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Digital Curation in UK Performing Arts Contemporary Professional Practice

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This thesis is dedicated to the memory of Adrian Howells.

I hope it, too, will be allowed.

Abstract

Practitioners of the performing arts working outside the higher education institutional context regularly produce work on limited project funding, to tight deadlines and with too little time or resource to consider the curation of their digital assets. Without specialist expertise, digital objects created and used by performance practitioners are vulnerable to damage and disappearance, limiting the prospects of a coherent record of contemporary performance practice.

This study begins to ascertain the nature of digital curation practice in the professional performing arts by examining the digital curation awareness and practice of a sample of the UK performing arts community. This enquiry is set into the broader context of digital curation and preservation, which offers some useful models of sustainable management of digital objects against which practice can be compared. Twelve performing arts practitioners from across the UK are interviewed to establish understanding of whether, why and how they create and manage digital objects in the course of their creative work. The resulting detailed qualitative data establishes what they understand about sustainable management of digital objects, and which digital curation activities they execute in their working processes. It also identifies the presence of possible skills and knowledge gaps, and explores the types of digital resources that performing arts practitioners seek and use, in order to understand whether there is a comparable appetite for the creation and reuse of digital objects in this field. Additionally, the research examines the sources used by practitioners when attempting to access digital objects created by others as part of research for their own creative work. This provides a 'performer's-eye view' of performance collections - that is to say, the resources used as collections for research, irrespective of the formal designation or intended purpose of such resources.

Responses indicated that practitioners highly value the digital objects they create themselves as well as those created by others and have expectations of sustained access to these objects. In contrast, however, reported awareness and practice of the principles of sustainable management of digital objects, as promulgated by digital curation, is very low. Although further research is required to test whether the results of the present study are indicative of practice in the larger performance arts sector, they indicate that many digital objects produced by performing arts practitioners are probably subject to damage or loss.

Concluding remarks indicate the implications of these findings for the representation of performing arts practice for current and future generations, and suggest useful future areas of enquiry.

Keywords: digital curation, performing arts, digital preservation, cultural production, live art, theatre, dance, archives, information studies, employment.

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Author's declaration

 "I declare that, except where explicit reference is made to the contribution of others, this dissertation is the result of my own work and has not been submitted for any other degree at the University of Glasgow or any other institution."

Signature:

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Chapter 1: Introduction

A significant proportion of performing arts practitioners produce work outside institutional support structures such as those offered by the academy or other large institutions such as national galleries or theatres. The wide availability of affordable digital recording devices has allowed such practitioners to become active in the creation of digital objects in the course of researching, rehearsing and creating their work, and also in documenting rehearsals and staged presentations.

Practitioners of the performing arts working outside the higher education institutional context regularly produce work on limited project funding, to tight deadlines and with too little time or resource to allow them to consider if and how they might best undertake the curation of their digital assets. Without specialist expertise, digital assets created and used by performance practitioners are vulnerable to damage and disappearance, damaging prospects of a coherent record of contemporary performance practice.

Some work has already been undertaken (e.g. Abbott and Beer, 2006) to ascertain the digital curation and preservation knowledge and activities of practitioners working within the academic performing arts context, where a certain amount of supporting infrastructure is available, including tailored digital curation guidance and training[1]. However, such work also highlights the scope for an inquiry into the digital curation and preservation knowledge and processes of performing arts practitioners working outside institutional environments. This study aims to fill this gap and contribute to a wider understanding of the digital curation knowledge and practice of performing arts practitioners who are not primarily supported by academic funding streams or institutional infrastructures.

1.1 Background and context

In this section, the discipline areas and the key terms used in the study will be described and defined.

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[1] E.g. the CAiRO Managing Creative Arts Research Data (MCARD) training module developed as part of the JISC Managing Research Data programme 2009-11, available at http://dx.doi.org/10.5281/zenodo.28548 (accessed 1/2/16).

1.1.1 A digital object / a complex digital object

A digital object is an object composed of a set of bit sequences (CCSDS, 2012). The Digital Curation Centre (DCC) draws a distinction between simple and complex digital objects: simple digital objects are

> discrete digital items such as text files, image files or sound files, along with their related identifiers and metadata'; whereas complex objects are 'discrete digital objects made by combining a number of other digital objects, such as websites (DCC, n.d.(a)).

For performance practitioners, digital objects may be material supporting the research and development of performance work, materials used in the production of performance work (i.e. as elements of a performance), and/or documentation of a staged piece of performance. Here, 'simple' digital objects are likely to include digital images and sound files. Video, being composed of multiple elements (video track, audio track, container file), may be considered a complex digital object. Digital objects in the performing arts encompass a wide variety of file types (text, video, audio, etc.) and formats (MP3, PDF, JPG, etc.) created and used by performance arts practitioners. Digital objects are vulnerable to damage and loss of access, and require pro-active intervention to remain accessible (DPE, 2006) and to retain their authenticity. An authentic digital object can be understood as one which is 'the same as it was when it was first created' (DPC, 2002).

1.1.2 Digital curation

Digital curation encompasses the processes and skills required for the sustainable management of digital assets throughout their lifecycle and over time, in order to allow the digital object to remain available, findable and usable (Pennock, 2007).

Digital curation is the set of knowledge, skills and practices which recognises the fragility of digital objects, the need for active management to ensure their ongoing availability, the value of digital preservation and the development of human and technical infrastructure in providing that active management, and the potential for use and re-use of digital objects by making them available in a stable state to appropriate audiences. Digital curation can

be understood to encompass digital preservation, data curation, electronic records management, and digital asset management (Yakel, 2007).

Since 2008 the DCC has formulated and promulgated a *Curation Lifecycle Model* (see Figure 1) to illustrate the actions and processes required to curate and preserve digital objects (DCC, n.d.(b); Higgins, 2008). The model situates the digital object at its centre, surrounded by the activities continuously necessary throughout the entire lifecycle of the digital object for sustainable curation to take place. In the model, these activities are represented in three concentric layers surrounding the digital object. In this way, the model shows that the digital object must be associated with description information - in the form of appropriate metadata - throughout its lifecycle. Representation information is also continuously necessary so that the object and its metadata can be understood and rendered correctly in the user's technical environment. Planning for the management and administration of digital curation actions is also continuously required throughout the object's lifetime. Lastly, the model also advocates that those responsible for digital curation continuously engage in participation with the wider digital curation community.

Surrounding these continuous activities are the sequential actions and processes involved in curating and preserving the object. Conceptualization of the object results in its creation or reception whereupon it becomes manifested as a digital object and can enter the digital curation lifecycle. In a comparable way to the application of copyright legislation, digital curation cannot be enacted on an idea or impulse - the idea or impulse must be manifested as a digital object before it can be curated, or indeed neglected. The object is then either selected for preservation or disposed of. If received, or ingested, into the preservation environment, the object can then be sustainably stored in such a way that it is potentially available for re-use and transformation into a new asset, which in turns becomes eligible to enter the curation lifecycle. This model demonstrates an approach to the active management of digital objects that reduces threats to their long-term value and mitigates the risk of damage and obsolescence.
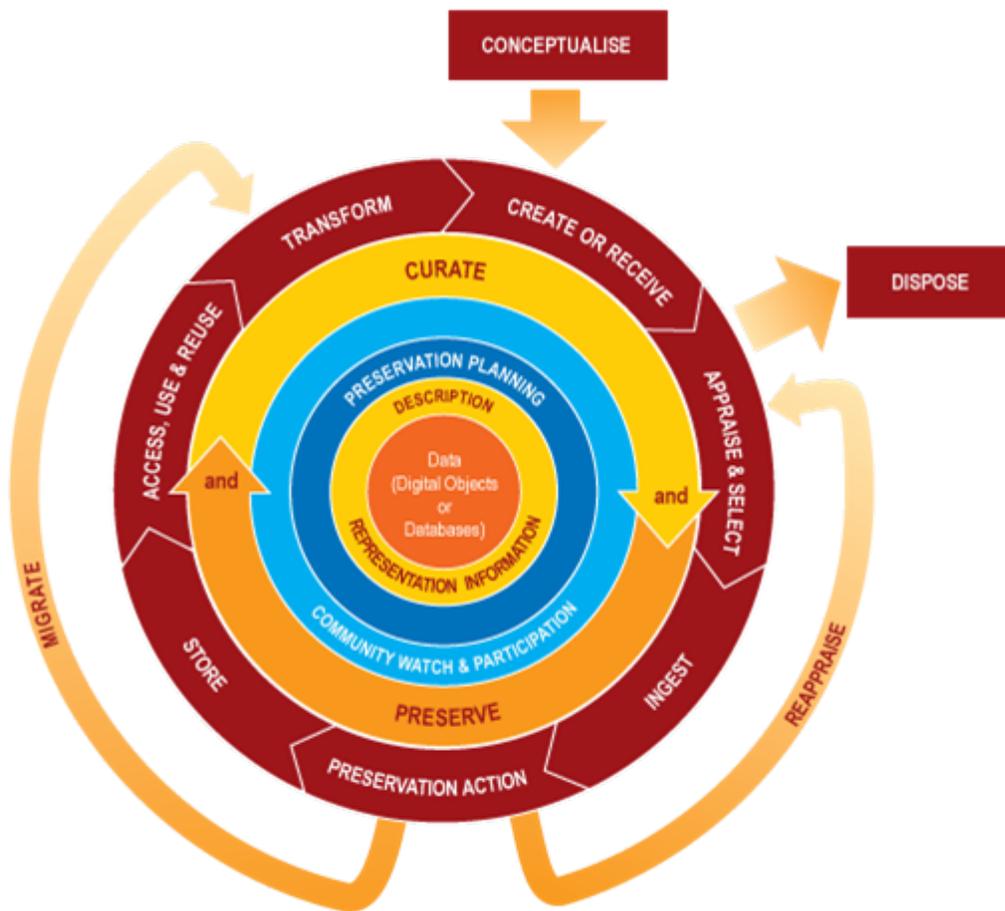
Figure 1: Digital Curation Centre's Curation Lifecycle Model (DCC, n.d. (b))

Each of the sequential actions described in the *Curation Lifecycle Model* requires particular skills and competences appropriate to the type of object and context of the curation activity. The present thesis is concerned with the presence or absence of these skills and competences among performing arts practitioners, and what that may imply for the survival of digital traces of contemporary performance practice.

1.1.3 The UK performing arts community

The UK performing arts sector represents a large community of professional practice in a variety of disciplines and art forms, making a substantial contribution to the economic performance of the UK.   There are significant challenges in establishing an authoritative view of the exact size and economic impact of the creative industries in general, including the performing arts. Further, there are considerable difficulties in establishing the

relative size of the practitioner populations working within and outside the context of large organisations. However, the UK Government Department of Culture, Media and Sport (DCMS) provides an authoritative and relatively detailed statistical report on the Creative Industries each year. The Creative Industries are defined in the UK Government's 2001 *Creative Industries Mapping Document 3* as 'those industries which have their origin in individual creativity, skill and talent and which have a potential for wealth and job creation through the generation and exploitation of intellectual property' (DCMS, 2001).

The DCMS statistical reports provide us with a reasonable set of measures to describe certain groupings within the Creative Industries but do not specifically include figures solely for creative practice within the performing arts.

Within the DCMS category of 'the Creative Industries', we find a sub-category of analysis, 'Music, Performing and Visual Arts' (previously 'Music & the Visual and Performing Arts'), which in the analysis of professional activities is comprised of sound recording and music publishing activities (Standard Industrial Classification (SIC) code 59.20); cultural education (SIC 85.52); performing arts (SIC 90.01); support activities to performing arts (SIC 90.02); artistic creation (SIC 90.03); and operation of arts facilities (SIC 90.04). In the analysis of employment, the sub-category of 'Music, Performing and Visual Arts' is comprised of artists (Standard Occupational Classification (SOC) code 3411); actors, entertainers and presenters (SOC 3413); dancers and choreographers (SOC 3414) and musicians (SOC 3415).

DCMS estimated that the Creative Industries (as defined above) brought significant Gross Value Added (GVA) to the UK economy in 2014, the latest year for which figures are available at the time of writing: 'GVA of the Creative Industries was £84.1bn in 2014 and accounted for 5.2 per cent of the UK economy' (DCMS, 2016). GVA for 'music, performing and visual arts' grew from £3,740m in 2008 to £5,444m in 2014; this represents 6.5% of the total shared GVA by the creative industries sector in 2014.

As well as their value through trade and ticket sales, the creative industries and in particularly the music, visual and performing arts show value to the UK economy as sources of employment. '[T]he Music & Visual and Performing Arts were the largest employers in the Creative Industries with 300,000 employed in 2009 (1% of the UK)' (DCMS, 2011). In addition, 'Music & Visual and Performing Arts account for the largest contribution to the

number of businesses (1.46% of the UK for enterprises and 1.21% of the UK for local units[2] in 2011)' (DCMS, 2011). The 2016 DCMS statement notes that Creative Industries employment in 2014 stood at 1,808,001. This is a small increase on 2011, when '1.5 million [were] employed in either the Creative Industries or in a creative role in another industry (5.14% of UK employment) and on 2008 (1.4 million employed and 4.99% of UK employment)' (DCMS, 2011). The Nesta assessment concludes that in 2010, almost 2.5 million were employed in the UK's creative economy, of which 1.3 million worked in the creative industries. The DCMS defines 'the creative economy' as including the contribution of those who are in creative occupations outside the creative industries as well as all those employed in the creative industries.

The figures generated by DCMS from the 2015 statistical release onwards use a revised methodology from their previous statement in 2010. This change gave an impression of significantly lower economic impact compared to the 2010 figures. In response, Nesta[3] suggested an alternative methodology, 'Dynamic Mapping', for calculating the size and economic impact of the creative industries (Nesta, 2012) that, they claim, corrects the 'deficiencies' of the DCMS approach (Nesta, 2013). The 2015 DCMS figures published (DCMS, 2015) were the first set to be based on the 'Dynamic Mapping' approach and show the creative industries providing 1.68m jobs in 2012, 5.6 per cent of the total number of jobs in the UK. Of these, 277,000 jobs were in the DCMS category 'Music, Performing and Visual Arts'.

The importance of solo professional practice and small-scale companies in these professions is underlined in the DCMS figures:

> Music, performing and visual arts had the highest proportion of self-employed jobs. More than 7 out every 10 jobs in this group were self-employed. In total (self-employed and employees), there were 277 thousand jobs in this group in 2012, of which 224 thousand were in the Creative Industries (DCMS, 2014, p10)

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[2] "An enterprise is the smallest combination of legal units (generally based on VAT and/or PAYE records) which has a certain degree of autonomy within an enterprise group. An individual site (for example a factory or shop) in an enterprise is called a local unit." (DCMS, 2011; p20)

[3] Previously 'NESTA', the National Endowment for Science, Technology and the Arts; website available at http://www.nesta.org.uk/.

The DCMS figures provided for 'solo professional practice and small-scale companies' in the performing arts appears to be the best estimate of the size of the population with which this study is concerned. More accuracy with this figure is difficult because of the nature of employment styles within the performance professions. A practitioner can be working on a self-funded solo project one month and in the employment of a national theatre the next – or even concurrently.

For the purposes of this thesis, theatre, dance, performance art and live art[4], music and film are included within the performing arts[5].

1.2 Digital curation skills in the performing arts communities: a recent history

Performing arts practitioners working in the academic context - that is to say, those who have most of their performing arts practice funded by tertiary education or research funding streams - have been obliged by research funders to consider digital curation issues in ways that do not apply to the wider performance practitioner community. The Arts and Humanities Research Council (AHRC) is a major funder of performing arts-related research in UK higher education. Since the mid-1990s, the AHRC has required researchers - as part of the research bidding process - to describe any digital outputs likely to arise from their work, and to specify how these digital outputs would be preserved for at least five years following the close of the funded project. Those in receipt of AHRC funds were obliged to prepare and deposit such digital outputs with the Arts and Humanities Data Service[6], funded by the AHRC from 1996 until 2008. The AHDS provided several discipline-specific centres: Archaeology; History; Literature, Language and Linguistics; Visual Arts; and Performing Arts. Despite the name of the service, however, the AHDS was not concerned with research data objects in the sense of digital material underpinning research findings; rather, the Service focused on the curation of digital outputs from AHRC funded projects. These efforts nonetheless played a seminal role in the UK higher education sector in the attempt to apply digital curation principles to the outputs of research in the arts and

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[4] "[L]ive art (also known as performance art), an art form which blends theatre, installation, and conceptual art." From Gray (2009).
[5] More on this in Chapter 3, which describes the methodology of the data gathering and specifically the strategy of practitioner-led categorisation of art forms within this study.
[6] Website preserved (but not maintained) at http://www.ahds.ac.uk/

humanities by making digital curation, including preservation, to a set of specified standards a condition of research funding. When the digital output was suitably prepared, the AHDS ingested the object or collection and made it publicly available for the necessary timeframe.

As a member of the AHDS Performing Arts team, I observed the challenges experienced by HE-based performing arts practitioners when faced with the need to engage with digital curation issues. This also highlighted a number of questions. What of performing arts practitioners beyond the academy? Were they considering these activities? Were they, too, obliged to undertake digital curation activities by another party such as a funder, or were they self-motivated in curating their digital objects? Did practitioners understand the challenges of the curation of (sometimes complex) digital objects? How effective were their attempts to tackle these challenges?

The supporting infrastructure offered by AHDS disappeared at the cessation of funding of the AHDS in 2008, leaving HE-based practitioners lacking access to digital curation support and guidance in much the same way as their colleagues beyond the academy (albeit with supporting infrastructure in other areas which independent practitioners routinely lack, such as IT and research funding). However, in 2009 the JISC[7] funded a new initiative to instigate and develop research data management skills and infrastructure amongst researchers[8] in UK research institutions. The first JISC Managing Research Data programme (MRD) ran from 2009-11 and, inter alia, fostered the development of digital curation guidance and training for creative and performing arts researchers.

The JISC MRD programme launched at an auspicious time. Despite the cessation of AHRC funding for the AHDS, academic research funders in the UK (including the AHRC) continued to be concerned with the digital outputs of funded research and increasingly, in the management of research data underpinning those outputs. The RCUK Policy and Code of Conduct on the Governance of Good Research Conduct: Integrity, Clarity and Good Management (2009; updated 2013) makes it clear that

> Research organisations (ROs) which employ or train researchers should also ensure

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[7] As it was named at that point; now 'Jisc' (no 'the').
[8] The second MRD programme expanded to also target HE information professionals.

that sound systems are in place to promote best practice. [...] These systems should include: [...] clear requirements for preservation of relevant primary data, laboratory notebooks and other relevant materials. (RCUK, 2013, p. 3)

Further, the failure to demonstrate effective digital curation or research data is considered by RCUK as 'Unacceptable research conduct' (RCUK, 2013, p. 6). This includes:

Mismanagement or inadequate preservation of data and/or primary materials, including failure to:
• keep clear and accurate records of the research procedures followed and the results obtained, including interim results;
• hold records securely in paper or electronic form;
• make relevant primary data and research evidence accessible to others for reasonable periods after the completion of the research: data should normally be preserved and accessible for ten years, but for projects of clinical or major social, environmental or heritage importance, for 20 years or longer;
• manage data according to the research funder's data policy and all relevant legislation;
• wherever possible, deposit data permanently within a national collection. Responsibility for proper management and preservation of data and primary materials is shared
between the researcher and the research organisation. (RCUK, 2013, p. 7-8)

Bolstered by this stance, UK research councils and institutions increasingly recognised the value of all assets generated by the research they fund and host and as such are increasingly interested in the quality of digital curation applied to products of funded research including outputs and supporting data. This recognition on the part of the research councils resulted in the publication in 2011 of formal expectations for the curation of research data, spearheaded by RCUK (2011), with which funded institutions must comply. These expectations apply to all funded disciplines including the creative arts. Similarly, some well-resourced national performing arts institutions have realised the value of well-curated digital objects, particularly the potential for exploitation of

documentation of performance works for promotion and revenue generation[9].

Outside the institutional context (whether HE or arts institution) lies the 'long tail' of small-scale performance organisations and individual artists, as suggested by the size of the sector as indicated by DCMS (2011). Together, these organisations and artists comprise much of contemporary practice in the UK. Little work has been carried out so far to ascertain the nature and extent of digital curation activity in this population. Use of affordable digital recording technologies is now widespread in the practitioner population. A lack of skills in the curation of the digital objects created by these devices has implications for the survival of a record of contemporary performance practice that represents practice at all levels, not just those of national and regional institutions.

1.3 Research question

These considerations led to the formulation of the research question as follows:

To what extent do current digital curation practices in the performing arts outside the institutional context support the maintenance of a record of contemporary performance practice?

In order to answer this question, it was useful to break it down to the following ones:

I. Do independent performance practitioners create digital objects in the course of their practice, and if so, for what purposes?
II. Do practitioners value their digital objects?
III. Do practitioners wish to use digital objects created by others, and if so for what purposes?
IV. Do they expect their digital objects to persist?
V. Which, if any, management or curation actions do practitioners carry out on the digital objects that they hold?
VI. Do their digital curation practices support their ambitions for the digital objects in their possession?

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[9] E.g. see Groves (2012) for David Sabel's discussion of how National Theatre Live has improved engagement, stimulated audience and turned a profit.

The literature on digital curation and the performing arts research communities makes clear that there is body of knowledge, standards and methods (and even in some cases, tools) for digital curation that is well-established in parts, and that it is continuing to extend and mature as a whole. There is, however, a lack of information on whether the sustainable curation of digital objects is specifically of value to performing arts practitioners who are not subject to the obligations and requirements of research funding bodies such as the AHRC. That is to say, it is not clear from existing sources whether performing arts practitioners value the outputs from their digital recording devices and if so, for what purposes. If these digital objects are indeed of value to practitioners, it is important to then establish whether practitioners demonstrate awareness of the fragility of digital objects (which is after all the primary point of departure for the entirety of digital curation and preservation research, theory and practice) and the resulting need for those skills and that knowledge which constitute digital curation. If performing arts practitioners understand the inherent fragility of digital objects, work is needed to ascertain whether practitioners undertake activities that amount to the digital curation of these assets (although it should be remembered that practitioners may not use such specialist vocabulary to describe these activities).

As the *Curation Lifecycle Model* demonstrates, digital curation can be understood to extend through the object lifecycle to the re-use and transformation of curated objects into new work. Therefore, it is also relevant to establish whether practitioners wish to re-use their own objects in the future, or digital objects created by others, in the course of their own research and practice.

Accordingly, in order to answer the research questions described above, it was necessary to carry out a series of interviews with performing arts practitioners working independently without being primarily funded by academic funding streams or supported by the technical and skills infrastructures of an institution. This renders them free from the strictures of institutional and research funder requirements, but also means that many practitioners may be producing and using significant amounts of digital materials whilst lacking the access to expertise to manage the resulting digital objects in a sustainable way.

Should this hypothetical situation exist within this particular group of practitioners, it will mirror widespread digital object creation and ineffective management more widely; a situation which has currently given rise in some quarters to a fear of a 'digital dark age' due to the popularity of digital tools in the creation of digital objects far outstripping the skills and infrastructure available for the sustainable management of the resulting digital objects (Kuny, 1997).

The key criteria for inclusion in the study were that each subject worked professionally in the live and performing arts in the UK and that their work required them to research and produce creative work with key responsibility for creative decision-making. Not all respondents were necessarily performers; some worked in creative roles such as playwright, director or choreographer, either with or without also being performers.

Twelve interviews were conducted which gave sufficiently complete information to yield useful results for analysis. Given the scale of the performing arts sector in the UK, the study does not claim to include a representative sample, so findings should be considered indicators rather than definitive statements about the sector as a whole. Commonalities did emerge, even across a small sample. These are discussed in Chapter 5, 'Discussion of Results'.

The interviews addressed the following issues:

- the disciplines or media in which the subjects worked;
- the level of involvement by practitioners with the higher education sector;
- practitioner understanding of the terminology around digital curation, specifically digital preservation and archiving;
- whether practitioners created their own digital objects as part of professional practice and if so, whether they enacted any digital curation activity upon those objects;
- the perceived value of practitioners' digital objects and the use made of them;
- the level of access to and use of digital objects created by others.

Questions in the interview also addressed the sources that were used by practitioners when attempting to access digital objects created by others as part of research for their own

creative work. This allowed a discussion of the resources used by practitioners as collections for research, irrespective of the formal designation or intended purpose of such resources.

1.4 Reading guide

The current chapter provides an introductory overview of the issues with which this thesis engages. The rest of the thesis is structured in the following way:

- Chapter 2: Literature review: The existing relevant scholarly work in the fields of digital curation and the performing arts is presented and discussed. This will allow a more detailed exploration of the ideas presented in Chapter 1: Introduction.
- Chapter 3 describes the methodology used to answer the research questions.
- Chapter 4 reports the findings of the data gathering and presents the key themes that emerged.
- Chapter 5 discusses the findings of the data gathering as reported in the previous chapter, and situates these in the context of the key arguments that arose from the review of literature.
- Chapter 6 offers conclusions from the current study and recommends some possible approaches to the appropriate support for sustainable digital curation practice in the professional performing arts community.
- These are followed by the bibliography and by Appendix A: the interview question schema.

Chapter 2: Literature Review

The current study examines digital curation practice in the performing arts. This requires an understanding of practice in both digital curation and the performing arts, specifically the area where these two disciplines connect. Chapter 1 has provided an examination of the literature that describes competent digital curation practice, including the skills and knowledge necessary to undertake such practice. This provides a background against which discussion of digital object creation, management and use in the performing arts can usefully occur.

This chapter summarises the literature arising from performing arts research that engages with the creation, management and use of digital objects by performing arts practitioners in order to address my primary research question. The literature review highlighted that there is virtually no discussion of knowledge and skills development in this area; rather, much of this literature is primarily concerned with the debates about the value of digital objects as documentation of live work. As these arguments appear in texts that are taught at higher education level on at least some UK performing arts programmes[10] and as they may influence the decisions taken by practitioners who emerge from such courses, they are considered here in some detail. This discussion helps to answer subsidiary question (i) 'Do performance practitioners create digital objects in the course of their practice? And if so, for what purposes?' In practice, performing arts practitioners can potentially employ digital objects for a variety of purposes, including but not limited to documentation. The very fact that so much of the existing literature focuses solely on documentation as the motivation for digital object creation and use suggests that there is a paucity of literature which seriously considers the full range of potential uses for digital objects in performing arts practice.

There are limited examples of literature describing digital curation skills development available in the cultural heritage sector and / or the performing arts. Again, as these may

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[10] I have not attempted to define a common corpus of texts taught across UK tertiary education performing arts programmes in the course of writing this thesis. Whilst this would have been very useful background for the current discussion, the resource required would not have been justified by its importance to answering the primary research question. However, the work of such projects as CAiRO and KAPTUR – examined in later in Chapter 2 – indicates that considerations of good practice in digital object management are still in very early stages in creative arts institutions across the UK.

serve to influence practice, I have described them here and indicated where they are targeted at those engaging with the performing arts within an institutional context or whether they appear to be relevant to the self-employed practitioner. This overview gives background to answering subsidiary question (ii) 'Which, if any, management or curation actions do practitioners carry out on the digital objects that they hold?' I did not identify any literature that directly addresses the latter four subsidiary questions (iii – vi). This suggested the need to gather data directly from practitioners on these points.

2.1 Current support for practitioner skills in digital object management

The wide availability of affordable digital recording devices has allowed contemporary professional practitioners of the performing arts to become active in the creation of digital objects in the course of researching, rehearsing and creating their work, and also in documenting rehearsals and staged presentations. Many practitioners are to a certain extent dependent upon the continued existence of these digital objects in order to complete the tasks of researching, creating, experiencing, communicating and selling performance work.

We increasingly employ digital means to communicate, work, shop and access entertainment in our personal and professional lives. Accordingly, public organisations are increasingly expected by users to collect, manage, preserve and provide access to digital cultural heritage assets, throughout the lifecycle of the digital object (Pennock, 2007).

As a result, digital curation is rapidly becoming recognized by those who fund and care for digital objects in a cultural heritage context as a key set of activities and competences for professional practice within the cultural heritage sector (DigCurV, 2013). To participate in the emerging cultural heritage digital ecosystem, practitioners in the performing arts will also increasingly find their ability to create, manage and preserve digital assets an important skillset.

