participants responded by saying, 'me'. We were able to qualify their response of 'me' with regards to their position in the

archive by looking at the responses provided at the beginning of the survey; the findings were tallied accordingly. Overall, 58% of participants suggested that the 'archivist' was responsible for answering user requests, confirming that user requests can be an added pressure on the archivist's time. Furthermore, 17% of participants suggested that user requests were answered by generic library or archive staff, while 11% of participants disclosed that 'archive assistants' were responsible for user requests. Moreover, collections assistants, forepersons, cataloguers, curators and writers were attributed to the role of answering user requests. From the general consensus, it is clear to see how much user requests are impeding the role of archivists within the archive. To understand what user requests might entail and how these may be accommodated within future online archive resources, it is important to explore what user requests amount to; thus, taking this forward into the focus group discussion with archivists would help to understand this issue further.

When aiming to improve a service for users, it is important to understand the level of satisfaction users currently get from the archive. Therefore, the online questionnaire aimed to investigate whether dance archives measured user satisfaction levels; if so, how did they do so, and on average, what was the overall user satisfaction for dance archive services? Firstly, participants were asked if they measured user satisfaction, of which 82% of participants said no and 17% of participants said yes. The following two questions were aimed towards those that answered yes. The online questionnaire continued to ask what tools were used to measure user satisfaction level. Three participants explained that their archive used a form or online survey to gain feedback from their users. One of these three participants disclosed that they surveyed 'first-time' visitors only. Surveying only first-time visitors could be problematic as it presumes that regular visitors are happy with the archive experience. Therefore, it would be useful to survey all visitors to gain a comprehensive understanding on user experience, as well as to understand how many times users have used their archive. Moreover, one participant suggested that they used three different methods to gain feedback from users: online surveys,

comment slips, and emails. However, this participant did not disclose any further detail on what feedback they had received. The sequential questions asked archivists to reveal what the overall user satisfaction with the dance archive was on average. Two of the three participants suggested that they did not have any feedback relating to their dance collections, but rather the archive overall. One participant disclosed that users were 'very satisfied' with the archive facilities and service. The third participant disclosed that a 90% satisfaction rate had been obtained. These statistics provide minimal context about their users' satisfaction rating. Further understanding of why dance archives do not measure user satisfaction level is needed. This may help us to understand the gulf between dance archives and their users. The questionnaire continued by investigating how often dance archives carry out user/visitor surveys. Overall, 82% of participants reported 'not at all', 11% reported 'monthly', and 5% reported 'yearly'. This again shows that an understanding of users and user experience is lacking.

6.7 Engaging With The Dance Community

Participants within the questionnaire were asked about their engagement with the dance community and wider society. The questionnaire evaluated how valued archivists felt within the community, as well as whether they felt it was of importance to engage with the dance community. The online questionnaire revealed that 35% of participants felt it was 'extremely important' to engage with the dance community, while another 35% of participants stated that it was 'important' to engage with the dance community. Therefore, archivists surveyed felt that it was more than important to engage with the dance community. However, what remains unclear is *why* they felt it was important to engage with dance community. Further questions within the online questionnaire may help to understand this further.

Alternatively, when surveyed on a range of feelings – extremely to not at all valued – 41% of participants felt valued by the dance community, 23% of participants felt

either less or not at all valued, while only 17% felt very or extremely valued by the dance community. Unfortunately, not a large majority felt valued, which may be extremely discouraging for archivists. Thus, this may result in either archivists feeling like they must work more to engage with users or provide resources to fulfil their needs. The effects of not feeling valued can only be assumed for now, however, further questions and discussions may offer further explanation. The responses from the questions within this section of the questionnaire also prompted further thoughts, namely: Could the value of the dance archive in the community coincide with the dance community's awareness of dance archives? If awareness and understanding of dance archives was increased, would archivists feel more valued by the dance community? These questions could only be answered through further investigation into dance researchers' established awareness of dance archives, or whether engagement with dance archive communities is happening on the part of archivists. The focus group discussions will help to understand this point further.

The online questionnaire continued to explore to what extent participants agreed that archivists should engage with choreographers and practitioners during the creation and production of a performance, for the purpose of improving dance collections. The responses revealed that only 47 % of participants somewhat agreed with this statement. Further questions offered insights into this response. Participants suggested that 76% agreed that a relationship between the archives and practitioners would be 'ideal', yet often there were certain drawbacks to such a relationship, including the active interest of practitioners and limits to funding and resources for such projects. Overall, this question of the relationship between archives and practitioners gained a mixed response; the relationship would only work if both parties agreed to such an amalgamation of workspaces and practices. This sense of shared communication and dialogue between dance archivists and dance practices is also being explicitly trialled in this thesis through its methodology. From the outset, this thesis has sought to draw on the responses of archivists, as well as conversations and dialogues between the archive and the dance community.

However, to what extent the insights gained from these conversations could be beneficial in the development of future online dance resources remains unclear at this stage; further commentary on this topic will be offered throughout the remainder of the thesis.

After establishing how participants felt, in terms of their perceived value in the dance community, the online questionnaire moved on to explore participants' actual engagement with the dance community. The online questionnaire began by exploring how they currently engage with the dance research community. While the response to this question was mixed, 35% of participants suggested that they were part of a society to help with dance community engagement. Alternatively, 23% of participants suggested that they used archive projects and events to engage with the dance research community. For instance, participants noted that they created displays of their archival materials, created tours within the collections, and provided projects that encouraged academics to archive their work. Nonetheless, another 23% of participants also suggested that they relied on dance research communities coming to them, thus insinuating that they do not reach out to facilitate connectivity with the community. Similarly, 23% of participants suggested that they did not engage with the community at all. With almost half of participants not actively engaging with the dance communities in which they serve, another question is posed: if dance archives are not engaging with dance or researcher communities, why are they archiving dance at all? What is the significance of archives being open at all, if they currently do not engage with the communities, they seek to benefit the most? This brings us back to the question of what being a good archivist meant to those surveyed. Is it just providing access for users or is it more than this? Does engaging with communities help promote access and increase archive use? In resonance with these questions, Cook (2013) puts forward an ideology where community and access approach are secondary to caring for the archive, which relates to an earlier known archival paradigm termed 'modern archiving'. Cook suggests that archival paradigms have significantly shifted since then and are now focused on community and participatory

archiving, a type of archiving whose aim is to bring archival engagement with communities to the forefront (Gilliland and McKemmish, 2014; Flinn and Von Rosen, 2016; Von Rosen, 2018). Looking towards the less common forms of engagement outlined by participants, such as involvement with 'in-house networks', providing a 'website', distributing a 'newsletter' via email, and 'just holding the collection', it appears that overall dance archives rely on the dance research community seeking them out and making first contact. Thus, this type of approach to archiving dance may impact the wider dance community's engagement with, views around, and use of the archive. However, it is also important to bring these discussions from the archival perspective into phase three of this project to understand how dance researchers' views concerning access, use and value of dance archives is reciprocated, or is being lost in translation between the dance archive and dance communities more widely. As Cook (2013) suggests, shifting ideological thinking towards building a participatory archival/researcher community, in which dance archives and dance archive resources can be developed, would in turn increase usage of and engagement with dance archives. Thus, in creating a dialogue between dance researchers, companies, practitioners and dance archives, as seen in the methodology of this thesis, we can begin to develop a participatory approach, with the grand aim of creating more beneficial online dance archive resources in the future.

6.8 Summary of Findings

The online dance archive questionnaire set out to understand the landscape of dance archives by investigating three areas of interest: the practices of dance archive professionals, dance archives' contents, and users of dance archives. The questionnaire provided a base from which to further understand archivists and their contexts within the archive professional focus group. The online archive questionnaire shed light on the background of dance archives and how this might

have an impact on their construction. In turn, this helped to further understand and answer RQ2, which underpinned phase two of this research project. The online questionnaire demonstrated that most dance archives take a formal route to becoming an archivist, yet there were still anomalies. Whilst most archivists surveyed had a background in dance, the degree to which subject specialist knowledge was useful to their practice and archive was still contested. Participants suggested that this was not necessary, yet regarded it as a useful aspect of their practice. With such uncertainty as to whether subject-specialist knowledge could help with archive practices, such as the development of collections, this will be an important point of discussion in the archive focus group. The focus group discussion should help to provide further justification and understanding of what use subject-specialist knowledge can bring to the practice of archivists and thus to the development of online dance archive resources.

From the online questionnaire, we have been able to gain a thorough understanding of the current practices of dance archivists. It has been revealed that the majority of dance archives have collection policies, but, like the wider archive sector, tend to be broad and dictated by the organisations or institutions the archive sits within. The questionnaire also revealed more about the content of dance archives. Dance archives tend to collect only paper- and document-based materials and have not yet considered collecting digital or object-based materials. All archivists surveyed had four common types of material within their collections: photographs, films and videos, programmes and administrative documents, with administrative documents making up a large percentage of their archives. This may be problematic for dance archives as more and more dance artists or organisations start to go digital for activities such as set design, choreographic form, advertisements, e-tickets, and correspondents, to name but a few. Dance archives may miss out on a substantial chunk of digital information by not considering the collection, storage and future use of digital traces of dance. Additionally, it comes as no surprise that a large majority of dance archives also do not have a digitisation strategy. It appears that digital

resources or even contemplating the future of digital resources is not even a consideration for dance archivists. Thus, this is seemingly problematic for the development and implementation of digital online archive resources. However, as it has been assumed within this chapter, factors pertaining to funding, storage, resources or skill sets may influence content, development and policies residing within the archive. Further investigation of this should be carried through to the focus group discussion to fully understand the landscape of dance archives within the UK. With the development of online dance archive resources being the focus of this research, it seems imperative that further investigation into the lack of digital objects in collections, creation of digital content, and online access of dance archive materials should be carried out within the focus group.

Additionally, the online questionnaire probed what good archive practices looked like for dance archivists. The questionnaire showed that dance archivists believe it to be more important 'to create a coherent collection through well-informed and proactive selection and collecting', than to think about 'collaboration with others to exploit synergies between archive collections and maximise opportunities for using and preserving collections' (International Council on Archives, 2016b). This provides an insight into dance archivists' priorities and the ideologies underpinning their archiving of dance. It demonstrates that while archivists are more likely to focus their time on collection development, they are less likely to prioritise time for providing access to collections, as we have already seen. Thus, the creation of online digital resources or even digital content is often a second thought for dance archivists. With the integration of the Internet into everyday life, as seen in the reviewed literature in Chapter 2, dance archives run the risk of being left behind if some importance is not placed on access to and use of collections. As archival literature advocates, dance archives need to undergo a shift in their approach to archiving dance to meet the demand of current users, if they are to secure their future.

Lastly, the online questionnaire investigated dance archivists' relationship with their users. While dance archivists believed that their archive was being used largely by

academics and postgraduate students, it was not clear how they came to this assumption as the majority of participants noted that they do not carry out user/visitor surveys at all. Thus, this may be a point of discussion within the focus group, as it is important to understand how dance archive visitors' information is gathered and reviewed. The questionnaire showed that among the dance archives there was no agreed upon method of tracking or monitoring users. Dance archivists would use methods such as registration forms and logbooks to obtain this data. Few dance archivists suggested they were engaging with users through feedback forms, but these were rare. This shows that dance archives are not engaging with their users to understand their needs or expectations, which is rather problematic. Understanding users should be paramount for archivists as it can feed into many aspects of their job. As we have seen within the information behaviour literature, understanding users' behaviours, no matter the context, can help those providing support, systems, services or resources, in a more intuitive and effective way. For instance, it may feed into collection development, as understanding what information users want may help archivists understand what is lacking from their archives; thus, active selecting and collecting can begin to fill the gaps. With the lack of understanding of users and their expectations, it was therefore imperative to take user expectations and put these to the dance archivists within the focus group to see how they might try to accommodate them as a community.

The online questionnaire also investigated the interaction – if any – between dance archivists and their users. The findings suggested that the majority of dance archivists thought it was 'extremely important' or 'important' to engage with the dance community, despite having not surveyed such communities about archive use. Archivists suggested that they felt 'valued' or 'less than valued' by the dance community. However, dance researchers' awareness and use of dance archives could impact how valued dance archives feel. For instance, does the lack of engagement of the two communities dampen any sense of value each has for the other? Would archivists feel more valued if they engaged with dance communities more? These

questions remain beyond the scope of this thesis, yet a deeper delve into how dance researchers use the archive may provide some insights.

In the survey, interaction between archivists and their users was highlighted in the form of user requests. The dance archivists suggested that most of their user requests came as a result of users not being able to find what they were looking for. Yet, with no user surveys being conducted within the sector, it is unknown why archivists have been inundated by user requests. It could be that the information or archive catalogues available to users are not sufficient to fulfil their information needs. It could also be that users cannot find archive catalogues or archive information in the first place. Alternatively, it could suggest that the archive catalogue or information available for users to search is not aligned with their information-seeking behaviours, thus leading them to abandon them altogether. However, further exploration on the information-seeking behaviours of dance researchers within the dance researcher focus group could shed some light on this.

Overall, the online questionnaire was able to provide an insight into the practices of archivists and how these may be affected or improved by the creation of future online dance archive resources. It has prompted new questions surrounding dance archives and their users, which will be taken into the forthcoming focus group discussions with both dance researchers and archivists. It has provided a base from which to build a more holistic understanding of the working practices of dance archivists, which goes some way to answering RQ2, underpinning this phase of the research project. Ultimately, the online questionnaire has provided an initial landscape of the practices and parameters of dance archivists, which can be built upon to understand how to best move forward in developing new online dance archive resources from the perspective of archivists.

Chapter 7 Dance Archives: Online Focus Group Analysis

An archivist focus group naturally evolved from the online questionnaire completed by a wide range of dance archive professionals. The focus group discussions helped to gain a more qualitative understanding of how the working practices of dance archivists may affect and be affected by the development of future online dance archive resources, as mentioned within RQ2, which underpinned phase two of the project. Therefore, the focus group discussion again focused on the practices of dance archivists, dance archives' contents, and users of dance archives. Unlike the online questionnaire, the purpose of the focus group was to build on the foundational knowledge of these three areas and to explore some of the topics and findings in more depth. Thus, the focus group began with an exploration of the conflicting question of whether subject-specialist knowledge (SSK) was required within dance archives and the impact this may have on archival practices such as appraisal, arranging and cataloguing. Continually, the focus group asked dance archivists to collectively review user expectations, taken directly from dance researchers online, questionnaires and focus groups. The dance archivists were then asked to consider users' expectations and to think about how, in the current dance archive climate, user expectations could be accommodated for. This in turn would lead to an exploration of the participants' own reflections on their archive's online presence and development. Moreover, participants were asked to think about internal and external factors impacting their online development and content. Lastly, the focus group aimed to think about the future of dance archives, asking explicitly: 'what does the future of the dance archive look like to archive professionals?' These questions were asked to try and establish a collective understanding, one which would push against the restrictions and challenges facing dance archives to find a way into the digital and to secure their future use.

Initially, archive professionals were asked to introduce themselves to each other. The introductions gave an insight into the multifaceted terms used to self-describe archivists within dance archives. The range of terms used included: curator, manager of special collections, public services archivist and, of course, archivists, thereby identifying that there was a lack of consensus regarding job titles for dance archivists. Within the wider literature, this lack of consensus carries through into other archive disciplines (Lamb, 1966; Charman, 1998; Procter, 2010, 2017; Vassilakaki and Moniarou-Papaconstantinou, 2017). The archivists' identity is one that has kept evolving, from keeper of records or historians to records managers or custodians. It has been argued that this evolution has been connected to the various tasks with which the archivist has adopted over time (Procter, 2010). The lack of consensus also makes it hard for those in the public sphere to understand what an archivist is, adding to the ambiguity of their role within society. Therefore, it comes as no surprise that dance archives are also listed under a multitude of names. However, the job titles do reflect the types of institutions that these archivists work within. From museum to education and dance company settings, these terms revealed how diverse participants' approaches to archiving could be, in accordance with their working environment and training. Each archival setting brought new challenges to the archivists' practice, all of which will be explored across this chapter. Additionally, their approach to archiving was influenced by the training undertaken to become an archivist.

Throughout the focus group, archivists frequently spoke of the prioritisation allocated to certain tasks or projects within the archive. A thematic analysis of the archivists' priorities revealed that the archivist's institution influenced decisions made regarding tasks and projects. Inadvertently, within the participant sample, there was a well-represented cross section of the different types of dance archives. Archivist 1 was part of a repository archive, Archivist 2 was from an in-house archive of a dance company, and Archivists 3, 4 and 5 were situated within a university or education organisation.

The work of both Archivists 1 and 2 was very different from that within the university or education setting; thus, it had a very different outcome for the archive as a result. For instance, Archivist 2 outlined that they worked in a team of archivists, and most of their time was dedicated to answering enquiries. Archivist 2 also noted that answering enquiries took up so much time and effort within the team because large amounts of their archive were still not catalogued. Thus, Archivist 2 reported that looking for items and materials regarding enquiries was 'time consuming'. This demonstrated that without a full online archive collection for users to search, enquiries, we can assume, would increase, especially, in a high-profile dance company.

Alternatively, Archivist 1 revealed that they were also part of a team of archivists; yet within their archive institutions, there is a 'separate team who deal with enquiries'. Therefore, they only dealt with enquiries when they were dance-specific. As a result, this allowed Archivist 1 to spend more time on 'displays, exhibitions and talking to other curators, and things like that, which is slightly different'. This was in keeping with the institution's main purpose. Archivist 1 worked in a significantly smaller archive department, within a much larger high-profile museum organisation. Additionally, being in a reputable well-funded organisation had its benefits for Archivist 1 and their workload, including larger staffing levels to distribute workloads, and significant funding aimed at showcasing the archive's collections, among other projects. By contrast, Archivist 1 also suggested that there were drawbacks to being in a well-funded organisation, as often the funding came with stipulations outside of the archivists' control, meaning that priority was given to some collections or archival materials over others. For instance, Archivist 1 explains:

'there's a hierarchy in terms of requests ... If a director wants something then they [are] like[ly] to get the answer more quickly than somebody who's doing a school project, but by the same token, I think all those people are as important and you want to enthuse them and encourage them and make them aware of the importance of the collections'.

Archivist 1 reiterated this point when discussing archival practices such as cataloguing and digitisation projects. They suggested that with funding from donors came stipulations on what collections were prioritised for digitisation or cataloguing. Consequently, the choice of projects undertaken within the archive is often restrictive for the archivist. This unconsciously can lead to archive bias when it comes to advocacy and development of archive collections. This bias has been outlined as an issue within the wider archive sector (Cook and Schwartz, 2002; Ray et al., 2013; Procter, 2017). As Procter suggests it creates a 'degree of unease' for archivists (2017, p.299). The power structures and decision-makers within an institution or funding organisation often deem what is important or must be prioritised. As such, as Archivist 2 noted, archivists must work closely with those in senior positions within organisations or institutions to advocate the worth of the archive, counteract bias, and ultimately reshape the archive. Archivist 2 suggested that archivists play a 'very political' game with their organisation to make sure the archive is free from bias.

In contrast, Archivists 3 and 5 outlined that most of their time was taken up with the research room, answering enquiries, and teaching support. Both suggested that to show their worth within an educational setting, they needed to be seen engaging with students and providing teaching support materials. Taking the time to 'develop the resources and get academics on board' (Archivist 5) is time consuming but something that cannot be overlooked if you want to keep the archive from being closed by the university. Archivist 4 suggested that when the reading room was open, they spent a third of their time on reader services (invigilating, fetching, and retrieving), and answering enquiries; any remaining time could be spent on developing exhibitions and freedom of information queries.

In discussing workloads, all participants suggested that being an archivist was a 'juggling act'. Archivist 1 outlined:

'it's really a case of juggling what you think is the most important and that tends to be, I think, sort of, you know people who are enquiring doing projects at that point in time that you need to help and then balancing that with what needs to be processed, whether it's for, sort of, legal requirements or whatever and getting collections sorted as far as you can, getting some sort of information about your holdings somewhere online even if it's just the internal catalogue online, so that people know you do have that material'.

However, being stretched as an archivist can mean all the things mentioned by Archivist 1 above are undertaken superficially, and just enough to be ticked off the list. Thereby, this poses a question: what is being sacrificed for some of these tasks to be ticked off the to do list? Is it collection development, quality of catalogue information produced, or advocacy of archive collections? Whether or not some things are being overlooked remains to be seen, yet in the case of dance archives, we can assume this to be true. With resources, staff, and funding for dance archives reducing, we can only assume that other projects or tasks will be marginalised to the detriment of the archive.

Previously in this study, an online questionnaire conducted with dance archivists revealed how subject-specialist knowledge (SSK) has had an impact on the various aspects of dance archivists' practice. When asked explicitly whether SSK of dance was a necessary component for an archivist, those surveyed said no. However, further questions within the online questionnaire revealed how most archivists surveyed mentioned how SSK helped when it came to cataloguing and developing the archive collections. This led to further exploration within the focus group regarding the contested value of archivists' SSK. In order to understand why SSK helps the cataloguing and archive development process, this topic was further explored in the archivists' focus group.

The focus group participants suggested that SSK archivists were a 'great asset' (Archivist 1) for archives. Most archivists agreed that not all archivists working within

the organisation need to possess SSK , but it would be useful to have at least one archivist, i.e., the head archivist, with a working SSK of dance. While there appears to be limited literature exploring whether SSK is an asset for archives, wider literature does comment on the benefits of archivists' SSK for the researcher (Johnson and Duff, 2005; Duff and Fox, 2006; Duff et al., 2013). Archivist 3 expressed their concern that this topic had been put forward for discussion, explaining that, outside of the arts, it feels as though archivists are expected to have a certain level of SSK about the material they are working with. Yet, when it comes to dance archives, or more widely the arts, the value of SSK tends to be overlooked, 'undervalued' and deemed unnecessary – a sentiment which all the archivists agreed should change. Archivist 3 offered the comparison of a historical archive project, such as the Sutton Hoo, stating:

'You would never say right here's the Sutton Hoo burial treasure, it doesn't matter if you're [not] a specialist in Anglo-Saxon [or] anything, you know just look after that, I mean it's nonsense, but ... but we [dance archivists] sort of accept it and we say well it's really hard to find dance people'.