In describing the scale of performing arts tuition in tertiary education, Abbott and Beer (2006) report 55 UK colleges and universities offering dance, 145 offering drama / theatre

studies, and 148 offering music[11] (with the proviso that this last figure differs from Royal College of Music's list of 105 institutions). These results themselves show the considerable size and popularity of the performing arts as a discipline area in further and higher education, but offer no indication of the content of the programmes of study and particularly whether they provide any skills development in the area of creating and managing digital objects.

It appears that the existing efforts to articulate, describe and support the development of knowledge and skills in digital curation, specifically tailored towards the UK creative arts, are those undertaken by a limited number of UK and European research projects and services of fixed timescale. The need for such external interventions to be funded suggests that digital curation skills are not routinely included in existing tertiary education curricula.

As the research question of this study is specifically concerned with performance practitioners working outside the institutional context, these projects and services have been divided into two groups in the discussion below. All these projects and services listed aim to develop digital curation skills and knowledge in individuals engaged in creating performance work. Some are targeted at the student or researcher operating within the institutional environment. As can be seen below, little is available for the practitioner working outside the context of a large institution.

2.1.1 Skills development for individuals within the institutional context

The following is a brief overview of recent relevant efforts to improve skills development for performing arts practitioners / researchers working within the context of a large institution such as a university.

a) 1996 - 2008: The Arts and Humanities Data Service: AHDS Performing Arts

The AHRC is a major funder of arts and humanities research in the UK HE sector. The AHRC funded the Arts and Humanities Data Service (AHDS), a network of discipline-specific

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[11] These figures are quoted from the PALATINE directory - PALATINE was the Higher Education Academy subject centre for the performing arts from 2000 to 2011. 'Dance' and 'Drama and Music' are now subsumed as subjects within the HEA Arts and Humanities "discipline cluster", as described at https://www.heacademy.ac.uk/node/309 (accessed on 19/8/14).

data centres including AHDS Performing Arts at the University of Glasgow. The role of the AHDS was to collect, preserve and promote the digital objects which resulted from HE-based research and teaching in the arts and humanities funded by the AHRC; as such, the AHDS Performing Arts data centre was one of a network of subject-specific data centres across the UK. Each subject centre preserved and made accessible outputs of AHRC-funded projects in their discipline area. Deposit in this way was a condition of funding. The service closed in 2008 due to withdrawal of AHRC funding, amid claims from the AHRC that performing arts researchers at HE institutions were able by that point to produce successful and realistic data management plans and preservation of their digital outputs. There has been little evidence, then or now, that this was or is indeed the case. The AHDS subject centres provided advice and best practice guides for their discipline audiences, primarily intended for HE-based researchers but applicable also to practitioners, should they find them. These are described on the AHDS Performing Arts webpage (AHDS, 2006), but are no longer publicly available. AHDS Performing Arts was a relatively high profile resource for AHRC-funded researchers in the performing arts, but there was little engagement with the performance practitioner community, i.e. those working outwith tertiary education, as noted by Abbott and Beer (2006, p. 17, section 2.4).

b) 2009 - 2011: Curating Artistic Research Output (CAiRO): JISC Managing Research Data (MRD) Programme 1

In the first MRD programme, funded 2009-11, the CAiRO project at the University of Bristol approached the development of research data management training for postgraduate level practice-as-research students in higher education performance and visual arts departments. Practice-as-research has become increasingly important during the early years of the current century as part of research culture in the performing arts, as explored by the Practice As Research In Performance (PARIP) project (PARIP, no date (a)). Preliminary work for the CAiRO project found that outputs from practice-as-research in UK HE performing arts departments was not well supported by infrastructure, had no data centre or data service to provide advice or storage, was poorly catered for by existing RAE/REF policy and was subject to non-standardised management by individual university departments. A User Needs Analysis report produced by the project found that 62.5% of respondents said there was not sufficient help for researchers in managing their data (CAiRO, 2010). This heavily implies a lack of any standardised approach to skills provision in the HE performing arts departments with which the CAiRO team had contact.

In the work of the CAiRO project, digital objects were approached as 'research data', in keeping with the HE-sector research focus and in response to the RCUK requirements (as discussed in Chapter 1). From a literature review conducted early in the project, Gray (2011) found that there was little relevant existing literature to consult. Some useful findings were established around training strategies for these practice-as-research students, including the self-directed (as opposed to taught) nature of much postgraduate study in these disciplines; the value of recasting the language of the DCC *Curation Lifecycle Model* into language more akin to that of the individual data (i.e. digital object) creator rather than the manager of a collection; and the fact that data (i.e. digital objects) are more valued by the performing arts research community for 're-use (e.g. as part of a new work)' rather than analysis. This project resulted in the production of training events during the life of the project and the 'Managing Creative Arts Research Data' (MCARD) online training module (Gray, Jones and Clarke, 2011).

c) 2011 - 2013: KAPTUR: Jisc Managing Research Data (MRD) Programme 2

In the second MRD programme, the KAPTUR project worked with four specialist creative arts institutions – UAL, Goldsmiths, UCA and Glasgow School of Art. KAPTUR developed a working definition of what research data can be understood as in the context of creative arts research, workable data policies for such institutions, and training in the digital curation of creative arts documentation and other material relating to creative arts research, including performance, in ways and using language appropriate to these disciplines.

Again, by focusing on research data, the KAPTUR project addresses digital object management in performing arts research through the lens of tertiary education research practice. However, as with the CAiRO project, this still allows work to be done on the development of digital object management skills in the student audience - some of whom will go on to professional performance practice.

d) 2011 - 2013: Digital Curator Vocational Education Europe (DigCurV)

Funded by the EC's Leonardo Da Vinci Lifelong learning programme between 2011 and 2013 (which makes clear from the beginning the project's focus upon vocational training),

DigCurV drew together a variety of universities, national libraries and cultural foundations to conduct research into digital curation in the cultural heritage sector (Molloy and Gow, 2012). DigCurV carried out desk research, large-scale surveys, focus groups, conference sessions, and interviews with digital curation professionals to understand the skills currently required at practitioner, manager and senior executive level in cultural heritage organisations across Europe.

Whilst these efforts were useful for raising awareness of the growing importance of digital curation in the museum and gallery environment and scoping the size and priorities of the existing workforce in this area, DigCurV did not directly address practitioners engaged in the creation of performing arts digital objects. Rather, it produced research and resources to describe and support the work of members of staff responsible specifically for digital curation activity in cultural heritage institutions.

2.1.2 Skills development for individuals outside the institutional context

There is little evidence of much provision of digital curation skills development or awareness-raising for the self-employed practitioner working outside the context of a higher education institution or other large organisation.

a) 1999 - 2012: InterPARES

The InterPARES project was funded in response to a perceived increasing risk across all disciplines of research and areas of professional practice, specifically that

> organizations and individuals had come to rely in a fundamental manner on the creation, exchange and processing of digital information without recognizing the grave threat posed to records by the rapid obsolescence of hardware and software, the fragility of digital storage media, and the ease with which digital entities can be manipulated. (Duranti, 2012)

Although based in Canada and funded by Canadian HE sources, the project built upon an international knowledge base throughout, with north America and Italy particularly well represented in its scholarly network (Duranti and Preston, 2008). A broad sweep of activity over the long life of this initiative was informed by several international and

domain perspectives. One of several foci was the creation and management of complex digital objects (see 'A Digital Object / A Complex Digital Object', Chapter 1). The second phase of the project (2002-7) specifically developed guidelines to support "the production, maintenance, and long-term preservation of records ... for individuals creating digital records, such as artists, scientists, professionals and researchers" (InterPARES, n.d.), particularly in 'interactive, experiential and dynamic digital systems in the course of artistic, scientific and e-government activities' (Duranti and Preston, 2007), resulting in digital objects which are suitable for preservation. InterPARES 2 also developed 'two frameworks for the development of policies, strategies and standards regarding creation, maintenance and preservation of digital records; one framework is for individuals and small organizations creating digital materials…' (InterPARES, n.d.) In the development of the guidelines and the frameworks, InterPARES attempted to provide resources for both parties in the 'creator / curator' partnership, as well as for both self-employed performing arts practitioners and those working within the institutional context. Many other projects in this area have focused solely on the curator, collector or manager; InterPARES 2 makes a valuable contribution by also developing tools and guidance specifically for the creators of digital objects as part of professional practice.

In addition, InterPARES provides a number of detailed case studies and general studies showing the use of its products and by extension, attempting to characterise the use and management of digital objects in various sectors including the performing arts. Case studies and general studies produced by the project include those pertinent to professional practice in theatre (Cardin, 2004), performance art (Daniel and Payne, 2004), multimedia performance-based art (Fels and Dalby, 2004), music (Amort, 2004; Douglas, 2006) and composition (Longton, 2004).

2.2 Documentation

... the theoretical implications of documentation are well studied and the tension between 'live' and 'recorded' is the basis for many creative practices. CAiRO ran the risk of straying into that theoretically rich area at the cost of practical guidance. (Gray, 2011, p 5)

In the performing arts context, 'documentation' is a term that requires unpacking. (PARIP, n.d.).

When investigating digital curation practice in the performing arts, it is easy to understand

Gray's alarm at the alacrity with which digital curation practice in the performing arts is so often co-opted into a discussion specifically of the *documentation* of live performance work. Undertaking documentation of live performance work and specifically, the theoretical implications of doing so are, as Gray (2011) notes with understatement, 'well studied' in the scholarly literature of the performing arts. However, it is useful to remember that for the purposes of the present discussion of digital curation in professional performing arts practice, the deliberate creation of documentation is only one of the activities that motivate the production of digital objects.

Not all digital objects in the performing arts are created with the intention of serving as documentation (and, indeed, not all performance documentation is digital): in short, 'digital objects in the performing arts' and 'objects created in order to serve as documentation of performance' are not equivalent and interchangeable groupings, although they may have elements in common.

That fact remains, however, that many practitioners use digital technology to attempt to create documentation of their work (with or without due consideration of the active management that will be required to keep the resulting digital objects subsequently findable, useable and accessible), and so it is useful to consider what is meant by the term 'documentation' historically, and in current performing arts literature, and to outline some of its main theoretical implications which may act as influences on performing arts practitioner decision-making.

2.2.1 'Documentation': a brief history of the term

The contemporary use of the term 'documentation' emerges from the late nineteenth century when – in a comparable moment to the current 'deluge' of digital material (Lord et al, 2004; Anderson, 2008; Royal Society, 2012; *inter alia*) - scholars were faced with a glut of material to manage, due to a marked increase in the volume of published scholarly literature. It became clear that there was a need for a set of activities and strategies for managing scholarly materials (Buckland, 1997). Such activities included 'collecting, preserving, organising, representing, selecting, reproducing and disseminating documents', a skillset previously known as 'bibliography' (Buckland, 1997, p. 804). Buckland describes how, confluent with the ongoing expansion of scholarly literature in the early twentieth

century, 'documentation' expanded beyond bibliography alone to also include 'scholarly information services, records management and archival work' (1997, p. 804), terms used by the 1920s, all of which have since made their own forays into the ordering, managing, preservation and dissemination of information.

The extent of the term 'documentation' has been discussed and to a certain extent contested since its widespread adoption in the early twentieth century. If 'documentation' is understood to entail the management of 'documents', then any development of the definition of 'document' will have ramifications for the boundaries of 'documentation'. The twentieth century certainly provided much debate around the definition of a document, even before the advent of the digital age. A document had heretofore been understood as a written text. Expansions to that view were subsequently notably provided by Paul Otlet and by Suzanne Briet.

Otlet's chief assertion, for our purposes, is that documents are 'representations of ideas or of objects … but that the objects themselves can be regarded as documents if you are informed by observation of them' (1934). A slightly different reading of this idea would mean that documents not only explicitly carry meaning via the graphical or written content, but that they also, as objects, potentially carry implicit meaning, should the reader be informed by observing the document as an object itself. Both of these views (which after all are not mutually exclusive) allow the expansion from an understanding of 'document' meaning written textual or graphical, presumably two-dimensional record, towards 'document' also potentially signifying an object such as an archaeological find, a museum holding, an architectural model or a work of art.

This view was supported by Walter Schuermeyer's statement that '[n]owadays one understands as a document any material basis for extending our knowledge which is available for study or comparison' (1935); and the technical definition of 'document' adopted in 1937 by the International Institute for Intellectual Cooperation and the *Union Français des Organismes de Documentation* (Anon, 1937, p. 234).

Briet carried elements of these arguments further beyond materiality to assert that a document is 'evidence in support of a fact' (1951, p. 7). This phrase is striking to those currently concerned with digital curation of digital objects in the research sector (i.e.

research data management) due to its resonance with contemporary discussions of the nature of research data as evidence in support of the facts constituting the scholarly record (see, for example, de Waard et al, 2009; Royal Society, 2012; Data Citation Synthesis Group, 2014). The idea common to both contexts here is that the term 'document' or 'research data' can be confidently applied to the resource based not upon its format, extent, medium or appearance, but on the *role* that it fulfils. This position has underpinned the work by AHDS, JISC CAiRO and KAPTUR, as discussed above.

The implication of Briet's statement is clear: that a document can be understood as a document if it fulfils the role of providing evidence. This implies a source of information that signifies something about its originating context. Briet continues to say that a document is 'any physical or symbolic sign ["*tout indice concret ou symbolique*"], preserved or recorded, intended to represent, to reconstruct, or to demonstrate a physical or conceptual phenomenon' (1951, p. 7). Her memorable example of this scenario is the discussion of an antelope running wild (which, in her discussion, is not a document) in comparison with the same antelope confined to a zoo enclosure, labelled and available for scrutiny (which, by Briet's definition, is a document that has been placed into a larger organising system of information, and which tells the observer something about the context from which it came). The implication is that a document takes its place in an information system alongside other sources of evidence.

We can couple the idea of a document as Otlet's 'expression of human thought' with Briet's introduction of a living being (i.e. of limited lifespan or duration) as a document to allow for the possibility of a non-textual expression of human thought, of limited temporal span or duration, as a document. This offers interesting possibilities for performance to be something that can be documented, and to also constitute documentation itself.

Later definitions followed Otlet and Briet, but tended to contract the field once again (e.g. Ranganathan, 1963; Shores, 1977) in what appears to be, in Buckland's term, a 'gratuitously dismissive' (1997, p. 807) attitude to earlier, more flexible definitions. It should also be noted that the earlier, more flexible definitions, free from an insistence on a written text or a two-dimensional nature, are much better suited to redeployment amongst the non-material digital objects of the information age. Indeed, this freedom from the constraints of two dimensions is actively anticipated by Buckland in 1998:

Each technology has different capabilities, different constraints. If we sustain the functional view of what constitutes a document, we should expect documents to take different forms in the contexts of different technologies and so we should expect the range of what could be considered a document to be different in digital and paper environments. (p. 230)

Digital objects, whether they are a complex digital object such as a video with soundtrack, or a simple digital object such as a text file, all ultimately resolve to a bitstream. As Buckland clarifies, 'in this sense, any distinctiveness of a document as a physical form is further diminished' (1998). Perhaps we are approaching a phase in the understanding of 'a document' which is parallel to the nineteenth century, where we can assume the majority of things we understand and use as documents are of a similar physical nature - but instead of the papyrus or paper of earlier centuries, we now presume the existence of the stream of magnetic impulses which constitute the datastream.

Whether or not this is the case, the arrival of widespread creation of digital objects entails the need for concomitant development of the skills to create, describe, find, understand and use such objects. The shift towards a more homogeneous set of physical characteristics, in a world where everything resolves to a bitstream, is helpful to the training and skills agenda as it suggests that the knowledge and requirements for sustainable digital curation can be scoped and understood, and identification of core skills attempted. This has been attempted for the cultural heritage sector by DigCurV (Molloy et al, 2013) but, as discussed above, in an approach aimed at digital curation professionals in institutions rather than self-employed creative practitioners.

In the information age, the expression of the skills of documentation as they were understood in the late nineteenth and early twentieth centuries has now become predominated by information science (including digital curation), information storage and retrieval, and information management - all terms which constitute our contemporary expressions of the professionalisation of the tasks of 'collecting, preserving, organising, representing, selecting, reproducing and disseminating documents'.

2.2.2 Forms of performing arts documentation

It is useful to be clear about the type of objects which are commonly understood as documentation of live performance and almost all of which may take digital or analogue forms. Reason (2003) provides a comprehensive list of suggestions:

> theatre programmes, brochures, leaflets, photographs, video and sound recordings, press releases and cuttings of reviews, details of marketing strategies, figures for tickets sales, contracts with performers and confidential budgets, correspondence, details of sponsorship arrangements, venue plans, set and costume designs, stage and lighting plans, production notes, annotated scripts, interviews with directors or actors, actual costumes and examples of stage properties, and so on, and so on. (p. 83).

And, despite the conviction that dance is a form of performance which has been widely considered particularly difficult to document (Reason 2003, p. 83), Aloff (2001) provides a largely confluent list of its traces:

> costumes and sets, musical scores, perhaps notation of the choreography, programmes and reviews, photographs, letters, films and, nowadays, hours and hours of video-cassette recordings (Aloff 2001 quoted in Reason, 2003, p.83)

Pearson and Shanks (2001) propose a more visceral selection of traces:

> a few photographs, the odd contact sheet, fragments of video, scribbled drawings on scraps of paper, indecipherable notebooks, diaries, reviews, injuries, scars, half-remembered experiences … awakened nostalgias … (p. 4)

Clearly, even in art forms such as those of the performing arts which are claimed by some theorists to be largely valued for their ephemerality, there is a glut of traces retained by practitioners in the form of digital and analogue / physical objects as well as traces not embodied in visible form such as memories.

2.2.3 Deliberate *vs* accidental documentation

It has been asserted earlier in this section that for the purposes of this study, 'objects created in order to serve as documentation of performance', and 'the digital objects resulting from performance practice' may have elements in common, but should not be viewed as interchangeable groupings. In this definition, as discussed above, documentation refers to material that fulfils the role of supplying evidence of human thought or creation. If we allow material to act as documentation due to its ability to fulfil this role, however, this does not preclude it from fulfilling other roles. Digital (and analogue) objects can provide evidence (i.e. perform as documents) even if this was not the original intention of the performance practitioner. This perspective is one that has been taken up by a number of scholars, providing a range of semantic strategies to describe the potential slippage or plurality of meaning of some of the terminology involved. For example, in consideration of the mass of material (digital or analogue objects) created during the practice of performance, PARIP has categorised this into 'integral' and 'external' documentation. This concept of 'integral' documentation again consists of trace materials produced by the process of practice, and the PARIP analysis is careful to note that such materials may be similar in 'both live and mediatized ... practices'.

> e.g. script drafts, notes, call sheets, camera reports, continuity notes, costume designs, laboratory reports, treatments, set designs, choreographic notation, sound designs, etc.

In contrast, 'external documentation' is comprised of the objects more usually referred to by the term 'documentation', that is to say, 'photography-, audio-, video-, text-based, etc.'. PARIP's categorisation may be driven by an anxiety to highlight that

> external documentation (particularly video-based documentation) frequently does not acknowledge the tendency for such documents to be seen as 'standing in' for the practice itself. (PARIP, n.d.)

This categorisation of the objects created in the course of performance practice is useful in drawing a distinction between 'heterogeneous trace materials' and materials

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deliberately created in order to document a 'performance encounter' (PARIP, n.d.). Here, the PARIP team provides a succinct description of these two categories that have so far been described in the current study as the objects resulting from performance practice, some of which may be documentation.

One of the difficulties with PARIP's approach, however, is the implication that the primary value of all of these materials is their ability to fulfil the role of documentation of the performance. There is also the implication that the latter category is, at best, a poor substitution for the (live) performance encounter, an approach that oversimplifies the nature of both 'external documentation' and the assumed superior value of the (live) performance encounter (both of which are discussed further, later in this chapter), as well as troubling our earlier supposition that performance can potentially be documentation in itself. In addition, many creative processes involve creative decisions - such as evidenced by 'integral documentation' - as a result of the consideration of 'external documentation' and so the relationship between the two categories is in practice often much more complex than is implied in the PARIP text.

But to return to our first of these concerns, the implication that the primary value of all of these materials is their ability to fulfil the role of documentation of the performance: applying an understanding of the records management principles underpinning digital curation, we note that the types of object listed under 'integral documentation' are those likely to be made primarily for other purposes. This implies that there is no consideration given - or necessary - during the creation process to the qualities which comprise resources able to fulfil the role of documentation, namely clear provenance, authenticity and appropriate descriptive information held in a form which allows sustainable management over time, as described above and by DPC (2008) and DCC (n.d. (a)). This exposes such attempts at documentation to the risk of failure due to a lack of accessibility and intelligibility.

This is not to say, however, that there is no potential for such objects to be considered as documentation, however inadvertently. As discussed above, if objects (digital or analogue/physical) can inform the reader / observer / user about the performance to which they pertain, they may offer the potential to fulfil the role of document. Such documents need not pretend to offer a complete or objective record of a performance,

even if such an achievement were possible. Much of contemporary archival theory already acknowledges that the archive - even when presenting its holdings as authorised, authoritative and objective - is in reality incomplete, subjective and to a certain extent, accidental.

> The Archive is made from the selected and consciously chosen documentation from the past *and* from the mad fragmentations that no one intended to preserve and that just ended up there … In the Archive, you cannot be shocked at its exclusions, its emptinesses, at what *is not* catalogued. (Steedman, 1998)

The PARIP team is not alone amongst performance scholarship in the urge for the detritus of performance, in both digital and non-digital forms, to function as documentation. Reason (2003) suggests that, as neither archive nor human memory can supply a comprehensive and reliably objective view of a performance, the 'archive of detritus' would be as reasonable a strategy as any other when attempting to archive live performance: specifically, serious consideration of the objects, stains, marks and remnants of the set which are left on-stage at the end of a performance, prompting the memories of the audience as they view the literal traces of the events that have just happened or, in Briet's words, the physical signs 'intended to represent, to reconstruct, or to demonstrate' the 'physical or conceptual phenomenon' of the performance (Briet, 1951). Whilst this is not a practical solution for all live work, it is a useful provocation that embraces and foregrounds the incomplete and subjective nature of the archive, alongside its evocative power.

2.2.4: Documentation: differences between current definitions

It is useful to examine the differences between digital curation and performing arts definitions of documentation. A widely accepted digital curation definition of documentation is as follows:

> The information provided by a creator and the repository which provides enough information to establish provenance, history and context and to enable its use by others. See also 'Metadata'. … At a minimum, documentation should provide information about a data collection's contents, provenance and structure, and the

terms and conditions that apply to its use. It needs to be sufficiently detailed to allow the data creator to use the material in the future, when the data creation process has started to fade from memory. It also needs to be comprehensive enough to enable others to explore the resource fully, and detailed enough to allow someone who has not been involved in the data creation process to understand the data collection and the process by which it was created. ([definition from the] History Data Service). (DPC, 2008)

In the performing arts, on the other hand, documentation is discussed in a different context:

> Documentation of performance art can include photography, video, sound recording, and creative collection and display of "remnants" of performed actions left behind when the piece is complete. Documentation is often considered to be indexical; i.e. it provides proof for viewers who did not witness the live event that a particular event really occurred. Amelia Jones says: "… the role of documentation [is to] secur[e] the position of the artist as beloved object of the art world's desires." So, does the artist document live performance because documentation is really integral to the meaning and impact of the piece, or only in order to retain an "object" that the contemporary art world will recognize as an artistic creation? (Kotin, 2009)

As illustrated by the quotes above, performance studies literature generally addresses the notion of documentation of performance in a more philosophical sense than the approach taken by digital curation. Performance studies scholars are prone to consider whether or how the live performance event can persist into another time or in another place. Whether and how to document is guided by artistic preferences and philosophical anxieties as much as by the project budget. When documentation is created, this leads into considerations of the role or potential or appropriateness of accessing the live event via its documentation. As we have seen, there are a number of different strategies employing a variety of kinds of traces that may be eligible for consideration as documentation.

In contrast, digital curation (including preservation, see Chapter 1) is more concerned with how another user (or the creator, at a future point) can find, understand and re-use the documentation, however it is constituted in digital form. The creation of documentation,

according to the digital curation perspective, is merely the first step in a series of deliberate activities that are necessary in order to allow the digital object to persist into the future. Whereas performance literature is often concerned with what documentation may 'mean', digital curation aims to set out that meaning in metadata and other descriptive information.

From the digital curation point of view, much performing arts scholarly literature conflates the two concepts of documentation and preservation: for example, 'to archive is synonym with to document, to archive is to do documentation' (Reason, 2006, p31). From the digital curation perspective *documentation* and *preservation* are understood as distinct, if related, activities. This can be clearly observed in the *Curation Lifecycle Model* (DCC, n.d. (b)) where documentation of the digital objects is provided by 'Description and Representation Information'. The provision of description and representation information is, in the model, the closest of the Full Lifecycle Actions to the digital object itself and is described as follows:

> Assign administrative, descriptive, technical, structural and preservation metadata, using appropriate standards, to ensure adequate description and control over the long-term. Collect and assign representation information required to understand and render both the digital material and the associated metadata. (DCC, n.d. (b))

Preservation, in contrast, constitutes half of a separate cycle of activity, 'Curate and Preserve'. The layout of the *Curation Lifecycle Model* implies that the 'Preserve' section of 'Curate and Preserve' consists of ingest, preservation action and storage activities, and that all of these are sequential actions within the overall series of events that constitute the Curation Lifecycle.

2.2.5 Documentation and the live event: anxieties

In much of the existing scholarly literature in performing arts, tensions have been traced between the idea of the live, ephemeral performance event and the supposedly 'fixed' record of that event. However, as is shown by performance studies conferences[12] over the

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[12] Including *Documenting Practices*, Royal Central School of Speech and Drama, London, November 2008; *Archiving the Artist*, Tate Britain, London, June 2009; the *Managing Performance Data and Documentation*

last five years or so, and key scholarly work such as Schneider (2011) and Reason (2006) amongst others, many in the performance studies community seem to have largely moved on from focusing on the perceived (and in some cases, overly problematised) tensions between the document and the live act.

A more pragmatic approach appears to be emerging in relation to the presence of documentation and the use of digital technologies amongst the creation and reception of live work, which allows for the desire of practitioners to incorporate these strategies in their professional practice as a matter of course, and even to use the idea of tension between document and act as a creative resource[13].

A useful example of this shift is demonstrated by an examination of Phelan's 1996 essay, 'The Ontology of Performance: Representation Without Reproduction' together with Philip Auslander's 2008 book *Liveness*.

In attempting to plead a special case for the unique value of live performance, Phelan asserts that '[p]erformance cannot be saved, recorded, documented or otherwise participate in the circulation of representations of representations: once it does so, it becomes something other than performance' (1996, p146), suggesting that performance has an essential state of being or quality ('performance ... itself' later in the same paragraph) that is only conveyed through ('represented by') the live event. Phelan goes on, however, in a self-contradictory manner, to discuss whether and to what extent attempts to document, record or represent this are possible. This approach is predicated upon the notion that there is an original or authentic quality or state of live performance work which is only capable of being perceived or experienced in the moment of its production - presumably brought about, in Phelan's analysis, only via the physical and

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workshop held by the JISC Incremental project at the University of Glasgow in February 2011; *Performing Documents*, Arnolfini, Bristol, April 2013; and the *Documenting Performance* working group meetings at the annual Theatre and Performance Research Association (TaPRA) conference and at working group interim events, 2011 to the present.

[13] An example is the work of Kollektivnye Deystviya (Collective Action Group), whose performances in the late 1970s and early 1980s were intentionally designed to be made available to their main audience via written documentation of participants' emotions and thoughts, and also via photographs that were carefully staged and composed not only to illustrate visual elements of the performances, but also to recall a particular approach to painting which had specific resonance with the Russian avant-garde of the time (Groys, 2004), thus amplifying the effect and implications of the performance.

temporal co-location of performers and audience.

Articulating the fleeting moment of performance as a key quality of performance work, one which is frequently presented as endowing performance with a unique value as an artform (Reason, 2003; 'that fleeting moment': Cunningham, 1968), Phelan finds that performance 'addresses its deepest questions' to the 'now'. Putting aside the lack of clarity about what these 'deepest questions' might be, who might be in a position to answer or respond to them, or how we might know whether they have been posed or answered, 'the now' is here presented as something only rarely valued 'in this culture' (which particular culture 'this' is also remains undefined). The notion of the valuable 'now' also occurs in the work of prominent performance practitioners such as playwright Thornton Wilder ('it is always 'now' on the stage' in Cowley, 1962) and theatre director Eugenio Barba, in his statement that theatre is 'the art of the present' (Barba, 1992).

Phelan is, less reasonably, insistent that personal witnessing of the live event is the only valid or reliable way to access or understand a piece of performance, and that in contrast, performance as rendered through any type of documentation is, by virtue of the fact of being documentation, fundamentally compromised and invalid, as 'something other than performance'. Indeed, this becomes a moral issue for Phelan – the purity she proposes as present in the live performance event is 'betray[ed]' when the practitioner 'participate[s] in the circulation of representations' (1996, p. 146).

This is a troubling standpoint for two main reasons when considered from the point of view of performing arts practitioners. Firstly, much study and research of performance work necessarily relies upon the use of documentation (Jones, 1997). Secondly, it may be laudable to resist the capitalist system of the art market. Those who disagree with the values and methods of patriarchal, capitalist society and who tie art market economics to such capitalist values may agree that it is part of performance's radical nature to resist the 'economy of reproduction' denounced by Phelan. But this approach looks very different when viewed from the perspective of many working practitioners. Regardless of their politics, a refusal to engage in the 'reproductive representation necessary to the circulation of capital' would leave many performance practitioners – of any medium – in a financially difficult position and so unable to continue practice. Moments like these demonstrate Phelan's position as a commentator working outwith the practitioner

community and to a certain extent proceeding in a direction unhelpful to those attempting to make a living in the discipline. Indeed Phelan herself has later realised that "[t]he word 'betrays' has been a bit of a problem" (Smith, 2008, p. 135).

To suggest that these pieces of documentation are of an ontologically different order to the live work is to ignore the possible intentions of the creating practitioner, who may be explicitly in favour of their work being accessed via documentation, and to suggest that audiences / consumers are in danger of reaching invalid conclusions or experiencing responses that are somehow gauged to be inappropriate or incorrect in relation to the performance work if they engage with it via documentation.

There is a particular visceral satisfaction to be gained from witnessing a piece of performance in person, which is not an identical experience to accessing the work via documentation, but here Phelan privileges performance work via live witnessing over performance as experienced through documentation, based on an oversimplified set of assumptions or definitions about witnessing live work - which in reality can be more accurately understood as 'the spectator's more or less distracted attention' (Parvis, 1992) - and often co-exists with a corresponding set of oversimplified assumptions about the permanence of documentation, particularly in digital form. There is also no evidence that Phelan understands, or respects, the financial imperatives that influence the decisions made by practitioners in order to continue their work in the world of practice rather than academic theory.

Documentation of a performance may (or may not) fail to capture specific significant characteristics of that performance, but that doesn't stop it from being documentation of that performance, with something potentially useful to communicate about its originatory context. A more useful reading of Phelan's considerations is that documentation is a representation of a representation of performance, i.e. that performance itself is intangible, and is manifested in (that is to say, *represented* in the first place by) how it looks or sounds (as enacted by the actor, dancer, musician, etc.), and that documentation is, in turn, a representation of that enactment. In this way, a piece of documentation is situated at a couple of removes from the conceptual 'moment' of live performance.

One can, however, argue that the same applies to the experience of an audience member

who must experience even the 'performative now' subject to the interference of the physical circumstances and the connections and emotions they experience in response to the performance. As performers or audience members or other witnesses, we are all dealing with performance at a couple of removes from it itself (if we agree there is such a thing as 'performance itself') or each other's experiences of it (if we don't). As individuals living in a given moment, we experience performance in a particular way that differs from person to person, and that is likely to differ even for the same individual from one moment in time to another. In this way, we can understand various possible approaches to documentation of performance – including, for example, creation of a digital document, creation of an analogue document, memory externalised through discussion or other speech acts, memory kept to oneself and reflected upon - as diverse, plausible documentation methods, each more suited to specific contexts perhaps, none comprehensive or necessarily subject, but none invalid (as we have seen in the lists of various forms of documentation discussed in section 2.2.2 above).

In short, whilst failing to account for the value of documentation in allowing practitioners to continuing researching, making and promoting their work, or to allow for the value of documentation to those not similarly able to personally encounter the live performance work in which they are interested, Phelan does present a powerful polemic for the value of the pleasures of experiencing live performance, and forces us to confront complacency around conflating a performance with a document representing it.

Amongst the many problems of her argument, however, two main flaws are prominent. The first is the resistance to the fact that every view of live performance is partial and imperfect, including viewing the live event. The view and sound from the position of each audience member, from each performer is partial and imperfect. Each spectator has a separate experience of the performance, which allows multiple and possibly contesting accounts of the performance, none with *de facto* claim to dominance. This applies whether the spectator is co-located with the performance or whether viewing via a camera or other device. Each spectator also has a partial field of vision or perception of the event. This is a common argument made about the limits of any document to represent a live event, but is a constraint also applicable to experience of the live event - as anyone who has tried to watch a play from 'the gods' of a Victorian theatre, amongst a chatty audience, will readily attest.

The second main flaw - linked to the refusal to recognise the necessity of 'the representational economy' (Phelan, 1996) is the oversimplification of the relationship between documentation and live performance as two modes or approaches of making. Instead, Phelan presents them as a binary opposition of irreconcilable forces. Conversely, when it is used judiciously, documentation (including documentation in the form of created digital objects) produced within the practice of creating and producing live work can be critical to the continued existence of live art forms.

This is a point not lost on Auslander, who describes much contemporary performance theory as understanding, *pace* Phelan, 'live' and 'mediatised' performance as two distinct modes or approaches of work which are mutually exclusive and in competition for revenue, for the attention of audiences and critics, and perhaps for prestige (Auslander, 2008). By 'mediatised', Auslander refers to performance delivered via mass media and/or information technologies – he doesn't go as far as Baudrillard in employing the term to mean 'media as instrumental in a larger socio-political process of bringing all discourse under the dominance of a single code' (Auslander, 1999, p. 5); rather, Auslander's use of the term is to denote, more neutrally, products of the media including digital technologies.

Recognising and accounting for the arguments of those theorists who would insist on their being a unique and valuable quality to experiencing performance in the live setting, and also the production of a sense of community or at least a valuable shared experience created by the co-location of audience and performer, Auslander ultimately challenges 'the common assumption ... that the live event is 'real' and that mediatised events are secondary and somehow artificial reproductions of the real' (2008, p3). The binary relationship between live and mediatised performance is a product not of ontological difference but rather as a relationship that functions 'at the level of cultural economy' (the 'real economic relations among cultural forms' and also the perceived status of cultural forms in relation to each other) and 'as determined by cultural and historical contingencies' (Auslander, 2008, p11).

In other words, 'live' / 'not-live' does not indicate an ontological difference in the performance work but rather a culturally-produced and historically-specific divergence of

ways of engaging with performance work. Specifically, as Auslander reminds us, 'live' only emerged as a term in common currency after the advent of sound recording technologies in the 1890s and more specifically when, around the 1930s, radio produced the situation of the listener being able to hear music but not being able to perceive its source for herself; terminology had to then be developed to allow a description of whether the sound source was a live performance or a recording.

In tracing the interlinked emergence of terms, the relationship between 'live' and 'mediatised' performance is shown to be more complex that a binary, mutually resistant relationship.

> If live performance cannot be shown to be economically independent of, immune from contamination by, and ontologically different from mediatised forms, in what sense can liveness function as a site of cultural and ideological resistance [...]? (Auslander, 2008)

In challenging the notion of a clear-cut binary between live and mediatised forms, Auslander is aided by McLuhan's model of each emergent medium working on and repositioning those that came before it (McLuhan, 1964). With this in mind, Auslander argues that mediatised performance now holds the advantage in the competition with live performance. Live performance has responded to this displacement by often becoming more mediatised; forced, in Auslander's terms, 'by economic reality to acknowledge their status as media within a mediatic system that includes the mass media and information technologies'. One could argue this process could be seen as starting with the introduction of amplification in live performance, which reproduces the actor's voice or the played instrument, and less contentiously, extends to the visual effects and video monitors commonly now used in theatre, music and circus productions. Auslander's position here is that through this process of increased interlocution, he is obliged to consider 'whether there really are clear cut ontological distinctions between live forms and mediatised ones'.

When considering the privileging of the live over the mediatized performance, Auslander also articulates the idea of live performance already repeating and reprising itself and that it is already an act of representation or reproduction, further challenging the notion of live and mediatised performance as ontologically different.

After establishing much evidence for the assertion that live and mediatised performance cannot be easily (or possibly at all) ontologically distinguished from each other, and that they are in fact intimately connected in contemporary performance practice, Auslander specifically addresses Phelan's 'ontology', deconstructing various of her arguments. In the course of these arguments, he touches on Cubitt's (1991) challenge to the notion that digital documentation – specifically television – has an intrinsic permanence, fixity or stability, an enduring accessibility which allows us to take it for granted as being available (unlike the 'performative 'now' valued by Phelan and others).

> the broadcast flow is ... a vanishing, a constant disappearing of what has just been shown. The electron scan builds up two images of each frame shown, the lines interlacing to form a 'complete' picture. Yet not only is the sensation of movement on screen an optical illusion brought about by the rapid succession of frames: each frame is itself radically incomplete, the line before always fading away, the first scan of the frame all but gone, even from the retina, before the second interlacing scan is complete ... TV's presence to the viewer is subject to constant flux: it is only intermittently 'present', as a kind of writing on the glass ... caught in a dialectic of constant becoming and constant fading. (Cubitt, 1991, p30)

Whilst Cubitt is specifically writing with reference to the cathode ray tube television display of the time, his description still eloquently provides a dissection of a common assumption in contemporary performance theory: that there is an intrinsic fixity to documentation, a guarantee of ongoing availability. This is a notion that only takes a little interrogation before collapsing. Not only is the 'broadcast flow' on television ephemeral, partial and as the word 'flow' suggests, in motion, but also technical examinations of media upon which documentation may be stored, such as videotapes, solid-state hard drives, SD cards and DVDs reveal that these too are also in a constant state of vulnerability to deterioration over time.

Disappearance or at least deterioration can also occur when documentation is copied and recopied from tape to tape, in the case of video and cassette tape. In addition, media such as video tape, cassette tape and vinyl record deteriorate with each playing, adding another dimension of disappearance to supposedly fixed, stable, non-ephemeral

documentation. This strength of belief in the fixity of the document appears to be marked amongst performance theorists. Digital curation and preservation scholarship provides valuable counterbalance by demonstrating the inherent fragility of digital objects and highlighting the resulting threats to survival of information. If live performance is privileged by some commentators for its ephemeral existence in the face of loss and disappearance, these considerations are important for challenging that proposed hierarchy of value.

Auslander also reports Cubitt's argument that repetition is not an ontological characteristic of film or video, but only a possibility, and goes on to directly challenge another of Phelan's arguments by describing live performance as being capable of being mass produced. Examples in support of this include a 1936 production simultaneously opening in eighteen different American cities, and a producer of an interactive theatre piece who describes the production as 'like staying in the Hilton: everything is exactly the same no matter where you are' (Auslander, 2008, p. 51). It is mass production in that it makes the same text or performance experience simultaneously available to a large, geographically-distributed audience. So even though the interactive theatre piece is different in some details of each performance, it is recognisably the same object, undifferentiated in aesthetically significant ways or to re-employ my earlier description, presenting different artistic messages.

As documentation can be understood as essential for foregrounding the disappearance of the live moment (documentation making visible what has disappeared), so mediatised performance can be understood as critical for the perception of live work as live, by providing a possible alternative means of performance. Baudrillard (1983) backs this up by asserting that 'the very definition of the real is that of which it is possible to give an equivalent reproduction'.   In this way, one could argue along with - and in addition to - Auslander that live performance can be understood as in an interdependent relationship with both documentation (the live moment and its documentation mutually dependent), and with mediatised performance (live and mediatised performance mutually dependent).

This challenges Phelan's argument that liveness betrays its own ontology by attempting to enter into the economy of reproduction: not only, Auslander argues, is that ontology very much a matter for debate but also live performance is already inescapably within the

economy of reproduction, and is only perceptible due to the emergence and continued existence of this economy.

Another interesting examination carried out by Auslander is the dissection of assumptions of what 'live performance' can actually be and demonstration that this is not a stable concept, but has in fact developed over time, in the following order: 'classic liveness' (audience and performer co-located); live broadcast; live recording; Internet 'liveness' (Internet-based media); social 'liveness' (user sense of connection to others, e.g. IM, mobile phone use etc.); and website 'goes live' (feedback becomes possible between technology and user). In other words, the concept is mobile and evolving, responding to emergent technologies.

Auslander presents a robust challenge to Phelan, and presents a convincing range of evidence to confirm his position that live and mediatised forms are not intrinsically or ontologically different but, rather, the former has been displaced by the latter and has responded by adopting and exploiting its forms to bring both forms into intimate connection and indeed mutual dependency. He also shows how Phelan's charge of the impossibility of performance entering into the economy of representation without betraying its ontology is based on a faulty envisioning of both live performance's ontology and its existing relationship to the economy of representation.

2.2.6 Documentation and the live event: opportunities

Digital curation involves maintaining, preserving and adding value to digital objects throughout their lifecycles, from conceptualisation and creation of the digital object, through its use, its retention or disposal, its long term preservation, and the re-use and redeployment as inspiration, factual research or an element of new work. In this way, digital curation offers a space in which we open new potentials for future work, resulting from the sustainable management of existing resources. If the existing work can't be accessed, it isn't there to provoke or inspire. If digital objects are managed in an informed and sustainable way, performance practitioners and researchers have more material available to use: more evidence of ideas for promotional reasons, to use in teaching and research, for inspiration, and for sale.

Curated digital objects in digital repositories or digital archives may be shared among the wider performing arts community and provide inspiration for other performers, researchers and students, as well as being a safe home for material to which the original performance practitioner can return. Mike Pearson (2013) and Ernst Fischer (2013), amongst other performing arts scholars, have stressed the intrinsic value of performance documents for inspiring new work, new potentials (Pearson and Shanks, 2001). So an informed digital curation strategy comes into play for performers to help keep digital objects intact, findable and accessible.

At the institutional scale, Auslander's prescience about the intrinsic value of documentation for live performance - and his insistence that the two forms are interlinked rather than polarised competitors - is clearly demonstrated when we consider the impact of mediatised presentations on attendance at live theatre. The practice of offering mediatised presentations of live performing arts work such as operas, plays and classical concerts is generally accepted to have first been executed in a commercially successful approach by New York's Metropolitan Opera in 2006 (Elberse and Perez, 2008) and has been adopted since by a number of other prominent opera houses, theatres and orchestras, allowing simultaneous broadcast of live work to geographically disparate cinemas and as downloads to individuals with suitable digital technology.

As confidently predicted by David Sable, Head of Digital at the National Theatre (Groves, 2012) and confirmed by Bakhsi and Throsby (2014), digital broadcasts can work to extend audiences for live work. Bakhsi and Throsby particularly examined the issue of whether broadcast audiences "cannibalised" those for live performances of the same work: they found that, at least in the case of the National Theatre in London, 'if anything, live broadcasts generate greater, not fewer, audiences at the theatre … If this result is representative of live broadcasts more generally, it implies that theatre companies can significantly expand their audience reach through digital broadcasts to cinemas without cannibalising their audiences at the theatre' (Bakhsi and Throsby, 2014, p. 1 - 7).

Rather than seeing mediatised presentations of live work as a threat to the survival of live forms, then, broadcasts of performance may provide sufficient economic gain (both through value as promotion to increase ticket sales, and through the capital received via sale of the digital content) to allow cultural institutions such as opera houses and major

theatres to survive and, in some cases, grow. Indeed, even at this time of straitened financial circumstances, the Society of London Theatre (SOLT) (2014) reports that London theatre ticket sales have seen recent significant growth. Clearly, major institutions have grasped the potential value of digital assets for their promotional value and for their value as an asset for direct sale.

2.2.7 Performing arts practice: practitioner earnings and sustainability

The substantial economic benefits brought to large institutions by the exploitation of their digital assets are clearly far greater than that likely to be realised by the digital objects created by many individual practitioners working outside the institutional context. However, it is clear that the selling of digital documentation of live performance has demonstrably been popular with audiences of several different live forms. This may prove useful advocacy for digital curation skills as professionally valuable to live performance practitioners, in two main ways.

Firstly, this success in the selling of documentation delivers a robust sally to theorists who insist there is nothing moving, emotional or valuable to an experience of live performance work via documentation. Eminent theatre critic Michael Billington (2014) is eloquent on the power of documented / mediatised performance to prove powerful and compelling.

Secondly, it provides a set of clear and high profile examples of the economic and artistic value potentially provided by well-made and well-managed digital assets in the performing arts context. In an unusual move, the National Theatre shows how institutional benefits from canny management and exploitation of digital assets can even result in direct economic benefit to individual practitioners:

> NT Live is now funded from the theatre's core budget and we've grown it to a point where it's washing its face and sometimes making a small profit. The lion's share of the profits goes back to the actors, director, designers and writers and it's been great to see a new revenue stream for them, however modest. (David Sable, quoted in Groves, 2012)

The issue of economic benefits for self-employed practitioners across the performing arts

is critical to a sustainable UK performing arts sector. The Equity union in the UK represents actors, singers, dancers and film-makers amongst its membership.   Its 'Low Pay and No Pay' campaign started in 2013 and surveyed members on their earnings, finding that around 56% earned less than £10,000 from performance practice between November 2012 and November 2013. Around 36% of its members earned less than £5,000 from their performance practice in that year. It is estimated that around 60% of working actors in the UK are Equity members (Vincent, 2014). Equity (2015) also reports that around half of its members recently surveyed had taken unpaid engagements in the previous year despite this being illegal; and that a recent Society of London Theatre report had found that 80% of actors in 'fringe theatre' (i.e. experimental theatre work, usually in small venues and ideally run on a profit-sharing basis) in London were paid below the minimum wage or nothing. The UK's Musicians' Union surveyed almost 2,000 members and reported in 2012 that 56% of respondents earned less than £20,000 in the preceding year with 20% earning less than £10,000 p.a. from their performance work; the same study found that 60% of respondents had worked for free in the preceding 12 months. UK live artists do not have similar union representation and so figures are harder to ascertain, but where live artists are included in economic analyses of the visual arts, similar percentages of visual arts practitioner earnings are under the minimum wage. The a-n / AIR 'Paying Artists' campaign (2015) surveyed 1,761 UK visual artists and found that 64.1% of respondents saw turnover of £10,000 or less in the preceding 12 months from their creative practice: the implication is that profit is significantly lower than this, particularly when 71% of respondents who had exhibited in a publicly-funded space in the last three years had not received a fee for doing so and 60% had not received reimbursement of expenses; 43.3% of respondents reported earning a quarter or less of their income from their visual arts practice.

These figures indicate that a major issue in professional practice is the ability of performance practitioners to create and maintain a sustainable practice. In the battle for professional survival, digital objects can hold economic as well as artistic value. This value can only be reserved and exploited through sustainable management of these assets. This makes apparent that digital curation skills are necessary for performance arts practitioners. Lacking these skills may have economic consequences for individual practitioners, particularly in the context of their ability to participate in the emerging digital archive, gallery, museum and funder ecosystem, as well as leaving digital assets

vulnerable to damage and loss to the detriment of our broader cultural heritage.

2.2.8 Literature review: conclusions

From this review of the existing relevant literature, we can conclude that digital curation skills are likely to be valuable to performing arts practitioners in their professional lives, and specifically that the continuing existence of well-managed digital objects - whether these are documentation of live work or other digital objects relating to the production and promotion of it - may bear value for the artist, stimulate audiences and bring economic benefit to individual practices. This is an important potential benefit for the sustainability of performing arts practice, particularly in an economy where the performing arts sector continues to grow in value, yet individual practitioners are frequently insufficiently paid.

It appears that where digital curation skills for the creative arts are taught in tertiary level education programmes, it is as a result of temporarily-funded research projects with little in the way of sustainability beyond the end of the project; and there is no evidence of current advocacy or training in digital curation awareness or skills delivery by performing arts funders. As a result, there may be a skills gap, both in those performing arts practitioners who have studied performance at tertiary level and those who have not.

In addition, related scholarly literature exists in both the digital curation and the performing arts domains but there is a lack of material that addresses the space where they overlap. It appears that there is insufficient work done to date to understand how performance practitioners - beyond the institutional context - create, find, use and value their work-related digital objects. As a result, it is timely and useful to gather data from performing arts practitioners themselves to further understand the extent to which current digital curation practices in the performing arts (outside the institutional context) support the maintenance of a record of contemporary performance practice.

Chapter 3: Methodology

The methodology employed in the current study is that of qualitative data gathering by means of semi-structured interviewing, informed by elements of grounded theory, 'a research strategy whose purpose is to generate theory from data' (Punch, 1998). Data used in this study are derived from both the literature reviewed in Chapter 2 and the qualitative research interviewing described in this chapter. The findings of the literature review influenced the design and execution of the interviews; and in the opposite direction, the interview findings prompted respectively further reading throughout the interview period and analysis of the responses.

The interviews were concerned with a general theme – characterising practitioner management of digital objects - but were not specifically geared to ascertaining a particular theoretical standpoint. The qualitative interviews were designed to allow space for an open discussion of the issues that practitioners considered relevant to the management of digital objects. Iterative review of the arising themes took place during the period of conducting interviews and themes began to emerge, which ensured that these issues were given time in later interviews for further exploration.

Both the literature reviewed in Chapter 2 and the data gathered through interviews with practitioners helped to address the research question and support the generation of findings based upon the perspective of the working practitioner rather than starting from a pre-determined theoretical position.

This chapter describes the interview-based data gathering, participant recruitment and questionnaire schema design, as well as the factors limiting or influencing the resulting information.

3.1 Motivation for data gathering

The Arts and Humanities Data Service (AHDS) Performing Arts subject centre (AHDS-PA), described in Chapters 1 and 2, produced a scoping study (Abbott and Beer, 2006) of its existing and potential audience. This addressed the preservation practices of performing arts researchers in HEIs and the use they made of preserved digital objects from

performing arts research. Whilst providing a useful method and approach, the scoping study did not directly engage with the non-HEI performing arts community, although it did recognize the value of doing so:

> The AHDS actively seeks partnership with individuals and institutions outside Higher Education and seeks to promote best practice in collaboration with other key stakeholders. This is particularly relevant for AHDS Performing Arts, as professionals outside Higher Education produce so many resources relevant to teaching, learning and research in Performing Arts. (Abbott and Beer, 2006, p. 17)

It was clear that a comparable inquiry was needed into the digital curation and preservation knowledge and strategies employed by practitioners in the performing arts who were working without the benefit of an institutional infrastructure. If, as we have seen in Chapter 1, this section of the practitioner population is likely to be the majority of overall practice in the performing arts - as suggested by DCMS (2015) figures, which show that over 70% of those working in the music, visual and performing arts sector are self-employed - then it is clearly relevant to understand their working practices and any differences in digital object management between the two groups. Only then can appropriate guidance, training and policy realistically be developed, if and where it is needed to develop sustainable digital curation practice.

Examination of independent, i.e. non-institutional, practitioners may also expand understanding of the fluid relationship between performing arts practitioners working inside and outside the academy by recording a narrative from both 'sides'. The most important aim for this study, however, is to establish the knowledge and experience of performing arts practitioners about digital curation, including which preservation decisions they make when they are independently responsible for the management of their digital objects and are not being guided by an institutional policy or set of requirements. No relevant datasets were available from either the AHRC or the UK Data Archive to answer these objectives. The current investigation set out to address this gap by gathering data from these independent practitioners.

3.2 Ethical approval

This research was undertaken in line with University ethical research processes. Due to the use of human subjects, ethical approval was required from the University. As part of obtaining the necessary approval from the Faculty of Arts Research Ethics committee, the interview instrument (see Appendix A) and the participant consent agreement (see Appendix B) were shared with the Faculty ethics committee for scrutiny before data gathering began, and approval was duly granted (application 83, submitted 14/7/2008, and confirmed by Jean Anderson, Faculty of Arts Research Ethics Officer). Use of the participant consent agreement in the interview situation is discussed further in section 3.7.3 below, 'Conducting the interviews'. The research questions did not touch on any sensitive or personal topics, but as a relatively new researcher, I was anxious to provide participants with reassurance of anonymity by using an alphanumeric code to identify participants during analysis, by avoiding the publication of any personally identifying information in my resulting reporting, and by destroying all materials relating to the interview process once the analysis was complete.

I learned from undertaking this research, and by consulting more reasonable guidelines such as those provided by the UK Data Archive (UKDA, n.d.(a) and n.d.(b)) that these measures were not required by all or any participants nor by any reasonable university ethics process. Indeed, these measures were ultimately counter-productive as they inhibit the ethical and intelligent sharing of research data that is now a part of contemporary research practice (RCUK, 2011; Royal Society, 2012; European Commission, 2016; European Commission 2013; inter alia.) A more flexible approach – based upon the stated privacy requirements of each participant, would have avoided these drawbacks whilst still providing the level of anonymity required by each participant.

3.3 Participant selection

In order to ensure that the enquiry remained focused on the heretofore under-studied group of practitioners from beyond the HE sector, it was necessary to identify individuals who were making their creative income mainly from non-HE funding streams. The creative industries rarely provide clear professional paths or simple, linear career progression and it is recognised that most performing arts professionals rely on a number of income streams.

Subjects of the current survey were not exempt from this: in addition to self-funding or receiving public funding, many respondents also relied on remuneration from part-time or occasional HE teaching or training at some point in their careers, or had received funding for a postgraduate qualification or research fellowship related to their professional practice. In this way, an intimate relationship exists between those working in the performing arts within and outside the HE system. To a certain extent, then, an attempt to sort performing arts professionals into these two set groups with a impermeable barrier between would be artificial, but it can be reasoned that at least the bulk of professional performing arts activity undertaken by an individual can, at any given point in their career, be viewed as 'usually funded by higher education funding sources' or 'usually funded in other ways'. Whilst this may be a prosaic way of sorting those who are 'working in higher education' from those 'working outside higher education', it appears to be as effective as any other and – crucially – was agreed with and understood by the respondents interviewed. These reflections helped to sort through suggested individuals and pursue an interview with those who were working mainly outside the institutional context.

Whilst all participants at the time of interview were based in Scotland, roughly half originated from or trained in other countries including England, the US and Canada and most regularly worked across the UK and internationally (although exact proportions are not available as these factors were not enshrined in direct questions). For these reasons, the findings should not be considered a study of exclusively Scottish professional practice.

Not all respondents were necessarily performers: some worked in creative roles such as playwright, director or choreographer, either with or without also being performers. The key criteria for inclusion were that each subject worked professionally in the live and performing arts in the UK and that their work required them to research and produce creative work with key responsibility for creative decision-making.

3.4 Question schema design

The earlier AHDS scoping study influenced the order and form of questions used in this study, and the use of particular terminology. For example, 'preserve' was the verb employed throughout, instead of, for example, 'manage' or 'curate'. In the current study, however, it was also decided to avoid the use of the term 'digital curation' as it is not a

term widely employed in the performing arts practitioner sector, and as there is a distinct set of skills and activities already implied by the term 'curation' in the creative arts sector, as previously discussed, which could cause confusion.

The questions addressed in the survey were: which disciplines or media the subjects worked in; their involvement as practitioners with the higher education sector; their understanding of the terminology around digital curation, specifically digital preservation and archiving; whether they created their own digital objects as part of professional practice and if so, whether they deliberately or accidentally enacted any digital curation activity upon those objects; the perceived value of their digital objects and the use made of them; and their access to and use of digital objects created by others.

Questions in the interview also addressed the sources that practitioners used when attempting to access digital objects created by others as part of research for their own creative work. This provided a 'practitioner's-eye view' of performance collections, i.e. the resources they used as collections for research, irrespective of the formal designation or intended purpose of such resources. These enquiries establish both what practitioners understand about the curation of their digital assets, and also which digital curation activities they execute as part of their practice.

Following the AHDS survey, these questions were laid out in the interviews in the following order:

Section 1, 'Your Work'

- The type of performance work being made and how it is funded;
- Professional interaction with higher education;

Section 2, 'Preservation of Your Work'

- What performance professionals understand by the notion of 'preserving' their work;
- What is understood by the notion of an archive;

- Whether it is important to preserve work, both in general and to the subject personally;
- What – if anything – respondents do in terms of managing or preserving their digital objects;
- The anticipated lifespan of preserved digital objects;
- The purposes for which they use / intend to use the digital objects they create;
- Willingness to share preserved digital objects;
- Experience of digitization;
- Interest in accessing professional archive care for digital objects;

Section 3: 'Your Use of Archives'

- Where respondents look to find digital objects in the course of their work;
- The importance of digital objects created by others to their work;
- How often they search for digital objects;
- The purposes for which they use / intend to use the digital objects created by others;
- Types of objects that are considered useful;
- Digital resources that may be useful to respondent's practice but are not available / accessible.