While this might be an unfair comparison, it does highlight that the archive sector, particularly dance, does not consider the backgrounds from which archivists come, and the impact this may have on the development of dance archive collections. For instance, many archivists may form archival knowledge through postgraduate archival training, equipping them to be able to work with a range of archival material, despite their background knowledge. Duff et al. (2013) term this type of knowledge as archival intelligence, defined as an understanding of archives' practices, principles and institutions. Duff et al. (2013) also outline another type of knowledge which might be adopted when talking about SSK: contextual knowledge. Contextual knowledge, as Duff et al. (2013) suggest, is information about the history and provenance of records, which helps to interpret documents and objects within the archive. Yet, this type of SSK might be gained through an archivist's undergraduate training. Holding both a dance degree and postgraduate qualification in archives and

record management is somewhat unheard of for dance archivists, yet arguably would be beneficial for the archive and its users.

Historically, as Procter (2010) has noted, archivists were categorised as either recordkeepers or archivists without any qualification, and this may have impacted the establishment of archives. Archival practices and protocols may not have been adhered to, and thus the structure of the archive would have been affected by subjective judgement or thinking. Archivist 1 highlighted the historical impact that subjectivity has played on the construction of a particularly well-known London-based theatre and performance archive, when they suggested that:

[archivist name] had her own quirky way of cataloguing but that was an internal system, nothing was ever published or put out to be there to help people ... I think, you know, it's very interesting to see where there has been a much longer tradition [talking with regard to New York Public Library], it obviously has paid off...’.

Clearly, the skills gained through archivists’ qualifications have an effect on the construction of the archive and its use to users. However, it is still a non-established practice that within dance organisations and archives, archivists are acquired through the adoption of the role and not through qualifications held. For instance, one participant noted how they fell into the role of the archivist within their institution while teaching dance history. As archivist 3 revealed:

‘I’m at the [archive name] and I’m the manager of the special collections and my title... has been... it is of interest, because they started out calling me the Archivist until I pointed out that I never had training in archives and it's never been the main thing that I've done ... I've always done history of ballet teaching at the [organisation name] at the same time’.

However, Archivist 3 suggested that they took it upon themselves to gain the qualifications to help them do the job, as opposed to consulting with other archivists when managing the organisation’s collections. Therefore, while it seems like progress

has been made in dance archives, there is also underlying evidence that dance archives may not be as established in archival practices and principles as wider archival institutions.

Being a dance archivist might be considered a niche vocation for dance students in higher education. Thus, it is not the ability of archivists that is in question, but merely that archivists without SSK of dance might be having to start from a limited knowledge base when thinking about collection development, advocacy and outreach. Consequently, collections outside the mainstream may be overlooked. The use of dance archives might be different from the use of national archives or local record offices. Therefore, the useful data or information which can be extracted may not be the information their users are looking for. As a result, cataloguing, digitising, promoting or actively collecting information may need to be revised for performing arts archives. Further user studies, like this research project, and research into the use of performing arts archives, could help to provide dance archives with the information they need to understand who is using their collections and for what purpose. Thus, this would allow archivists and institutions to be better equipped in supporting their users and developing their collections. Moreover, it should be necessary for archivists to possess both dance knowledge and an archivist qualification. Currently, without this research it seems that someone with SSK of dance or that holds both a dance degree and postgraduate qualification in ARM is best placed to develop the collections or promote the archive to surrounding user communities, as they know these communities well enough to cater for them, but also have the valuable archivists' skills to do the job.

Participants noted both the positive and negative attributes that come with SSK. They suggested that SSK benefits the accession, cataloguing and general collection development of archival material. For instance, Archivist 1 suggested that if you have SSK and an extensive knowledge of your archive collection, you know both the historical context of the material and exactly where it would go within the archive.

Archivist 1 gave an example of how their SSK had helped with accession and collection development.

‘One of the collections I’m sorting at the moment, which is in the Robert Cohan archive. Now his papers travel the world with him, from his time in America, his living in France, various places in London and nothing was ever put in order, it was just ... “I [Robert Cohan] thinks this might be important, I’ll put it in an envelope”. And so, you’ve got these envelopes of totally unsorted stuff that come round over and over again because he wasn’t quite certain if he had a copy of it, I expect. Um, well to be able to sort of know what you’re looking at speeds it up enormously. If someone came along knowing the individual, his career, you’re going to find quite often that they either play safe or keep different copies in different places’ (Archivist 1).

Archivist 1 describes how SSK was a positive attribute in accession and arranging practices by demonstrating how SSK would prevent duplicates from being unnecessarily held in the archive.

Alternatively, some archivists view SSK as a hindrance. The archivists also suggested that SSK archivists may come to the role with a certain level of bias (Hedstrom, 2002). For instance, Archivist 3 suggested that ‘if the person [archivist] had a great deal of knowledge about the subject and therefore arrive[d] at certain pet theories... conclusions about what was more important, and therefore create[d] a hierarchy that skewed the archive, possibly’. To what extent this is true is beyond the scope of this thesis. What can be attained after looking at the positive and negative attributes of SSK is that it is helpful to have well-rounded archivists. It may be aspirational to have a mixture of both SSK and non-SSK archivists working within one archive. However, this might not always be obtainable due to the scale of the organisation or team within the archive.

Overall, participants showed disagreement over SSK and the level deemed useful enough for archivists to possess. For instance, as Archivist 2 discussed, while a general understanding of a subject can help as an archivist, SSK can also be further developed while working with the collections and archive. For Archivist 2, they came to the position in a dance archive with limited knowledge of dance, yet had a keen appreciation for and interest in dance. On becoming an archivist, Archivist 2 was able to develop their subject knowledge further. Archivist 3 came to the position not as an archivist but as a teacher of dance history, noting that learning about the subject really helped them to enhance the collections. These two participants highlight the subjective contention held by archivists as to whether or not SSK can be useful for archivists within dance archives. Yet collectively, all the participants agreed that recruiting a SSK archivist was ‘aspirational’ for the field. The nature of SSK in the archive is therefore contested.



Figure 7-1: A collection of user expectations derived from the dance researcher questionnaire findings.

Earlier in this research project, dance researchers outlined some of their expectations when searching for information, with particular regards to online dance archives. These expectations formed part of a discussion within the focus group to understand how the dance archivist community could approach developing solutions or approaches to user expectations within their current archival climates. The user expectations which were disclosed by the archivists can be seen in Figure 7-1: A collection of user expectations derived from the dance researcher questionnaire findings.

The overarching observation made by all the archivists, but which was explicitly highlighted by Archivist 5, was the following: 'what's striking to me about these are none of them are unique to dance archives particularly'. Archivist 4 suggested that they were 'complaints, sort of chronic-in-archive complaints'. It was interesting to note how the participants labelled these as 'complaints' rather than expectations or requests. Throughout the focus group discussion, archivists used a significant amount of negative language towards researchers as users. For instance, later in the focus group, archivists labelled researchers as 'poor' researchers, when they could not find information in the archive for a range of reasons. Again, the archivists suggested that users were not 'suitably intelligent' if they could not think to use alternative words or phrases when searching the archive. Moreover, during the final sections of the focus group, archivists suggested that 'we need educated people doing the research ... [so that] people are taught how to do it properly'. This negative language regarding how users navigate and search the archive conjures a certain level of tension between how archivists view their users, with particular regards to researchers. It seems that archivists take for granted, or even forget, the level of study they have undertaken to become skilled, which they now utilise in their everyday role. Most, if not all, archivists will have undertaken a postgraduate degree to become an archivist, as already discussed. This level of study allows the archivist to understand an archive's creation, structure, language, and application. Hence, the archive can seem

somewhat alien to those who do not work with archives daily. Therefore, it seems unfair for archivists to suggest that if researchers cannot understand the archive, whether it is the language or structure used, they should be regarded as 'poor researchers'. The focus for archivists should instead turn to what changes, modifications or improvements can be made to aid the searching facilities for users so that the archive becomes a place for them to find information.

The archivists are in part correct here, as researchers need to be taught the skills to search archives, to find what they are looking for. Otherwise, the archivist is heavily relied upon to conduct information-seeking on behalf of users. One archivist acknowledged that the skills needed to access and use information in the archive could be included in the curriculum for researchers, particularly those in higher education. By looking outwardly toward other information settings, such as libraries, it is easy to see how skills courses can be successful within the educational setting, particularly within universities.

The library and information studies (LIS) sector has long been an advocate for the teaching and integration of library and information skills. Consequently, the teaching of library skills is slowly becoming a common practice integrated into higher education settings (Molholt, 1994; Secker and Coonan, 2012; ACRL board, 2015; Hicks and Lloyd, 2022). Yet, archive search skills have been somewhat overlooked, unless you look closely at subjects associated with the archive, such as history. Library information search skills courses can be found within many university libraries as a separate course (which students may or may not get credit for attending), if not already integrated within the undergraduate 'welcome weeks' or curriculum itself (Newcastle University, 2022; Oxford University, 2022; University of Leeds, 2022; University of Surrey, 2022). This allows us to pose the following questions: why are archive skills not set alongside library skills courses? Is it because archives tend to be situated outside or independent of education settings? Or is it because archives tend to be more restrictive in their viewing of materials? There may be a plethora of

reasons for these issues and indeed, these are beyond the scope of this thesis. Yet for now, we can only suggest that by integrating archival skills programmes within education settings, both higher and second-level, great benefits could be reaped in terms of archives' usefulness and application more broadly. Archive use would increase and, just like libraries, be used by students, academics and researchers as an everyday entity for information searching.

Alternatively, not all mentions of researchers, were negative; archivists spoke of conducting user engagement projects (i.e., students) and the value that researchers can bring to the archive to 'enhance' the collection or catalogue through sharing their knowledge around certain topics and fields of study. For instance, Archivist 5 suggested that '[they had a] better knowledge of dance, because they [the archivists are] working with students on the collection... then you... try and enhance the catalogue because you're learning with the students, basically, you're learning at the same time'. In this instance, learning about the collection alongside the students' materials influenced the development of the catalogue.

The information-seeking role of archivists was evident when the archivists within the focus group discussed the breakdown of their workload. They suggested that their daily workloads predominantly involved: invigilating in reading rooms, answering enquiries, fetching and retrieving materials, teaching support, and development of displays and exhibitions. Participants suggested that tasks such as cataloguing, creating or publishing online content, and tasks associated with the core practices of archivists, were merely 'nice things to do', noting they had no time to complete these. Many of the daily tasks listed above relate to archivists adopting the role of information-seekers on behalf of users. For instance, answering enquiries and retrieving materials for users to view could be attributed to archivists carrying out a search for information on users' behalf. Although all archivists agreed these were time-consuming activities, Archivist 2 provided an insight into why enquiry levels were high, whereby answering them was particularly time consuming. As archivist 2

explained, 'we get a huge number of enquiries ... we ... haven't got a lot of our stuff catalogued. So, there are lots of different places that ... that you have to look in order to answer enquiries; it's really time consuming'. Archivist 2 showed how the lack of catalogue information can affect both archivists and users in a cyclical nature. If archivists have a lack of time to catalogue archival materials due to user enquiries, and other tasks, users are more likely to ask for help to find information they need. As a result, a large proportion of archivists' time is spent searching the archive on behalf of the user, whereas less time is spent on building and developing the archive catalogues for users to search the archive themselves. This cycle is unproductive for both archivist and user, and needs to be broken.

Duff et al. (2013, p.78) support this claim during their exploration of the knowledge held by reference archivists, by stating that 'archivists seem to perform the role of the "walking finding aid" ... '. Archivists are able to find, from memory, archival information for users, often information that has not been catalogued. Duff et al. suggest that archivists acquire six different types of knowledge over the course of their training and practice within the archive: 'domain knowledge, artefactual literacy, archival intelligence, knowledge related to information retrieval, knowledge of collections and contextual information' (2013, p.75)³⁸. The combination of these types of knowledge enables the archivist to become an expert in finding information from within the archive for users. The dance archivists within the focus group claimed that the best way for users to understand and access the archive was by archivists asking them: 'Do you fancy a cup of coffee? Let's talk about what you're wanting to see' (Archivist 1), thus further emphasising how difficult the archive is for users to

38 These are the definitions given by Duff et al. (2013) for each type of knowledge: [1] *Domain knowledge* – having knowledge of historical time periods to locate and understand the records. [2] *Artefactual literacy* – understanding the objects within their care, from understanding the formulation of the documents and being able to judge their authenticity. [3] *Archival intelligence* – archival understanding of practices, principles and institutions. [4] *Knowledge of Collections* – the depth of knowledge acquired by the archivist about their items and collections through archival practices. [5] *Contextual Knowledge* – information about the history and provenance of the records which help to interpret it. [6] *Understanding Users* – be able to help users make links between archives' holdings and their information need.

navigate on their own. Therefore, being able to take the six types of knowledge of the archivist and use them as a basis for digital developments would, in some part, help to build resources which are both useful for users but would also reduce the information-seeking tasks of archivists.

Research guides or instruction manuals have been developed to improve this barrier between the user and the archive over time, but often researchers do not have the time to read through the guides before moving on to the next project or next information source. It might be assumed that researchers tend to only engage with the information they find online, such as catalogues or finding aids, when trying to find information. As Daines and Nimer suggest, 'the hierarchical and textual nature of these tools [finding aids], as well as their secondary use for archival management, has complicated their use by researchers, effectively creating an access barrier to the materials they describe', thus leading users to ask archivists to locate the information in the archive (2011, p.4). Therefore, it could be assumed that catalogues and finding aids are another access point for the researcher, yet are difficult and unhelpful for users. Providing subject guides on archive websites developed as an alternative access point for users to be able to find information based on various topics. Yet, to what degree these have, or have not, helped researchers or users is somewhat unexplored. Within the setting of dance and performance archives, it seems that these instructional resources are unhelpful when it comes to users being able to find the information they need or want, thus resulting in an increase in user enquiries or users ceasing to use archives. Further research into how helpful instructional resources are for users to access archive information should be further explored. Furthermore, the dance archive community needs to think about how to bridge the gap between user and archive, in order to benefit archivists. This will be further considered within the discussion chapter of this thesis as the findings are brought together to consider the development of online dance archive resources for the benefit of both archivist and dance researcher.

Archivist 4 noted a common trend concerning user expectations: 'some of [the user expectations] are about catalogues and better catalogues'. Further development of catalogue descriptors would again help negate the 'poor researcher' stereotype archivists hold, as users would be able to conduct a more comprehensive information search of the archive before physically visiting. With regards to archivists' retrieval of archival material for users to view, participants highlighted that visitors to the archive tend to browse larger collections. Similarly, one of the post-it notes Figure 7-1 indicates that researchers want 'the ability to browse material, rather than knowing what you want to look for'. This clearly demonstrates a direct link to users not being able to search the archive in more detail online before their visit. Continually, Archivist 4 suggested that once users are presented with a larger series or collection of material to browse, 'they [users] quickly focus their minds after they have wasted half an hour and not really found anything', thereby beginning to narrow down their information search or need. Arguably, it is preferable to create more detailed catalogue descriptions for users to browse the archive and identify what archive objects they want to view than to ask to see everything on a particular topic or within a collection. The archivists suggested that, currently, the catalogue tends to produce further enquiries about archival material. Currently, as previously suggested, it falls to the archivists to carry out the information-seeking task for users within the archive. However, users should be able to use the catalogue to do this information-seeking themselves before asking to see the material physically or virtually. The idea that archivists are the ones searching the archive to answer an inquiry about whether or not they have material pertaining to a topic, performance, or performer, is an example of how the archive catalogue is not working for users. The catalogue should be used to search for and find what users need in the archive, instead of only giving surface level hints and clues to what is in the collection and needing further help from archivists.

The archivists did explore some of the other user expectations in Figure 7-1, they provided some brief solutions. Discussion arose regarding a particular post-it note in

Figure 7-1, stating, 'physical archives are not categorised in a way that is helpful ... I found the NYPL easier in that respect, they have categories around dance forms which is easier to search'. The archivists discussed how categorising around dance forms may be 'very problematic ... categorising around dance forms as opposed to dance makers or... because they're very fluid you can have dance makers who have trained in ballet and contemporary dance, you know, Graham technique or Greek dance movement of the 1920's, and you know, it crosses boundaries' (Archivist 3). Archivist 4 posited a solution, however, and suggested 'it sounds like an opportunity for keyword indexing'. However, this is dependent on some form of catalogue or online database of the items or collections held within the archive being completed. Alternatively, Archivist 1 drew comparison to the V&A dance archive with regards to the categorisation of dance forms. Archivist 1 suggested that:

'They [NYPL] started cataloguing their collection when it was set up in a way that was useful then to publish all those of volumes and everything like that ... the difference between that and what happened at the V&A was that there was no one who was actually trained in either archives or even museum studies in the theatre performance department'.

Archivist 1 mentions the importance and shift in archiving, highlighting the power of the archive's structures and protocol to provide users with a comprehensive searchable archive. As archivist 1 continues: 'it's very interesting to see where there has been a much longer tradition [in the NYPL's dance division]; it obviously has paid off'. Thus, this quote emphasises the benefits of archival traditions, practices and protocols.

Archivists also discussed users' expectations around digital content. In response, digital content for archivists seemed to be dependent on a number of factors. They suggested that when it came to digital content, copyright was a significant factor in why it was unavailable or lacking. Copyright clearance of archival material was used in passing as a reason for not having more online digital content. Archivist 4

suggested 'if they [users] want to clear the copyright, I'll put it online'. Another factor was digital priorities. As Archivist 1 outlined:

'the biggest frustration that I find is, that it doesn't matter who they [the users] are or what they are doing...it's their bit that should have been done first, and obviously all the time with the cataloguing, or digitising, you are having to make properties and so, unfortunately, I think in a way the person doing the more obscured and therefore probably more interesting material, you know, research is possibly less likely to be as well served'.

The discussion brought into focus what archivists working with dance archives and collections view as a priority or responsibility. For instance, Archivist 1 explained that 'our responsibility, when you are an archivist, is to look after things and [it] is not for people to rifle through them. It makes it accessible to people, yes, but you know there's levels of responsibility and those need to be taken into account'. To which the rest of the archivists agreed. This statement showed that for the archivists, it was important to care for the collections rather than make them accessible for users. This ideology resonates with an outdated view of archiving, which Cook details as the first paradigm of archives (circa pre-1930s), and the International Council on Archives (ICA) compiles as a list of core archivist aims.

Cook suggests that 'the initial role of the professional archivist [during the first paradigm] became defined as guardian or keeper of the juridical evidence'. Cook continues to suggest that paradigms have shifted more than two to three times since this initial ideology, with the sector moving into a community-led approach to archiving (Cook, 2013). Cook describes how the predictive fourth paradigm:

'involves...a shift in core principles, from exclusive custodianship and ownership to archives to share stewardship and collaboration [such as dominant-culture language and terminology]...and has a keen awareness of the emotional, religious, symbolic and cultural values that records have to their communities as of their administrative and juridical significance' (Cook, 2013, p.115).

Thus, Cook suggests that one of the most important elements of archiving moving forward is to foster a working collaboration with the communities that the archive records are about, coming from, or situated within. Cook's sentiment, coupled with a reflective view of the ICA's four aims of the archivist – to create a cohort collection, effective collection management, to create a cohort access programme and collaboration with others – shows how dance archives generally and dance archivists more specifically are currently not fulfilling all their duties. Putting communities at the forefront of the creation, development and access to the archive is inherently important within archiving. Thus, this exploration of archiving and the sentiments of archivists within the focus group shows that dance archivists do not see access and collaboration as important entities within archivists' remit. Thus, it is important to pose the question: are dance and performing arts archives behind the wider sector paradigm shift, and how will this impact the dance archive sector if it does not keep up with the wider sector? Indeed, this is an important consideration if dance archives want to secure their future against changes such as funding and resource cuts or permanent closure. If archivists are able to demonstrate their worth to the wider communities which they are part of or serve, whether this is through community engagement, collaboration or access, then they might be more likely to show why they are worth investing in. A significant shift in the ideology of archivists within dance archives needs to occur and be monitored, otherwise further closures of prominent dance archives will begin to be the 'norm' for the sector.

The focus group discussion moved on to explore the current online outputs of dance archives and how content is produced and maintained. Overall, archivists suggested that technology is moving so rapidly, and dance archives which are underfunded and under-resourced often cannot keep up. Thus, this causes problems with regards to updating information already out there on external hubs or the heavy responsibility of updating information manually for archivists. For instance, Archivist 4 mentioned that although they contribute content to a couple of external databases, they only keep one of these 'up-to-date', that being their institution's website. This is because

they have full control over their institutional website, unlike other participants in the focus group. Alternatively, the rest of the archivists discussed that the only way to have any sort of 'control' over the online content that promotes their archive is to contribute to external online databases and platforms, such as Archives Hub, Association of Performing Arts Collections (APAC) and The National Archives' discovery. For instance, Archivists 1, 3 and 5 all explained that they have to work within the framework of their institutions or organisations to produce online archival content. These institutional frameworks tend to present challenges or restrictions. For instance, all participants suggested that maintenance and delivery of digital content involves the crossover of departments and management. Therefore, it is often web development or communication teams that have full control of the archives' online space. By contributing to external websites and platforms, archivists retain the power to advocate their archive collections online beyond these frameworks. An invested interest in the archive must be had by all parties within the organisation or institution for it to be properly funded, developed and maintained. Otherwise, archivists must seek out opportunities to fund, develop, maintain and advocate for their archive collections. Archivist 2 suggested that within their institutions, this space is controlled by the communications team who only review the content 'every few years'. In this instance, Archivist 2 suggested that the archive's content often feeds into commercial outlets, whereby the archive remains of some interest and value to the organisation. Others suggested that sometimes this review of, or addition of, digital content can take much longer than anticipated. For instance, Archivist 1 shared their experience of when digital content had taken 15 years to be recognised by the organisation before being digitised and put online. The notion of advocating the 'worth' or 'value' of dance archives was highlighted as a common theme across the focus group discussion.