The structure of the interview instrument included open questions, closed questions (yes / no), and semi-closed questions (e.g. a choice of responses, where as many responses as are required can be selected). This mixture of questioning was appropriate for the questions in the current investigation where 'the end points are complex and uncertain' and where closed questions may appear to offer subjects 'the easy option of an answer already provided' (Lydeard 1991). Designing the questionnaire in this way was intended to strike an appropriate balance: the closed and semi-closed questions would assist comparability across participant responses and provide participants with some support with the discussion; whilst the openness would ensure the interview structure did not over-specify the range of possible responses to the questions, and would allowing enough space for the participants to insert the concerns and themes of interest to them into the research. The pilot interviewing allowed confirmation that this approach was realistic and workable with the participant group. At the end of each interview, the respondents were also given the

opportunity to raise any other themes or questions. The full interview instrument is available in Appendix A.

3.5 Specialised terminology

If the term 'digital curation' is to be used in this context at all, it requires careful unpacking to be understood in the sense used by the Digital Curation Centre (as discussed in Chapter 1). The AHDS Scoping Study question schema had used the term 'digital preservation' and so the question schema of this study followed that in the written questions for comparability purposes. However, proxy phrases such as 'preservation of your digital materials' were used during interviews, particularly in section 2 of the question schema. If the present study was strictly to understand whether practitioners had heard the terms 'digital curation' or 'digital preservation' before and understood the skills and activities signified, there would have been only one positive response given. Questions using the term 'digital preservation' would have benefitted here from having a clearer aim, i.e. whether the priority was to assess awareness of the term 'digital preservation' or the familiarity with the processes and knowledge implied by that term such as ensuring files are well described, refreshing one's carrier media, creating back-ups, checking copies of one's files and regular file migration. For the purposes of this study, it was more useful to be aware of practitioner understanding of the skills and practices involved in active management of their digital objects, rather than gauging awareness of relatively specialist terms such as 'digital preservation' and 'digital curation', and so proxy phrases to aid understanding were used where necessary.

Similarly, the terms 'digital archives', 'digital collections' and 'digital resources' were variously used in order to facilitate discussion. In the analysis of these interviews, where necessary, the discussions of structured digital archives and collections such as the Live Art Archives, UbuWeb or IMSLP, were separated out from digital resources which contain performing arts-related material amongst many other content types, such as YouTube.

3.6 Pilot interviews

Participants were recruited for case-study length, in-person interviews. The approach was tested by a small number of pilot interviews in the first instance.

The interview schema was piloted to ensure the language employed and the question order was intelligible and of interest to the subjects. A major UK performing arts funder was initially contacted to help identify appropriate participants in the first instance, and subsequently two critically renowned performing arts practitioners were approached. After being offered an explanation of the research project, they both agreed to participate in a face-to-face semi-structured interview. Both appeared to engage with and enjoy the interview process and the opportunity to reflect on their creation, management and use of digital objects. No significant changes to the interview schema or approach to the interviewing were required after the pilots were carried out.

Running this pilot activity also provided a realistic idea of the resource required to identify, approach, prepare, travel to, and interview subjects, subsequently transcribe the combination of written notes and audio recording, and finally analyse the data. It also revealed how keen the participants were to access some sort of advice and highlighted the need, as well as provided practice in keeping any advice-giving activity distinct from the business of the interview schema.

Semi-structured interviewing was employed in order to ensure that the framework of questions was addressed and to provide opportunities to follow any questioning routes suggested by the respondent and so to capture any further questions, concerns or relevant information from the professional community. This was a deliberate strategy in the pilot interviews in order to allow for adoption of any emerging themes in subsequent interviewing if necessary, but in practice the schema did not require substantial revision in response to issues raised by the subjects during the pilots.

3.7 Main study interviews

Once the pilot run had tested the question framework and interviewing approach, and found them realistic and fit for purpose, the remaining interviews were carried out.

3.7.1 Sampling technique

Potential participants were identified along with an indication of the art forms in which

each individual worked. Beyond ensuring that not all participants worked in the same field, there was no attempt to deliberately balance the exact spread of the different art forms employed.

The snowball sampling technique of participant recruitment (Bryman 2012, p. 424; Babbie 2010, p. 194) was used to attract further participants. As Bryman, Babbie, Browne (2005) and others have noted, snowball sampling is particularly appropriate for use in researching social networks, where participants are related by the fact that they know each other and that the connection between them is relevant to the topic of the study (Faugier and Sargeant, 1997, p. 793). It is a recruitment technique often employed when the population of interest is not accessible through a register or other identifying mechanism, e.g. membership of company or professional association. Sometimes this is because the shared characteristic is "not validated by society" (Brown, 2005) and can contribute to building trust between researcher and participant (Babbie, 2010, p. 194). As such, it was highly appropriate as a technique to identify self-employed performing arts practitioners of varying ages, art forms and locations, particularly as there is no comprehensive registration process for these professions. Additionally, this approach helped to continue grounding my enquiry in current practitioner working methods, including their use of professional networks. It was appropriate to contact a creative arts funder in the first instance to access their wide network of practitioner contacts, but it would have been inappropriate to draw all participants directly from the contacts of this funder as part of the enquiry is to understand the different funding strategies used by a range of practitioners.

Each of the pilot participants suggested practitioners from their own professional networks who were likely to engage with the enquiry. The flow of connections deployed in this study is shown in detail in Appendix C, 'Participant recruitment network diagram'. These networks were comprised of practitioners of various art forms, reflecting the frequent engagement with multiple art forms familiar to those in the performing arts (as discussed in Chapter 4). The sample expanded to twelve respondents including the initial two respondents to the pilot work. This group of respondents, then, whilst not strictly self-selecting (none were recruited via advertising or responding to an online questionnaire, for example) were entirely recruited through professional performance networks. This approach successfully provided responses from a genuine variety of disciplines within the

performing arts, and with a marked range in age and experience of their respective forms.

The 2006 AHDS scoping study used an online survey completed by self-selecting respondents and supplemented by a small number of in-person interviews. The option of using an online survey was considered for the current study because this may allow access to a larger sample. However, due to the confusions likely to emerge when performing arts practitioners were faced with digital curation and preservation terminology, it was anticipated that for the current study, respondents would prefer to receive clarification of concepts and terminology at the time of responding to the questions. It was hoped that greater respondent confidence in the topic discussed, as supported by in-person interviewing, would elicit richer responses from respondents.

Face-to-face interviews were also used because a series of case studies of comparable length and richness of detail would be more useful for comparison and analysis, and because they provided opportunity during the conversation for the participant to be able to raise any issues or questions they had about their own digital curation and preservation problems. It was anticipated that the sample would largely consist of self-employed practitioners who were essentially donating their time to this study. Access to advice on digital curation and preservation based on detailed knowledge of a particular practitioner's workflow was a possible compensation for the participant, and this sort of conversation would not arise via the use of an online survey.

3.7.2 Sample size

The size of the sample and the method of recruitment limit the ability of the findings to be generalized. The sample of twelve used in the current study is not large enough to be representative of the estimated 300,000 or so professionals employed in the UK music, visual and performing arts sector, more than 70% of whom are self-employed (as discussed in Chapter 1). Still, some noticeable trends emerged from the sample. These suggest that further work in this area would be useful for verification of these results.

A larger supplementary study, built upon the current work, could potentially be representative of the UK performing arts sector. In addition, the present study data may contribute to other complex questions arising, including further characterization of trends

between the different data points gathered; analysis of these could be a useful extension to the current study. More recommendations for further useful research are provided below in Chapter 6.

3.7.3 Conducting the interviews

When each practitioner was contacted, they were provided with a letter outlining the nature, context and scope of the enquiry (see Appendix B). This acted as a consent letter if participation was successfully agreed. This letter was provided in advance and described the research and the conditions under which the data would be gathered, stored and used, set the time and place for the appointment, thanked them for their participation and gave both the researcher and the participant space to each sign their consent to the interview. Two copies were made and the subject kept one and the researcher, the other.

If the practitioner agreed to participate, they were provided with the interview schema to allow them to check they understood all questions, that they were prepared to talk in response to those points, and that they had time to reflect on possible responses (e.g. the online resources they habitually searched; their funding sources; etc.) Most participants preferred to come to the questions fresh at the time of the interview and did no preparatory work but this choice was not captured in a specific question.

Rough handwritten notes were recorded during the interview, mainly to act as prompts within the context of the conversation. For example, if the answer to question 2 might be offered in the course of answering question 1, a note would be made as a reminder to acknowledge this when asking question 2. With the informed consent of participants, that is to say based on the information provided in the consent letter, a digital audio recorder was used during interview.

Each interview was scheduled for between one and two hours. The shortest interview was about 45 minutes and the longest went on for over three hours. All participants were interviewed alone in a venue of their choice. Half of the participants were interviewed in their workspace and a further four were interviewed in their home. The remaining two took place in the author's office on the university campus, by choice of the participant. The high percentage of interviews taking place on the 'home ground' of the participant,

and the fact that peers or others did not overhear the conversation, may have helped to suppress conformance bias and support the fulsome and detailed answers that were typically received. It may also indicate something about the close connection between the external workspace and the home in the working patterns of many performing arts practitioners: both locations frequently hosted computing facilities for the seeking and management of digital objects, and in many cases the practitioner's archive of digital and non-digital material was in the home.

The questionnaire was used as the starting point for each conversation and care was taken to read out each question in full, with a verbal check that the participant felt that they understood the question. If not, proxy words and phrases were used to 'translate' the meaning into language that was meaningful to them, supported by non-verbal communication if that seemed useful. Often respondents asked for further clarification but this was not a universal choice. If the questioning for further clarification got into asking for advice on digital curation practice for their own work, the completion of responding to the interview questions first was negotiated before discussing their own skills concerns. If the subject introduced other points or themes related to the value or role of their digital objects, these were noted and were engaged with as far as possible given the time constraints of each appointment.

3.8 Transcription and analysis of the interviews

Each of the audio files was transcribed to the level of conveying meaning, i.e. the transcription did not include every utterance or note every pause or every other instance of non-verbal communication, but rather the verbal communication plus any obvious non-verbal signals such as laughter. These two levels of detail are often referred to as 'verbatim' and 'intelligent verbatim' formats by professional transcription services – the approach followed in this study was confluent with the latter. Pauses, actions or body language during the interview were not noted.

The questionnaire instrument, as discussed above, included a mixture of open, semi-open and closed questions. However, any additional options that were suggested by more than one subject were also included in the analysis.

As part of the methodology, influenced by grounded theory, 'open coding' was used (Berg, 1989) to classify the qualitative responses. That is to say, document analysis was used to locate the topic(s), activity/ies or attitude(s) with which the response was primarily concerned, and accordingly assigned each response to a category or categories as appropriate. The responses gathered determined the number and range of categories into which responses were grouped, to produce a participant-driven set of categories for responses to each question.

Speaker tags were used in the transcript to indicate the question/answer sequence or turn-taking in the conversation, but participants were anonymised prior to analysis. The number of participants who provided a particular response was recorded in order to be able to report a percentage for each response. The transcript was sent to the participants for their review for corrections of any transcriptions errors only. Then it was anonymised for use in analysis.

The analysis began by reading over the transcripts again once complete in order for the researcher to be immersed in the material. The analysis of the closed and semi-closed questions was relatively straightforward as responses could be quantified numerically. The open responses were more challenging to analyse as the text had to be interpreted and the key themes identified and noted. Basic textual analysis was carried out upon a further reading by highlighting the key themes within responses. However, it was observed that the key responses to a given question sometimes appeared in response to another question. This presented a dilemma, as there was a responsibility to reflect what had happened in the interview. On reflection, and as this enquiry did not aim to carry out conversation analysis but rather to establish digital curation knowledge of the subject group, it was decided to transfer the analysis to a spreadsheet where responses to any given question could be easily noted from throughout the body of the transcript.

Reading through each transcript, the responses of each subject were noted against the relevant question in this way. Any themes or topics that emerged from the responses of more than one subject were also added to ensure that the practitioners had taken a role in shaping the findings of the inquiry within its relevant scope and that such expansions were based on consensus between at least two participants.   The table format provided by the spreadsheet then allowed to read across all relevant responses to a given question and

identify recurring themes or connections that emerged in response to each question. Where there was evidence of similar themes from more than one respondent it was possible to quantify these as a percentage of all responses received and so rank their popularity.

The findings that emerged from this approach are reported in Chapter 4 and discussed in Chapter 5.

Chapter 4: Results

This chapter presents the results of the interview data gathering activity. As discussed in Chapter 3, the interview questions were grouped into the following sections: 'Your Work', 'Preservation of Your Work' and 'Your Use of Archives'. The results of the data gathering activity are presented in line with this structure. In addition to answering the questions, interview respondents were given opportunities throughout the interview and specifically at the end to contribute any further relevant themes or ideas. The number as well as the percentage of respondents is reported for each question to provide a sense of the variation in opinion across the sample as well as the sample size. Percentages of response are reported to the first decimal place.

4.1 Interview questions, section 1, 'Your Work'

In section 1 of the interview schema, questions addressed the area of creative work produced by respondents and how it is funded.

4.1.1 Area of creative work

To identify which area(s) of the creative industries were represented in the current enquiry, interview respondents were asked to identify the area(s) of the performing arts in which they worked. This question was phrased in such a way so as to accommodate the common practice within the creative arts of professional activity across more than one area of specialism.

Figure 2 summarizes the range of areas in which the interview respondents were engaged. There was no classification of area of specialism offered by the interviewer; the categories reported here are those supplied by interview respondents. Thirteen areas of creative practice were suggested by the twelve respondents, spanning stage, dance, film, music and performance art. In addition, the sample set of interview respondents encompassed multiple aspects of creative work in terms of performing, writing and production/directing. Whilst the most frequently reported area of specialism is as musician (four respondents, 33.3%), the sample set of interview respondents contains multiple representatives from the fields of stage, dance, film, music and performance art.
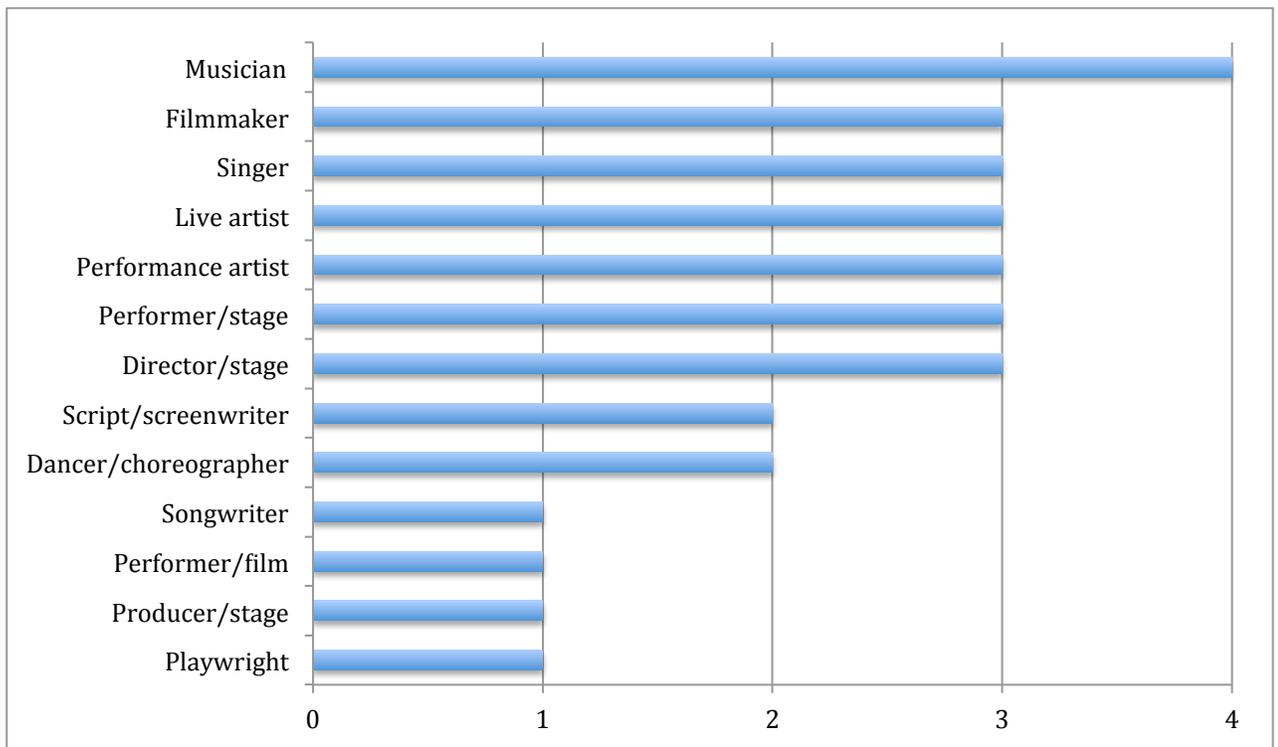
Figure 2: Range of specialisms (n=30) engaged in by the interview respondents (n=12)

Figure 3 highlights the diversity reported by the respondents in terms of the number of areas in which they engaged. Only three of twelve respondents (25%) worked in a single area: the others (75%) worked in two or more areas. The most frequent number of areas reported was two (in five respondents, 41.6%).
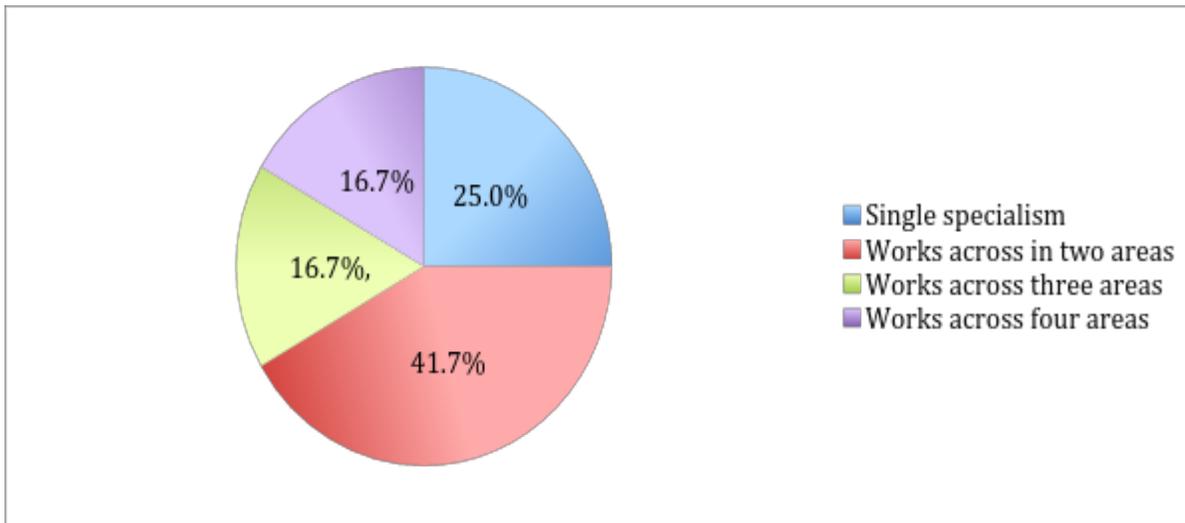
Figure 3: Diversity of number of areas of creative work in which respondents (n=12) engaged, by percentage

A large majority of practitioners in this sample, then, usually worked across more than one area within the performing arts. The sample set reflects the reality of the performing arts where most practitioners work in a range of areas. In this way, the sample set embodies variation across this community of practice and so provides a solid basis for this study.

4.1.2 Sources of funding

Figure 4 summarizes the range of funding sources upon which interview respondents relied. As was the case for types of performance work, no classification of funding source was offered by the interviewer but instead was suggested by the respondents themselves. The range of funding sources encompassed self-funding, charity funding, funding through public bodies across multiple geographic regions, and direct funding through ticket sales and commissions. Participants largely relied upon two main sources of money to fund their practice: eight respondents (66.7%) reported self-funding. Seven respondents (58.3%) benefited from Creative Scotland (formerly the Scottish Arts Council and Scottish Screen) funds.
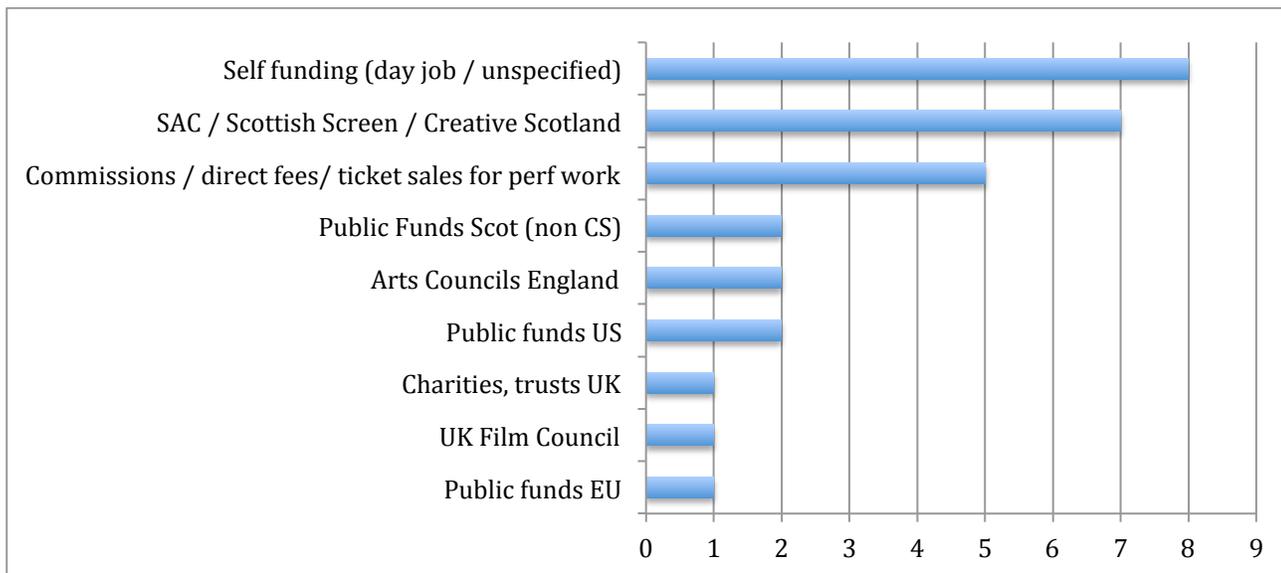
Figure 4: Range of funding sources (n=9) reported by respondents (n=12)

Figure 5 shows the distribution of the three main thematic funding strategies that emerged from participants' responses.
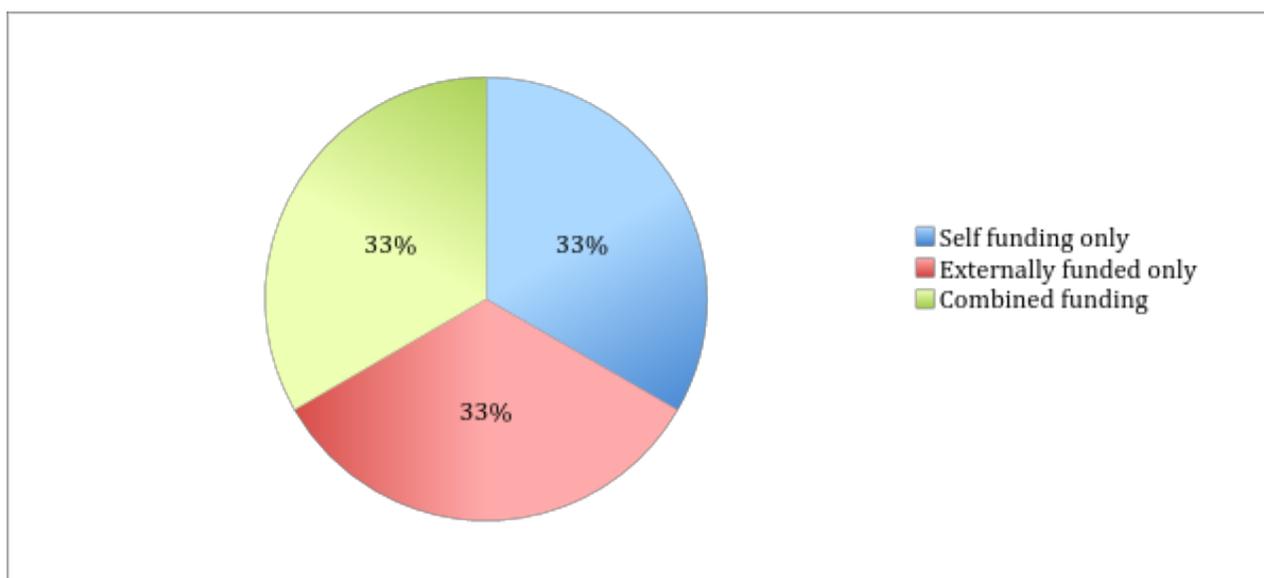
Figure 5: Distribution of main funding strategies of respondents (n=12)

Four respondents (33.3%) relied on self-funding only, which was defined with participants to mean private income, salary and other funds that are not directly accrued as a result of creative practice. A further third (four respondents, 33.3%) did not self-fund at all, i.e. their creative practice was entirely funded by external sources such as public funding, charities, or the direct proceeds from creative practice including ticket sales, performance

fees and commissions. The third quartet (33.3%) shown in Figure 5 funded their practice through a combination of self-funding and external sources.
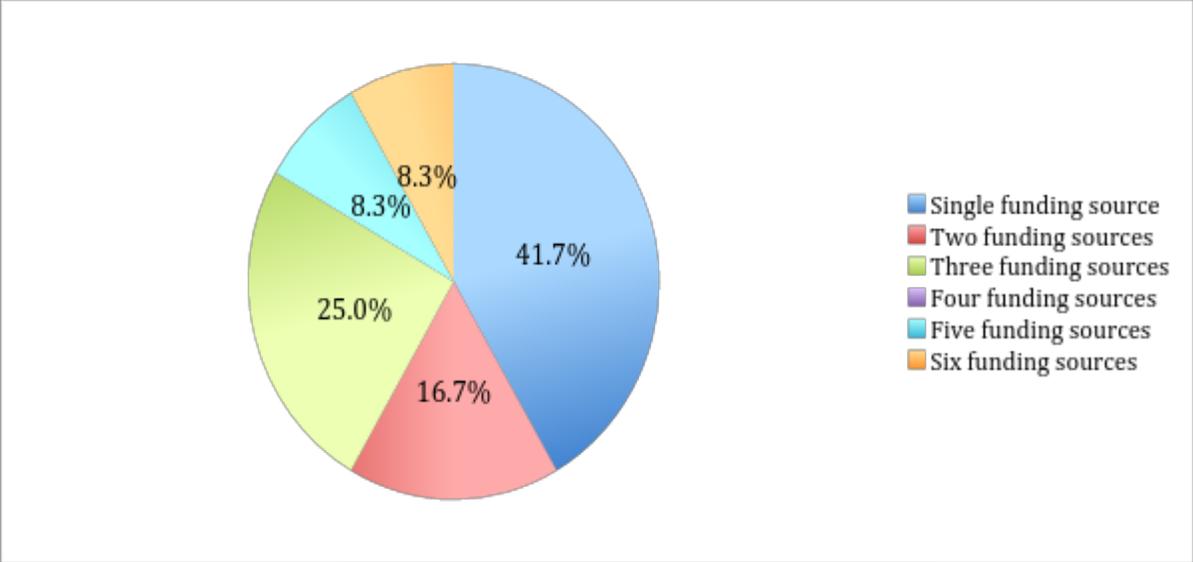
Figure 6: Distribution of number of funding sources used by individuals

Figure 6 shows the participant group broken down by number of reported funding sources. For five respondents (41.7%) a single source constituted the entire funding for their creative work - in the case of four of these five respondents, this source was 'self-funding'. Direct proceeds (such as fees, commissions and ticket sales) funded five respondents (41.6%); however, all of these five combined this source of funding with others. There was no particular correlation between sources of funding and area of performance practice in this sample. Table 1 provides the full set of responses to questions on funding sources.

Respondents (anon)	SAC/ Scottish Screen/ Creative Scotland	Self funding: day job/ unspecified	Commission / direct fees / ticket sales	Public funds (US)	Public funds (Europe)	Arts Councils England	UK Film Council	Public funds (Scot) - non Creative Scotland	Charities, trusts (UK)
01	1								
02	1	1	1	1	1	1			
03		1							
04		1							
05			1			1			
06		1							
07	1						1	1	
08	1	1							
09		1							
10	1	1	1	1				1	
11	1	1	1						
12	1		1						1
Total resp per field, area, medium	7	8	5	2	1	2	1	2	1

Table 1: Funding sources: full set of responses

4.1.3 Practitioners' interaction with higher education

The remaining questions in section 1 of the questionnaire looked at relationships with and perceptions of the higher education (HE) sector.
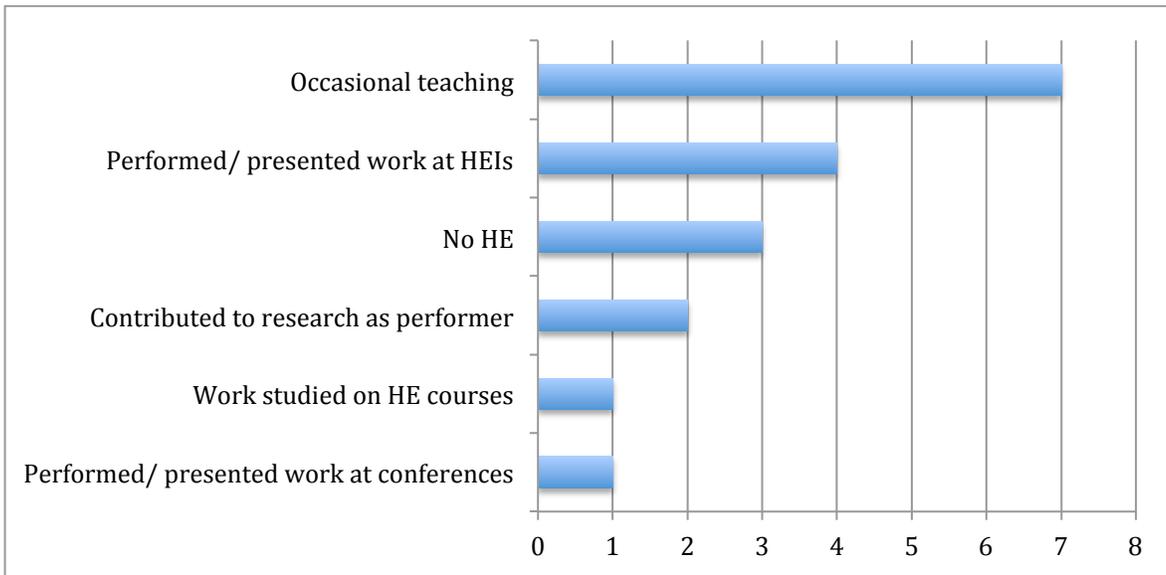
Figure 7: Range of respondent interactions (n=18) with HE

In Figures 7 and 8, we see the range of reported levels of professional interaction with the HE sector. Three respondents (25% of 12 respondents) reported no interaction with HE. Of the nine remaining respondents, most respondents (seven, 58.3% of respondents) contributed occasional HE teaching. Four respondents (33.3% of respondents) had performed or otherwise presented creative work at HEIs. Two respondents (16.7% of respondents) had contributed to research activity as a performer, where the performance work formed the source of data or observations for the research activity. One response (8.3% of respondents) was reported each for performing or presenting work at academic conferences and for having their creative work studied on an HE performing arts course. These two last single responses were not from the same respondent; in each case the respondent reported 'occasional teaching' as their only other interaction with HE.

No particular relationship emerged from this sample between the type of HE interaction and area of performance work or funding sources. Table 2 provides the full set of responses.

No HE activity
Occasional teaching
Performed/ presented work at academic conferences
Contributed to research as performer (not as researcher)
Work studied on HE courses
Performed/ presented work at HEIs

17%
22%
6%
11%
6%
39%
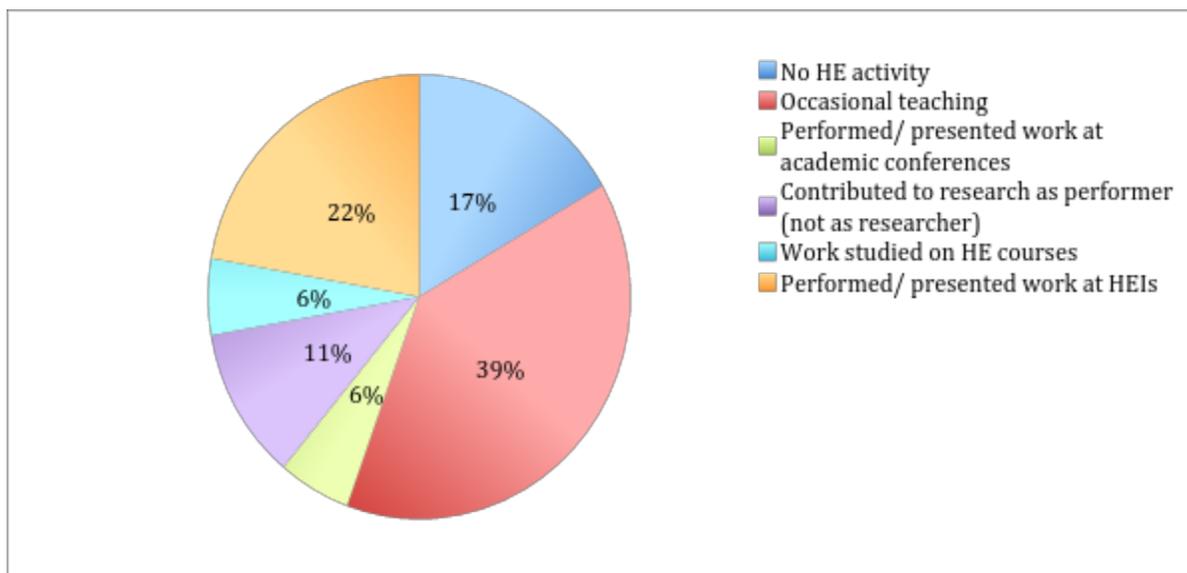
Figure 8: Distribution of respondent interactions (n=18) with HE

Respondents (anon)	No interaction with higher education (HE)	Occasional teaching	Performed / presented work at confs	Contributed to research as performer (not as researcher)	Work studied on HE courses	Performed/ presented work at HEIs
01		1			1	
02		1				
03	1					
04						1
05		1				1
06		1	1			
07		1				
08		1				1
09	1					
10				1		
11	1					
12		1		1		1
Total resp per artform	3	7	1	2	1	4

Table 2: Types of interaction with higher education interaction: full set of responses

4.1.4 Perception of academic / non-academic audiences for performing arts

Respondents were asked whether there was any difference, in their experience, between performing to 'academic' and 'non-academic' audiences. The results are shown in Figure 9. 'Academic' here was intended to mean those audiences that can be reasonably anticipated to consist of researchers, lecturers and others based in the HE environment. Respondents were given two options from which to choose, namely that either there was a difference or that there wasn't.

Four respondents (33.3%) reported that they perceived no difference between performing to these two audience types.   Four further respondents reported that they had perceived differences between performing to 'academic' and 'non-academic' audiences (without interrogation of the categorisation of audiences offered here: 'academic' / 'non-academic'), but did not necessarily expand on the precise nature of these differences.

Where further commentary was provided here, it indicated that academic audiences had different priorities from 'non-academic' audiences such as being interested in a piece of work regardless of its artistic quality as long as it was relevant to a particular research interest; and that this can lead to the production of performance work of lower artistic quality than would be viable beyond the academy.

A final third of respondents, however, disputed the offered categorization of audience types, suggesting that whilst there may be perceptibly different types of audience, the divide was more generally along the lines of one's professional peers in contrast with the general public, rather than 'academic' / 'non-academic'.
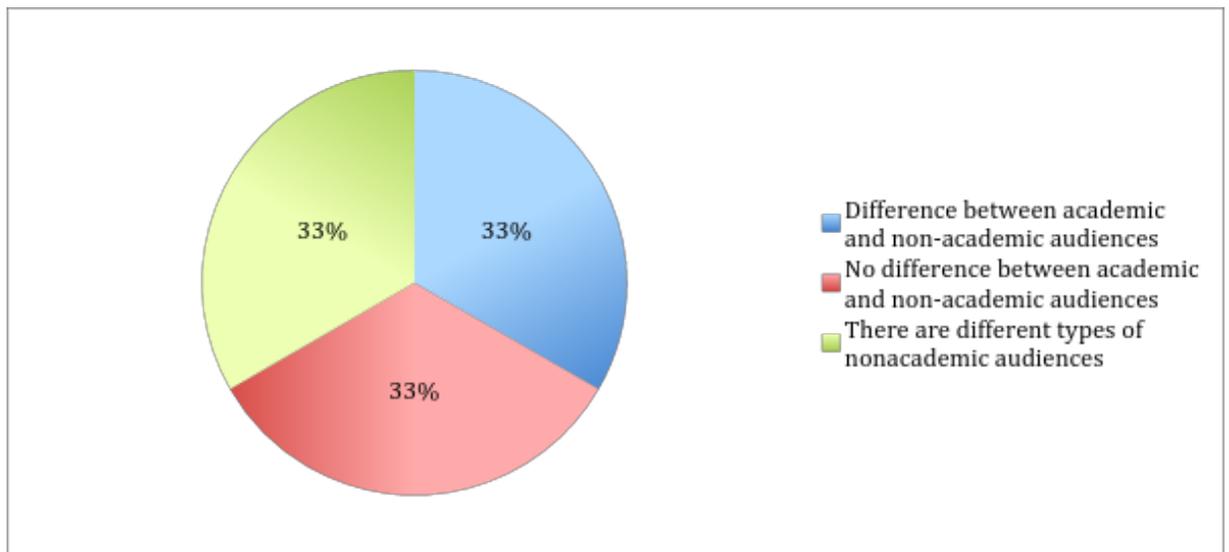
Figure 9: Distribution of perception of difference between 'academic' and 'non-academic' audiences

4.2 Interview questions: section 2, 'Preservation of Your Work'

Questions in section 2 sought to establish what practitioners understood by the term 'preservation' in the context of their creative work, and what the respondents considered it to involve. Where respondents had no initial reaction or requested clarification, supporting information was given in the form of proxy terms such as 'management of your digital assets'. Thus, this question was less concerned with understanding of specialist terminology and more about finding a way to instigate a discussion of practitioner understanding of the tasks involved in active management of their digital objects.

4.2.1 Practitioner understanding of the term 'preservation'

Of the 12 respondents, one (8.3%) directly asked for clarification of the term 'preservation'. Seven (58.3%) verbally indicated uncertainty in their responses; for example, "I guess …" or "I would say…".

Seven respondents (58.3%) explicitly included both analogue and digital objects in their discussion of preservation practice; the remaining respondents did not mention this distinction.

The main thematic responses across the sample are noted in Figure 10. Eight respondents (66.7%) equate 'preservation' with the creation of documentation of live work, without any particular reference to how any resulting digital objects are managed over time.
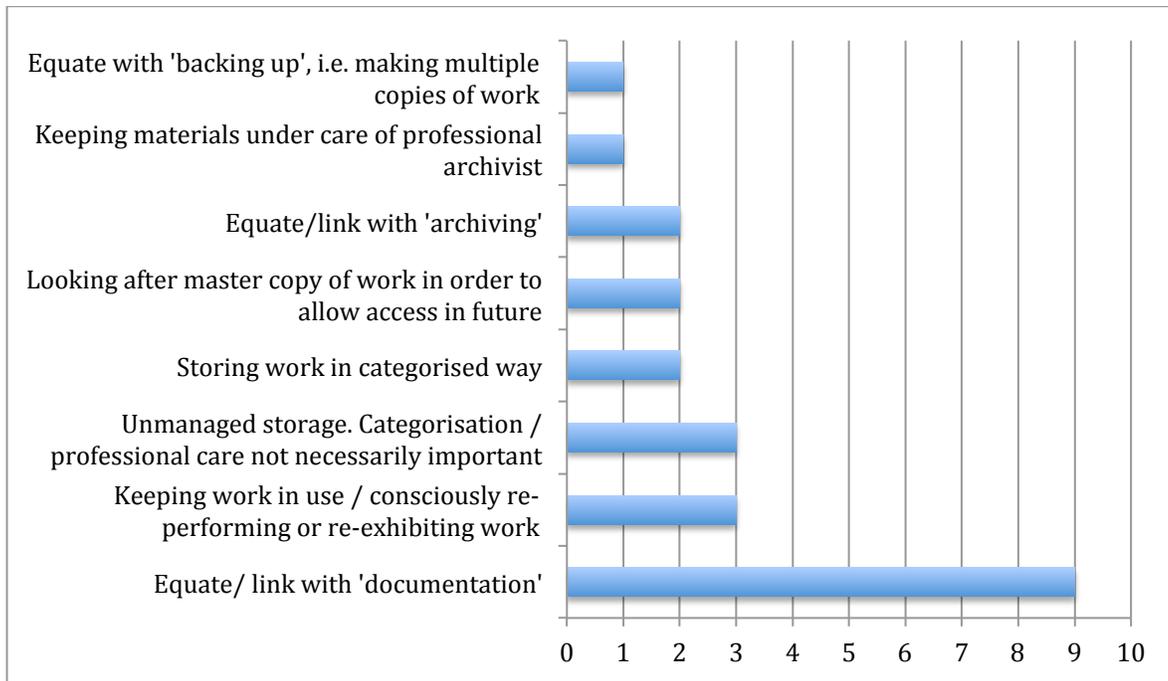
Figure 10: Range of main thematic responses in understanding of the term 'preservation'

Five respondents (41.7%) connected 'preservation' with 'archiving', but without providing a further definition of either term. Three respondents (25%) explicitly indicated that making the traces of creative work accessible to others was an important function of preservation. However, none of those three respondents showed awareness of any specific digital preservation tasks. Three other respondents showed some limited awareness of active management tasks required for preservation: one respondent introduced the notion of categorisation or organisation of materials for preservation; another respondent mentioned the creation of 'back-ups' of digital objects; a third respondent reported that professional archivists have skills which allow preservation to be done successfully.

4.2.2 Practitioner understanding of the idea of a) an archive; b) a digital archive

When asked to describe what they understood by 'an archive', half of all respondents (six, 50%) specified that accessibility was an expected or common feature of an archive. Five

respondents (41.7%) indicated that they would expect the contents of an archive to be categorised or organised to some system.
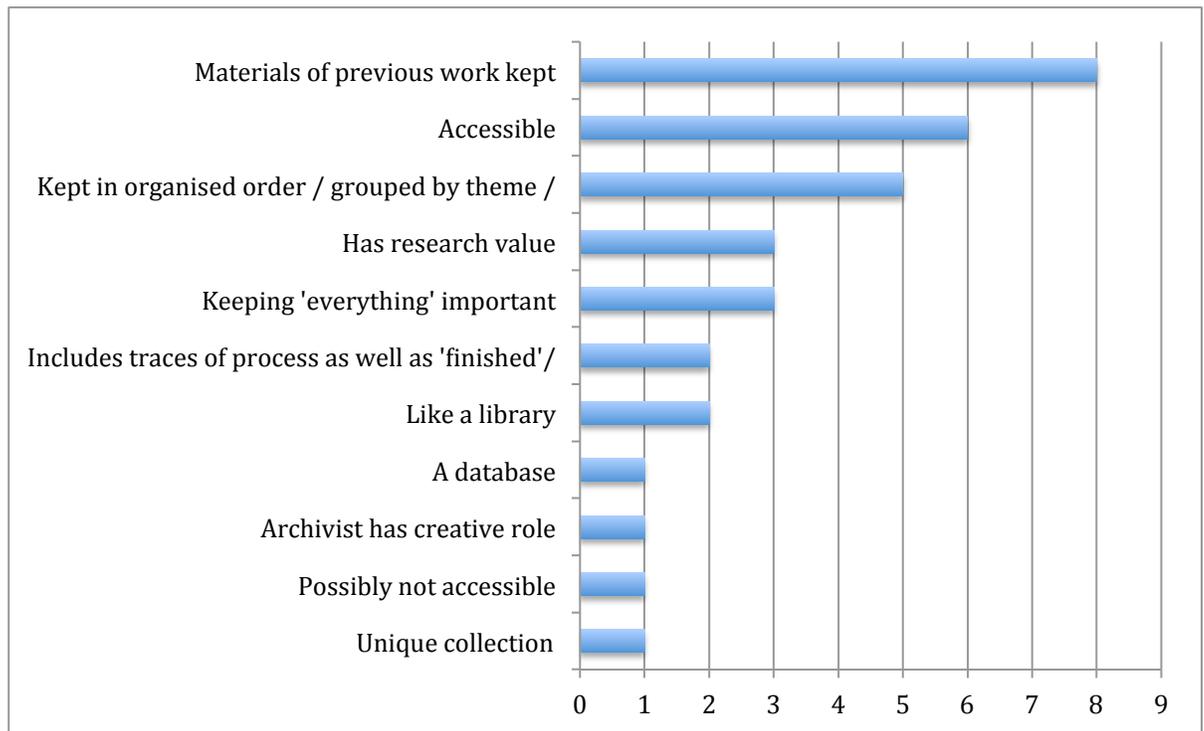
Figure 11: Range of thematic responses in defining 'an archive'

Expectations of accessibility of content are higher in discussion of 'a digital archive': eight (66.7%) anticipated that a digital archive would be available for access online. Respondents appeared to assume that a digital archive would in most cases be accessible to interested users; only one respondent was doubtful about access necessarily being available as a common aspect of a digital archive. Fewer respondents (three, 25%) commented on categorisation or organisation of content as an expected or common feature of 'a digital archive' rather than 'an archive'.
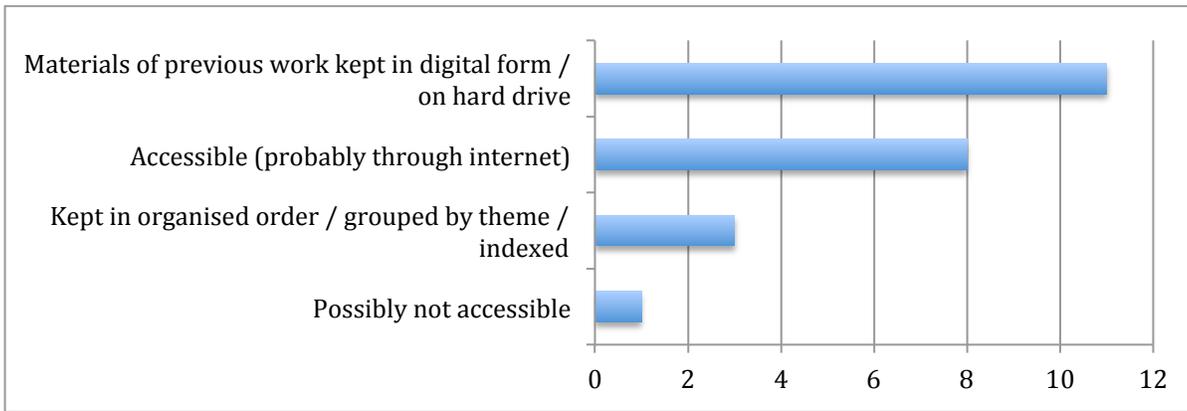
Figure 12: Range of thematic responses in defining 'a digital archive'

4.2.3 General importance of preservation to performing arts practitioners

Respondents were asked whether they considered it important for performing arts practitioners as a professional group to preserve their work. All respondents (100%) answered yes.
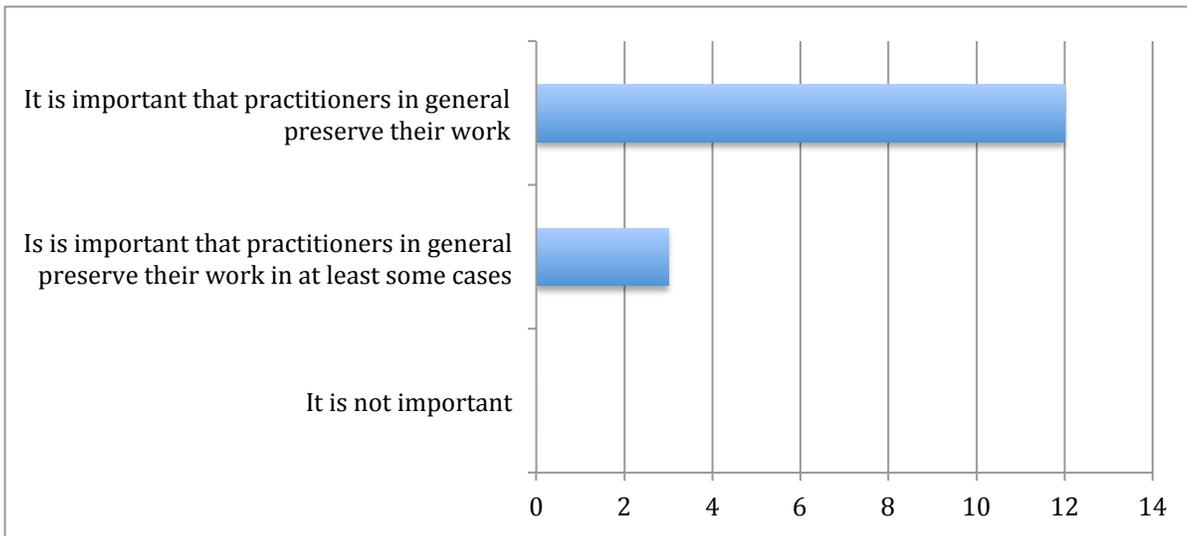
Figure 13: Range of opinions on importance of preservation by practitioners in general

Three respondents (25%) reported ambivalence, with their answer as 'yes' in some scenarios and 'no' in others: one respondent reported that they believed preservation to be important in general but not specifically for their own work as ephemerality and privacy were artistic concerns of the work; a second was of the opinion that practitioners should

have the choice to preserve traces of their live work or equally choose not to; and a third question to whom exactly preservation would be important. This respondent noted that the individual practitioner may achieve economic gain from commercial use of preserved assets, but that art was of little significance to the greater world and as a result it was of no significance whether traces of one's work were preserved or not.
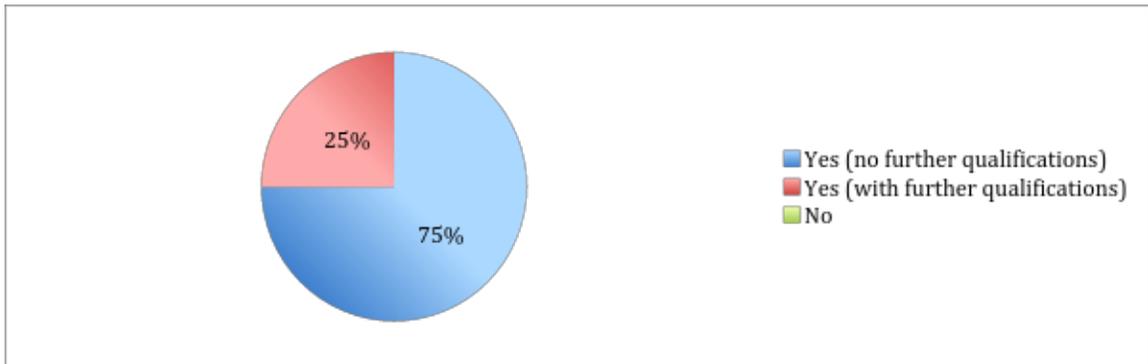
Figure 14: Distribution of opinions on whether performing arts practitioners should preserve their work (n=12)

When asked to give reasons why preservation of performing arts work should or should not be considered important, five respondents (41.7%) discussed the ephemeral nature of performance as valuable but only one of those five (8.3%) expressed the view that the value of ephemerality precluded the value of documenting the live work.

Nine respondents (75%) showed evidence of having understood the question ('Do you think it is important that performing arts practitioners, in general, preserve their work?') in terms of preservation as the creation of documentation (as opposed to the preservation of those pieces of documentation, whether analogue or digital, over time); one respondent (8.3%) showed awareness of the limited lifespan of carrier media.

4.2.4 Practitioners' own preservation decisions

Respondents were asked directly whether they preserved their own work and if so, how they went about it. Here, the term 'preserved outputs' was used in the question to attempt to disambiguate between the creation of documentation and the preservation of these outputs. If respondents said they did not attempt to preserve their work, they were asked for any specific reasons, and whether they would like to do this in future.
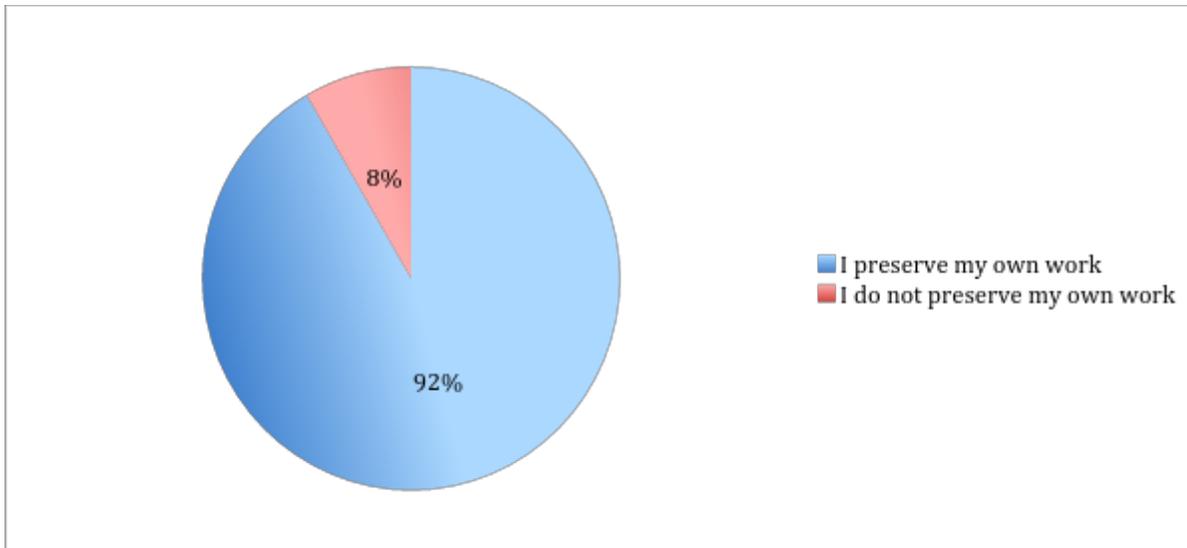
Figure 15: Distribution of those who do and do not attempt to preserve their own work (n=12)

Almost all respondents (eleven, 91.7%) reported that they 'preserve' their own work. One practitioner (8.3%) said they do not preserve their own outputs, and would only consider preserving at least some of their work if they knew they were going to die imminently.

If respondents indicated that they did consider themselves to be active in preserving their own creative work, they were asked to further describe what actions they undertook. Respondents generated their own responses to this question, rather than choosing options from a predefined list. The 28 responses generated fall into two main categories: i) storage of *particular* (i.e. specified) types of material (see Chapter 1, Section 1.1 for definitions of 'type' and 'format'); ii) actions applied to digital objects of *multiple* types.