Archivists within the focus group repeatedly suggested that they were always having to negotiate with other teams or advocate for the archive within their organisations or institutions. For instance, Archivist 3 claimed: 'I learned very, very quickly to work

with the communications and development team of the school, and they are the ones that manage our public interface ... my business is to show them why it's worth investing...'. Moreover, Archivist 2 suggested that 'a lot of the internal departments use it very regularly for social media and all sorts of things that... we have a lot of material sold in the shop which uses archive material in its design. So, yeah, the head archivist and her predecessors have done a really good job at making it, proving its worth to the organisation'. Archivists 1 and 5 described how their organisations had undervalued the archive and therefore were fighting for online archive space. For instance, as Archivist 5 noted, 'it is a challenge.. it's a difficult sell, having the archive somewhere where they didn't teach dance, but you know, but that's our challenge'. Archivist 1 suggested that 'the bigger the institution, the less control you're likely to have over what you can put out, which is actually why things like Archives Hubs, and everything is so much more useful to us really'. However what is clear is that despite the best efforts of all the archivists within the focus group, if the organisation or institution does not have an invested interest in the archive, then the archive's existence is at risk. Similarly, there are examples from the last few years where dance organisations and institutions have questioned this worth to the point of closure. The pandemic highlighted the discussion of worth, with some archives closing (ISTD), some restructuring (V&A) and some quietly closing their doors to the public, students, or researchers (Laban Library and Archive). This explicitly shows which institutions valued their dance archive collections when it came to such decisions as saving the archives.

The archivist within the focus group subsequently discussed various external platforms which they had contributed content to. The list included: Archives Hub, The National Archives' Discovery, Association of Performing Arts Collections (APAC), The Photographic Collection and Theatricalia. While all the archivists in the focus group had contributed content to Archives Hub, it was not clear how many continually contributed information to the platform. Adding content to Archives Hub was deemed as a 'really straight forward process' by Archivist 2. Archives Hub is an online

platform which holds archival descriptors across the UK archive sector, and which can be searched. Archives Hub suggests that 'it is the responsibility of the Hub contributors to create and submit descriptions for inclusion on the Hub'. Therefore, the depth and extent of archival information and catalogue descriptions are the responsibility of the individual archives who contribute. Therefore, archival information is only based on either the time the archivist gave to populate it or the information they already had.

Archivist 2 was able to provide an insight into the process of contributing to Archives Hub, suggesting that 'I went to a training day where they showed me how to upload things and I just got on with it'. There were mixed feelings about whether it was a worthwhile contribution; Archivists 2 and 3 agreed that 'it's a very worthwhile thing to do', yet both had reservations that the launch of the content did not have immediate effect on user numbers. Yet, Archivist 3 quoted that 'the majority of people that physically come to me, come through the Archives Hub', thus showing how useful it can be for increasing online presence. Archivist 5 suggested they had 'historically' contributed to Archives Hub, but they do not now. Archivist 5 did not give a reason as to why. All archivists suggested that contributing to a platform such as Archives Hub, Discovery or APAC is overall time consuming. This may then account for why some archives we spoke to 'historically' contributed to them but presently may not.

Similarly, the archivists discussed APAC's new website as another place to contribute content. Archivists 2, 3 and 5 all suggested they had contributed to APAC's website. The participants suggested that they liked having devoted space for their archive and the ability to provide information about the archive and collections, as well as the ability to add digitised content. Archivist 3 suggested that both Archives Hub and APAC were 'very well-run sites' and it made contributing to them easy. Again, time was a factor noted as constraining with regards to making more content available on these types of sites and platforms online. Alternatively, the participants only spoke

of The National Archive's Discovery challenges and faults. For instance, Archivist 5 suggested that they 'historically' had contributed to Discovery, but they disregarded it as it was 'hard' to edit and often the content that was live was out of date or not quite right. Participants claimed that they had heard *Discovery* was changing to *Explore the Collections*, which might be easier to use, but none of them had continued to contribute content to The National Archives. This section of the focus group demonstrates that dance archivists are actively looking for ways to showcase and advocate their collections.

Both archivists and dance researchers were asked what future dance archives looked like to them. The archive professionals succinctly suggested that they would like there to be 'more power, energy, mileage, dynamism and getting them join[ed] up; not only with each other but in the public mind' (Archivist 3). Archive professionals felt accomplished when it came to being able to link data across institutions but also in the mind of users. One participant suggested a combined platform or resource should be created as a 'central springboard' (Archivist 3) for dance archive materials. They suggested that due to the interdisciplinary nature of dance as a subject, it often does not sit in a 'silo' (Archivist 3) of its own. For instance, it may involve other subjects, such as, theatre, social history, science or politics. Often, dance can be found in various other types of archives under headings such as special collections, miscellaneous or theatre and performance. For instance, dance collections can be found within Black Cultural Archives, Victoria and Albert Theatre and Performance archive, Islington Local history centre, University of Manchester Library and special collections, Kingston University archives and special collections, along with many other inconspicuous archives. Therefore, it can be somewhat difficult to know where to look to find it. As Archivist 2 proclaimed, 'it is hard to find dance archives, [I] only know how to find them because I've worked in them'. Therefore, increasing the awareness of dance archives should be a main concern for this and any future dance archive projects going forward.

The Archivists suggested that if dance was understood as an interdisciplinary subject by the wider public, then the approach in which it is used by researchers, students and users in general would also be different. Information-seekers would begin to widen their search for dance among other disciplinary archives. Archivists suggested that it would be beneficial to have a 'welcome hub' for dance as a subject, which then directs the user to all the different places. Another archivist suggested that without a boost to funding, 'dance archives [cannot be] fully catalogued, made accessible in the best possible way... we need money because we need time, we need bodies to do the work and we need to educate people doing the research, people who are taught how to do it properly' (Archivist 1).

There was a consensus among the archive professionals that the future of dance archives 'seems worrying' (Archivist 5). They shared experiences of how dance archives they had previously worked for had begun to shut completely without wider consultation or acknowledgement. One participant noted how their previous place of work had closed and the only way they, or others in the archive sector knew, was when other dance archives had new user requests, by which '[the closed archive had] seem[ed] to redirect their enquiries to us and it seems to happen by... you know... magic' (Archivist 5).

In summary, the archivist focus group has provided an insight into dance archives not previously observed. It has highlighted the many challenges faced by archivists in the long and short term of their role. It has demonstrated how the setting in which the archivist works has a significant influence on the types of restraints and challenges faced. As we have seen, decision-making and priorities within dance archives are determined by the institutions and organisations involved, in turn demonstrating how senior leadership takes precedence over archivists or archive users. If this continues, it can be detrimental to the construction, development, and use of the archive. Without an overhaul in how dance archives are viewed by their organisations and wider society, their value and future prospects remain in doubt. Over the last

few years, we have witnessed the future of dance archives coming under considerable pressure, with financial cuts resulting in an increasing number of dance archives collections having to either restructure, relocate, or face complete closure (Victoria & Albert theatre and performance archive, Imperial Society of Teachers Dancing and Trinity Laban library and archive), thus demonstrating the immediacy of such a regeneration of dance archives.

By reviewing the practices and environment of dance archives, this thesis contends that the future of dance archives has been jeopardised. Generally, the archive sector has an invested interest in finding innovative ways to press forward, proving and showing their worth by collaborating or engaging with the communities they serve. However, dance archives appear to be further behind than the rest. While dance archivists attribute financial restrictions as the problem, it could be suggested that the ideology of dance archivists is not progressive, and therefore is not fulfilling user demands. It may be that the demise of dance archives is no less due to the economic climate than archivists' individual or collective ideologies, as we have explored. This notion is one which requires further investigation with a wider sample of dance archivists in the context of performing arts archives.

The focus group has also highlighted that without social engagement and open access to archival material, it is hard to demonstrate to organisations their worth or value. The archive sits at the heart of its own detrimental cycle. Without an injection of funding, developments cannot happen, with collection and access development communities less likely to know archives exist. If users are not engaging with the archive, the organisation will question its worth or value in times of economic hardship, and as we have seen over the past two years, organisations will need to make the decision as to whether to close the archive for good or increase funding cuts to dance, theatre and performance archives, thereby enforcing a type of restructuring of the archive. This leads us back to the beginning of the cycle; dance archives being unfunded and trying to prove their worth to their organisation. In

order to break this cycle, the dance archive sector has to find alternative low-cost ways to engage with users and new audiences.

Looking ahead, online archive resources, particularly in the light of the current climate and ideology of dance archives, need to encapsulate the knowledge of and not to replace the archivist. Dance archivists, as previously discussed, hold a wealth of knowledge about their collections and archive. Online archive resources should aim to replace the 'take the archivist out for coffee' conversation between archivist and user, which allows archivists time to be able to do 'the nice things' more akin to the expectations of their role. How this is carried out is up for discussion, but looking to wider archives and humanities projects could provide some inspiration. For instance, a linked network of dance and performance archive data would illustrate the vast network that dance reaches out to and crosses over with. A network of linked data is a growing trend within the arts and humanities cultural heritage sector, with other disciplines creating similar linked data projects, such as Towards a National Collection (TaNC), Archives Hub, and Europeana. The prospect of creating a network of linked data between dance archives for users to more easily find information was favoured by all dance archivists within this study. Dance archivists also recommended having a particular place which users can come to which acts as a springboard from which they can explore all the dance archive collections. Similarly, this springboard platform is what various projects like TaNC and Europeana help to enable. Thus, creating a similar 'springboard' platform or collaborating with such projects to incorporate dance archives would be something to aspire towards.

As suggested by the focus group, whatever online resources are developed need to be recognised within every Higher Education welcome pack for university students, from the beginning of their educational journey. This will create awareness of the resources, and in turn, dance archives within communities. By bringing together the findings of the information-seeking behaviours of dance researchers and archivists, the next chapter will discuss what the online archive resources of the future might

look like. This collective analysis will help to provide a trajectory which will break the cycle and show promise for increasing the use of dance archives.

Chapter 8 Discussion

The research presented within this thesis aimed to understand the working practices and landscape of dance archives as well as the information-seeking processes of dance researchers to inform the development of future online dance archive resources. As such, a central research question underpinned the research project: *CRQ - How can the information-seeking processes of dance researchers, and the working practices and landscape of dance archivists, inform the development of future online dance archive resources?* The research split this central research question into three sub-questions: *RQ1 - How do dance researchers seek information and how can dance archive resources inform their information-seeking process? RQ2 - How might the working practices of dance archivists affect and be affected by the development of future online dance archive resources? RQ3 - How can this all inform the creation of future online dance archive resources?* Each sub-question guided a particular phase of the research project. The research brought together both dance archivists and dance researchers in separate discussions with one another, to establish a way forward for the development of future online dance archive resources. As a result, an extensive investigation was undertaken into the information-seeking behaviours of dance researchers, which has helped to uncover how and why dance researchers search for information both online and within archives. This focus was novel, as before this study was conducted, very little information was known about the information-seeking behaviours of dance researchers. Additionally, this research project has worked to understand the working landscape and practiced of dance archivists, and how their practiced may affect or be affected by the development of future online dance archive resources.

This chapter forms phase three of the research project and brings together the findings of phase one and two to identify and understand how they can inform the development of future online dance archive resources, thus contributing to the discussions in relation to RQ3 and CRQ. This chapter explores the collective findings of the online questionnaire, virtual focus group and online think-aloud observations, with the aim of defining the key information-seeking behaviour patterns of dance researchers. Moreover, the chapter will also explore the collective findings of phase two to understand the parameters of the working practices of dance archivists. This chapter will conclude by using the synthesis of the analysis, which reflects the views and practices of both dance archivists and dance researchers, to find a way of developing and implementing any future online dance archive resources, thus fulfilling the research questions set out at the beginning of this thesis.

It should be reiterated at this stage of the study that our focus lies with only one type of dance archive user group: dance researchers. It is recognised that there are other types of users of dance archives; however, dance researchers were found to be one of the larger dance archive user demographics. Additionally, the sample size of dance researchers within this study may be noted as being significantly small. However, the findings from this study provide a significant contribution to qualitative research into the information-seeking behaviours of dance researchers, which is seemingly lacking within current scholarship. Although the findings are not generalisable, the research provides scope for future work, which could scale up the project to include more dance researchers and dance archivists, respectively. It is important to note that the sample of dance researchers involved undergraduates, postgraduates and academics studying and researching dance. Nevertheless, this study is able to provide a new understanding of the information-seeking behaviours of dance researchers, which has not been carried out in this way before. The decision to explore only dance researchers within this study has already been further explored within Chapter 3. Nevertheless, it is recognised that the information-seeking behaviours of dance researchers are only one proportion of dance archives' user profile, and therefore,

any guidance and recommendations that are proposed within this chapter require further contextualisation against other dance archive user group studies. Further investigation into the wider dance archive user groups would offer a nourishing foundation on which to build recommendations and guidance for future online dance archive resources. Presently, however, these other user groups remain beyond the scope of this thesis.

Throughout the study, it has been established that the information-seeking behaviours of dance researchers align with some existing information-seeking models, such as Bates' (1989), Ellis' (1989), Kuhlthau's (2005) and models. Nevertheless, the information-seeking behaviours of dance researchers do not directly fit into any one model of information-seeking. One suggestion is that this information-seeking behaviour study explores a range of dance researchers: from undergraduate dance students through to academics working within the field of dance, whereas the information-seeking behaviour models that have come before have looked specifically at one type of researcher. For instance, Ellis' (1989; 1993) models were a result of an investigation into both science and social science academics, Kuhlthau's (2005) model investigated high school students, while Bates' (1989) study explored the everyday user of information retrieval systems. Arguably, this may be why only some found traits are akin to various other information-seeking models and why dance researchers do not directly follow any particular pattern associated with an established model.

Whilst this study can comment on the subgroups of dance researchers, it is recognised that the sample size of each type of researcher is noticeably small; thus, as previously mentioned this will affect any justifications and recommendations that can be made within this study. Therefore, further studies into each dance researcher subgroup may help to further understand whether dance researchers fit into the established information-seeking models. However, this study has only observed and analysed the findings in the context of both dance researchers and archive

professionals, whilst cautiously evaluating these insights against other information-seeking behaviour literature when providing guidance on the future of dance archive resources. Nonetheless, the findings provide new insights into the information-seeking behaviours of dance researchers in both online and archive environments. They also provide a comparison of the information-seeking behaviours, skills and practices evident across a mixed cohort of dance researchers, not previously studied.

From the outset, this thesis aimed to define the information-seeking behaviours of dance researchers. From the findings of both the online questionnaire, focus group, and think-aloud studies, we can observe patterns of behaviour emerging in relation to dance researchers, which correlate with much of the information-seeking literature. The findings demonstrated that dance researchers start their search with a vague formalised information need, which is then reformulated throughout the information search based on found information. This process draws similarities to Bates' model (1989), in which the information seeker – in this case, dance researchers – reformulates their information need based on the information they find during the search process (i.e., berry-picking). Berry-picking is one attribute of dance researchers' information-seeking process. It is also an attribute which can be seen throughout all information-seeking processes of dance researchers at differing levels, a discovery which has not been seen before within both Bates's model, or the wider information-seeking literature. The extent to which each of the dance researchers within this study used the information they encountered to then reformulate or refine their information need, differed. It was found that undergraduates used the encountered information to reformulate the topics they were looking for, while academics and postgraduates both used encountered information to evaluate the information presented to them. They also sometimes changed their search terms based on new or alternate search terms, not originally associated with their information need. Similarly, archivists in the study also noticed berry-picking and reformulation behaviours within the archive. Archivists suggested that users want to explore larger collections, which often leads to users narrowing down their

information need within the archive. With dance researchers using query formulation and exploratory browsing, in both the online and physical archive space, it should be noted that this needs to be accommodated for in the development of any new online archive resources in the future. Browsing capabilities of dance archive catalogues, beyond the standard archive structure, should be accounted for. For instance, rather than having a structure whereby users have to search or browse by collection level, file level or item level, the searcher may search by choreographer, choreographic work, or genre of dance, as mentioned by dance researchers in the focus group (Chapter 5).

Supplementary to facilitating the browsing capabilities of dance archive catalogues, dance archives may also want to incorporate recommendations based on user searches within their online dance archive catalogue interfaces. Online users have become more familiar with personalisation, recommendation algorithms, or systems which are able to provide users with other related material to that which they are viewing. For example, familiar online environments, which online users use within their everyday searching of commercial and academic outlets include: Amazon, YouTube, Netflix or even online journals (Amatrician and Basilico, 2012; Harzing, 2017; Smith and Linden, 2017). Within the archival context, AI and automated data retrieval are beginning to be used to allow unknown collections and items within the archive to resurface. Collaborative projects, such as *Our Heritage: Our stories* (Jell, 2022), harness the use of digital technologies, such as AI applications, to be able to aggregate community-generated content into a place which is visible for online users (Hughes et al., 2022, 2023). Similar technologies, found within both commercial and archival contexts, could be utilised and implemented to the benefit of dance archives for the increasing discovery of both similar and unfamiliar archival materials related to a user's search queries. Online archive record data could also be utilised to facilitate wider searches within the archive based on similar words, phrases and even concepts or topics. Both would help to facilitate a discovery tool for dance archive materials but would also aid serendipitous discovery of dance archive content

unfamiliar to researchers and archive users. Additionally, dance archives could learn from journals, which offer users hyperlinked citations or a 'more like this' feature as a side navigation tool. While some performance archives have begun to implement this into their interfaces to promote discovery and facilitate recommendation tools ('V&A · Explore the Collections', n.d.; 'Home | Shakespeare Birthplace Trust', n.d.), dance archives still lack these facilities. Dance archives should start to consider a similar approach to archive catalogue information system design. While these may not be new ideas, by any means, these existing tools may be an established way for dance archive catalogues or records to take advantage of and be more visible in wider search engines in the future.

Another close fit for dance researchers, when considering information-seeking models, would be Ellis's, which is generally regarded as the closest fitting model for researchers (Wang, 2011). Dance researchers could be observed exhibiting characteristics of 'starting', 'chaining', and 'browsing' – all akin to Ellis' information-seeking model (1989). However, there was also the addition of 'ending' and 'verifying', which are attributed to Ellis et al.'s (1993) extended information-seeking model. Table 8-1 provides a visual comparison between existing information-seeking models and dance researchers' information-seeking patterns of behaviour found within this study. As seen within Table 8-1 information-seeking behaviours which were observed and were akin to Kuhlthau's (2005) model were 'initiation', 'selecting' and 'exploration'. All of these elements draw parallel with Ellis' information-seeking model.

Other similarities with Ellis' (1989) information-seeking model included the identification of starter references (e.g., Google, online libraries and journals), backwards chaining and browsing, which were all utilised by dance researchers to find information online. In turn, these were used to reformulate the dance researchers' information need by narrowing their search focus until they found the required information. It was noted that dance researchers relied heavily on the

Internet throughout their information search, a finding which is identical to Mayer's (2015) study exploring the information-seeking behaviours of performing arts students. However, it is an information behaviour which is unlike that of neighbouring disciplines, such as humanities researchers, as outlined within the wider literature, which many information systems for the arts are based upon (Barrett, 2005a; Warwick et al., 2006; Tahir et al., 2010). Therefore, any proposed new or improved online archive resources need to accommodate these traits going forward.

INFORMATION-SEEKING CHARACTERISTICS	ELLIS (1989, 1993)	KUHLTHAU (2005)	DANCE RESEARCHERS
INITIATING		X	
SELECTION		X	X
STARTING	X		X
CHAINING	X		X
BROWSING OR EXPLORATION		X	X
FORMULATION		X	X
DIFFERENTIATING	X		
MONITORING	X		
EXTRACTING	X		X
COLLECTION		X	X
VERIFYING	X		X
ENDING	x		X
PRESENTATION		X	

Table 8-1 Comparison of information-seeking behaviour models among dance researchers.

Additionally, as we have seen, the Internet, in particular Google, was considered as a key starter reference, as Ellis (1989) would describe, for dance researchers. The online questionnaire, focus group, and think-aloud observations all detailed how dance researchers used online resources like Google, Google scholar, online journals and libraries throughout the information-seeking process. As discussed in the findings, all dance researchers began their search for information using Google, meaning dance researchers' information-seeking practices can be aligned with that of the 'Google generation' (Weiler, 2005; Rowlands et al., 2008; Kemman et al., 2013; Georgas, 2014). This highlights two things, the first being that any future dance archive resource would be well placed if it was made available online and could be easily sourced through a search engine (such as Google). Additionally, the collective findings of the dance researchers indicated that it would be useful for them to have one place to search all dance archive content online. Therefore, secondly, it would be useful for users if any new online dance archive resources followed a similar and familiar model of searching to that of search engines, like Google. Sourcing dance archives through a search engine is something that archives within the sector are yet to achieve. Therefore, further research into how this can be implemented is paramount. Alternatively, this chapter also considers the implementation of an independent collective dance archive search platform for all dance archive materials across the country and beyond. Consequently, the question of how dance archives might increase the visibility of their collections via search engines, or offer a search engine facility themselves will be discussed later within this chapter.

As previously outlined in the findings of Chapter 7, online journal articles can be picked up by search engines, such as Google Scholar, and presented to online information seekers. Online journals can offer the archive sector an achievable model for increasing their collection materials' visibility through search engines. One way that online journals attain the visibility of article level exposure is through search engine optimisation (SEO). SEO has been used by businesses and organisations, as well as online journals, to increase their visibility, by virtue of being included in search

engines results lists. This relies on several elements being considered in the presentation of the information online. Schilhan et al. (2021) offers a comprehensive checklist on how to optimise the visibility of scholarly publications which may be applicable for archives too. As Schilhan et al. (2021) suggest, basic metadata of scholarly publications should include: title (inclusive of keywords), descriptive keywords, abstract and persistent identifiers. However, wider literature shows the importance of dates, hyperlinks and formatting to increase visibility of data for online search engines (Kelsy and Lyon, 2017; Duong, 2020; Veglis and Giomelakis, 2021). Reflectively thinking in terms of archive catalogue data, all these elements can be drawn out and presented differently to optimise the visibility of the material and collections. For instance, Figure 8-1 shows a catalogue record for a dance archive collection currently online. Alternatively, Figure 8-2 offers a demonstration of how the same data might be enhanced for the purpose of SEO within a wireframe of new dance archive platforms or resources,³⁹ using existing literature as guidance. As seen in Figure 8-2, much of the same archive catalogue data have been used, however, hyperlinks have been used to connect archival material, related content and organisations, titles, dates, persistent identifiers, and descriptions. Figure 8-2 is a re-imagining of how this might be implemented to increase the online visibility of dance archive content.

This project had aimed to produce a prototype of a new online dance archive resource within a real-world setting. However due to the limitations of the research conducted, as outlined in Chapter 3, this remained beyond the scope of the research project. Therefore, we can only hypothesise that this would increase the visibility of dance archive records within online search engines. However, what we can infer here is that online dance archive resources, such as collective search platforms, would be most useful if integrated into the information-seeking processes of dance researchers at the same point that online journals, libraries and search engines might be used.

³⁹ The wireframe has been created to incorporate many of the findings within this study and is capable of demonstrating what a new dance archive collective search platform would look like.

Online dance archives of such calibre would exist alongside other such online resources as another place of consultation, or a starting point, for dance researchers within their information-seeking processes.

Alternatively, another avenue of exploration which may lead to an increase in the visibility of dance archive content, as well as accommodating dance researchers' desire for an all-encompassing searchable dance archive platform, would be a linked dance archive data model or linked data resources. Various digital humanities

The screenshot shows the University of Surrey logo at the top left. Below it is a search bar with 'Text only' and a 'Search' button. A navigation menu includes 'Home', 'Advanced Search', 'Showcase', and 'Image Gallery'. The main content area displays 'Search Results > Record' for '15 - Choreutics \ Files in Box 15'. A table lists metadata for the record, including Ref No, Alt Ref No, Title, Date, Extent, Description, Language, Physical Description, and Format. A 'Persons' section follows, listing Rudolf Laban with his dates (1879-1958) and role as a movement theorist. The page footer contains 'Quick links: Site Map Privacy Policy' and 'Powered by CalmView© 2008-2023'.

Level	Item
Ref No	L/E/15/38
Alt Ref No	E(L)/15/38
Title	Choreutics \ Drawings
Date	n.d.
Extent	32 sheets
Description	Drawings by Rudolf Laban.
Language	English
Physical Description	Original reference number was 31/II/25.
Format	Papers

Code	Person Name	Dates
DS/UK/P417	Laban; Rudolf (1879-1958); movement theorist	1879-1958

Figure 8-1 A Screenshot of the National Resources Centre for Dance online catalogue record for Choreutics papers from the Rudolf Laban Archive collection, accessed: Dec 2022

projects (Europeana, 2017; Jell, 2022; Towards a National Collection United, 2022) have explored ways to create greater visibility of archive content through utilising archival data (i.e., archive catalogue metadata) to produce linked relational archive data models. The use of linked data has all been a growing dialogue among the wider sector of archives and records management and information science (Schaffner, 2009a; Bellini and Nesi, 2013; McKenna et al., 2018; Hawkins, 2022).

Archivists and dance researchers alike proposed linked dance archive data during discussions on the future of dance archives. However, what was understood by linked data for both dance archivists and dance researchers differed. Archivists wanted a 'searchable directory' of 'dance archives' and dance researchers wanted a 'searchable platform' for 'dance archives and materials'. Nevertheless, both dance researchers and dance archivists wanted a collective, searchable platform for all dance archives and materials. Moreover, that could be somewhere to search for dance archives or dance archive materials, or to act as a 'welcome hub' for the discipline which directs you to the location of dance archive catalogues (both physical and online). By linking archive record data together in the way that users want, it would go a step further than just acting as a dance archive directory.

Linking archive metadata together into one searchable database would enable users to search for and retrieve archival information from a multitude of archives. Thus, it would enable dance archive users to begin to understand the interdisciplinary nature of dance, and, how far, or wide, dance archive materials can be found from archives, such as at performances or sporting events, in science discussions, as part of local history events, at university, and as part of special collections, to name but a few. However, a linked data archive search platform is dependent on dance archives having online catalogue data readily available. Across this study, it has been observed that dance archives have different levels of record data available online, which is problematic. Moreover, having metadata at various levels within archives poses

many problems for search and discovery. Most archives have archive metadata at collection level.

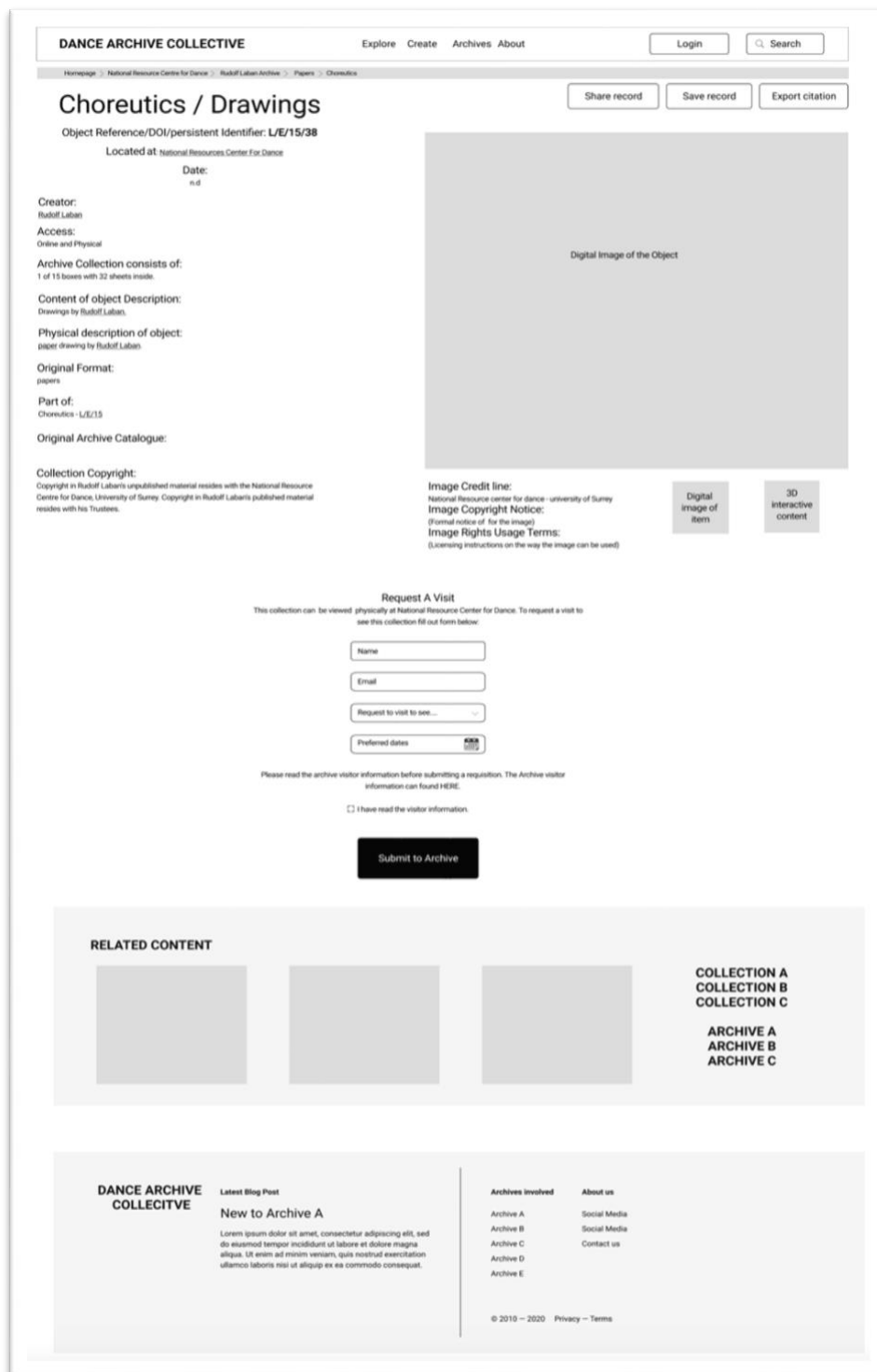


Figure 8-2 A wireframe of a proposed online collective dance archive resource using SEO and Linked data, created using Figma.

However, having metadata at the level at which it would create links between the data which dance researchers and other users might want would involve making catalogue archive metadata available at item level, a notion which may not be plausible currently. Nevertheless, with archives exploring the potential for AI in cataloguing processes, this may be achievable in the future. However, it is important to state that currently, and from the information collected within this study, we know that archive catalogue metadata is at collection level as well as in a variety of formats across the dance archive landscape, but may not be available online. However, where information is already available, online metadata databases can be created from dance archive collections and can be pulled together, into one searchable platform for users to search and retrieve archive information. While this may seem like a huge undertaking, it could underpin future developments of how users interact with online dance archive collections. GLAM projects such as TaNC (Boon and Sichani, n.d.; Hughes et al., 2022, 2022) and Europeana (Antoine and Bernhard, 2013) are testimony to what can be achieved by linking archive data together. These projects, however, do not come easily or at a low cost to the sector. Thus, consideration for collaboration on research projects within the wider digital humanities, archival and GLAM sectors might be a way forward in achieving such aspirations within smaller dance and performing arts archives. Alternatively, developments, such as more digitised content, and a comprehensive list of dance archive data, may aid the archivist to provide the automation of dispersed information for users to utilise technologies, such as web crawlers and web scrapers.⁴⁰ This will arguably enhance users' interaction with online dance archive collections. However, if dance archives do not increase their online metadata, or make it readily available online, then they may begin to see themselves excluded from the information-seeking processes of online users altogether.

⁴⁰ To further explore the architecture and use of web crawlers and web scrapers, see Ahuja et al. (2014); Mahto and Singh (2016); and Singrodia et al. (2019).

The landscape of online catalogue record data, or metadata, within the dance archives captured within this study, was found to be imbalanced. For instance, the online questionnaire completed by dance archivists revealed that dance archives were at mixed stages of cataloguing. Some participants reported having 50-60% of their archival material catalogued, whereas others reported 80-90%. It should be noted that these percentages may be considerably higher than many other archives from across the archive sector (Großbritannien, 1999; Tullock et al., 2004; Anchor, 2013). Whilst this shows that the creation of catalogue records is being conducted, another question revealed the range of ways that online catalogues are being produced, all of which can be seen in

Table 8-2. The online questionnaire reported a variety of ways in which they gave online access to catalogue record data. This highlighted that there is no consensus on how or what information is put online for users to search in dance archives. Yet, data captured within this study, through an online survey, was a relatively small sample in the context of dance and the performing arts sector, as well as the wider archive sector. Therefore, it would be beneficial for future studies to survey the full context of dance and performing arts in the UK, as it would provide a comprehensive understanding of the landscape of dance archives and their collections. For now, the uneven landscape of dance archive catalogues does not make the progress of linking archive data easy. It can also be observed that the archival methods for outputting their catalogue to users range from: some catalogues not being online at all, to online catalogues being held on external websites, as demonstrated in the results outline in

Table 8-2. Thus, this can affect the way in which the catalogue can be used in linked data models, creating a heterogeneous catalogue landscape for users to find and search for archival material. However, what this exploration on cataloguing does demonstrate is that there is archival metadata which can be used to link archive data

together within a unified search platform, an avenue of development for dance archives which has already been explored within this chapter.

According to the archivists' online questionnaire and focus group discussion, the mixed approach to putting archive catalogues online was attributed to a variety of reasons: time, funding, and resources. The findings highlighted that archivists recognised cataloguing as a core task within their role. Nevertheless, cataloguing was often overlooked due to other user-related tasks, such as answering requests and retrieving information for users. As noted within Chapter 7, the cyclical nature surrounding user requests and cataloguing is one that needs to be broken.

Q26 WHAT (ONLINE OR OFFLINE) TOOLS DOES YOUR DANCE ARCHIVE PROVIDE FOR USERS TO SEARCH AND ACCESS INFORMATION ABOUT DANCE RECORDS OR COLLECTIONS?
An <u>online ballet history timeline</u> currently curates 750 digitised items from our archive; we have descriptions of our collections on the <u>Archives Hub</u> .
<u>No online access</u> but the library catalogue is available to search remotely or by me
All catalogued collections are searchable in <u>our online catalogue</u> . listings exist for uncatalogued collections which archive staff can refer to when assisting researchers.
<u>A website</u> where the archive catalogue can be searched, and <u>an online performance database</u> ; an information service whereby researchers can submit questions and archive staff provide detailed answers
Our dance collections are described at fonds-level in our catalogues and where available the box list is included too.
<u>Online finding aids</u> if approved by artists
<u>Online catalogue and indexes</u> . Card indexes.
All records are available on the <u>University's catalogue</u> and are fully searchable
<u>ArchivesHub</u>
<u>Spreadsheets</u> for some of the collections are available through the website, with some details also available on <u>Archives Hub</u> . photographic images are available via <u>AenaPal</u>
<u>On-line catalogue</u> . We also contribute irregularly to the website <u>Theatricalia</u> which includes details of people involved in productions, venues and dates.
<u>Online catalogue</u> ; hard copy of same
<u>Our online catalogue</u> and <u>webpages</u>
<u>British library catalogue</u> search and <u>EAP website search</u>

As a fairly small collection with <u>limited public facing material</u> , we give access on a researcher-by-researcher basis. We use <u>YouTube to share our public material</u> , but there is much unpublished material that we no share unless it is requested.
A search bar.
The top-level catalogue is available on <u>the Essex RO website</u> . This is an example: Allsop, Ivor some thoughts for musicians from the Wilstone musicians instructional, (1979), mr 2133.000

Table 8-2: Online questionnaire responses given to question 26 - What online/offline tools does your dance archive provide for users to search and access information about dance records or collections? The tools offered by participants have been underlined in the table.

The catalogue should provide users with a way to access and find information within the archive, among other traits (Pickford, 1999). As previously noted, archivists are already taking on the role of information seekers instead of users. Therefore, it is sufficient to suggest that the catalogues within dance archives are not helping users in their information-seeking quest. This, coupled with users not being able to locate the archive catalogue, is problematic for both users and archivists. As a consequence, users may begin to turn away from the archive as a primary information source for research. Archivists will no longer be able to justify their existence to their organisation using digital or physical footfall, thus running the risk of being shut down altogether. Therefore, we need to understand how we can alleviate this risk, ensuring the archive is visible, whilst looking at why dance researchers are unable to find or use the archive catalogue. However, this discussion is not to dismiss the importance of the archivist to their collections. Their expertise can be of much help to research, as the dance researchers point out. Moreover, I am merely implying that the mundane information-seeking tasks undertaken by archivists to narrow down the information needs of dance researchers should be put back in the hands of researchers.

Archive catalogues, to offer a simple explanation, are an archive management tool for archivists, which allows archivists to use and locate information from the archive.

Of course, this is not to dismiss the complexity of what an archive can signify about an individual or organisation through the processes and relationships that are built up within its construction. However, this thesis is speaking from the perspective of archive catalogue usage. In most cases, archivists have made this same tool accessible to users to locate information in the archive (Daines and Nimer, 2011). Therefore, asking dance researchers, or any user, to use a catalogue to locate information for research within the archive misses the point. That is, the catalogue was created for the archivist, not the user. Users who are not trained archivists will struggle to find information without any sort of guidance, an oversight on the part of archivists, and highlighted within the archivists' focus group.

Archivists undergo extensive training to be able to work within such a complex system, yet expect users to understand it straight away. From talking with dance researchers, the catalogue is inaccessible due to the structural archival language used when displaying archival materials online. In turn, this leads users to ask archivists more questions about information they want to find rather than help users to browse or narrow their information search within dance archives. A key observation noted by dance archivists was that users would come to the (physical) archive wanting to see larger collections of material on a topic before narrowing their information-seeking need during their visit. By asking to see larger collections, dance researchers were browsing large portions of the archive. This enabled them to narrow down the information they wanted, reformulating their information needs based on the information found, an information-seeking trait seen within both Chapter 4 and Chapter 5 of this thesis. Participants information-seeking within the physical archive space was similar to their information-seeking practices online. Browsing information was a behaviour which was synonymous with existing information-seeking literature on dance and performing arts researchers (Cobbledick, 1996; Mayer, 2015; Robinson, 2016). Just as Belkin et al. (1982) suggest within the information retrieval literature, users – in our case, dance researchers – need to be at the core of the project when building information retrieval systems. If archive catalogues are to be re-formulated

with the user in mind, instead of the archivists, then we need to address how to eradicate any language barriers which have been inhibiting users from accessing archival materials. Moreover, we need to accommodate users browsing and conducting an information search in a broad manner on their own within the archive. This reformulation could be carried out by creating an interface between the catalogue and the user. As mentioned earlier in this chapter, this may manifest as having archivists' cataloguing structure on the back end with a front-end reformulating the archive catalogue through an interface which appeals to the needs and preferences of dance researchers. Subsequently, this would allow users to do an initial narrowing down of their information need before requesting information to view within the physical archive. Moreover, this would allow archivists to focus on core tasks such as collection management and development, as well as what they deem as 'nice things' to do (Archivist 5), such as creating digital content to enhance user experience.

It is significant at this stage of the thesis to explore the importance of the knowledge that the hierarchical structure of archives brings and why allowing this knowledge to also be accessible is important. As the literature review reminds us, the archive structure is important for maintaining a historical trace in which archives were created, donated or received (Millar, 2017). The structure, in which documents or objects are acquired within the archive, can tell us much in the way about how the person or event organised, processed and built up evidence of their body of work. Within the context of dance, the structure of the archive may help dance researchers, for instance, understand the creative process of choreographers or the construction of major touring companies. Thus, such embedded information should not always be dismissed. The way in which dance researchers understand and use this information may mean that archives need more transparency and further training might be needed for dance researchers. Training and education resources may be developed to add to online resources, as many archives already do. Alternatively, more online resources could be developed, which could both account for the more intuitive

searching wanted by dance researchers as well as allowing researchers to understand the structural relationships of the archive collections. This for instance may come in the form of an interactive map of archive relationships between materials or through a navigation bar, as seen in Figure 8-3. Figure 8-3 demonstrates how The National Archives (TNA) in the UK allow their users to gain knowledge of the relationship of this item to the archive collection. It shows the archive structure by showing the user 'you are in', which then filters down to the specific location of the archive item or collection, thus detailing the record's trace or position within the wider collection or archive. Thus, TNA's 'you are in' does not lose the valuable embedded knowledge that the archive structure holds but is available should the researcher need or want to use it. Additionally, Figure 8-3 also details 'browse from here by hierarchy', which further allows for users to search for other material using the hierarchical structure of the collection. Therefore, such elements and design choices may also be implemented within future online dance archive resources. The proposed wireframe, set out earlier in this chapter in Figure 8-2, which runs horizontally across the page underneath the website logo and header. By implementing this as an element feature of the front-end interface, valuable structural knowledge of the archive is not redundant, but is provided to dance researchers so that they can locate themselves within the wider context of archive collections. This is another way in which front-end interface design can enhance users' understanding of archival data without encroaching on dance researchers' information-seeking processes.

Additionally, dance researchers reported that they did not know where to find dance archives to be able to conduct their search. Overall, archivists were surprised by this finding and were in disbelief that dance researchers could not locate dance archives from a single Google search. However, one archivist did acknowledge that if you are not from the dance archive sector, it could be hard to locate dance archive catalogues online. Therefore, in addition to making the archive catalogue more accessible when searching, we also need to consider an approach for helping dance researchers, or

any user, locate online dance archives. This in turn will help researchers to locate dance archives physically within the UK and Northern Ireland.

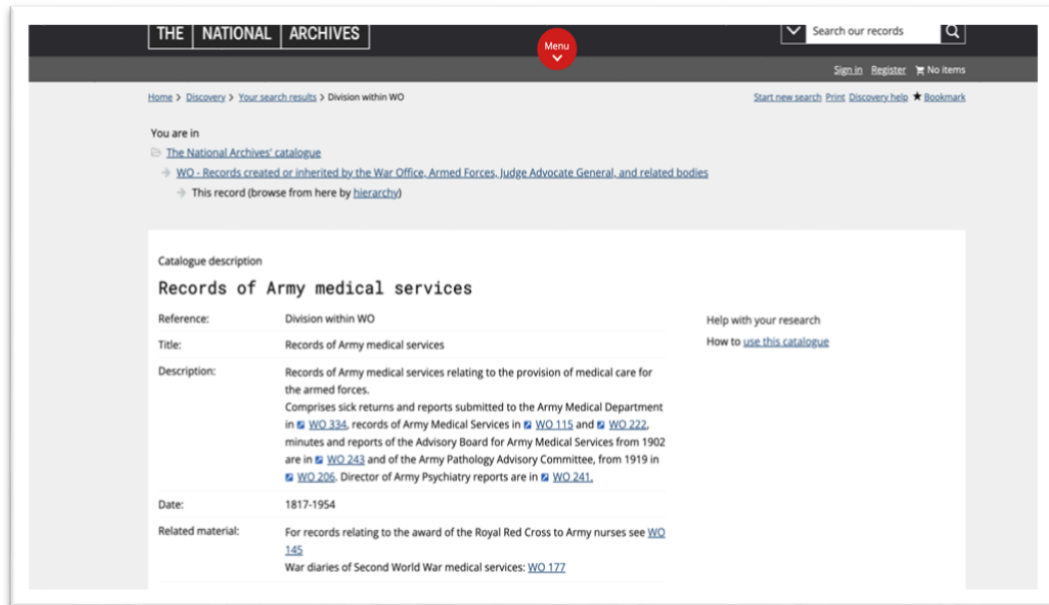


Figure 8-3 Screenshot from The National Archives whereby the archive structure of an item is displayed using a navigation bar at the top of a page.