Responses (n=18) concerned with storage of *particular* types of material were as follows:

   a) I store drawings, scribbles, handwritten notes, storyboards
   b) I store previous drafts of texts (digital)
   c) I store video documentation of rehearsals
   f) I store props, costumes, pieces of set
   g) I store 'master' copies of film work on film/video
   k) I store administration, receipts, correspondence relating to the performance

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l) I store elements / rushes / non-'master' copies of film work on film / video

m) I store 'master' copies of audio material on DAT / cassette / reel to reel

n) I store audio recording of live performance

o) I store digital copies of texts

p) I store hard copy photographs / slides

r) I store copies of reviews

s) I store marketing materials

t) I store hard copy of texts

u) I store digital photographs

v) I store video documentation of performance

w) I store digital audio files on hard drive or CD/DVD

z) I store digital video files on hard drive or CD/DVD

aa) I store feedback forms

bb) I store 'master' copies of music recording on vinyl

Please see Figure 16 below for distribution of these responses.
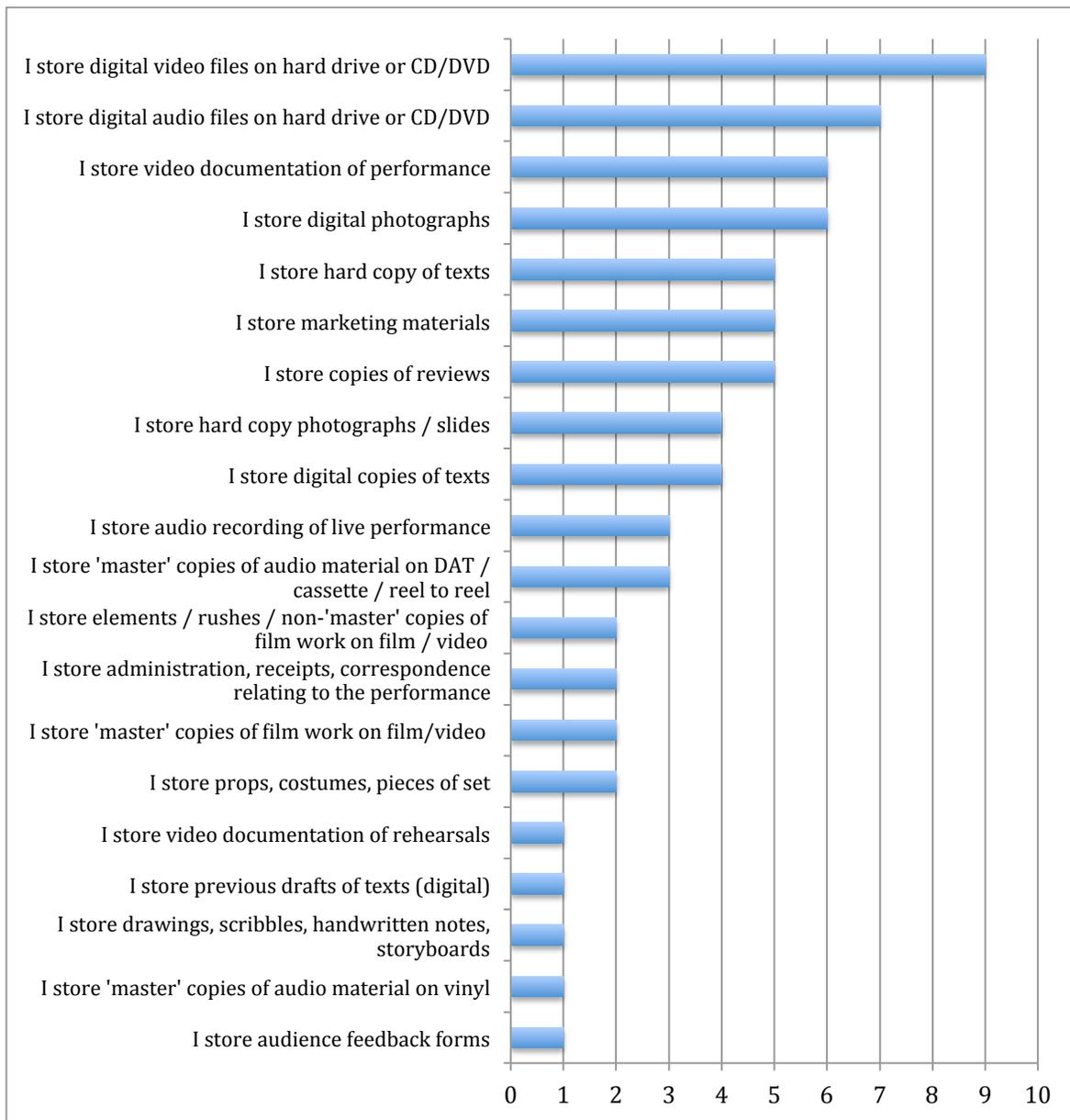
Figure 16: Distribution of preservation decisions undertaken by respondents (n=12) pertaining to management of specific types of material

Responses (n=8) describing actions applied to digital objects of *multiple types* were as follows:

d) The institution in which I work takes care of preserving

e) I post clips of material to publisher / label / agency website

h) I submit copies of work to libraries / archives

i) I post clips of material to own website

j) I post clips of material to user-generated content websites

q) I post entire finished material to user-generated content websites

x) I make and store multiple copies of digital files (back-ups)

y) I keep things in 'cardboard box in the house'.
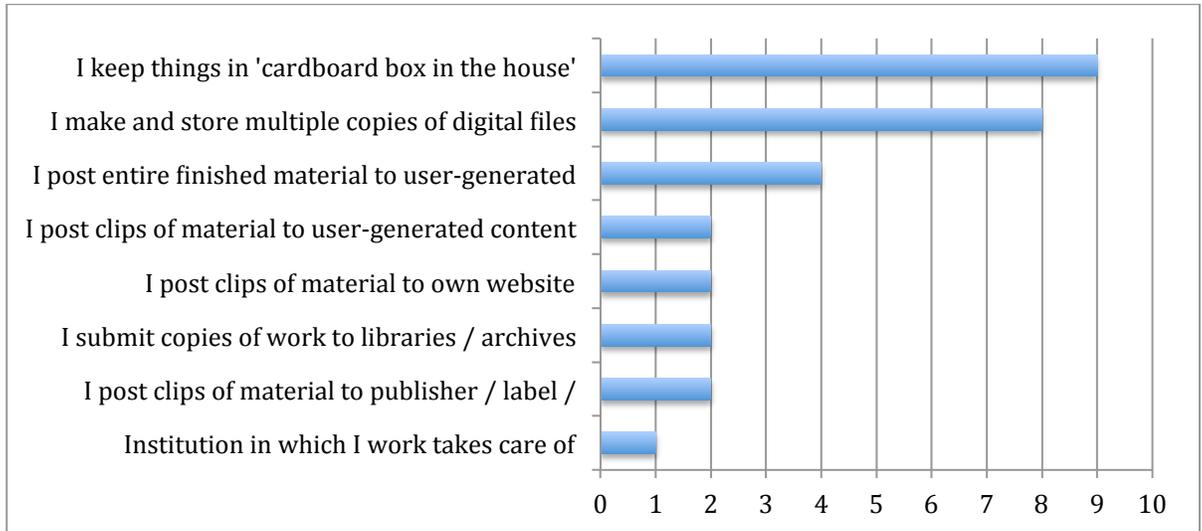
Figure 17: Distribution of preservation actions undertaken by respondents pertaining to multiple types of material

Figure 18 shows all responses combined and sorted from least to most popular. It can be noted that the most frequent response was: 'z) store digital video files on hard drive or CD/DVD' (ten respondents, 83.3%); followed by 'y) keep things in 'cardboard box in the house'' (nine respondents, 75%); and thirdly, 'x) make and store multiple copies of digital files (back-ups)' (eight respondents, 66.7%).

Digital object creation was widespread in this sample: digital video was created and stored by ten respondents (83.3%); digital audio by seven respondents (58.3%); digital images by six (50%) and texts by four (33.3%). Only one respondent (8.3%) reported not creating or storing digital objects as part of creative practice, but even this respondent reported creating such objects for others and receiving such objects from other people.
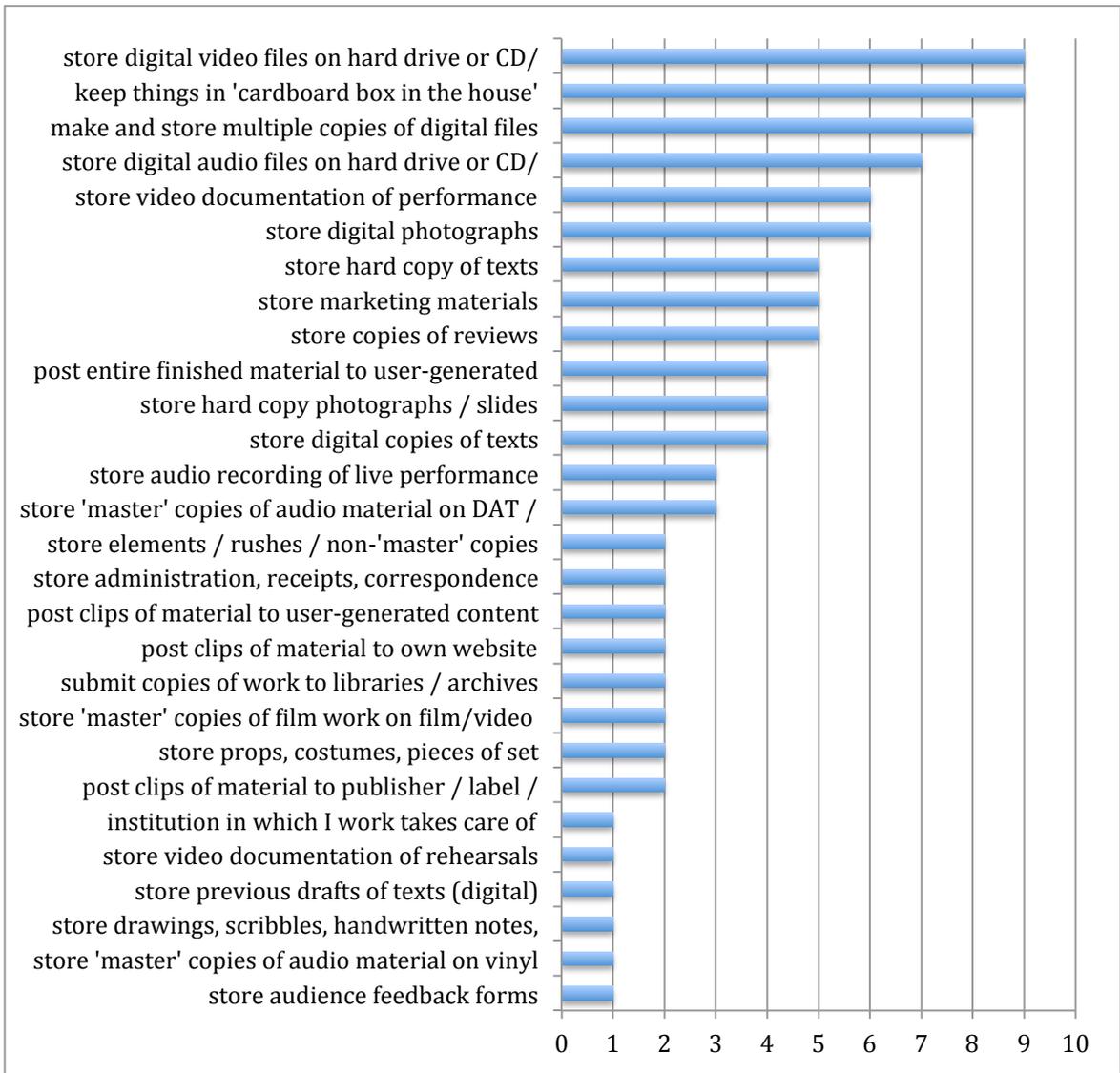
Figure 18: All reported preservation actions sorted from least to most popular

4.2.5 Access, use and sharing of practitioners' digital objects

Figure 19 shows the length of time respondents expect to be able to access their own preserved outputs. Eight respondents (8 of 12, 66.7%) expected their digital objects to be available to them in perpetuity. One respondent did not commit themselves to any particular expected timescale of expected availability of their digital objects. One respondent reported that they do not create or store digital objects and so is marked as 'No response' here.

Two remaining respondents offered their own user-defined concepts of timescale, both categorised as 'Other' in Figure 19; in one case the respondent was happy to keep digital objects as long as they were interesting to watch; the other respondent expected to keep materials around as long as they were readable.
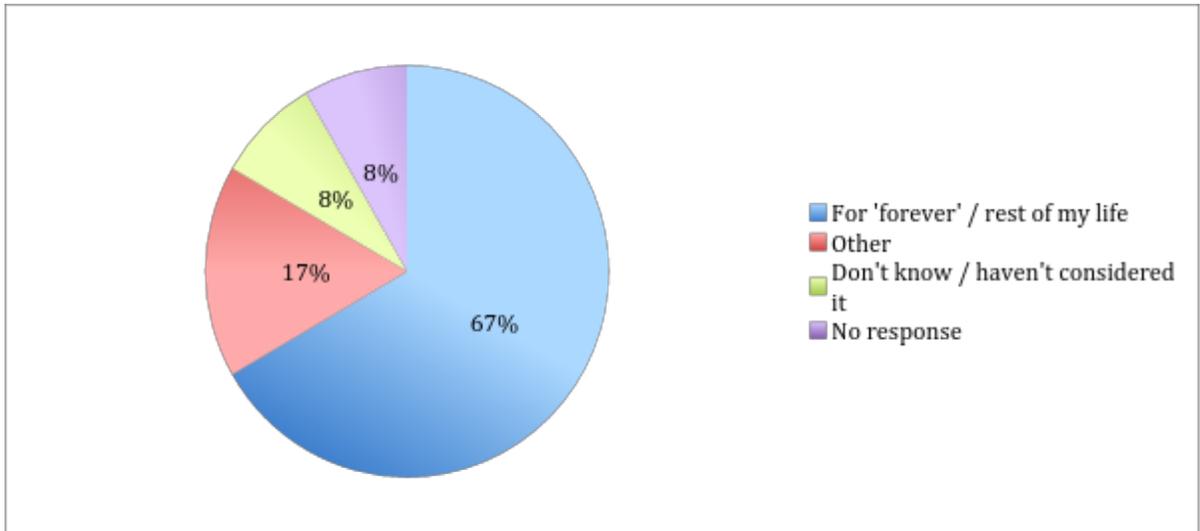
Figure 19: Distribution of anticipated longevity of access to practitioners' own digital objects. NB: 'No response' (n=1) due to respondent answering 'no' to the earlier question, 'Do you preserve your own work?'

Ten of 12 respondents (83.3%) were able to describe a particular use for their digital objects. The distribution of these responses is shown in Figure 20, which shows the responses from the 11 respondents who claim to preserve their own work (referred to here as 'preserving respondents'). Nine of 12 respondents (75% of all respondents, 81.8% of all preserving respondents) valued their digital objects for their role in promotion or marketing of their creative work. Eight respondents (66.7% of all respondents, 72.7% of preserving respondents) felt it was important that their digital objects were available for reference by anyone who was interested in them. Other uses were noticeably lower including for commercial release, in order to be able to restage performances or to enable artistic development (all reported by three, 25% of all respondents, 27.2% of all preserving respondents). Other uses of digital objects suggested included: for personal reflection; as raw material for new work; as creative inspiration for new work; as elements of live production; for use in teaching; for communication with remote collaborators; as evidence for funding applications (each reported by either one or two respondents).
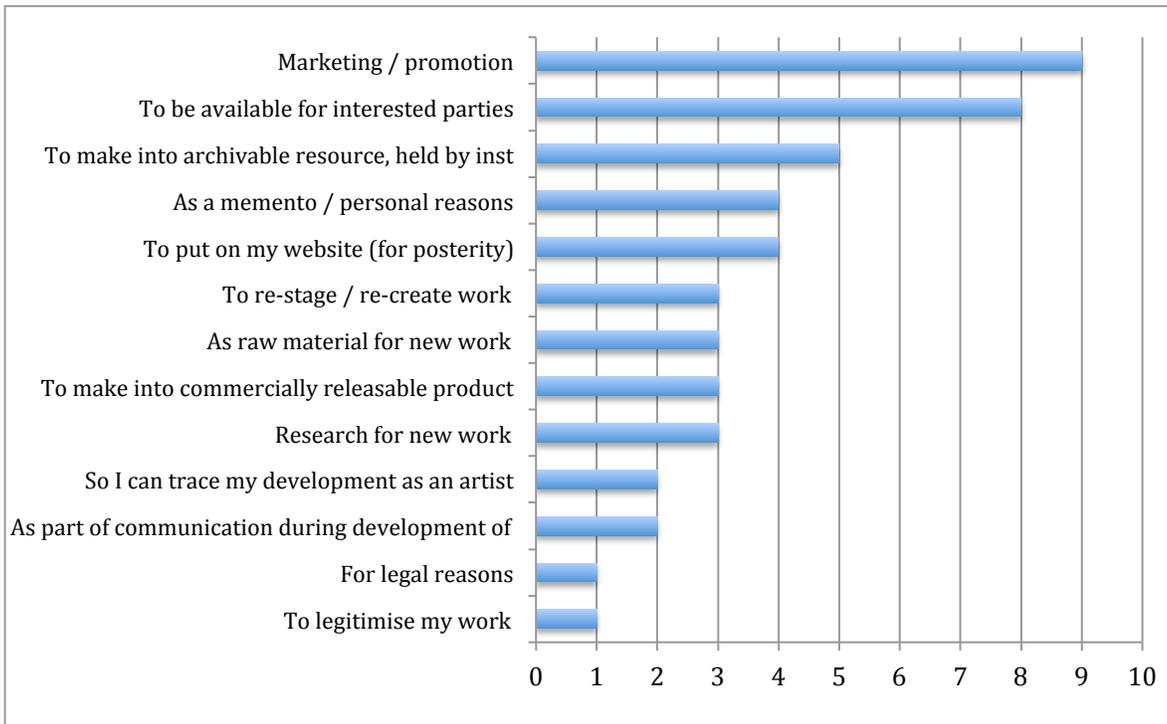
Figure 20: Distribution of intended uses of preserved outputs: responses from all respondents who reported preserving their own work (n=11).

There was appetite for making digital objects available for research by other practitioners: as shown in Figure 21, ten respondents were in favour at least in some cases (83.3% of all respondents, 90.9% of preserving respondents, including both 'Yes' and 'Maybe' responses). Two responded 'Maybe': one respondent would be happy to make available an edited selection of highlights of the work; the other respondent was happy in principle to make work available, but in practice would want more reassurance about what the material would be used for.
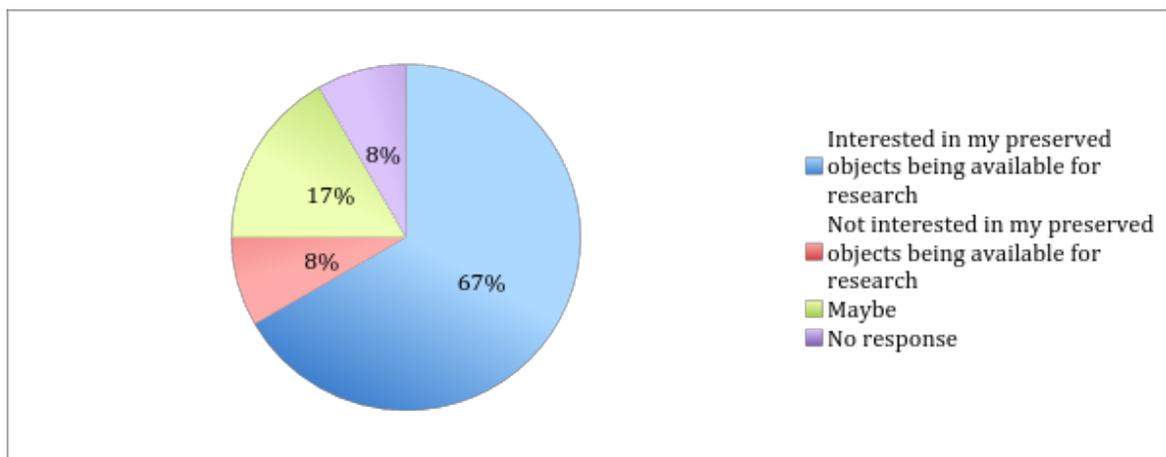
Figure 21: Respondents (n=12) answers to 'Would you be interested in these preserved outputs being made available to other practitioners for research purposes?' NB: 'No response' (n=1) due to respondent answering 'no' to Question 8a.

Respondents who said they were not in favour of making their own preserved digital objects available to others for research purposes were asked if there was a specific reason for this. Two respondents (16.6%) replied to this question, despite only one initially reporting they did not attempt to preserve their work (and as a result, precluding the possibility of having preserved digital objects to share). One practitioner reported that they resisted sharing of preserved outputs because their work develops over time and they were unhappy with earlier styles or versions of work being available. In the other response, the practitioner saw no need to preserve work because their work was part of a long-standing oral tradition and widely available.

Five respondents (41.7%) indicated that they were comfortable with the idea of depositing their objects in a location other than their own workspace or home. The theme of depositing 'off-site', i.e. in an external location, was picked up again later in the section, when respondents were asked if they would prefer their preserved digital objects to be held in a dedicated external, central resource, or whether practitioners should each hold their own resources. As can be seen in Figure 22, respondents were strongly in favour (eleven respondents, 91.7%) of both solutions being available.
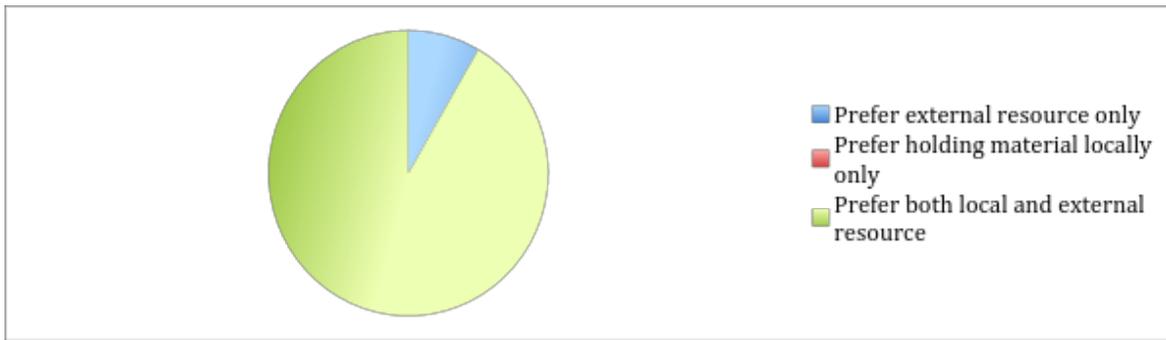
Figure 22: Respondents (n=12) by preference for where preserved outputs should be archived.

Respondents were asked for the reasons they preferred keeping their own local collection of preserved outputs, and/or using an archive or other type of central resource. The responses are shown in Figure 23. The value of professional skills for the curation and preservation of digital objects were recognized by this group: seven respondents (58.3%) reported these as a benefit of depositing in an external resource. Six respondents (50%) also indicated that the ability of an external resource to provide wider access to artists, students, researchers and the general public was another benefit. Four respondents (33.3%) were in favour of the practitioner retaining a copy of digital objects in order to have quick and simple access.

Concerns were raised around control of various parameters when allowing wider access to digital objects: five respondents (41.7%) reported concerns about managing user access, IPR or copyright, commercial exploitation, the presentation of objects or a general sense of feeling that work is under their control. These concerns, however, were not enough to deter support from these respondents for a dedicated external resource.
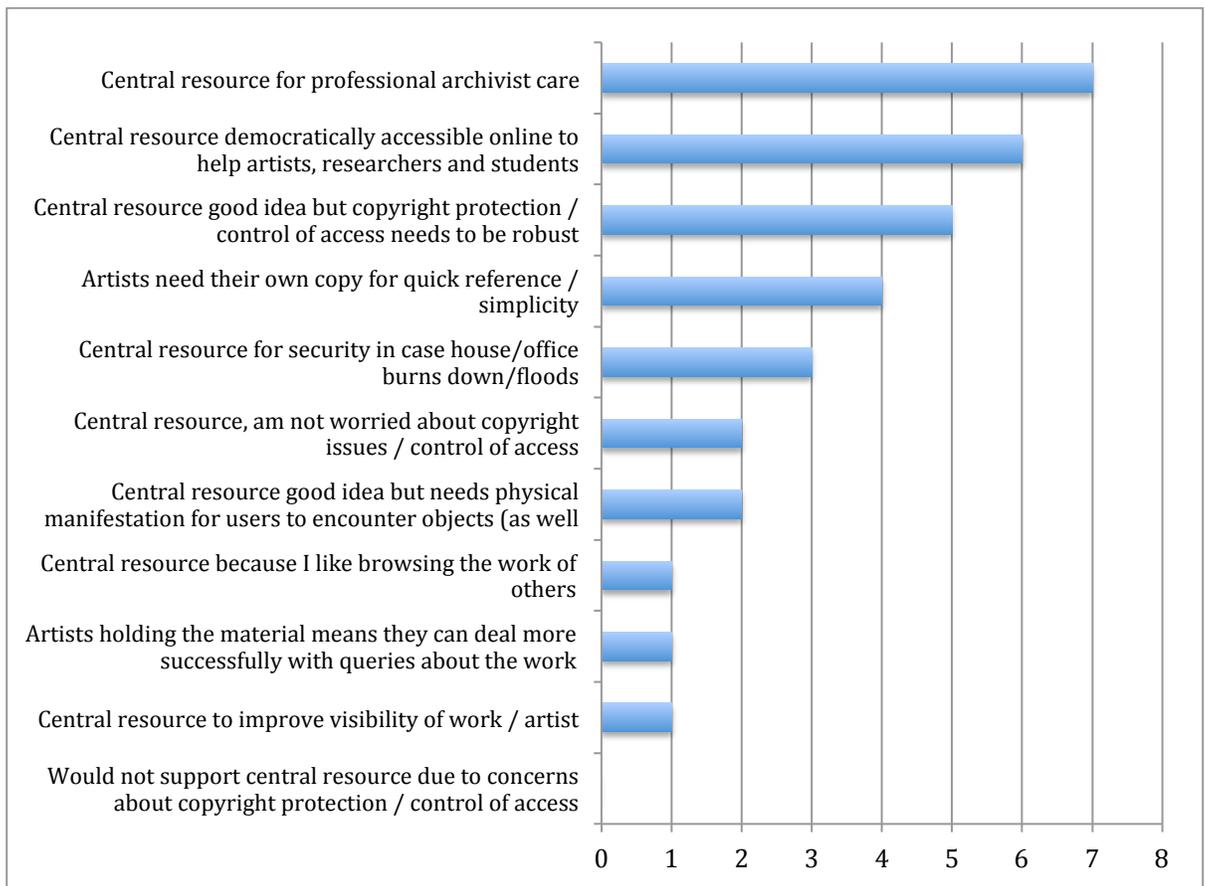
Figure 23: Range of main responses to value of depositing digital objects in dedicated central resource or personal archive

4.3 Interview questions: Section 3, 'Your Use of Archives'

This section acknowledges that practitioners do not solely amass digital objects by creating these objects themselves, but that they also receive digital objects as part of their working processes from other people and locations. It attempts to understand the value of digital collections accessed online and of digital objects received from personal and professional networks to the research processes of practitioners.

4.3.1 Awareness of external archives

Ten respondents (83.3%) supplied examples of online resources relevant to their practice whether or not the respondent personally used them. These examples of resources were either performing arts-specific resources or more general resources that contained performing arts-specific material. Forty-six resources were named overall; thirty-one

specifically provided or held performing arts resources and the remainders were more general resources containing performing arts-related material alongside other material. These are listed in Figure 24.

Further, every respondent but one (11 of 12, 91.7%) was able to describe digital resources that were personally used by them in the course of their research and practice. Twenty-nine resources were named, shown in Figure 25. Some of these are digital collections that have been deliberately drawn together such as the British Film Institute's National Archive, the BBC archive or the Scottish Screen Archive. Other responses, however, challenge the boundaries between such digital resources that deliberately position themselves as archives, and those that do not but which are used by this sample of practitioners *as* archives. For example, YouTube was the most frequently-cited resource in answer to this question (9 respondents, 75%). Professional archival practice can make clear the boundaries between what is and is not an archive from the organisational, legal and philosophical points of view, but it is worth noting here the range of resources that this user community considered to be 'archives' for the purposes of their research.