The research thus far would suggest that a development of new online dance archive resource would facilitate both users locating dance archives and the creation of an online searchable dance archive platform. To make this an achievable development, this thesis proposed a staged approach to the development might be considered. Firstly, a single platform could be created which aims to identify dance archives in the UK with updated online metadata and links to catalogues or collections, where these already exist. Next, the aim would be to develop this into a space where these collections can be searched across a single search using existing and newly created metadata of archive records and collections. This staged approach would ensure a continual development towards what users want and could initially be implemented with existing archive details and catalogues. In creating a centralised online searchable platform for dance archives in the UK, using archive data, would ensure

dance archives begin to be accessible for dance researchers. However, visibility of a centralised archive platform online is still dependent on the adoption and use of the new online resource. As with any new online website, platform, or resource, how it is publicised and integrated into everyday practice of the intended user should not be disregarded. External factors could help to ensure the platform's adoption by researchers. Factors, some of which have already been mentioned in previous chapters, such as, a drive to integrate the resource into every academic dance 'welcome week' curriculum, or university resource pages, similar to that offered by university libraries. Other methods to increase adoption by users would be through targeted marketing towards associated communities, through advertisement on forums, mailing lists and affiliated research platforms.

Linking dance archives together could also help to facilitate the knowledge of where to locate dance archive information and catalogues to search. Therefore, although it seems like a mountainous task to undertake, it is one which is very much needed for both the dance researchers and archivists going forward. As explored, linking dance archive catalogue data is dependent on how much dance archive catalogue data is already available. The mixed landscape of dance archive catalogues, found within this research project, is reassuring as it means there is some metadata already available to use. Yet, further work is needed to understand what the catalogue data consists of, as well as what information from the archive catalogue is useful to dance researchers and users during an information search. For now, it is unsurprising that dance archive professionals considered linking archive databases as 'aspirational' within this study. Dance archivists and dance researchers both agreed that the creation of an online searchable dance archive platform was 'aspirational' for them. Von Rosen's provocation 'who is allowed to dream big?' (2018) when it comes to dance resonates here with the sentiment of both dance researchers and archivists. A sentiment which is reflected within this thesis when we dare to dream of creating a way to link dance archives together. Big dreams often require significant funding for improvements to digital infrastructure and a collaborative approach to improving

online dance archive resource. Funding which can only be sustain through a collaboration of projects incorporating organisations and institutions. It is also important that such an undertaking to development an online searchable dance archive platform would need to be sustained and developed over time. Otherwise, it runs the risk of being a snapshot in time of what can be achieved rather than a dynamic online dance archive resource ever evolving and developing. However, new and existing projects do offer some form of hope for dance archivists and dance researchers in tackling the mountainous task of linking archive data. They offer dance archives the chance to dream big and see how to take small progressive steps towards achieving aspirational goals.

Linked data projects within the performing arts have begun appearing globally, namely in the form of the Specialist Information Service for the performing arts (Germany – www.performing-arts.eu), Swiss performing arts database (Switzerland - www.performing-arts.ch/resource/sapa:Search), AusStage (Australia - www.ausstage.edu.au/pages/browse), and more importantly, Rambert's performance database (www.rambert.org.uk/performance-database) and the Royal Opera House's (ROH - www.rohcollections.org.uk/Performances.aspx) performance database, both in the United Kingdom. The projects demonstrate how the 'aspirational' platforms of both dance researchers and dance archive professionals can be realised for dance archives in various ways. Each of the projects outlined above offers their users a different way to explore dance archive collections. Rambert's and ROH's performance databases both allow users the ability to search and track performance information historically through time. As Jones suggests, 'performance databases, such as those of Rambert and the Royal Ballet, can be a rich source of information about their repertoires, highlighting shifting combinations of creative artists and performers, revealing unexpected links within facets of the performed history' (2020, p.138). However, neither provides links to archival material from which information about the performance has derived. While this is important for some researchers, it does not allow users to be able to define their own route

through the archive when exploring archival material. It curates both Rambert's and ROH's archive collection through a performance path. The performance database does not, for example, allow users to see any archival material from which the data about the person or work has been taken. Similarly, AusStage's performance database does the same and does not directly link with any archive catalogue or material; it merely informs the user which archive the information came from. The findings within this study showed that dance researchers want more than this. They want to be able to find all dance archives in the UK, whilst also having the option and freedom to search across all dance archive catalogues to find information suited to their information-seeking process. None of the performance databases allow the user to search the archive for material. Performance databases are somewhat redundant if they do not link archival material or allow this material to be instrumental at the point of search. Seemingly, an alternative database would need to be searched by users to then find information they are interested in, acquired from the performance database. Currently, this is a two step-process, which does not align with the preferences of dance researchers, as observed within this thesis.

Alternatively, the Specialist Information Service (SIS) for the performing arts database, in Germany, is the closest digital humanities project which adheres to the information-seeking practices of dance researchers, as identified within this study. SIS was created at the University Library Frankfurt with the intended purpose of serving 'scholars who conduct research by means of primary sources on performing arts' (Beck et al., 2017, p.47). The SIS for performing arts links several Galleries, Libraries, Archives and Museums (GLAM) in one place for users to search. SIS takes the GLAM institutions' metadata, then normalises and transforms it into one aggregated model: Europeana data model (EDM) (Beck et al., 2017). EDM allows the data to be exported as linked open data and is enhanced using ECLAP and DM2E vocabularies to reflect the demands of the performing arts domain, and then outputted through the discovery system, VuFind (Beck et al., 2017, p.48). VuFind is, as Beck et al. describe, a 'state-of-the-art search interface', which supports users in

finding information, and is similar in design to that of Google or Amazon (Beck et al., 2016). Using SIS, users are able to search and filter returned results by 'data provider, material type, collection or date' (Beck et al., 2017, p.51). SIS offers a balanced approach to integrating dance archive material into one searchable archive platform for users, whilst also allowing dance archives to use their preferred system for cataloguing. Archivists within this study expressed their disapproval of new online resources, as they perceived them as having to input the same data into a new resource. As explored within this thesis, archivists have contributed content to sources, such as Archives Hub or the Association of Performing Arts Collections (APAC) and are not keen to contribute further content to another new online resource. Therefore, SIS offers a solution, as it takes the content already available, no matter the standardised form, normalises and transforms it for use. However, there is minimal literature available regarding the uptake or use of the SIS platform. Therefore, levels of success in using the platform remain unexplored. Nonetheless, SIS provides a proven structure on which to base any future resources, but further developments could be made to include additional information searching preferences of dance researchers, as identified within this thesis.

SIS offers a faceted archival approach through its interface. The research indicates that dance researchers do not understand this archive structure. Particularly, researchers dislike the structure of the archive because of the language used. Language and terms such as 'level' caused confusion and frustration for dance researchers. Additionally, further confusion came through a misconstrued understanding of what dance researchers understood about the 'refine search criteria' within online archives. Consequently, the faceted structure adopted by SIS to display archival material is unhelpful, and is not appreciated by dance researchers. While archivists live and breathe the terminology of the archive, dance researchers find this terminology less transparent and inhibiting when it comes to searching the archive for information, as we have already explored within this chapter. Therefore,

for this to become less problematic for dance researchers, future online resources need to act as a mediator between both dance archivists and dance researchers.

Online resources would mitigate this language barrier and offer a solution for both parties involved by adopting a human computer interaction (HCI) design. As previously mentioned, the back end of the computer should allow archivists to develop their collection or catalogue, while the front end should be developed in accordance with the information-seeking behaviours of its users, i.e., dance researchers. The future of online dance archives, therefore, needs to accommodate both archivists and dance researchers. For example, SIS users are able to search across people, places and dates with additional information provided, such as material type or institutions where data are held. Researchers may also be interested in finding material through terminology that reflects their understanding of dance. For instance, by genre or dance form, work, choreographer, movement content, costume, or musical compositions. Dance researchers would also prefer to have information on access and the reuse of archival content, as mentioned within earlier chapters of this thesis. Dance researchers wish to have information on the type of access to content provided by the archive, whether the content is a digital replica, or only physical, in which case they need to visit in person. Additionally, dance researchers would also like information on the reuse of online archive content. For instance, dance researchers noted information on how they are able to save, download, and share content for themselves, or with other researchers, as their preference.

Keyword searching is a dominant search strategy for dance researchers during their information search. It is important, therefore, to explore how dance archive catalogue materials are being used and returned to users during a keyword search. Moreover, this will help to improve the future development of online archive resources with regards to searching capabilities. As Schaffner reminded us, within the literature review, 'archivists and librarians have often focused on what collections are

made up of (*Ofness*), while many users prefer to learn what collections are about (*Aboutness*)' (2009a, p.6). Subsequently, Duff and Stoyanova (1998) also suggest that most archive users want to see information on what the record or collection is about. Moreover, they want this to appear in the returned archive information search system results. Although Duff and Stoyanova wrote these materials more than two decades ago, their arguments carry through to dance researchers' information-seeking behaviours in present times. Keyword searching exhibited by dance researchers within this study draws on elements of *aboutness* of dance in the first iteration of a search, such as dance form, performed work, movement content, or subject area. This initial search is then narrowed by parameters typically associated with *Ofness*, such as dates, formats, authors etc. The archive catalogue record could be utilised in two ways to help with such keyword searching. *Aboutness* information (information that the dance researcher initially used) could derive from information found within the more descriptive elements of dance records. UK Archive records are generally catalogued using General International Standard Archival Description (ISAD (G)) standards. Subsequently, more descriptive elements on an ISAD (G) catalogue record come under the Scope and Content element. Scope and Content, according to ISAD (G) standards, are used 'to enable users to judge the potential relevance of the unit of description' (2000, p.22). The scope and content are regarded as an optional extra. However, for dance researchers', scope and content seems like an essential piece of information if digital online content is not available. If digital replicas, or the original object is not available for viewing, then the scope and content element of the catalogue record become more important for the dance researchers to understand its potential use.

Unfortunately, the scope and content element is not always considered essential for archivists to use when cataloguing material. As ISAD (G) (2000) and subsequent websites, such as Archive Hub (n.d.) suggest, the only essential elements are those which may be associated with *Ofness*: reference code, title, creator, date(s), extent of the unit description and level of description. Therefore, this study proposes that

the scope and content category of the catalogue record should always be filled and that it should become mandatory practice for any dance archive collection, item or record to include this information going forward. *Aboutness* information needs to become just as important in the creation of metadata as *Ofness* information.

Looking outside of the dance sector, we can begin to see examples of where both archivists and users are accommodated for. Again, adding more information to the archive catalogue would be time consuming and potentially unachievable given the landscape of dance archive's resources and funding. However, looking toward the future of archives and towards the potential adoption and use of AI technologies within the archive, we are able to understand how these technologies may posit a cataloguing solution of the future (Rolan et al., 2019; Ali and Spivey, 2021; Hawkins, 2022). AI capabilities may enable archives to generate automated catalogue content and transcriptions, which could help provide more complex keyword searching capabilities, both at a deeper or itemised level of cataloguing. Thus, this would provide dance researchers with searching facilities more aligned with their needs. However, the adoption or implementation of such AI-based technologies will, in the first instance, always come at a financial cost. Therefore, while it is hopeful to suggest these types of technologies can enable more valuable cataloguing and searching capabilities, this thesis is mindful when proposing such aspirational suggestions within the current landscape.

The Royal Shakespeare Company (RSC) and Shakespeare's birthplace Trust both offer an online platform. Initially, the RSC created a similar performance database to that of ROH, AusStage, and Rambert, which offered users a way into the archive. As the archive collections were separate from the performance database, the user would have to search and move to the archive catalogue in order to find information or material related to the performances they had identified in the performance database. Therefore, the aim of the project was to make this a seamless process for researchers/users. The newly designed platform provides users with the related

content across all their platforms. The RSC use a system called Qi, designed by a technology company called KeepThinking ('Keepthinking | Content/Collection Management System & Digital Design for Museums | London & New York | Technology', n.d.). Upon reviewing the system in practice, through the RSC, it appears that there is a seamless integration between archive, museum, and library, in which users are able to search for 'everything'. This would benefit dance researchers, who want everything in one place. Additionally, it would also satisfy their information search strategies, as the system relies on keyword searching, whether through the homepage search box in the first instance or at the top of the returned search results thereafter. Additionally, RSC's platform also allows the user to search either the archive, library or museum catalogues separately too. Within the archive search platform, users are also given the option to search according to titles, reference codes and descriptions. Thus, if the user is to search, for example, for 'pink costume' they could choose to use the search only in the descriptions; thus, associated materials would be presented in the returns list.

In looking at previous projects, it is clear to see that the mountainous task of developing dance archives' digital infrastructure is achievable. Previous projects all carry elements which could be taken forward into the development of new online dance archive resources, whilst also addressing the needs, preferences and practices of both dance researchers and dance archivists. Whether the future of new online dance archive resources involves building a database of dance archives across the country, or linking together dance archive catalogues, the projects, as Von Rosen suggests, offers both archivists and dance researchers the ability to continue dreaming of what could be achieved.

By returning to explore dance researchers' information-seeking behaviours and preferences found within this study, we can work towards further shaping future online dance archive resources. This study found that dance researchers had a clear preference for both keywords or search terms to be highlighted within returned

search engine results, as well as the development of notetaking tools. The highlighting of keywords and search terms within search engine result lists is currently an attribute which none of the aforementioned search systems execute. This could be achieved by enriching search list snippet information, using information that can be found in the scope and content of archive metadata. By using the information of *aboutness*, located in the scope or content of archival records, returned search listing snippets could be enriched and in turn could increase dance researchers' chance of finding information associated with their information needs, specifically upon an initial skimming of information results. Furthermore, if users' keywords or search terms are highlighted within both the returned result and search listing snippet, dance researchers would prefer this. By providing a short snippet of what the archive item is about, dance researchers can determine whether or not an archive item or collection can be useful for them. For research purposes, if the types of *aboutness* keywords dance researchers use are derived from the scope and content element of the dance archive record, then searching for related content would become easier, using the online dance archive. Developing data models of metadata which place the scope and content at a higher level of prominence would be most helpful for researchers. It could also help to build recommendation systems for users to facilitate further exploration of related content in other, less known collections, as we have already discussed.

Additionally, dance researchers also showed a strong preference for keyword or search term highlighting to be carried through into a webpage, document, or text after they clicked on the results listing. Dance researchers outlined that this process speeds up their information search, as they are able to locate where the search term or keyword has been used within a website or document. It allows them to skim read the webpage, document or text to see if it is of relevance to their information need. Dance researchers suggested that a few online platforms, such as Google Scholar or online journals, facilitate this showing of highlighted keywords or search terms from search listings to actual webpages, documents or text. In turn, dance researchers

have to replicate the search for keywords and search terms multiple times, across various information sources, using a find tool (Ctrl+F or Command+F). Therefore, dance researchers would welcome developing this type of tool for any new online dance archive resource where a search can take place.

Notetaking was another prominent feature within the dance researchers' information-seeking process. Although a notetaking tool within the platform may not have been preferable for dance researchers within this study, the reasoning for notetaking here is informative. Notetaking did allow the dance researchers to keep track of their findings throughout the information-seeking process, a similar finding to that identified within Kuhlthau's (1991) information-seeking behaviour model. Taking notes during the information-seeking process helped dance researchers to cross reference or validate previously found information against other information sources before ending their information search completely. Dance researchers relied on their notes to help evaluate information they found. Dance researchers evaluated the information by analysing six elements: date, author, publisher/source, if it had been peer-reviewed, citations and references of the paper, and the structure of its contents. This is a similar activity to the concept of *verifying*, as discussed in Ellis et al.'s (1993) information-seeking model. Verifying was added to Ellis's original information-seeking model and had affinity with, what Ellis describes, as the *ending* of the information search.

Verifying is an activity typically observed at the end of the information search. This study observed the same behaviour among dance researchers. Dance researchers noted that they had a preference for undertaking notetaking independent of any information platform as it was easier to jump from one information source to another and have their notes independent of said information sources. Furthermore, observations showed that often notetaking was conducted offline, but still within a computer application, via MS Word or an equivalent. Therefore, this provided researchers with the ability to save, download, or share the catalogue record or

citation in a place of their choice, which in turn would enhance their experience of using the archival platform for research purposes.

Another consideration when it comes to users being able to save, share and download dance archive catalogues, is the format in which this can be outputted. Online journals provide their users with various options when downloading citation information for articles, including options for citation files using particular citation management software and a choice of citation and content to export. Reflecting on which archive information might be available for downloading, saving or exporting, information may also include citation exports, digital surrogates with associated copyright licences, and scope and content information, all of which, from what has been observed within this study, may be useful for dance researchers to note during a research project. Both of the information preferences explored here can help shape future use of dance archive catalogue records for dance researchers. Additionally, they can help to enrich the user experience of searching for and retrieving information through any online dance archive.

Throughout the research project, a resistance to change has surrounded dance archivists' discussion, as well as a lack of willingness to adapt. The lack of willingness to adapt to change within the archive seemingly resonates with a traditional view of archiving. Dance archivists within this study showed that their approach to archiving is quite contemporary when it comes to archiving and engagement. Yet, when it came to access and user engagement, dance archivists were more traditional in their approach, exhibiting resistance towards users browsing their collections. Cook (2013) explored how the role of archivists and purpose of the archive has shifted over time; thus, the way users are encouraged to access, engage and interact with archival material has changed. Archivists within this study shared their dismay at users browsing their archive, as has been discussed. Yet, it is this exploratory browsing which could unlock the potential of researchers' further use of dance archive collections. Of course, it is not ideal for users to be 'rifling through' the physical

collection, but, if technology could facilitate the virtual 'rifling through' of archival material, this may encourage users to search the archive more. The examples we have explored in this chapter offer ways to explore how technology can be employed to virtually browse archival material whilst not causing any negative effects for the physical archive collection.

There may be underlying reasons why dance archivists within this study may have been resistant to change. From the discussion in Chapter 7, it became evident that their resistance to change may stem from a lack of confidence in their ability to effect change as an archivist within their organisation. This study found that archivists are bound by their institutions, funding, and resources when it comes to producing online dance archive resources, as explored in Chapter 7. Dance researchers, within this study, showed empathy for and an understanding of dance archivists when it comes to the restrictions faced by dance archives, including lack of funding and resources. However, to cease trying to find ways to provide new resources for users will only result in the sector getting left behind in virtual space. This research project has provided a platform for dance archivists to discuss their worries, concerns, and cynicism for the development of new online dance archive resources, a discussion which has not been formally recognised before. Moreover, this study has been able to put these discussions into context alongside their users' wishes, to find some common ground on which to build improved online dance archive resources.

Throughout this study, it has been observed that dance archivists' understanding and perception of their users are very different to their identity. Archivists display an inconsistent understanding about who their visitors are due to the lack of methods employed to monitor, track, evaluate or analyse dance archive visitors or users. The online questionnaire highlighted that archive visitors or users can only be traced and analysed through call slips, visitor logs, and diaries, which again may serve a different purpose for the archivist. An evaluation of these materials can provide some user information, but in some cases is limited to either name, date or material requested.

Evaluating patterns of behaviour from one visitor to another may take time and will rely heavily on call slips, logs and diaries to be kept over a long period of time. It is unknown whether a full analysis of this type of information has been undertaken by archivists in order to understand their users. Thus, this study recognises that there is scope for further research in this area.

We can only assume that the feedback which archivists receive from users comes from those users who engage regularly through physical visits, outreach partnerships or programmes, or that no user feedback has been gained at all. Consequently, this may provide a skewed understanding of archive users. For example, if archivists are only engaging with dance researchers from a primarily performative background, then this may skew priorities for collection materials associated with this type of user over other collections. Previous studies on information-seeking behaviour (Cobbledick, 1996; Mayer, 2015; Robinson, 2016) add to this dialogue by concluding that dance students' research is more often practice- and body-based rather than theoretical. This study has demonstrated that this assumption is not synonymous with all dance researchers. The wide range of research topics highlighted across this study, in **Error! Reference source not found.** and Chapter 5, have demonstrated that dancers are more than just creative practitioners. These assumptions can skew which collections and materials are believed to have more importance for researchers. Therefore, it is important for archivists to fully engage with a range of dance archive users to fully underpin decisions made in relation to collection development and accessibility. This study has shown that there is a range of different types of dance researchers using the archive, or who want to use the archive, who may not know where or how to access it. Therefore, the conversations between dance researchers and archivists highlighted the need for archivists to investigate all their users, not just dance researchers, before making decisions or creating new resources.

Funding is an important issue raised by both dance archivists and dance researchers. Funding problems underpin much of archivists' explanations about the lack of

development within dance archives. They also contribute towards dance archivists' resistance to change. This study found that many archives look to gain funding to support projects from various institutions and funding agencies. As identified within the findings of Chapter 7, organisational, institutional and research council funding can be competitive, limited, and can often lead to unsustainable projects. Therefore, this can be off-putting for some smaller archive organisations who feel that after the funding runs out, their project will cease to exist or remain obsolete. Thus, it is necessary to pose a question related to how to create a framework which can sustain longevity. Looking towards projects and networks that have created a collaborative community within the dance and performing arts industries could provide an understanding of how to build research into users, create new resources, help investigate HCI design with minimal cost, and sustain the longevity of archives.

The American Theatre Archive Project (ATAP) demonstrates the strength of such community-based networks to provide a community of support through the collaboration of researchers, archivists, practitioners and theatre organisations. On a different note, ATAP 'advocates for the preservation of American theatrical legacy' (Brady and Koffler, 2015). They are a community of archivists, librarians, dramaturgs and theatre scholars, split into regional teams across America. They act as a steering group to help theatre organisations across America properly set up and maintain their own theatre archive (Brady and Koffler, 2015), thus ensuring the legacy of American theatre. From creating national surveys, to providing consultancy, and workshops, as well as offering scholars the opportunity to contribute research on theatre archive developments, ATAP is able to provide America with an ever-evolving space for theatre archives to thrive. The project shows how a community led approach to building theatre archives can be hugely successful. Therefore, it could be proposed that a similar UK community framework could be utilised to benefit the development and sustainability of future online dance archive resources. Unlike ATAP, a dance community would benefit from the expertise of computer scientists and digital humanists, as well as, archivists, librarians, dance practitioners and

scholars. ATAP's goal was not to build online resources but to build archives. Therefore, having computer scientists and digital humanists to collaborate with would help facilitate research into the online development and sustainability of any new online dance archive resources.