Five respondents (41.7%) reported using university libraries. Two further respondents (16.7%) expressed the desire to use libraries in their information-seeking practices for either analogue or digital holdings and described academic libraries as rich resources for their field but noted the difficulties of accessing such libraries without academic access credentials.
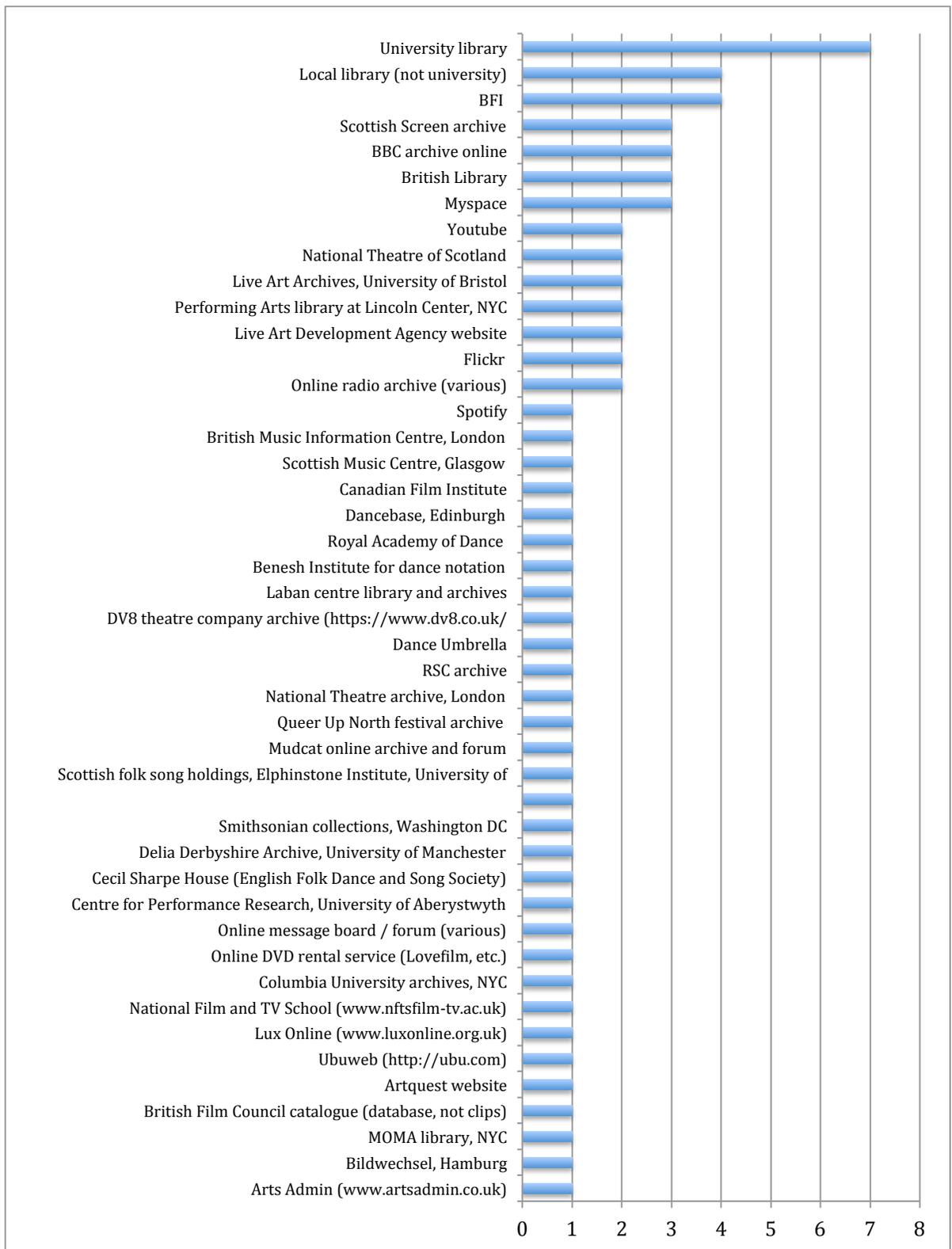
Figure 24: Range of digital archives of which respondents were aware of but did not necessarily use: 44 resources suggested
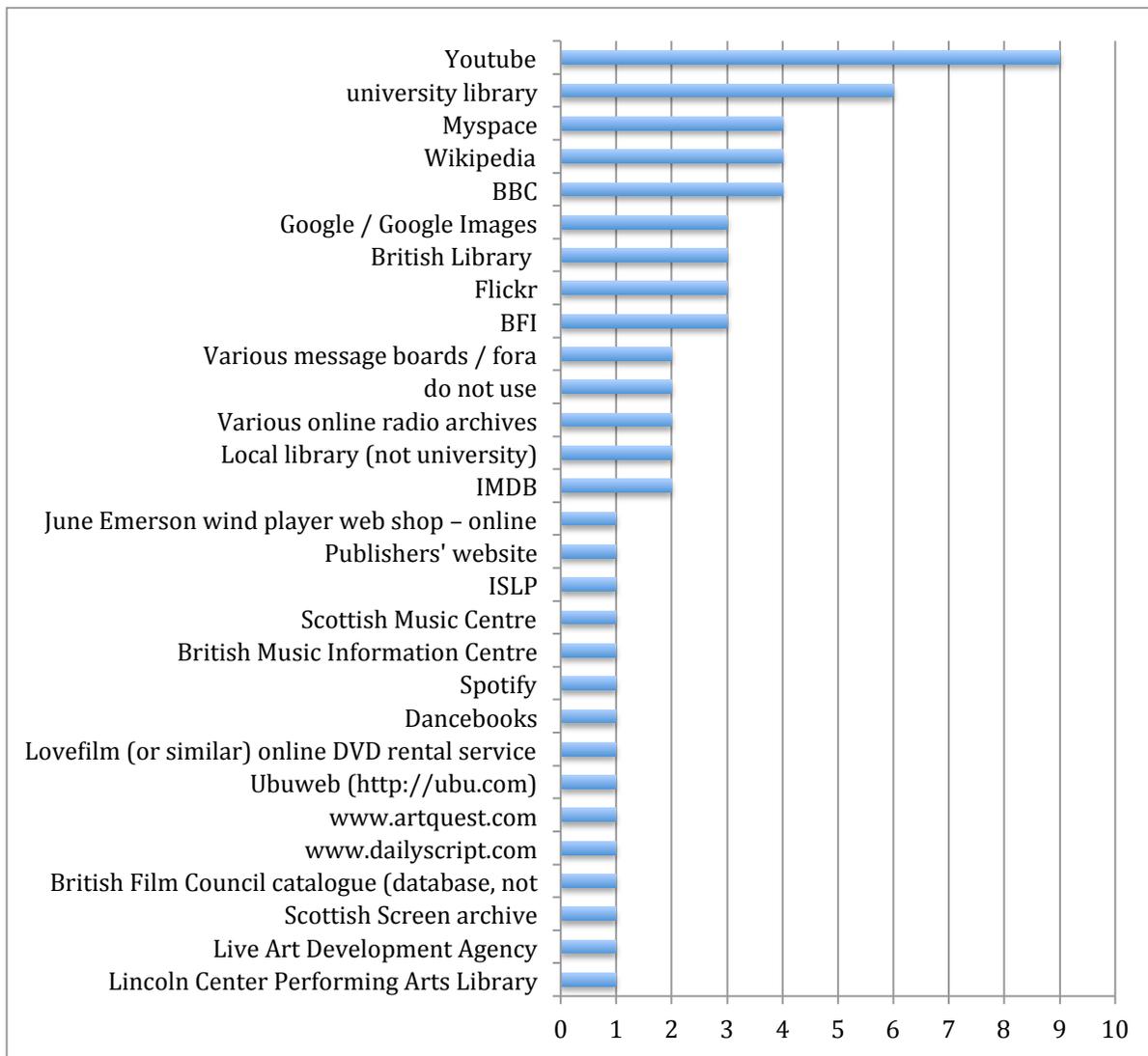
Figure 25: Range of digital archives used in research and practice: 29 resources suggested

4.3.2 Use of online archives for research and practice

Respondents were given a four-point scale to describe the level of importance of the use of archives in their research and preparation practices: 'Extremely', 'Somewhat', 'Not really' and 'Not at all'. Seven respondents (58.3%) rated the use of digital resources as 'somewhat' important to the research and preparation of their own work. Two respondents (16.7%) rated them as 'extremely' important. One respondent, whilst a regular user, did not assign a level of importance (classed as 'Other' in Figure 25) and one respondent chose 'Not really' but was clear that at an earlier stage of his career, his

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response would have been either 'Somewhat' or 'Extremely'. The remaining respondent reported that he did not use digital archives in the sense of deliberately created collections, but did use online reference information to inform his work.
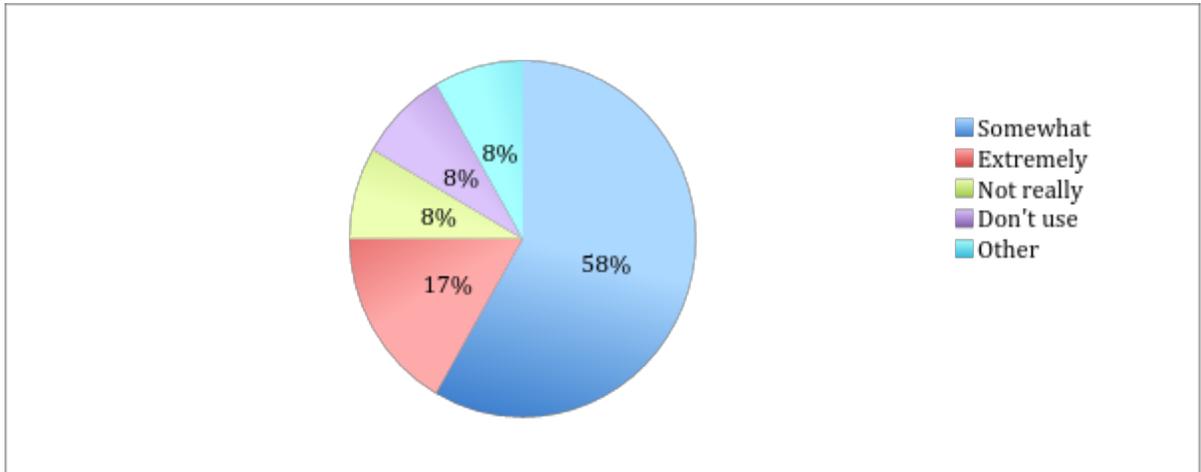
Figure 25: Distribution of importance of the use of online digital archives in research and practice

Seven respondents (58.3%) reported using digital resources once a week or more (see Figure 26). All of these seven respondents had described use of these resources as either 'somewhat' or 'extremely' important.
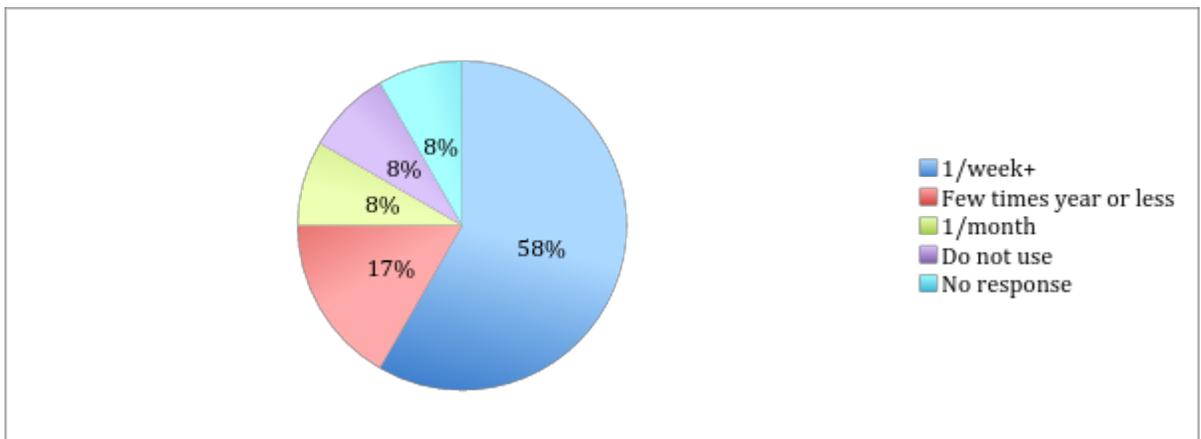
Figure 26: Distribution of frequency of use of digital archives in research and practice

Those who had reported using digital archives in their research and practice were asked the purpose for which they used such archives. Some example purposes were provided: for

abstract inspiration, for factual research, for practical ideas about specific work-related tasks such as set design, and for fun. Five respondents (41.6%) were motivated by all the suggested purposes. The most common individual reasons for use of digital resources in research and practice were for factual research (eight respondents, 66.7%); abstract inspiration (seven respondents, 58.3%) and practical ideas (six respondents, 50%). Three respondents (25%) used digital archives for fun.
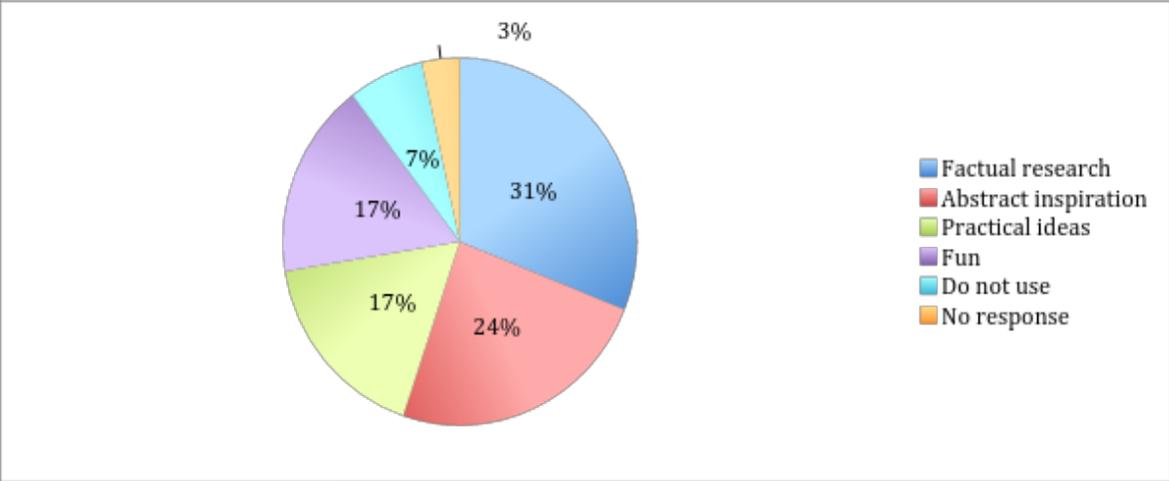
Figure 27: Responses (n=12) by main reasons for use of digital archives in research and practice.

Respondents were asked what sort of digital resources for the performing arts would be useful for their research and practice. Eleven examples were provided in the question schema and respondents were asked to choose from these. Results are tabulated in Figure 28.
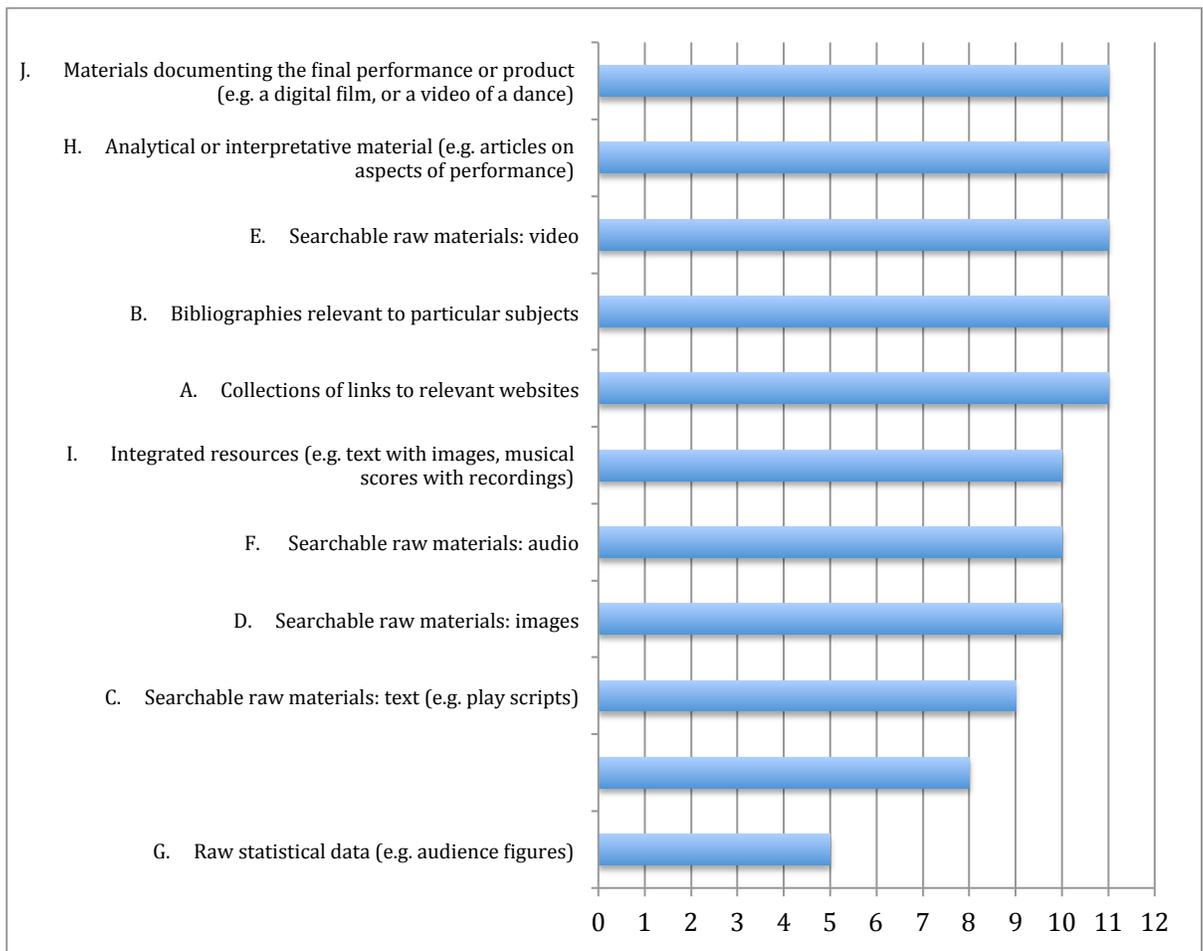
Figure 28: Range of perceived usefulness of different types of digital resources from predefined list of options

Eight of the eleven types of resource suggested were equally popular, being selected by at least ten of the twelve respondents. Only 'Raw statistical data' was chosen by less than half of respondents.

There were no particular patterns of recommendation of online digital collections to peers or colleagues. Four respondents (33.3%) did not recommend online digital resources to peers. YouTube was the most commonly recommended resource overall (4 of 12 respondents, 33.3%).
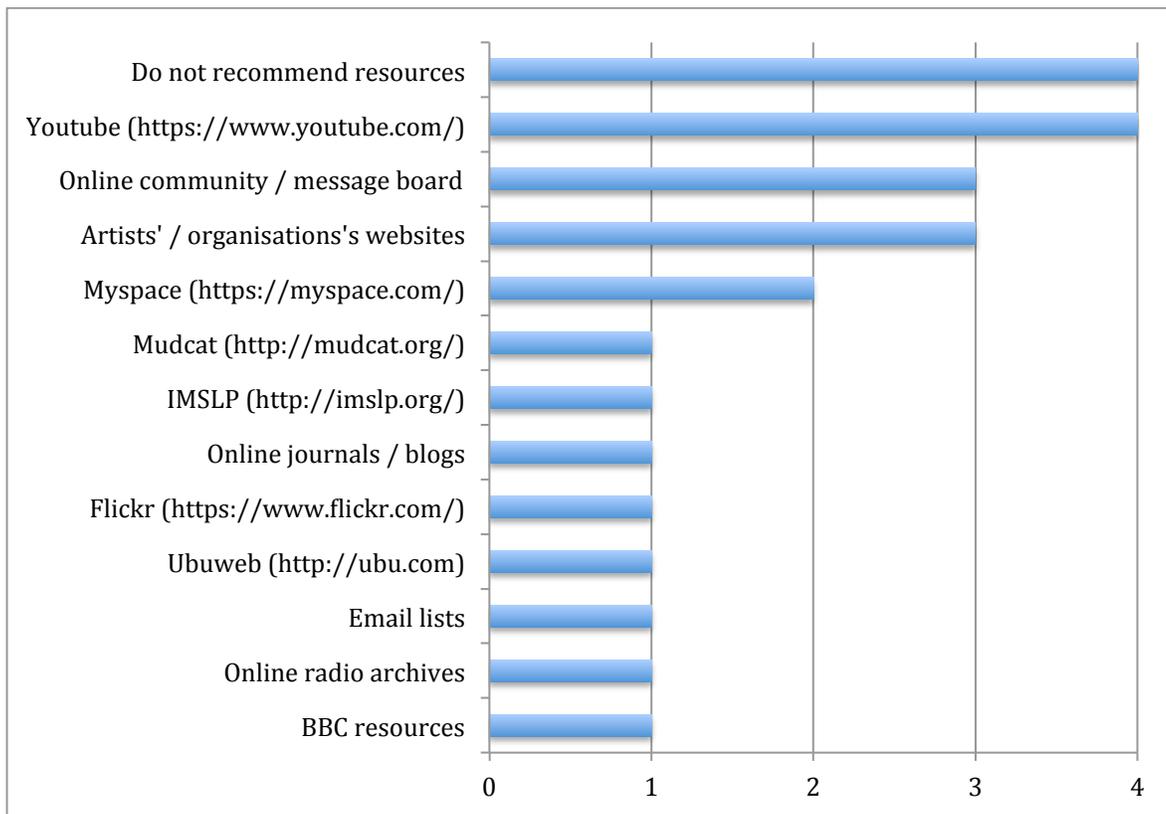
Figure 29: Range of online digital resources recommended to peers

4.3.3 Desired access to materials or collections

Respondents were asked to name any materials or collections (digitised or analogue) they would like to have access to, but currently didn't. Ten of 12 (83.3%) respondents reported that there were collections they would like to be able to access, but had so far been unable to locate.

Sixteen specific suggestions were made. Fifteen of these resources were identified by one respondent each, and one resource was mentioned by three respondents, making a total of 18 user-resource relationships (a single user-resource relationship consisting of one interview respondent discussing one named resource). These 18 relationships were examined to identify in each instance whether the artform(s) of the resource and the artform(s) practised by the prospective user had a common element: 11 were between 'like' art forms (e.g. user = dancer; resource = dance archive), and seven were between 'unlike' art forms (i.e. user = dancer; resource = photographic collection). Figure 30

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provides a simplified overview of this analysis and demonstrates that respondents were interested in – and sought resources about – diverse art forms as well as the one(s) in which they practiced.

	Type of performance work conducted by user	Artform represented by resource
Like requests	Musician	Music
	Choreographer, director / stage	Dance, choreography
	Film maker, screenwriter, scriptwriter	Film making
	Film maker, scriptwriter, screenwriter	Film making
	Stage performer, dancer, performance artist, live artist, singer, film performer	Live art, performance art
	Film maker, scriptwriter, screenwriter	Film making
	Film maker, film maker, screen writer, script writer	Film making
	Director (stage), performer (stage), singer, musician	Music, live art
	Musician	Music
	Musician	Music
	Stage performer, dancer, performance artist, live artist, singer, film performer	Film making

Unlike requests	Playwright, director, stage performer, stage producer	Visual art
	Playwright, director, stage performer, stage producer	Dance, choreography
	Live artist	Dance, choreography
	Musician	Writing
	Musician, live artist	Writing
	Musician, live artist	Writing, visual art
	Live artist	Dance, choreography

Figure 30: Simple analysis of 'like' and 'unlike' relationships between art form of prospective user and art form of desired resource

4.3.4 Use of 'offline' digital resources, e.g. CD, DVD

Digital resources can also be circulated using channels other than the Internet. CDs and DVDs can be disseminated via peer networks or obtained through purchase or rental. Respondents were given the opportunity to specifically discuss their access to and use of offline digital resources. All respondents used offline digital resources in research for and preparation of their creative work, as described in Figure 31.

Practitioners most commonly accessed digital objects by borrowing or being sent copies of other artists' work on various carrier media (9 of 12, 75%). Seven respondents (58.3%) bought CDs and six (50%) bought DVDs.
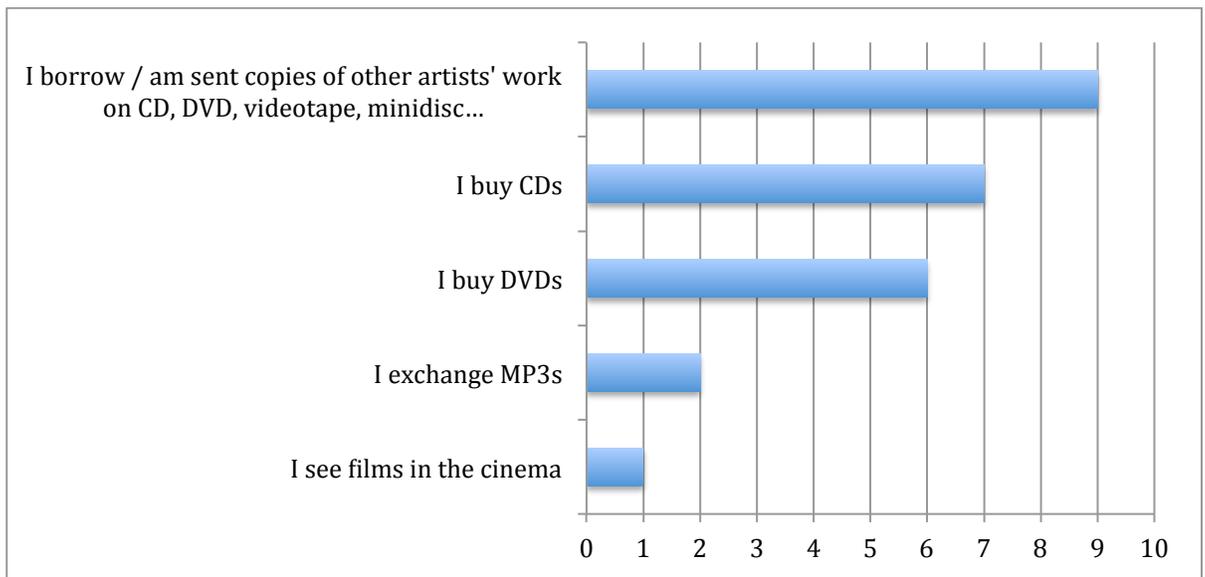
Figure 31: Range of uses of offline digital resources

4.4 Interview questions, Section 4, 'General Remarks'

This section was a structured opportunity for respondents to introduce topics or themes that were not captured earlier in the interview, and which they felt were relevant.

Three responses here touched on the theme of archiving of artist's work as a creative act in itself. Three further responses confirmed the value of digital resources from fields other than the respondent's own field as important influences in their research and practice.

The results of the data presented in this chapter are discussed, and emergent themes identified, in Chapter 5.

Chapter 5: Discussion of Results

The primary research question of the thesis, as introduced in Chapter 1, is:

To what extent do current digital curation practices in the performing arts [outside the institutional context] support the maintenance of a record of contemporary performance practice?

In order to answer this, it was broken down to several supporting questions, as discussed in Chapter 1. This chapter will discuss the results presented in Chapter 4 and indicate how these findings contribute to a response to the supporting questions (reflected in the title of each subsection) and how the primary research question is addressed.

5.1 Do performance practitioners create digital objects in the course of their practice, and if so, for what purposes?

The findings reported in Chapter 4 indicate that performance practitioners frequently create digital objects in the course of their practice. The majority of interview respondents were able to define clear purposes for creating digital objects – mostly these purposes were related to bringing an economic benefit to their practice, but other benefits included artistic and personal benefits.

5.1.1 Digital object creation

Section 1 of the interview established that all practitioners but one were involved in the creation of digital objects in the course of their practice. The practitioners in this sample worked across a range of areas of the performance arts, with a clear majority of 75% working across more than one area of the performing arts. Findings from the sample population do not suggest any particular relationship between areas of professional practice and levels of digital object creation. This in turn suggests that there are common challenges across the various areas of the performing arts related to the creation of preservable digital objects.

Data resulting from the interviews also indicated that digital object creation and use was

not dictated by any particular funding model. As reported in Chapter 4, eight of 12 respondents self-funded the production of their creative work. Half of these (4 of 12) used self-funding as their sole funding strategy, while the others received funding from external sources. In seven cases this was public money from Creative Scotland; public funders in general supported the work of the majority of respondents. If this trend is replicated across the sector as a whole, it would suggest that public funders are potentially in a position of great influence on the priorities and activities of live and performing arts practitioners, given that such a large proportion are in receipt of their funding.

Responses to questions in section 2 of the interview demonstrate a pragmatic approach to the creation and use of digital objects from all respondents. As discussed in Chapter 2, theorists such as Barba (1992) and Phelan (1996) in their academic discourse support the position that practitioners in the live and performing arts privilege – or at least ought to privilege - the ephemeral live moment over the documented trace. However, in the current study this was not a prevalent attitude. All respondents believed that performing arts practitioners *en masse* should preserve their work. Less than half of the respondent group raised the issue of the value of the ephemeral nature of performance at all, and only one respondent expressed the view that the value of ephemerality precluded the value of documenting practice; and even that, only in certain situations.