Similarly, the Canadian Association for Performing Arts (CAPACOA) demonstrate what can be achieved through a collaborative effort. CAPACOA are a network who create a Linked Digital Future Initiative (LDFI) to 'enhance the discoverability of the performing arts...help the sector leverage the potential of linked data technologies and to foster collaboration along the performing arts value chain' (The Canadian Association for Performing Arts, 2022). CAPACOA brings together the expertise of digital humanists, computer scientists, arts practitioners and arts companies to be able to build a digital infrastructure to enhance discoverability and potential use of performing arts data within Canada (Eastermann and Julien, 2019). CAPACOA and their LDFI is just another example of how such collaboration can benefit both institutions and users in the development of future online dance resources. The strength of ATAP and CAPACOA is that they are able to demonstrate to larger funding organisations the demand and possibility for use and development. This demonstration of collaboration and community has helped secure funding and develop unique projects which benefit both the organisations and users involved. More importantly, they offer hope to this project and to those of the future, that large data infrastructure projects concerning the performing arts archive sector can be completed.

Generally, within the UK archive sector, guidance, recommendations and developments are provided from top-down national organisations. While many archivists look to institutions, such as The National Archives (TNA) and Archive and Records Management Association (ARA) for guidance and good practice standards, the performing arts tend to find that these blanket guidance approaches do not benefit performing arts collections. Performing arts, and specifically dance archives,

are often smaller, underfunded or under-resourced. Thus, the guidance and recommendations provided by larger institutions do not always fit. Smaller archive sector networks, associations and communities within the UK also appear to be independent from one another. Moreover, they provide different guidance or recommendations, making it confusing for archivists to find what they need to help their archive and collections thrive. Alternatively, this could be seen as a benefit, as differing steering groups for archives, such as the performing arts, would have different needs and development requirements than other disciplines, such as science. Guidance on dance and performing arts archives exists through various networks, such as the Association of Performing Arts Collections in UK and Ireland (APAC). Many of the dance archivists within this study discussed the benefit of being part of APAC, namely for the advocacy of their collections. Dance archivists suggested that APAC acted as a directory for dance archives and the wider performing arts archive sector. APAC is a community which could take full advantage of the research and framework developed by ATAP and CAPACOA. They could extend their network to facilitate communication between archivists, practitioners, scholars, digital humanists, and computer scientists on a national scale. In extending their network, APAC could offer workshops and guidance, and help to secure grants for research projects, all of which could benefit the advocacy and development of dance and performing arts collections within the UK. Moreover, ultimately, this may lead to the development of a future national performing arts collections database within the UK.

Dance and performing arts archives are often grouped with other archive subgroups within larger national surveys, which can lead to dance archives being underrepresented. Thus, dance and performing arts archives become lost in a sea of data, leading to a lack of statistical understanding. Therefore, it would be useful to suggest that a larger survey should be carried out into dance performing arts archives and collections, which could be conducted in partnership with APAC and a larger organisation, such as TNA. A survey could be replicated every 5 to 10 years to establish changes in the sector and monitor the changing dance and performing arts

landscape across the UK. This would provide a more detailed account of the UK's dance and performing arts collection on which to base any new guidance or archive resources for implementation. TNA, being a larger organisation, has a far wider reach as a national voice for archives, which could help to provide a more comprehensive understanding of dance and performing arts archives, collections, visitors and users. This would help to contribute to the understanding of the landscape of dance archives across the UK, compared to the questionnaire carried out within this study. This understanding would provide valuable information on the changing nature of the dance archive sector, funding and resources within dance and performing arts archives, the use of dance and performing arts archives, and how best to develop the sector. This would enable projects to be fully supported with detailed data of the archive landscape and for the community to feed into the development of dance archive resources.

ATAP's framework also relies on bringing researchers to the table – those who might be able to contribute time to research – thus benefitting the dance archive community. ATAP relies on the academic community to explore topical issues and provide research which they may otherwise already be carrying out to benefit the development and teaching of best practice. Therefore, by bringing inter and multidisciplinary scholars such as digital humanists and computer scientists with an interest in dance, or performing arts heritage, into the discussion, the sector would benefit from the questions they seek to answer and research produced would benefit both the archives and users. Questions covered could include data models, database construction, rethinking the archive, digitisation, digital sustainability, and the creation of online national collections, to name but a few. As this thesis has shown, exploring the knowledge held by different sectors and building a collective dance or performing arts community, could have the potential to improve online dance archive resources and secure the dance legacy in a similar way to other projects, as the Dance Heritage Coalition and ATAP have been able to achieve. A collective dance and performing arts community approach may help to reinstate the confidence that

dance archivists are lacking, demonstrating their worth and importance, and that progress can be made within dance archives, despite the elements that may go against progress.

To summarise, this research project has been able to highlight preliminary findings into the information-seeking behaviours of dance researchers. It has highlighted the importance of the Internet in the information-seeking processes of dance researchers and worked to understand how we can learn from these information-seeking practices to inform the creation of online archive resources of the future. In doing so, it was found that dance researchers' information-seeking behaviours were limited, and thus further studies are needed to progress the sector. Research studies into each subgroup would be preferential as they would solidify some of the findings in which to build better information systems for dance archives. However, from this research we have found that dance researchers work in a meticulous way, which sees their information needs reformulated until their underlying information needs have been fulfilled. Moreover, through using search strategies, such as keyword searching, dance researchers can reformulate their information needs in an exploratory manner. Browsing, discovery and exploration are key for dance researchers but are often bound by archive language barriers and the invisibility of dance archives. With a change in approach among archivists to focus on online archive development, as outlined within this chapter, we can reverse barriers to accessing the archive and create a more visible online community.

This research has shown that despite the lack of confidence exhibited by dance archivists, and the lack of investigation into their users, there are significant similarities between what archivists and dance researchers want from a future online dance archive platform. It has demonstrated that through developing online archive resources with the user rather than the archivist in mind, we will be able to eradicate any language barriers which have been inhibiting users from accessing archival materials. Furthermore, we will also be able to accommodate users browsing and

conducting an information search more broadly and independently within the archive. In turn, this would also reduce any time-consuming information-seeking tasks archivists may need to undertake, allowing them to focus on core tasks associated with their role, such as collection management, general development and the development of digital content, to enhance user experience. Thus, this process would allow them to align user experience and user expectations, which is presently lacking. In turn, this would help to create a more heterogeneous catalogue landscape for users to search and retrieve archival material. Based on the research findings and contextualised against existing archive resource projects, a picture of what future online archive resources should look like starts to emerge.

At the start of this thesis, a central research question was outlined: *how can the information-seeking processes of dance researchers, and the working practices and landscape of dance archivists, inform the development of future online dance archive resources*. Sequentially, this thesis has been able to break the central research question into three areas of exploration: (RQ1) *How do dance researchers seek information and how can archive resources inform their information-seeking process?* (RQ2) *How might the working practices of dance archivists affect and be affected by the development of future online dance archive resources?* (RQ3) *How can this all inform the creation of future online dance archive resources?* Accordingly, this chapter has so far brought together the findings from each of the previous chapters to discuss the development of future online dance archive resources in lieu of the final research question, RQ3. It has been able to provide further commentary on how dance archive resources of the future must accommodate both users (e.g., dance researchers) and archivists, to be visible, beneficial and useful to all. This discussion chapter has outlined the information-seeking preferences and needs of dance researchers, as well as the working practices of dance archives in consideration of how online dance archive resources of the future should be developed. Accordingly, this chapter continues to explore what such a future online archive resource might look like, based on the discussions across this thesis.

Future online dance archive resources should account for the preferences and information search behaviours of dance researchers, as outlined within this study. It is clear from this research project that the next step forward for the dance archive sector is to begin developing an online collective dance archive platform. This platform would be a place where dance researchers, and users, could search all dance archive collections and materials the UK has to offer. To undertake a large-scale national project of this calibre may seem 'aspirational'. Yet, a staged approach to the development can make the task seem less daunting and more achievable.

The creation of a successful digital infrastructure comes from a solid foundation. In this case, the foundation would be dance archive catalogue metadata. It is only by understanding the metadata of dance archives more, and analysing what, or how, we can use the already available metadata in a standardised way for dance archives, that a digital infrastructure for dance archives can be further developed. The findings within this study showed that dance archivists are already stretched in terms of funding, resources, and staff. Thus, the development of such a large project would need a collaborative effort, similar to that at the heart of ATAP, CAPACOA and TaNC, with the core aim of providing the community with a combined set of resources to approach such a mountainous task. The project should draw on the expertise and research of dance archivists, information scientists, computer scientists, and digital humanities researchers, as well as dance and performing arts practitioners, for it to blossom. The staged approach should include creating a digital infrastructure consisting of an online searchable database of UK dance archive catalogue metadata, which can then be standardised and modelled using the Europeana Data Model (EDM), similar to that found in the SIS project. Modelling the catalogue metadata would help users to find relationships between archive collections and materials, as well as aspects associated with dance.

This study found that dance archives already have a significant amount of catalogue metadata available for use to construct an online collective dance archive catalogue.

However, what is not known is the level of detail that exists across the metadata; therefore, further analysis is needed. A wider national survey of dance archive metadata should be undertaken to understand what metadata is available for dance archive collections and materials nationally. Organisations like APAC, TNA, or ARA, would be well placed to conduct such large-scale reviews of dance, or even performing arts, metadata. The analysis of the dance archive catalogue metadata might extend towards understanding what archive level (whether at collection or item level) most dance archive catalogue metadata is found at, what it consists of, and how it is formatted. From this exploration, a better understanding of the dance archive catalogue information available can be understood and contribute towards the discussion of how a digital infrastructure, suitable for a collective dance archive platform, should be constructed.

When it comes to dance archive catalogue metadata, this study has shown that, unlike the wider sector of archives, dance archives need to encompass the *aboutness* of archival material, as well as the *ofness*. Therefore, it is important to ensure that the inclusion of scope and content metadata fields are also considered as compulsory elements for dance archive collections and materials going forward. Through the analysis of dance archive catalogue metadata, it is worthwhile to set a criterion for such metadata to ensure the same information can be collected from the many different dance archives across the UK. Therefore, setting this initial stage in motion would rely on the participation and collaboration of a community of researchers and dance archivists. The initial stage of the project would be relatively low-cost for an already underfunded sector and would rely on funding from research councils or other streams to undertake the research needed to formulate the basis for a collective online dance archive infrastructure.

Once the initial skeleton of the digital infrastructure is developed, the next stage would be to present this information using an interface based on web development principles and practices, as well as incorporating design elements which suit all dance

archive users' information-seeking behaviours. Interface development should facilitate information-searching strategies, such as, keyword searching, browsing, and chaining, in the first instance. These are outlined as the key search strategies for both dance researchers, but also extend to other online users, as noted in the information-seeking literature. Within this development stage, as previously highlighted, further research would also be needed into other dance archive user groups to enhance the understanding of all dance archive users' information-seeking behaviours. This would provide a comprehensive understanding of how dance archive users can be catered for and thus increase the use of any newly developed archive resources. However, based on this study's findings, the interface for the collective dance archive platform should act as an intermediary between archivists and researchers, or users. It should aim to break down the language and structure of the archive into language which is more accessible to users. Language should be topical, relatable, and more akin to the language used by those using the archive. Additionally, the interface should enable connections to be drawn between different archives but also between archive collections and materials. Users should be able to explore national dance archive collections and not be bound by the walls (whether that be physical or virtual) of the individual institutions or organisations in which the collections or materials reside. By drawing on the latest web development principles, techniques and practices, the interface should be reviewed and renewed by the industry to ensure it is catering for current users' behaviours, expectations and demands. To ensure the longevity of the platform, the interface should be reviewed and renewed based on the current information practices of online users. Moreover, knowing when this reviewing and renewing process should be conducted needs further research. Thus, this continual researching, planning and development of online collective dance archive platform users would ensure that resources always feel intuitive.

From the front-end and back-end development stages, an extension of the type of online dance archival content can begin to develop further, bringing with it a platform

for dance researchers and users to search, interact and deposit dance archive collections and materials. The creation of digital content is something which the dance researchers underlined, since it would increase access, and decrease funding and time requirements spent visiting, but would also decrease their own carbon footprint for research. There are multiple ways in which archives can offer this to researchers and users. Offering digital surrogates of archive content can benefit both archivists and researchers. The benefit of having digitised archival materials for archivists is highly contested but it does ensure that archivists are able to provide researchers with a way to view archival materials without having to physically come and view the items. However, in order for this to be beneficial for researchers, the digital surrogates need to be of high quality and have interactive capabilities, such as being able to zoom, rotate or translate material, all of which comes at a price. However, despite cost being a factor in why dance archivists are reluctant to digitise materials, this study has found that digitised materials are already being generated within dance archives. Therefore, some materials are already available to contribute to new collective dance archive platforms. Yet, the question of how to create and sustain a model for further digitisation projects is key to the discussion here. Archives in the wider sector, as well as other GLAM organisations, are able to produce digital content for their collections through various revenue streams: research council funding, partnerships with external organisations, and through a subscription model to content, all of which are viable means for archives to take advantage of.

Research council projects related to digitisation tend to be short-lived. For instance, Siobhan Davies' *Replay*, which was initiated from research council funding, now sits obsolete due to the lack of funding to host, maintain, and sustain the archive online. Similar digital archive projects have suffered the same fate in the past (Siobhan Davis, 2021; Digital Dance Archive, 2018). However, while research council funding can help projects to produce digital content, it is not enough to sustain the longevity of projects that are so large as to build, host, and maintain a collective dance archive online. Research funding also requires time and resources from archives when

applying for funding; thus, smaller dance archives may be put off by the process, particularly when the monetary gain may be minimal. Other revenue streams could be investigated to create long-term partnerships with external organisations who have the funds and resources to create the digital content wanted by users. For instance, partnerships between TNA and commercial organisations, such as Find My Past or Ancestry, offer the archive solutions for the production of digitised content. Of course, these kinds of commercial partnerships also come with their drawbacks, relying on both parties gaining from the partnership in some way. For instance, TNA would be gaining digitisation on a mass scale, while Ancestry would be benefitting from data which they could provide to their subscribed users. Alternatively, other funding partnerships may be worthwhile for the dance archive community, such as accelerators. For instance, Bloomberg Philanthropies developed a digital accelerator programme to help 'arts organizations invest in strategic improvements to their technology infrastructure' (Bloomberg Philanthropies, 2023). Many dance organisations have already benefitted from this digital accelerator programme within the UK, notably Ballet Black, Birmingham Royal Ballet, Dance Umbrella, Sadler's Wells and Studio Wayne McGregor. Equally, museums and galleries within the UK have been awarded funding to improve their technology for the benefit of users. Therefore, dance archives could benefit from looking beyond research council funding to find further ways to establish means which would enable the development and exploration of digital content.

Additionally, another revenue stream which could be fruitful for the collaborative community of dance archivists, researchers and practitioners, would be to independently establish a subscription model to access content. Considerations for the commercialisation of archival material must be carefully considered but could provide a solution to sustained funding. However, archives could benefit from signing up, thereby gaining a small percentage of the profits to go towards the production of digital content, which in turn, could increase the platform's digital content through an ongoing process.

These examples of revenue models, which may help to kickstart such a collaborative process of developing online dance archive resources, all rely on one element: a collective dance archive community. This study has shown the importance of bringing together a community of researchers and dance archivists, harnessing their strengths, desire to progress, and take the steps needed to realise the future of online dance archives. This chapter has outlined the importance of developing a long-term plan which considers hosting, maintaining, reviewing and renewing any future online archive resources. Only when an initial digital infrastructure of an online collective dance archive is created, can the community underpinning this collaborative step forward to engage with further user expectations. Future developments are then only bound by the lengths to which the collective dance archive community dare to dream. It is time to reinstate the value of dance archives, make them visible and usable to dance researchers and users, and foster a community to support archivists' risk-taking and development of dance archives. Collaboration of dance archivists, practitioners, scholars, and researchers is the key to helping to secure, develop, maintain, and sustain a future for online dance archives.

Chapter 9 Conclusion

Dance archives play an important role in maintaining a historical record of dance. The materials held within dance archives can be used to reflect, revive, study, or analyse dance. However, it's been unclear just how much dance archives are being accessed and used for academic research (Johnstone, 2017). Dance researchers being the primary user of dance archives it was imperative to investigate how future online developments might help to increase visibility and use of dance archives required further exploration, particularly considering the decline in physical visitors. Therefore, the research presented within this thesis was framed by a central research question, *how can the information-seeking processes of dance researchers, and the working practices and landscape of dance archivists, inform the development of future online dance archive resources?* This central research question gave structure to the investigative research, facilitating an understanding of how the dance archive sector may approach the development of online archive resources, in accordance with the archive sector wide 'digital turn' (Nicholson, 2013). By focusing on both dance researchers and archivists, this thesis acted as a space to enable a much-needed dialogue between these two communities, which, up to this research, has seldom occurred or has largely remained outside of the context of research. Therefore, the research contributes valuable insights towards the development of future online dance archive resources, with potential benefits in both academic and professional contexts, turning ambitious ideas into a rewarding reality. This concluding chapter will detail the research process, present the key findings that have emerged, acknowledge the research's limitations and applications, and explore its contributions to new knowledge. The research within this thesis not only provides new knowledge for the dance and the performing arts archive sector, but more importantly but also offers a roadmap for future developments to new or existing online archive resources. This roadmap has the potential to empower dance archives to refine their practices, broaden their reach, and better serve the dance community.

The research took a phased approach in putting the voice and interests of researchers and archivists into dialogue with each other, using qualitative methods, such as, online questionnaires, virtual focus groups, and online think-aloud observations. In doing so, the research provided a platform for two communities to productively discuss their experiences, views, and opinions on existing and future online dance archive resources. My positionality as a researcher, with experience in both fields, was instrumental in bridging the gap between dance researchers and dance archivists, where communication had been largely absent and what it had taken place often discordant. This facilitated a nuanced understanding of their respective challenges and helped to formulate a productive vision for the future of online dance archive resources. My experience of working with the two communities helped to shape the research project to create an open and discursive environment in which both dance researchers and dance archivists felt they were able to share their own experiences. Aligning with current trends within the information-seeking literature, the research worked from a unified user-system centred paradigm in its exploration of the development of online dance archive resources. Thus, by involving both dance archivists and dance researchers within the discussion about the development of future online dance archive resources, this research illuminates how each group is affected and effected by the approaches taken in the development of such resources. From cataloguing to language and structure, this thesis has detailed how the information-seeking processes of dance researchers and the working practices of dance archivists should jointly shape and inform the development of online dance archive resources of the future. Additionally, my positionality also helped me to disseminate - and will continue to do so in the future - the research findings to the communities, both academically and practically, to support and effect changes across the dance archive sector and beyond. Consequently, this research has the potential to affect, not only, change within the dance archive community, but also foster stronger connections across the academic, practitioner and the industry communities it serves. The insights gained will significantly shape the future landscape of online

dance archive resources, and offer broader applications for how performing arts collections are accessed, viewed, studied, and used by users.

Phase one of the research provided a comprehensive understanding of the information-seeking behaviours of dance researchers, guided by the first of three subsequent research questions, (RQ1) *How do dance researchers seek information and how can archive resources fit into their information-seeking process?* This helped to inform and suggest the shape the development of future online dance archive resources from the user's perspective. By prioritising the exploration of dance researchers' information-seeking processes, the research ensured that the design and functionality of future developed resources should be user-centric and effectively meet the specific needs of this primary user group but could also extend towards other types of researchers. Consequently, this phase helped to inform and shape the development of future online dance archive resources from one archive user's perspective. The research found that current dance researchers are more inclined to use online information sources, such as, the internet, online journals, and libraries, more than physical information sources, such as, colleagues and networks, as previously understood. Within the online sphere, dance researchers commonly employed search strategies, such as, keyword searching and chaining as ways to find information. Moreover, browsing was identified as a typical information-seeking behaviour of dance researchers. Dance researchers found that browsing opened unexpected new avenues within the research, whilst also lending itself to the creative process of dance research. Thus, the research within this thesis has provided new insights into the information-seeking processes of dance researchers, not previously observed. The thesis detailed how dance researchers' information-seeking processes ascribed to fit into widely recognised information-seeking models. Thus, Ellis (1989; 1993) and Kuhlthau (1991, 2004) information-seeking models continue to provide a theoretical lens in which to base any further exploration of information-seeking processes of dance researchers going forward. Future developments of online dance archive resources need to accommodate the information-seeking behaviours

identified within the thesis to ensure longevity of use. However, it is also recognised that these information-seeking behaviours may change over time. Thus, the exploration of dance researchers' information-seeking behaviours should be periodically reviewed to ensure that the online dance archive resources developed, or means of accessing dance archive resources, are dynamic in changing alongside current or future archival practices and user behaviours.

Phase two of this thesis offered a space for creating previously unheard conversations about the working practices specific to dance archivists. Before this research, these conversations about the working practices of dance archivists were solely found within the parameters of performing arts, and more importantly dance archive networks. However, these discussions struggled to be heard within the wider archival discussions. Therefore, this research has provided a space for dance archivists to share how their working practice effects, and may be affected by, the transformation into the digital. The investigation within phase two of this project was guided by the second of the three subsequent research sub-questions, (RQ2) *How might the working practices of dance archivists affect and be affected by the development of future online dance archive resources?* The research found that dance archivists faced several challenging factors, such as, organisation mission or aims, funding limitations, and copyright, all of which impact the overall development, visibility, and use of dance archives. The positioning of dance archives within their organisations can determine their access to funding, resources at their disposal, and how online archive resources are developed. However, in surveying the landscape of dance archives, there is an abundance of materials which would be useful for dance researchers. From performance recordings, to photographs and costume, the dance archives hold a wealth of information waiting to be used by dance researchers. Additionally, the wealth of archival metadata available within dance archives can help in the development of digital infrastructures, such as linked open databases, to enhance user searching facilities. Information systems which, if utilised to the benefit

of both researcher and archivists, holds potential to help increase search, access, and visibility of information held across multiple dance archives within the UK for users.

The research within this thesis identified that there was a lack of understanding of dance archive users within both the existing archival literature and the working practice of dance archivists across the UK. Although dance archivists engaged with communities and user groups through educational and outreach programmes, their understanding of their users and how they used the archive remained inadequate. It was suggested that by further analysing dance archive users, dance archivists would be in a more informed position to develop collections and promote their archive's use in a way that would drive more users towards the archive; thus, securing their own existence. The research project allowed for an exploration of one type of dance archive users: dance researchers. However, the application of the research methodology could be further expanded to include further user groups in the future. The research presents dance archivists with an in-depth analysis of dance researchers which can inform their working practice, as well as the development of online dance archive resources; research previously not conducted. Thereby, the research within this thesis has filled the knowledge gap for dance archives on one key user group. From this in-depth understanding, we can see that the information needs, expectations, and preferences of dance researchers are currently not fulfilled by dance archivists or dance archive resources. Although it appears time consuming, investing time in understanding other dance archive user groups could significantly help towards developing more beneficial online dance archive resources. It is useful to demonstrate user engagement of the archive, as this is a productive way to indicate the worthiness of investment of archives to the wider organisation and external funders. Subsequently, helping to improve their development of dance archives collections and impacting the use and longevity of dance archives.

This thesis provides dance archivists with a new understanding of how useful dance archives currently are for dance researchers when searching and retrieving

information. The language and structure used within archive catalogues were found to be unhelpful and misleading for dance researchers. However, the language and structure of the catalogue remains fundamental to the working practice of archivists. Therefore, the underlying language and structure may need to remain but the way they are presented to users might be revised to better meet their needs. Despite these information-seeking challenges, dance researchers were persistent in their use of dance archives, adapting their information search skills to bypass typical archive structures when searching for information. Additionally, this research has shown that dance researchers expectations were not being considered, let alone even met by current online dance archive resources. Therefore, if dance archives wish to be consistently used going forward, then dance archives need to consider improving online resources accordingly as well as further exploring the behaviours of other types of dance archive users. From the beginning, this thesis wanted to propose ways to accomplish improving the development of online dance archive resources in light of the findings throughout the project. Thus, the third subsequent research question reflects this, (RQ3) *How can this all inform the creation of future online dance archive resources?* The research sought to navigate the juxtaposition of both dance researchers and dance archivists in providing recommendations for future online dance archive resources. The research established that a future dual (front-end and back-end) online archive resource was needed. The front-end of the online archive resource should negate formal archive structures and language, whilst allowing users to search and browse multiple archive collections across the UK and NI. Moreover, the back end of the online archive resource should allow for the traditional conventions of archive construction, allowing archivists to input archive record data, archival metadata, or digital content. The archive side of the online archive resources should organically transition to form the basis of a relational database of archival collections and material, providing a more complex search facility of multiple dance archives collections from across the UK. As outlined within this thesis, a staged approach to developing online archive resources would be most suitable for developing an appropriate digital dance archive infrastructure. The research

proposed to start with the creation of a digital infrastructure of dance archival metadata leading to developments which enable users to search, interact, and deposit dance archive collections and material. Future aspirations might extend towards the development of digital dance archive content, which provides dance researchers with an enhanced audio-visual experience of the archive, unlike any other; providing an online platform where users are able to interact with dance archival content using VR, AR, and haptic technologies. Thus, enabling dance researchers to engage with dance's history more creatively. Additionally, the collective online dance archive infrastructure could potentially change the way dance practitioners and organisations deposit archival material in the future. Crucially, the research underscores that realising this vision requires a collaborative effort between academic, practitioner, and industry communities. An effort which requires the security of sustained funding, resources, and hosting for such a significant digital dance infrastructure to ensure it does not become a snapshot in time, like projects that have come before it. How this should be achieved is by looking to those who have been able to build similar networks and provide large data infrastructures. A collaboration between dance researchers, archivists, digital humanities, and computer scientists, could ultimately provide dance archives with the tools, support, and guidance in making online dance archive resources a reality. Moreover, to be able to build a community from joining existing networks together from across the nation, to pool resources, funding, support, and communication to show why investment in dance and its heritage matters. This thesis makes a significant contribution to this, by indicating a pathway that can be taken forward and developed to gain further understanding, increased funding, and ongoing communication within the dance heritage sector and wider cultural heritage contexts.

The research within this thesis makes a significant contribution to both theory and practice of archives and information-seeking behaviours. In reviewing information-seeking literature, it was observed that current literature advocates for a more

comprehensive, combined user-system approach to studying information-seeking behaviours and processes. Resultantly, the research conducted within this thesis was committed to providing such a universal exploration of the development of online archive resources, using a user-system centred paradigm. In conducting research with a user-system centred understanding, this helped to make an informed decision on the development of future online dance archive resources based on an evaluation of both the users (dance researchers) and the context (dance archives) from which any future online dance archive resources may be impacted.

Before this research project, only a limited understanding of dance researchers' information-seeking behaviours existed. Existing information-seeking literature explored only dance faculty of a pre-digital era mainly situated within America. However, the research presented within this thesis provides new commentary on the information-seeking behaviours of dance researchers, both students and scholars from a UK perspective. Moreover, it has been able to provide an understanding of modern dance researchers' information-seeking processes, novel within existing literature. Resultantly, the research presented within this thesis allows for a more informed understanding of current dance researchers' information-seeking processes, potentially applicable to wider information resources aimed at dance researchers than those found within the archive sector. The qualitative research conducted on the information-seeking behaviours of dance researchers provides a new understanding, which can be further developed into both the archive sector as well as wider information contexts concerning dance researchers. However, this is not to say that the research would not benefit from being broader in scope, particularly when this research is taken forward.

In addition to information behaviour theory and practice, the research presented within this thesis also makes a significant contribution to theory and practice within the archive sector. The literature review demonstrated how limited the understanding was into the working practice of dance archives and their users.

Before the research project, dance archivists' working practices were often grouped together with other niche archives, meaning that they were underexplored or overlooked by the wider archive and cultural heritage sector. Thus, existing research on dance archives was extremely limited. However, the research within this thesis was able to bring dance archivists to the forefront of the conversations relating to their dance archives. Additionally, this research has been able to survey the landscape of dance archives to understand how they may be affected by the development of online dance archive resources. From the discussions within this thesis, we were able to understand the challenges dance archivists are faced within their working practice, particularly those which inhibit or restrict their progress in becoming digital. Moreover, how challenges such as lack of funding, reduced staffing levels, and lack of confidence in their ability effect change within the dance archives.

The research presented within this thesis also provides the dance archive sector with new understandings of their users, particularly dance researchers. Previous research revealed dance archives had a lack of working knowledge of who their users were, how they used the archive, users interest in archive collections and how they could best accommodate them. The research presented within this thesis provides a new awareness of their users', specifically dance researchers' needs, preferences, and expectations, when it comes to online dance archive resources. An awareness which may not have previously been considered by dance archivists. Thus, the research within this thesis provides the sector with original insights into one of their primary users for their consideration when developing future online dance archive resources.

The qualitative methodology used within the thesis provided a basis for dance archives to extend their investigation into further user groups of dance archives, likely beyond the realm of this thesis. The research presented within this thesis provides further contributions to existing research on qualitative methods. The onset of the global pandemic required innovative methods of conducting qualitative research. The research within this thesis originally aimed to undertake a series of online

questionnaires, in person focus groups and think-aloud observations. However, national, and local restrictions complicated the research methods chosen to carry out the research within this project. Thus, focus groups and think-aloud observations both had to become virtual. The research presented within this thesis provides new insights into virtual research methods. Whilst think-aloud observations have typically been conducted in-person, the research within this thesis provided new insights into think-aloud observations when conducted online. The research highlights the benefits of conducting think-aloud observations online; benefits such as, observing more naturalistic participant behaviour, to negating the feeling of being watched. Alternatively, the research also highlights some of the challenges faced when working online. It can provide some insight and considerations for future studies thinking of using virtual think-aloud observations, such as the use of accessibility features on the computer to enhance understanding of participant behaviour, to additional setup data needed pre and post observations. The research within this thesis will help to guide future think-aloud observations conducted virtually.

Additionally, the research within this thesis was able to provide new insights into the protocol of conducting focus group discussions virtually. Although virtual focus groups have been conducted before, the research presents new insights into how the growing number of features on online conferencing platforms might be further utilised to facilitate discussions and gauge responses within an online sphere. The research highlighted how features, such as, the use of reactions using Zoom, can help assess the level of agreement or disagreement among participants' responses leading to further probing within discussions. The research within this thesis can help to guide virtually conducted future research methods within qualitative research projects.

It is important to reflect on the limitations of this research as they provide scope and considerations for future research. The pandemic had a significant impact on the outreach, exploration, and development of the research within this thesis. It affected both the communication and methodology significantly, as already detailed. The

nature of the global pandemic meant that communication was restricted, thus making it hard to engage with a larger scale of dance research and archivist communities. Online communication channels became overloaded, thus using them to communicate in the recruitment of both dance researchers and dance archivists became increasingly difficult. Both archivists and researchers were seemingly hidden or closed off behind online institutional or organisation walls, and in some cases furloughed and locked out of institutional emails. Resultantly, these restrictions had a significant impact on the participant sample obtained within the research. The research attained only a small number of participants (both dance researchers and dance archivists) taking part in both phase one and two of the research project. Thus, many of the novel findings obtained over the course of the research require further contextualisation against a wider sample of participants. The sample of dance researchers used within the research currently represent a southern England spectrum of dance researchers. Moreover, the research presented within this thesis offers a limited account for the information-seeking process of postgraduate dance researchers. Thus, the sphere of dance researchers should be increased to include a wider spectrum of dance researchers studying across the UK and NI.

Similarly, the sample of dance archivists used within this research remains limited and does not represent the entirety of dance archives and collections across the UK. Presently, it only accounts for the working practice of dance archivists within England, predominantly located within the south of England. Therefore, it is recommended that further investigation into dance archivists' working practice is needed to be able to gauge a fuller understanding of the whole landscape of dance archives across the UK and NI. However, this is not to distract from the novel and original understanding of both the information-seeking behaviours of dance researchers and the working practices of dance archivists produced by this study. These new insights will benefit broader research as the sector takes the results from this research forward, developing new online dance archive resources.

By working collaboratively with organisations, such as, TNA or APAC, the landscape and working practice of dance archivists, archives, and collections, could be further mapped out. Thus, providing a more comprehensive understanding of the working practice from which any future online dance archive resources may reside. Presently, this study's conclusions and recommendations relating to the development of online dance archive resources should be attentively reviewed, as aforementioned. Therefore, it is proposed within this thesis that this research should be extended to include a wider sample of dance researchers (scholars and students) and dance archivists from across the UK and NI. Doing so would help to consolidate findings and provide further insights into the information-seeking behaviours of dance researchers and working practice of dance archivists to inform the development of future online dance archive resources. Additionally, future work should also consider other user groups of dance archives, to provide online dance archive resources to the widest scope of users.

Focusing on the future, this research holds the potential to affect change not only within the dance archive community but also contribute towards building wider relationships across the academic, practitioner, and professional communities. Historically, dance has been a catalyst for innovation across these neighbouring disciplines, from Loie Fuller being the subject of development in photographic techniques to dancers' integral role in advancing motion capture technologies. Despite this pivotal role, dancers have often been overlooked as conventional users of digital tools, applications, and infrastructures, expected to adapt rather than contribute to their development, as has been observed within this research. Dance archive resource development is no exception to this. To address this, collective support is crucial to acknowledge dance's contributions, foster collaboration, and ensure dancers' active involvement in the research and development of dance archive resources for the future. Improving dance archive resources requires engaging with the dance community before implementing new infrastructure. Failure to do so will also risk underutilising valuable resources and may also lead to dance

archives jeopardising future viability. Dance has and always will hold the capacity to help in the progress of digital advancements beyond its own discipline. Therefore, the health of dance, inclusive of the development of its dance archives, has significant importance to the wider society. Furthermore, archives allow for disciplines, people, and societies to be recorded and immortalised in time, allowing for the future to be informed by the past. Therefore, if dance archive development ceases to progress forward to accommodate for the digital turn, which is driven by users' behaviour, then they risk becoming obsolete and dance's history becomes lost in time. Moreover, if dance becomes obsolete, then those whose own development is underpinned by dance will also risk their own future security and development. Historically, dance has been used across the various disciplines to aid their development, from dancers being used to experiment with photography and film to being prescribed to aid mental health in current social spheres. Therefore, by securing the future of dance and particularly dance archives, we can bolster and celebrate dance's contribution even further.

This research provides a crucial baseline understanding of the dance archive field, generating valuable insights that can inform future developments in information studies, digital humanities, and, notably, the dance and performing arts archive sector. All of which will contribute to the future landscape of online dance archive resources. Moreover, also having the potential to be applied more widely to how performing arts collections are accessed, viewed, studied, and used by users. This thesis demonstrates the need for and direction of future online dance archive resources. The research argues that future work into the development of online dance archive resources can only be successful with a collaborative effort by dance researchers and dance archivists, as well as a wider support from the performing arts, information science and digital humanities spheres. In initiating these conversations and by sharing working practices and processes, this research demonstrates the power of community and collaboration in achieving aspirational realities.

As this concluding chapter comes to a close, it is imperative to look towards the future. The pandemic also impacted the timeframe of the research presented within this thesis. With communication and recruitment difficult, it meant that the practical development of an online dance archive resource, based upon the conclusion and recommendations found within phase one and two of the project, could not be completed. Therefore, future research should focus more practically on the developments, such as, the creation of digital infrastructure of archival metadata, development of relationship models of dance archival data, and the development of tools to enhance the interaction with digital content. Subsequently, future research projects should consider how a collaborative online dance archive resource can be developed practically, which accommodates for both the information-seeking needs, preferences, behaviours, and expectations of dance researchers, as well as assist the working practice of dance archivists. Simultaneously, an extension of this study should be considered to provide a richer understanding of both the information-seeking process of dance researchers and the working practice of dance archivists. Moreover, extending an understanding of other types of dance archive users, inclusive of a wider spectrum of dance researchers and dance archivists, as well as extending towards the development of a nationwide performing arts collection platform. However, future work into the development of online dance archive resources, or performing arts online archive resources, can only happen with a collaborative effort by dance researchers and dance archivists, as well as a wider network of support from the performing arts, information science and digital humanities spheres. In creating conversations with one another, sharing our working practices and processes, it is evident how beneficial the dance and performing arts sector can be for one another. With the support of one another, future aspirations for the archive can become a rewarding reality.

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Appendices

Appendix A - E-flyers' distributed across social media.

Appendix A.1- E-Flyer used for the recruitment of dance students within the online questionnaire.

The flyer features a yellow header with the text 'Department of Information Studies' and the UCL logo. The main body is dark blue with white and yellow text. It includes a title, project details, a description of the research, an invitation to participate, and a QR code for access. A vertical orange bar with white chevrons is on the right side, and a white and blue striped bar is at the bottom left.

Department of Information Studies

UCL

ARE YOU A DANCE STUDENT? ARE YOU STUDYING AT A UNIVERSITY IN THE UK?

Project Researcher: Bethany Johnstone
Supervisors: Dr Andrew Flinn & Dr Julianne Nyhan
This study has been approved by the UCL Research Ethics Committee. Project ID number: 15717/001

University College London are looking for **Undergraduate and Postgraduate dance students** to take part in a PhD research project investigating the information behaviours of dance researchers and archival information systems.

We would like to invite you to participate in **online questionnaire**. We want to hear from students who are 18 and over and either studying for an undergraduate or postgraduate degree in dance within the UK.

**TO TAKE PART IN THE STUDY
CLICK THE LINK BELOW OR SCAN THE QR CODE**

<https://opinio.ucl.ac.uk/s?s=63705>

SCAN ME

Appendix A.2- E-Flyer used for the recruitment of dance academics within the online questionnaire.

LONDON'S GLOBAL UNIVERSITY



ARE YOU AN ACADEMIC RESEARCHING DANCE?

ARE YOU WORKING AT A UNIVERSITY IN THE UK OR NI?

Project Researcher: Bethany Johnstone
Supervisors: Dr Andrew Flinn & Dr Julianne Nyhan
This study has been approved by the UCL Research Ethics Committee. Project ID number: 15717/001

University College London are looking for Academics **researching dance** to take part in a PhD research project investigating the information behaviours of dance researchers and archival information systems.

We would like to invite you to participate in online **questionnaire**. We want to hear from academics who are 18 and over and working University or Conservatoire within an UK or Northern Ireland.

TO TAKE PART IN THE STUDY
CLICK THE LINK BELOW OR SCAN THE QR CODE
<https://opinio.ucl.ac.uk/s?s=63705>



Appendix A.3- E-Flyer used for the recruitment of dance archive professionals within the online questionnaire.

LONDON'S GLOBAL UNIVERSITY

 **UCL**

ARE YOU AN ARCHIVE PROFESSIONAL?

DO YOU WORK WITH DANCE ARCHIVE COLLECTIONS?

Project Researcher: Bethany Johnstone
Supervisors: Dr Andrew Flinn & Dr Julianne Nyhan
This study has been approved by the UCL research ethics committee. Project ID number: 15717/001

University College London are looking for **Archive Professionals** to take part in a PhD research project investigating the information behaviours of dance researchers and archive information systems.

We would like to invite you to participate in **online questionnaire**. We want to hear from archive professionals who work with dance collections located in the UK and Ireland. Please note that all willing participants must also be aged 18 or over.

**TO TAKE PART IN THE STUDY
PLEASE CLICK THE LINK OR SCAN THE QR CODE**

<https://opinio.ucl.ac.uk/s?s=65652>



Appendix A.4- E-Flyer used for the recruitment of dance students for the virtual focus group.



ARE YOU A DANCE STUDENT?

Studying at a university in the UK or NI?

Project Researcher: Bethany Johnstone
Supervisors: Dr Andrew Flinn & Dr Julianne Nyhan
This study has been approved by the UCL research ethics committee. Project ID number: 15717/001

University College London are looking for **Undergraduate** and **Postgraduate Dance Students** to take part in a PhD research project investigating the information behaviours of dance researchers and Archives.

We would like to invite you to participate in a two part study: a **virtual focus group** and **think-aloud observation** in **November 2020**. We want to hear from students who are 18 and over and either studying for an undergraduate or postgraduate degree in dance within the UK.

TO REGISTER YOUR INTEREST CONTACT US VIA EMAIL
bethany.johnstone.16@ucl.ac.uk
Bethany Johnstone (lead researcher)

Appendix A.5- E-Flyer used for the recruitment of dance academics for the virtual focus group.



**Are you an Academic Researching Dance?
Do you work at a University
in the UK or NI?**

Project Researcher: Bethany Johnstone
Supervisors: Dr Andrew Flinn & Dr Julianne Nyhan
This study has been approved by the UCL Research Ethics Committee. Project ID number: 15717/001

University College London are looking for **Academics researching dance** to take part in a PhD research project investigating the information behaviours of dance researchers and archival information systems.

We would like to invite you to participate in a **virtual focus group** and **think-aloud observation** in **November 2020**. We want to hear from academics who are 18 and over and working University or Conservatoire within an UK or Northern Ireland.

Register your interest via email to:
bethany.johnstone.16@ucl.ac.uk
Bethany Johnstone (Lead Researcher)

Appendix A.6- E Flyer used for the recruitment of dance archive professionals for the virtual focus group.



**Are you an archive professional?
Do you work with dance archive
collections?**

Project Researcher: Bethany Johnstone
Supervisors: Dr Andrew Flinn & Dr Julianne Nyhan
This study has been approved by the UCL Research Ethics Committee. Project ID number: 15717/001

University College London are looking for **Archive Professionals** to take part in a PhD research project investigating the information behaviours of dance researchers and archive information systems.

We would like to invite you to participate in **Virtual Focus group** in **December/January 2020/21**. We want to hear from archive professionals who work with dance collections/material located in the UK and Ireland. Please note that all willing participants must also be aged 18 or over.

Register your interest via email to:
Bethany.johnstone.16@ucl.ac.uk
Bethany Johnstone (Lead Researcher)

Appendix B - Participant information sheet for online questionnaire in phase one.



Participant Information Sheet

Please read the following information carefully

Researchers: Bethany Johnstone [Email], Dr A. Flinn [Email] & Dr J. Nyhan [Email]

Principle Supervisor: Dr A. Flinn

This study has been approved by the UCL research ethics committee. Project ID number: 15717/001

I. The purpose of the research project

This research project aims to identify and understand the behaviours of dance researchers (scholars, undergraduate dance students and postgraduate dance students) when searching for information within dance archives. This exploration will inform the creation of new dance archive information system. This investigation will be completed through a combination of questionnaires, focus groups and observations.

II. Participants

This study is specifically focused on the experiences and behaviours of dance researcher. For the purpose of this research project the participant should be:

1. **Undergraduate Dance student** - must be 18 or over **and** enrolled on a (undergraduate level) dance degree program within the UK.
2. **Postgraduate Dance Student** - must be 18 or over **and** enrolled on a postgraduate (taught or research) dance degree program within the UK
3. **Academic/Scholar working within Dance** - must be 18 or over **and** working within an institution within the UK.

III. Taking Part

Participation within this PhD study is entirely **voluntary**, and participants may withdraw at any time whilst participating and up to 6 weeks after participation. If you decide to take part, you are able to save this information sheet to keep and be asked to consent to your participation. You can withdraw up to 6 weeks after you have

participated without giving a reason and without it affecting any benefits that you may be entitled to (if applicable). If you decide to withdraw you will be asked what you wish to happen to the data, you have provided up to this point.

IV. Data

All data you provide in this survey will only be used for analysis. No other use will occur without your written permission, and no one outside the project will be allowed to access the original data.

V. Benefits of taking part

Whilst there are no immediate benefits for participation, it is hoped this work will contribute to new online resources for dance researchers, thus your contribution is instrumental.

VI. What if something goes wrong?

If you wish to ask a question or log a complaint at any point within this study, then please do not hesitate to contact the Principal Supervisor of this project:

Dr Andrew Flinn

Email: [email of A.F]

Telephone: 020 7679 2479

However if you feel that your complaint has not been handled to your satisfaction (e.g. by the PR or the supervisor) then you can also contact the Chair of the UCL Research Ethics Committee – ethics@ucl.ac.uk

VII. Confidentiality

All the information that we collect about you during the course of the research will be strictly confidential. You will not be identified in any ensuing reports or publications.

VII.I. Limits to confidentiality

- Please note that absolute confidentiality may not be guaranteed; due to the population of the participant sample and participation in a focus group. Although every effort will be made to maintain confidentiality, details provided within the questionnaire may not stay confidential, as you the participant(s) may reveal identifying details during your answers to questions asked. Please be reminded to keep your answers confidential. Nevertheless, every effort will be made in the writing up of the data to remove any identifiable details.
- Confidentiality will be respected subject to legal constraints and professional guidelines.

VIII. Results of the research project

The data collected during this project may be used for additional publications and/or conference presentations. It is important to note, as previously outlined, all data collected from participants will be anonymous. Participants will not be identifiable in any report or publication. All data collected within this research study will be stored according to the Data Protection Act 2018.

The results of this study are likely to be published within a PhD Thesis after June 2022. If participants would like to obtain a copy of this thesis, this will be available from UCL Discovery after completion or participants will be able to obtain a copy at the discretion of the lead researcher, Bethany Johnstone.

IX. Local Data Protection Privacy Notice

Notice:

The controller for this project will be University College London (UCL). The UCL Data Protection Officer provides oversight of UCL activities involving the processing of personal data, and can be contacted at data-protection@ucl.ac.uk

This 'local' privacy notice sets out the information that applies to this particular study. Further information on how UCL uses participant information can be found in our 'general' privacy notice:

For participants in research studies, click [here](#)

The information that is required to be provided to participants under data protection legislation (GDPR and DPA 2018) is provided across both the 'local' and 'general' privacy notices.

The categories of personal data used will be as follows:

Name
Age
Address
Email
Telephone
Associated Institution
Level of Study (where applicable)
Course (where applicable)
Position held at Institution (where applicable)

The lawful basis used to process your *personal data* will be performance of a task in the public interest.

Your personal data will be processed so long as it is required for the research project. If we are able to anonymise or pseudonymise the personal data that you provide we will undertake this and will endeavour to minimise the processing of personal data wherever possible.

If you are concerned about how your personal data is being processed, or if you would like to contact us about your rights, please contact UCL in the first instance at data-protection@ucl.ac.uk.

X. Contact for further information

For any further information please contact either:

Lead Researcher – Bethany Johnstone - Department of Information Studies, University College London, Gower Street, London, WC1E 6BT

Principal Supervisor – Dr Andrew Flinn - Department of Information Studies, University College London, Gower Street, London, WC1E 6BT

Finally, each participant will be given a copy of the information sheet and a copy of their signed consent form to keep.

Thank you for reading this information sheet and for considering taking part in this research study.

Appendix C - Participant consent form used within the online questionnaire in phase one.



Participant Consent Form

Thank you for considering taking part in this research. Please read the information below carefully in order to understand your role in this project. If you have any questions arising from the [Participant Information Sheet](#), please ask the researcher via email (*researcher email*) before you decide whether to participate in this online questionnaire.

1. I confirm that I have read and understood the [Participant Information Sheet](#) for the above study. I have had an opportunity to consider the information and what will be expected of me. I have also had the opportunity to ask questions which have been answered to my satisfaction and would like to take part in the questionnaire.
2. I understand that I will be able to withdraw my data up to 6 weeks after participating in the questionnaire.
3. I consent to participate in the study. I understand that if any of my personal information **name, email, telephone** and **associated [university]** is collected within this questionnaire will be used for purposes explained to me.
4. I understand that according to data protection legislation, 'public task' will be the lawful basis for processing.
5. **Use of the information for this project only:** I understand that my personal data gathered in this study will be stored anonymously and securely. It will not be possible to identify me in any publications.
6. I understand that my information may be subject to review by responsible individuals from University College London for monitoring and audit purposes.
7. I understand that my participation is voluntary and that I am free to withdraw at any time up to 6 weeks after my participation is complete and without giving a reason. I understand that if I decide to withdraw, any personal data I have provided up to that point will be deleted unless I agree otherwise.
8. I understand that no promise or guarantee of benefits have been made to encourage me to participate. I understand that I will not benefit financially from this study or from any possible outcome it may result in in the future. I

understand that the data will not be made available to any commercial organisations but is solely the responsibility of the researcher(s) undertaking this study.

9. I understand that the information I have submitted will be published as a thesis and If I wish to receive a copy of the overall findings of this study it then I am fully aware of how I can obtain this.
10. I hereby confirm that I understand the inclusion criteria as detailed in the Information Sheet.
11. I am aware of who I should contact if I wish to ask a question or to log a complaint.
12. **Use of information for this project and beyond:** I understand that other authenticated researchers will have access to my data contributed to this research.

I CONFIRM that I understand that by ticking this box below I am consenting to this element of the study.

I DO NOT consent to that part of the study. I understand that by not giving consent for any one element that I may be deemed ineligible for the study.

Appendix D - Screening questions used within the online questionnaire in phase one.



Getting to know you.

Question i - Which options best describes you?

- Undergraduate Dance Student
- Postgraduate Dance student (taught)
- Postgraduate Dance Student (research)
- Academic working within the field of dance
- None of the above

Question ii - Are you studying or working at a University within the United Kingdom (UK)?

Yes

No

Question iii - Which University in the United Kingdom (UK) or Northern Ireland (NI) do you study or work?

Appendix E - Information sheet for participants of the focus group in phase one.

Focus Group Participant Instruction Sheet

This study has been approved by the UCL research ethics committee Project ID number: 15717/001

Researcher(s)

Bethany Johnstone [email] Telephone: [number]

Dr Andrew Flinn [email] Telephone: [number]

Dr Julianne Nyhan [email] Telephone: [number]

Principle Researcher: Dr Andrew Flinn

Thank you for taking part in the focus group and think-aloud observation as part of this PhD research project at University College London. The information below explain what will happen before, during and after the focus group. Please read through this instruction sheet carefully. If there is anything you wish to discuss or if you have any questions about the focus group and think-aloud observations please do contact the lead researcher Bethany Johnstone via email at [researcher email].

Focus Group

Before the focus group:

- We ask that you download and install (if you do not already have the software) Zoom. *Please note:* this may require you to register your personal details with Zoom; please see Zoom terms and conditions for further information on issues including privacy conditions (Zoom terms and conditions can be found [Here](#)).
- Each participant will be sent a confirmation email with the date and time of the focus group and Zoom invitation link which they can click on to access the focus group.
- Each participant will be able to contact the lead researcher throughout the focus group discussion for technical help via email (researcher email).
- We ask that each participant complete the pre-focus group discussion tasks outlined on this sheet before the day of the focus group.

On the day of the focus group:

- The focus group will take place on [insert date] at [insert time].
- Please ensure you are in a place that is quite of background noise and has stable Wi-Fi connection.
- Click on the Zoom meeting invitation link:
<https://ucl.zoom.us/j/99374781369> where you will be placed in a waiting room ready until the host (Bethany Johnstone) will invite you into the Zoom discussion room.
- The lead researcher will start recording the meeting and invite each participant to introduce themselves.

- The session will start with an introduction to the session, the tools we will be using during the session. All participants will be invited to ask any remaining questions before the focus group discussion begins.
- The discussion session will begin and will last a maximum of 2 hours.
- Discussions will end with a debrief and the recording will stop.
- Each participant will be asked to confirm a day in the following week which they are able to take part in a think-aloud observation. Any remaining questions will be taken.
- Session ends.

After the focus group:

- You will be emailed with a date outlining when your think-aloud observation will take place along with a Zoom link to use on the day.
- You will be emailed second information sheet explaining the protocol for the think-aloud observations.
- After both the focus group and think-aloud observations have been conducted you will be sent transcriptions of both the focus group and think-aloud observation will be sent out for participants to check and sign.

Pre-Focus Group Discussion Task

1. Using Menti.com answer the three questions below. You can provide your answers to Menti.com by clicking on this link: [insert link]. Here you will be promoted to answer these three questions:
 - a. What is a dance archive?
 - b. Have you ever visited a dance archive online or in-person?
 - c. What would you expect to find within a dance archive?
2. Explore the three dance archives listed below. Whilst exploring each one think about:
 - a. Elements of the dance archive you like.
 - b. Elements of the dance archive you dislike.
 - c. How easy is it to search the archive and why?

Dance archive links:

Siobhan Davies Replay <https://www.siobhandaviesreplay.com>

The Royal Opera House Collections <http://rohcollections.org.uk/collections.aspx>

The national Resource Centre for Dance
<http://calmarchivecat.surrey.ac.uk/calmview>

3. Over the course of a week, we invite you to record where you have conducted research

in the following way:

- a. Each time you find yourself conducting research for dance, document the space by taking a photograph of your set up.
- b. To accompany the photograph please note the day of the week, time and location.
- c. At the end of the week upload your images and corresponding notes to a participant specific dropbox. A link to your personal dropbox will be emailed to separately. So please do keep an eye on your email inbox, if you do not receive this email link then please email [research email].

Note: After the focus group, these images files will transferred to an external hard drive which will be securely stored using password-protection. In the case that the images you upload might be used within the thesis no participant data will be compromised.

Thank you for taking the time to read through this information sheet. If you have any further questions about the focus group, please do contact me, Bethany Johnstone, via email at: [researchers email].

Dance Research Focus Group topic guide

Topic: The type of researcher they are and the impact this has on the choice of using dance archives:

1. I have found so far in my research that there are three types of dance-researchers, such as, text-based dance-researchers, performance-based dance researchers or those that are a mixture of both. What type of dance-researcher do you think you are and do you think the type of researcher you are, defines whether you use a dance archive or is the use of dance archives more relative to the subject or topic of the research you are carrying out?

Guiding:

What type of research do you carry out? Does it lend itself to using dance archives at all? If so why and how, if not they why might you not use a dance archive?

2. Think about the photos you took of your research space: How would you typically search for information and do these photos reflect the typical spaces and ways you conduct research before the pandemic and how has the pandemic effected the way you search for information for dance research?

Guiding:

How has your research space changed? Would you go back to your typically way of conducting research? What information resources/sources were not available to you online that might now be due to the pandemic? What devices have you used to conduct research within the documented research spaces?

Topic: experience of dance archives online versus offline:

3. Research within this project suggests that dance-researcher are aware that dance archives exist. However, how dance-researchers experience dance archives differ and thus can lead to different experience of dance archives. In your experience how does searching for information in a dance archives online compare to searching for information in an archive offline?

Guiding:

What are the **advantages** of **going** to an archive and searching? What are the **disadvantages** going to an archive and searching? What are the advantages of searching dance archives **online**? What are the disadvantages of searching for information online? If you have never experienced going to an archive in person or online what would you pre-empt about the experience?

Section Topic: The exploration of the online dance archives

Topic: Initial thoughts about the dance archive:

4. Moving our attention to the three online dance archives you were asked to take a look at and explore prior to this focus group. The Royal Opera House, Siobhan Davies' Replay and the National Resources Centre for dance, Which online dance archives did you prefer and why?

Guiding: What was it about the online platform you liked? What did you dislike about the other two online platforms? And why?

Topic: The Interface:

5. Our experience of websites can impact our future use of them. From your preliminary exploration of the three online dance archive platforms what did you like and dislike about each of the three platforms? And In terms of the information and design, what was memorable on the homepages of each of the online dance archive platforms?

Guiding:

How useful was the information? Do you think other information could be added? What other memorable information or design features did you find throughout the online dance archive platforms?

Topic: navigate through dance archives:

6. Can you explain to me how you navigate through a dance archive to find information you need, what tools or finding aids might you use, how do you know where you are in the archive and how might this navigation differ when searching online and offline?

Guiding: What **features** did you find useful when searching the three online dance archives? Do you find dance archives online allow you to **browse** their collections or do you need to know what you want to find in order to find it? Are you able to see your **pathway** through the archive and how useful is this? In your experience, **what** has made searching for information in an archive, dance archive **easier or more difficult** in the past? How helpful is it to have filters when searching for information?

Topic: Information:

7. What information were you able to find out about the dance archives, its content and how to access it and how does that compare with any previous experience you may have had with finding information about dance archives, their content or how to access them more generally?

Guiding: What information about the archive material were you able to find? How does this information **differ** to that which you might find in an archive offline? What information do you think is **lacking** from dance archives generally?

Were you able to find information about a **single archive item**? What information was at item level? How **helpful** was the information? **What more** information at item level would you like to have seen?

Topic: Archival Description at item level

8. In cases where there are no digital originals or digital surrogates, how useful is the information found in the catalogues and other finding aids in identifying precise material that you are looking for or would be useful in your research?

Guiding: If there is an **absence of digital content** can you still gauge an understanding of what the archive items or collections are? If so from **what information helps** you gauge this understanding? What barrier(s) are you often faced with when searching for information on a particular topic in an archive?

Topic: Digital Content:

9. What does the digital content offer the researcher when searching for information and how important is it for archives to have digital archive material available?

Guiding: Tools for digital content: How essential is it to be able to download or store archive_content/ material for researchers? What tools have you experienced using that you like when viewing digital archive content/material? What type of digital archive material would you like to see more of? Have you ever requested a digital scan(s) of an archive material? did you have to pay for this? was it a photocopy or a digital scan? How beneficial did you find this digital copy of the archive material? Have you ever been refused a digital copy and if so why? How useful did you find the 'scrapbook' element of Siobhan Davies replay archive?

Topic: the future of the Dance archives:

10. How might dance archives support you and your research in the future?

Guiding: How do you think dance archives could best support **your research needs**? What **tools** could they offer to help you in your research process? How might dance archives engage with the dance community? What would you like to see from dance archives in the future? What improvements would you like to see from dance archives, both online and offline? **What does dance archives of the future look like to you?**

Archivist Focus Group Topic Guide

Topic: Subject Knowledge

1. does having subject knowledge of dance help or hinder the archive, archive practices or access? Would dance benefit from having specialised dance archivists? What impact is the lack of subject knowledge having on the progress of dance archives in terms of collection management?
 - **Guiding:** A growing trend within organisations is for archives to hire project archivists to cut costs and increase production. Have you experienced this trend within the dance archive sector? If so, in your experience what have been the implications on dance archive collections after the project archivist has left?

Topic: User expectations

2. I wanted to share their expectations with you and as a community try to discuss how we might accommodate for these user expectations going forward as a dance archive community. [*Share content on screen*]. As you can see via the screen share, here are some of their expectations. Whilst reading through these ask yourselves, 'How might we address some of these expectations as a community considering the budgets and resources we have? What would you say is the most aspirational and what is the most do-able? What are some of the restrictions inhibiting some of these expectations being fulfilled within your own workplace and why?

Topic: Their web and online development

3. What does your archive's online output look like? Who creates the online archive spaces within your institutions? Who approves your web design and ideas? How restricted are you when it comes to online development of archive resources? What is holding up the development of online archive resources? How does being bound within larger organisation/ institutions impact this development?
4. What online spaces have you contributed content to in the past, or thought about contributing content to and what was your experience of this? What are the implications, or benefits to contributing to these online search databases? How did it impact your time or workload within the archive?
5. Did the experience of contributing to external databases or spaces cause any problems or increase workloads, if so, what were those problems or how did your workload increase and was it worth it? Alternatively, have they benefited your institutions in any way, if so, how?

Topic: Resilience/Resistance to aggregators, portals and subject specifics

6. I want to ask more generally if you have anything further to add about your experience of broader aggregators, for example, Archives HUB or Europeana, as an archivist?
7. What is your experience of dealing with portals, or the trend of portals? What is the positive or negatives you have experienced with being involved with archive portals? Have you heard of dance archives contributing content to portals?

Topic: Building a directory

8. Users have suggested that one of the biggest problems they face is knowing where to find dance archives, collections or material; they have suggested a dance archive directory would be the “ideal”. How beneficial would a dance archive directory be and would this be something which you feel would bring together dance archives across the UK? What would prevent you from contributing to a directory of dance archives? What are some of the benefits of having a subject specific hub instead of a broader archive hub?

Topic: The implication of the changes

9. How would having a built-in or free cloud-based facility acting as a standardised content management software help or hinder the development of your archive’s catalogue? How would contributing to new online databases/resources impact yours and your team’s workload? What, if any, archive tasks are neglected when the archives commit to new outreach projects?

Topic: The future of Dance Archives – using the same final questions as posed to the dance researchers.

10. What does dance archives of the future look like to you? How would you like to see dance archives evolve or improve in the future?

Appendix H - Think-aloud observation participant information sheet.



Think-aloud Observation Participant Information Sheet

This study has been approved by the UCL research ethics committee. Project ID number: 15717/001

Researcher(s)

Bethany Johnstone [email] Telephone: [number]

Dr Andrew Flinn [email] Telephone: [number]

Dr Julianne Nyhan [email] Telephone: [number]

Principle Researcher

Dr Andrew Flinn

Thank you for taking part in the focus group and think-aloud observation as part of this PhD research project at University College London. The information below explains how the think-aloud observation will proceed. Please read through this instruction sheet carefully. If there is anything you wish to discuss or if you have any questions about the think-aloud observation, please do contact the lead researcher Bethany Johnstone via email at [\(Nielsen, 2012\)](#).

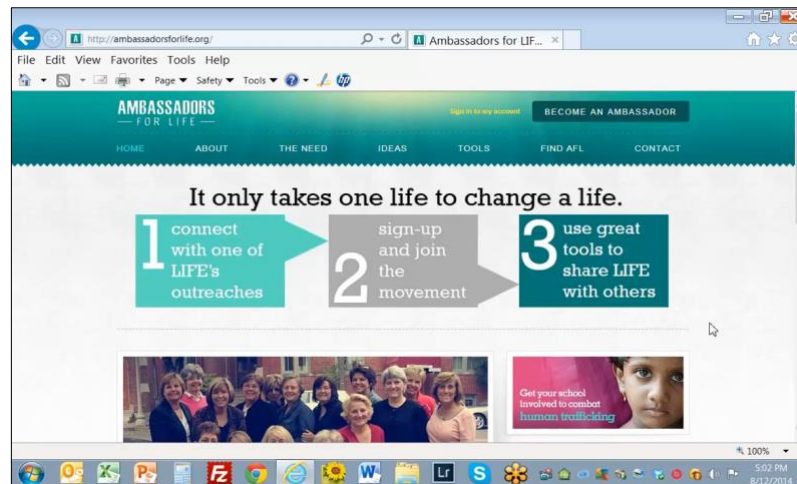


Figure H-0-1 - Demonstration video of a think-aloud observation (Nielsen, 2012)

Think-Aloud Observation Protocol

What is a think-aloud observation?

- A think-aloud observation requires participants to carry out a task while continuously thinking out loud – simply verbalising your thoughts as you carry out a task (Nielsen, 2012).
- A demonstration of what a think-aloud observation entails can be seen in figure 1 by simply clicking on the figure below. Alternatively, the video can be found at: https://liveuclac-my.sharepoint.com/:v/g/personal/uczcbjo_ucl_ac_uk/EffHCgvcAONGo5Ad9CLQ-P8B-h69qb81xmn_DqRbKO1Z6w?e=h3TTgE

What do I need to do before the think-aloud observation?

- You will need to **choose a current piece of dance research** to work on during the think-aloud observation.

Note: An example of dance research can include anything from, but is not restricted to, an assignment for your course, a performance piece which is still in progress or a paper you are working towards being published.

- You should **create two or three sentences outlining what precise information you are going to be searching for during** the session.
- You should **choose where you want to carry out your information search** (i.e., studio space, home office, online or a mixture).
- Ensure your camera and microphone can capture you carrying out the think-aloud observation task in any capacity you choose. For instance, if you choose to use a computer you will be required to share your screen for recording and if you choose a studio space, we request that the camera be placed somewhere we can see you in the whole space (Please note I help can navigate the camera placement if needs be on the day).

On the day of the think-aloud observation:

- The think-aloud observation will take place on **[insert date]** at **[insert time] (GMT London)**.
- Please ensure you are in a place that is free of background noise and has stable Wi-Fi connection.
- Click on the Zoom meeting invitation link: [\[meeting link\]](#) where you will be placed in a waiting room ready until the host (Bethany Johnstone) will invite you into the Zoom room.
- The lead researcher will start recording the meeting.
- The session will start with an introduction to the session, the tools we will be using during the session and ensure your camera and microphone are positioned where you can be seen and heard. You will be invited to ask any remaining questions before the observation begins.

- The observation will begin, and you will begin to carry out the think-aloud observation task outlined below. The observation will last approximately 45 minutes.
- The observation will end with you will be given a debrief and the recording will stop.
- Any remaining questions will be taken.
- Session ends.
-

Think-aloud Observation Task

- Outline to the facilitator what you will be looking for today when searching for information in relation to your dance research project – this is the one or two sentences you created before the session.
- Please begin your search for information and remember to verbalise all thoughts out loud.

Guidelines that must be followed throughout the observation:

- You must have your camera and microphone on at all the time throughout a 45-minute time period.
- You must verbalise your thoughts throughout the 45-minute time period.
- If you fall silent for more than 30 secs the facilitator (Bethany Johnstone) will prompt you to begin speaking again by showing you a green sign inscribed with “keep talking” on it. If participant misses this sign and does not begin verbalising their thoughts, the facilitator will prompt you verbally to keep talking.
- However, if you need to pause for a couple of minutes, please do let the facilitator know and this can be accommodated for you to regroup before carrying on.

After the think-aloud observation:

- After both the focus group and think-aloud observations have been conducted and transcriptions are complete you will be sent transcriptions of both the focus group and think-aloud observation to check and sign.

Thank you for taking the time to read through this information sheet. If you have any further questions about the focus group please do contact me, Bethany Johnstone, via email at: [\[researcher email\]](#)