We find, then, that all respondents reported some use of digital objects in their workflows. In addition, respondents experienced creation of digital objects as a usual and widespread part of practice across their professional sector.

5.1.2 Range of purposes

Most respondents in the sample were clear about their purposes for creating digital objects: over 80% were able to specify at least one purpose for doing so. Perhaps unsurprisingly given the economic pressures under which performing arts practitioners operate (as discussed in Chapter 2), the majority of purposes reported here are linked with yielding a direct economic benefit for the practitioner by use of digital objects for marketing or promotion - this was the intention of 75% of respondents - or to make the digital objects into a commercially releasable product (25%). Other reported purposes showed the importance of digital object creation in the processes of making, reflecting on

and communicating about performing arts work – all critical processes for the working practitioner.

No particular pattern emerged between the art form of respondent and the range of purposes for which they created digital objects.

Responses to questions within sections 2 and 3 of the interview indicate that practitioners created (and valued) digital objects for a number of reasons. However, the desire for documentation to create a trace of live performance remained a major driver for the creation of digital objects in the live and performing arts. Indeed, prior to any advocacy activities provided by the interviewer, 'preservation' of work in this field was almost entirely understood by respondents as the *creation* of digital documentation of staged performance. Arguably, then, public funders in the live and performing arts may benefit from providing guidelines for good practice specifically for the creation of digital documentation of live work (as well as the subsequent curation of those digital objects, as discussed above).

5.2 Do practitioners value their digital objects?

Practitioners appeared to highly value the digital objects they created. In the case of digital objects created by the respondents, the question was to a certain extent closely interlinked – and partially answered by - the responses to the preceding question: a practitioner is unlikely to make the effort to create a digital object without valuing it for its role in the fulfilment of the intended purpose. As previously discussed, most respondents were able to identify at least one specific purpose for which they created digital objects.

Almost all (90%) respondents who reported a particular use for their digital objects described using them to bring about an economic benefit: namely by use of these objects for promotion or marketing of creative work, or by sale as a commercial release. Given the economic situation of many performance practitioners, as described in Chapter 2, the importance of such sources of potential income to the sustainability of practice should not be underestimated.

Various other value-delivering purposes were also described, largely relating to purposes that contribute to the creation of live and performing arts work: for example, as part of research for new work, as raw material for new work, and to facilitate communication in the creation of new work. There was also an interest in the practitioner's position within the larger professional landscape: digital objects valued as potential deposits with an archiving institution; and to enable the practitioner to trace their own artistic development. No particular pattern emerged between the art form in which the practitioner worked and the reason for which they valued their digital objects: the reasons listed above were popular across practitioners of all art forms.

The picture that emerges from the data gathering shows that the use of digital objects including documentation were considered to be an important part of the processes of production and reception of performing arts work (confirming the arguments by, e.g. Jones, 1997; Auslander, 2008) and of making a living and building one's reputation as a practitioner; this impression is one that is further supported by the findings of section 3 of the interview which addresses the use by practitioners of digital objects created by others.

Another way of indirectly ascertaining the value attached to an object by a practitioner may be to examine how competently they *believe* they are managing the object (as distinct from any consideration of how competent their digital curation and preservation practice is when assessed against existing standards of good practice). Whilst this was not posed as a specific question in the interview, almost all respondents (91.7%) claimed to already be preserving their work as a routine part of their practice. This routine investment of time and effort indicates that digital objects – whether created or received – were valued by practitioners. The question of value is further explored in Section 5.3 below in relation to sharing and use of others' digital objects.

5.3 Do practitioners wish to use digital objects created by others, and if so for what purposes?

The enthusiasm for access to digital objects created by others was high across the respondent group: as reported in Chapter 4, access to digital objects was perceived as either 'somewhat' or 'extremely' important to almost all (75%) respondents and more than half reported using them weekly or more frequently. There were also positive attitudes

towards providing access to digital objects for use in research by other practitioners, with two-thirds of respondents in favour of their digital objects being made available for use in this way.

5.3.1 Willingness to share

Responses in both section 2 and 3 of the interview indicated expectations that digital objects would be shared with others in the performing arts professions. There was a marked preference for the provision of access to digital objects resulting from live and performing arts practice, despite the current lack of mandated sharing by public funders. Almost half of respondents considered access to digital objects for use by the original creator, other practitioners, researchers and / or the public to be an important function of any preservation activity. Over half of respondents indicated they would expect a performing arts-related archive or collection to be widely accessible, whether digital or not. Nearly all respondents were in favour of their digital outputs being accessible to other practitioners for research purposes and most were comfortable with a dedicated, external resource to provide and manage this access. The appetite for sharing expressed here facilitates an environment where digital objects created by others can be located and accessed. However, practices in digital object management and sharing reported in the study do not support this attitude.

5.3.2 Willingness to use others' digital objects

A majority of respondents (75%) – as discussed above – reported that use of digital objects created by others was either 'somewhat' or 'extremely' important to their practice. In addition, a majority (58.3%) reported searching for digital objects at least once a week. All respondents agreed that their fellow practitioners should attempt to preserve performing arts work. These points suggest that the practitioners interviewed envisage an environment where the digital objects that do persist may be made available to others.

When considering the kinds of digital objects that may be most useful to others, a large majority envisaged preservation of performing arts work as amounting to the creation of documentation. Whilst responses in the interview do not specifically presume that the documentation would be digital as opposed to analogue, it is worth considering these

responses alongside the most popular 'preservation action' reported by respondents as reported in Chapter 4, namely the storage of digital video files on hard drive or storage media. It may be reasonable to suppose that when considering the value of attempts by peers to preserve work, respondents in this sample considered this to be likely to consist of digital video files being created and stored in order to serve as documentation.

5.3.3 Searching for digital objects

Digital objects, as the *Curation Lifecycle Model* illustrates, are not always created by those who use them. Sometimes they are also received from others or accessed online. The reception of digital objects is not necessarily as passive a process as the verb implies – it can also be the fruit of active search activities. As well as establishing how digital objects are managed, the interviews investigated where and how respondents searched for digital objects. Whilst the DCC *Curation Lifecycle Model* does not explicitly include seeking and finding as activities, these are implied in the Model by the presence of the term 'Receive' and are considered to be important to digital information literacy, a skillset closely connected to digital curation (Carlson et al, 2013; Antonio and Tuffley, 2015). An assessment of the information-seeking skills of respondents is provided in Section 5.6.2 below.

Some interview questions such as those of section 3 of the interview schema (reproduced in Appendix A) solicited direct identification of digital resources that the respondent was either aware of or used in order to access performing arts-related resources; these responses produced a mixture of performing arts-related archives and collections, and other websites and services such as online communities and reference resources. Digital video appeared to be the most searched-for type of resource with the video sharing website YouTube the most popular single resource sought; this is confluent with other indications that for this respondent group, digital video is a powerful tool in the performance-making and dissemination processes.

A variety of approaches was also in evidence when respondents discussed the kinds of digital resource they would find useful: popularity of the types suggested (e.g. documentation of final work; documentation of making processes; searchable images, texts or data, etc.) was fairly evenly spread. This can be considered along with the variety

of purposes for which digital objects were sought: the main purposes were for factual research, abstract inspiration, practical ideas, and fun. On the basis of these findings, we can summarise that the practitioners who participated in the study wished to access a marked variety of types of digital objects created by others for a range of creative processes.

5.3.4 Inaccessible digital objects

Practitioners also reported high levels of appetite for access to collections and resources they were unable to find or access, with most respondents (91.7%) able to name at least one example. These resources were fairly evenly split between those collections and resources of the same artform as the practitioner (e.g. film maker seeking film archive) (10 resources) or from a different artform (e.g. theatre maker seeking visual art references; 8 resources).   This chimes with earlier indications of an omnivorous approach to reference material by performing arts practitioners: practitioners in the performing arts appear to be interested in each others' work regardless of supposed boundaries between art forms. Film-makers wanted to see the results of the work of other film-makers and musicians the work of other musicians. However, there was also frequent cross-pollination between the media sought and the area in which respondents worked. This affirms the existence of performance work as in itself multiple and various: for example, a theatre-maker is deeply engaged with how the work looks, sounds and communicates meaning through language, and therefore is likely to be engaged in searching for visual art resources, music resources and writing resources, as well as for resources related to theatre as a cohesive artform.

5.4 Do practitioners expect their digital objects to persist?

Amongst the interview sample, there were high expectations of perpetual access to authentic digital objects with two thirds of respondents assuming their digital objects will be findable, available (and presumably intact) perpetually, or at least as long as they were of interest to the practitioner. The responses discussed above which indicate that digital objects are of considerable economic value also indicate that practitioners expect or at least hope their objects will persist at least for the length of their career in order to fulfil their economic purpose (advertising and promotion; source of revenue from commercial

release) or their artistic purpose (material for new work; record of artistic development), all of which are functions advantageous to the whole length of a practitioner's career. Two interesting points which emerged are:

- It is worth noting that one practitioner sees no need to preserve work in the form of digital objects, and that he feels this way because he believes his work is part of a long-standing oral tradition and, as such, will persist through this different concept of persistence: namely, relying on group memory in the form of a tradition of established cultural norms.
- Practitioners calculated desirable lifespans for their digital objects based upon (in most cases) the respondent's own lifetime, or 'forever'.

5.5 Which, if any, management or curation actions do practitioners carry out on the digital objects that they hold?

The enthusiasm for the idea of preservation of live and performing arts work using digital means continued into discussion of the respondent's personal approach to preservation. Nearly all respondents reported they 'preserve' their own creative work. However, further questioning revealed that respondents understand this to mean creating documentation and storing physical and digital items in unmanaged storage. Respondents were able to supply a list of actions that they already undertake in relation to their digital objects: the majority of these actions consisted of leaving material of various types in unmanaged storage.

There was no indication that respondents were undertaking the active management of digital objects that is necessary to sustain them reliably over time. Even where practitioners were specifically engaged in creating work that will ultimately be expressed in a digital form, there was no evidence of higher levels of awareness or skills in sustainable preservation of these digital objects. Eight respondents (66.7%) say they created back ups of their digital objects. Four respondents (33.3%) reported the initial work was created digitally: two of those reported backing up. (Whilst the production of back-ups is of course a positive step, there was no evidence that either the initial object or the back-up copies would be sustained by active management.) Respondents did, however, recognize there were such things as professional skills in the field of caring for

digital objects – this was the most commonly-cited reason in favour of the deposit of digital objects in a dedicated external resource. In this way, these skills were discussed by respondents as part of the skill-set of an information professional; there was no evidence that respondents saw themselves as responsible for the tasks of professional-level information management.

5.6 Do practitioners' digital curation practices support their ambitions for the digital objects in their possession?

In section 2 of the interview, practitioners considered how they attempt to preserve the digital objects in their possession. This provides an indication of the level of their understanding of digital preservation practice.

5.6.1 Preservation awareness and skills

Practitioners demonstrated low levels of awareness of competent active management of their digital objects in order to keep them authentic, complete and available. Practitioners demonstrated widespread uncertainty about the ideas and concepts around preservation of digital objects. Over half verbally indicated uncertainty in response to the interview questions. The most popular 'preservation strategy' reported - that is to say, set of actions applied to all types of digital object - was to place digital objects on storage media in a box in the home or workspace. This was the approach taken by 75% of respondents.

These practitioner choices in the handling of their digital objects amount to unmanaged, 'benign neglect' (Tibbo, 2003). As has been noted in digital curation scholarship, however, 'benign' means free from intentional damage; unintentional damage is still likely to occur: 'Digital objects do not, in contrast to many of their analogue counterparts, respond well to benign neglect' (Ross, 2012).

There was no indication of active management of digital objects other than the creation of back-ups, reported by two-thirds of respondents but with no evidence of these in turn being managed.

These points should be considered against the expectations of practitioners for the longevity of their digital objects, and against the high value – economic, artistic and personal – attributed by practitioners to their digital objects. It becomes clear that this is a practitioner community that highly values access to digital objects for a variety of purposes and in order to complete a number of different creative and business tasks. However, this enquiry reveals a gap between practitioners' ambitions for the longevity and authenticity of their valued digital objects and the likely result of their current digital preservation and curation-related decisions. This is arguably the primary finding of this thesis.

5.6.2 Information-seeking skills

Respondents did not demonstrate particular knowledge or skills in information-seeking practices: for example, they did not discriminate between different types of online resource. Most practitioners relied on searching the open web to find digital resources or objects within these resources. Contact with information professionals took place in the case of one respondent only. Despite 58.3% of respondents reporting that they engaged in part-time teaching in the HE environment, this sample reported low levels of library use (25% of respondents), with no particular correlation between those who taught in HE and those who accessed HE libraries. These limits to information-seeking skills and resources unsurprisingly produced frustration when searching for fairly specialist material: respondents were easily able to produce a list of resources to which they wanted access but had been unable to find, with only one respondent unable to think of any resources that were out of reach.

5.6.3 Applicability of findings across art forms / areas of specialisation

When investigating those resources which were desired by practitioners, but which they had not yet been able to locate, it is notable that there was a cross-pollination between the area in which the respondent practiced and the media of the desired objects. This is confluent with the findings of the very first question: that to attempt to isolate and scrutinise practice in digital object finding, use and management in any area of specialization in the live and performing arts would very quickly run into difficulties. Responses in this study show theatre directors seeking photography collections, film-

makers wanting oral histories and musicians longing to see visual art and academic journals. The live and performing arts appear to be intimately entwined with each other, and with the creative arts more widely, in a cyclical relationship of production and inspiration that cuts across areas of specialisation.

A clear majority of practitioners in this sample usually worked across more than one art form within the performing arts. As discussed above, findings from this sample population do not suggest any clear relationship between particular areas of professional practice and levels of knowledge or skill in digital curation. This in turn suggests that there are common challenges to sustainable digital curation across all art forms within the performing arts.

Chapter 6: Conclusions and Recommendations

A set of conclusions can be drawn from the research positioned and described in this thesis, which can also lead to recommendations for those who train, practice and fund performing arts work.

6.1 Conclusions

The current study examined the digital curation (including preservation) awareness and practices of independent live and performing arts practitioners, i.e. those who work outside institutional contexts. It studied a small sample of this category of performing arts practitioners illuminating in depth the understanding and practices in relation to digital objects.

This sample reported widespread creation and use of digital objects of various types and for various purposes, and high confidence in the decisions it takes to manage its digital objects but – critically - showed little awareness of the skills required for competent digital curation. This gap identified by the current study between perceived and likely outcome of decisions in the management of digital objects suggests that these highly valued digital objects are currently at risk of damage or loss. This population has little access to technical or skills infrastructure to support improved digital curation practice, and major funders of this community do not currently provide motivation in the form of either requirements or rewards to engage in good digital curation practice. There is, then, an apparent need for increased practitioner awareness of the benefits of better management of digital objects and for some attempt at training provision for the community; this could be usefully supported by the development of guidance and standard-setting by funders.

Pulling together the findings from the data-gathering undertaken for this thesis contributes to a characterization of digital curation awareness and practice in the live and performing arts sector. A majority of respondents appear to equate the creation of digital documentation with preservation of their work for the future.   Often, performers hope, dream or expect that they have somehow captured – to some, preserved – live and performing arts work when in fact what they have achieved is the creation of

documentation of one or some aspects of it.

These findings suggest a lack of awareness of the need for the active management articulated by digital curation to keep digital objects accessible over time, or to use the Digital Preservation Coalition's phrase, 'required to maintain access to digital materials beyond the limits of media failure or technological change' (DPC 2008).

It is worth emphasizing that the active management of digital objects necessary to preserve them successfully over time is not widely understood in this sample *as a separate activity* from the initial creation and collection of digital objects. This presents significant and imminent challenges in a community that so highly prizes the creation of digital objects and is emphatically in favour of wide access to these objects for other practitioners, researchers and the general public.

If the results of this study are representative of the non-academic live and performing arts practitioner community more widely, then this is a population of practitioners who make ephemeral work and want to digitally capture and retain traces of that work which will last in perpetuity and will be widely and reliably available. Further, this population already believes it is effectively preserving these digital traces, and already relies on the sustained existence of these traces for economic benefit and to contribute to the creative process. The self-motivation and the enthusiasm for good digital curation practice were both there in the practitioners interviewed; it was awareness, training and reward structures for improved digital curation practice that were missing.

6.2 Recommendations

This section provides recommendations for the principal stakeholders involved in professional performing arts practice: practitioners, funders, HEIs / training providers, and researchers interested in skills development in this area.

6.2.1 Recommendations for practitioners

This study indicates that this population urgently needs to become aware of the risks to which its digital objects are currently subject. Additionally, training is needed to give

funded practitioners access to sufficient digital curation skills to allow the creation of high quality and sustainable digital objects. Practitioners in possession of such skills will be in a position to make and implement more information choices in their own digital curation practice as well as contributing to a cultural shift with their areas of specialization.

6.2.2 Recommendations for funders

It is perhaps no surprise that practitioners working outside the academic institutional context showed low levels of awareness and skill in sustainable management of their digital objects if the ecosystem with which they immediately interoperate does not demonstrate good digital curation practice or expect it of practitioners.

An agreed set of expectations for the creation and management of digital objects, tailored for the live and performing arts community, could realize benefits including an enhanced reputation for the practitioner amongst both audiences and peers, increased potential for collaborative work, the potential for new work inspired or facilitated by the existence of these digital objects and potential revenue from the sale or display of these objects and / or their ability to generate new opportunities. It would seem timely, then, for those who fund live and performing arts work to develop and apply some appropriate expectations and guidelines to promote and support the production of high quality digital objects and to enable their sustainability, and to ensure such guidance is available to practitioners of all art forms.

Given their responsibility for administration of public funds, appropriate flagship organizations such as the major arts funding agencies would be appropriate bodies to provide such training. Some existing models may be helpful: the activities described here by practitioners constitute a cycle of creation and use of, and desire to share digital objects, complemented by a desire to find and access digital objects created by others in order to retain evidence of past work and to inspire and inform the creation of new work. This cycle of activity mirrors that which is described by the DCC *Curation Lifecycle Model*, suggesting that approach to the creation, storage, preservation and reuse of the digital objects of HE research has potential as a useful skills model for live and performing arts digital curation training. However, these models have to date usually been deployed with large organisations, so care should be taken to tailor their useful messages in such a way

that they are tractable for small-scale companies and individual artists, given their importance to the performing arts sector overall.

The DCC *Curation Lifecycle Model* is also useful for demonstrating the iterative, cyclical nature of the recursive actions needed to manage digital objects over time, and the close relationship between the sustained object and its potential to be transformed into a new piece of work (indicated by the sequential stages of 'Transform' and 'Create'), thus re-launching the cycle once more. Complementary digital skills such as information-retrieval and searching strategies would help to complete the cycle of efficient and effective creation and finding of digital objects.

Arts funding organisations also have a potential role to play in creating expectations and reward structures to promote and encourage good digital curation practice. However, given the considerations noted above, the parameters and meaning of the term 'digital curation' need to be carefully articulated to the live and performing arts professional community.

6.2.3 Recommendations for HEIs and other training organisations

HEIs and other training organisations should consider providing training and guidance to their students in the creation – as well as preservation – of digital objects as an integral part of teaching professional skills. Given the high proportion of the performing arts sector which is comprised of individual artists and small companies, it is unlikely that many of their graduates will practice in the context of a large institution. Good practice in the creation of digital objects is understood as part of overall digital curation, as articulated by the 'Conceptualise' and 'Create or Receive' phases of the DCC *Curation Lifecycle Model*. Good practice in digital object creation makes possible the remainder of the cycle of activity and supports subsequent access, use and reuse of these objects.

Improvements in the underpinning training infrastructure for publicly funded creative work are likely to contribute to a wider cultural shift in the practitioner community. This shift would support the realization of economic benefits similar to those which are predicted to result from a comparable strategy in HE research, enhancing the return on any investment of public money and enhancing the potential of UK live and performing arts to inspire and

influence other artists, researchers and the general public.

Practitioners who graduate from tertiary education will depend upon - or at least be influenced by - the skills they were taught as students, including any training in the creation and management of digital objects, should it be offered. However, there is little evidence in the existing literature to suggest that any digital curation - including digital preservation - advocacy or skills are currently embedded in tertiary education programmes in the performing arts. These skills are increasingly necessary for sustainable practice in the creative arts, and so should be incorporated on a routine basis into performer training at undergraduate as well as postgraduate levels.

6.2.4 Recommendations for further research

Further research in this area might usefully concentrate on the design of a larger, expanded study in order to provide results that are more likely to represent the UK live and performing arts community; the current sample is too small to provide this. The results of a larger study might usefully be mapped against those of the Abbott and Beer study to attempt to ascertain the difference in digital curation awareness and practice between those working within and beyond the higher education institutional context. Any further work would also be greatly enriched by the significant task of analysis of the syllabi of relevant tertiary education courses in terms of skills for digital object management and use. Finally, the findings could be usefully structured using the *Curation Lifecycle Model* to develop an introductory-level curriculum framework for such practitioners, which could be piloted by an appropriate organisation which has influence in live and performing arts practice such as public funders.

Questions phrased using the term 'preservation' particularly foreground some of the problems with dissemination of digital curation (including preservation) skills to non-science communities. During the interviewing, it was noteworthy that only one practitioner had heard the term 'digital preservation' before and understood the skills and activities it signifies. The provision of supporting information to participants for clarification during the interview, however, whilst allowing a fuller reply from the respondent, would have clouded the issue somewhat as the question then would become one about awareness of other terminology such as 'management of digital assets' or

'looking after your digital materials'. The interview question would have benefitted from having had a set aim, i.e. whether it was attempting to assess awareness of the term 'digital preservation' or familiarity with the processes and knowledge implied by that term such as ensuring files are well described, refreshing one's carrier media, creating back-ups, checking copies of one's files and regular file migration. In order to answer the research question, it is more useful to be aware of the need for the skills and activities of digital preservation rather than to be aware of the term itself, and so proxy phrases to aid understanding were used where necessary.

From the brief overview of training development efforts in the creative arts disciplines provided in the literature review, we can see that there is little existing work in this area. In most cases, guidance and tools for sustainable curation of digital objects in the cultural heritage sector are targeted either at students or at digital curation professionals - InterPARES provides a rare exception in its work with professional performance practitioners.

Whilst the work of such efforts is commendable and specifically very useful in scoping the roles and skills in digital object curation in the creative arts, there is no evidence that it has yet been incorporated into programmes of tertiary education for performing arts students and practitioners in the UK, or has been adopted by a relevant body for the professional development of performing arts practitioners working outside institutional contexts.

It is recommended that the InterPARES trust extends its dissemination efforts to communicate its findings and resources, where relevant, to practitioner representative bodies in the performing arts. As the Trust has members from over fifty countries, such an effort has the potential to provide significant advocacy to representative bodies for performing arts practitioners.

In the UK, higher education currently offers a useful model of how digital curation and preservation can be incentivised across an entire professional sector. In UK higher education, the research councils administer public funding for the purpose of research. Together, the UK research councils have set expectations for the preservation and accessibility of the digital objects that result from research they fund in the form of the

RCUK Common Principles on Data Policy (RCUK 2011). This document specifies the standards of management and accessibility expected for research outputs and the underlying materials or data that support research assertions. Care is taken within this set of expectations to articulate respect for intellectual property rights and the clear articulation of the benefits of the approach, including an enhanced reputation for the researcher, increased potential for collaborative work and the potential for new work inspired or facilitated by the existence of competently-curated digital objects. These expectations apply to research from all funded disciplines, including the sciences, social sciences, humanities and arts.

The Arts and Humanities Research Council (AHRC), as a major funder of academic research in the live and performing arts in the UK, is a member of RCUK and included in the signatories to the RCUK *Common Principles*. Efforts such as the AHDS indicate that serious thought has already been invested by the UK research councils in consideration of these issues in the performing arts; participation in the RCUK *Common Principles* agreement acknowledges, at least aspirationally, the continued importance of the curation and preservation of digital objects which result from research in the live and performing arts. Practitioners working outside the academic context may also be aware of these developments; responses in section 1 give a picture of frequent interaction with the higher education sector even by those practitioners who practice outside the academy.

It would seem both useful and appropriate, then, for public funders of creative work to consider setting confluent expectations for those digital objects whose creation they have funded in order to encourage their availability and accessibility. Creative funders currently promulgate no such expectations at this time, but are already operating within the digital ecosystem and reliant upon sustained access to authentic digital objects. For example, applications for Creative Scotland funding are expected to arrive supported by digital documentation of previous creative work in the form of digital audio, video or images. The decision to fund or reject a bid for support is taken by Creative Scotland at least partly on the evidence provided by such digital documentation, indicating the importance in the funding relationship of high quality, well-described digital objects that can be reliably found and accessed. But at the time of writing, there are no guidelines provided in Creative Scotland's bidding documentation to guide the practitioner on the creation of high quality digital objects, and storage and sharing solutions recommended by

Creative Scotland are commercial cloud services which may have no obligation to sustain service or even, in some cases, respect UK intellectual property rights legislation (Aitken et al, 2012).

6.3 Concluding remarks

In conclusion, this study investigated the awareness of digital curation and preservation in the UK performing arts practitioner community, and the strategies for seeking, managing, valuing and disseminating digital objects as part of professional practice within a sample of this population. The study attempted to establish to what extent current digital curation practice in the independent practitioner population is likely to support a stable record of contemporary live performance work.

The main findings of the study are that practitioners – who are likely to be working beyond the supporting infrastructures of a large organisation - frequently make and use digital objects in the course of their work. Practitioners highly value these objects and expect them to be around, intact and available in perpetuity. But a troubling gap is currently present between these expectations and reality. There is a consistently low awareness in this population of digital object creation and management as a specific set of skills and competences that are relevant to professional practice in the creative arts and should be trained and supported. This is occurring at the same time that digital ICTs are being widely taken up and increasingly relied upon as tools within making workflows in the performing arts. Until this skills gap is bridged, it is likely that the number of vulnerable digital objects continues to increase. On the early indications gathered by this study, then, it is unlikely that current practice in digital curation is enough to maintain a stable record of the performance work that is currently being made.

It is likely that this low level of awareness of digital object management results from a low level of awareness of digital curation, digital preservation and information literacy in UK society as a whole. If practitioners were routinely able to access advocacy and training in these areas, there is potential to promote the sustainability of careers in the performing arts through being able to reliably find and use authentic digital resources. It is also likely that improved awareness and practice of digital curation in this professional community would improve the chances of survival of a whole generation of performing arts digital

objects – including irreplaceable documentation – and in so doing, keep this ephemeral work alive for the study and enjoyment of current and future generations.

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Appendix A: Interview instrument

Performing Arts UK Practitioner Survey

Thank you for your participation in this survey. My aim is to gather information from you about your understanding, experience and use of preserved documentation as well as the preservation of your own work and that of other performers / practitioners in the live and performing arts.
The term 'performing arts' in this context includes theatre, music, film, television, radio, dance, live art/performance art, comedy and other types of live performance work.
These questions have been supplied as an editable document so that you can add your answers directly into the text. Please answer all questions: if you don't know or aren't sure please just say that as your answer. It's all pretty self-explanatory. But do just get in touch if you have any queries: laura.molloy@glasgow.ac.uk. Please also return your script to the same email address. Thank you!

Your work

1.   What field, area or medium would you describe yourself as working in? If more than one, please include all. e.g. musician, film making, improvised music performance, acting, live art, choreography, stand-up comedy, etc.
2.   What is / are your main source(s) of funding for your creative work? Include past and present sources.
3.   Do you interact or collaborate, as a practitioner, with higher education to any extent? (This could be working with researchers, or teaching in / having your work studied by college or university departments, or producing your work within an academic context, or presenting work at academic conferences, etc.)
    ·   If so, please supply details.
    ·   If not, would you like to / do you intend to?
4.   Do you perceive any difference between the academic and non-academic audiences for performing arts? For example, do you feel one is more important or critically rigorous or informed as an audience than the other?

Preservation of your work

5.   What do you understand by the term 'preservation' in terms of creative work? i.e. in your opinion, what does it involve?
6.   What do you understand by the idea of
a)   an archive?
b)   a digital archive?
7.   Do you think it is important that performing arts practitioners in general preserve their work?
    ·   Why (not)?
8.   Do you preserve your own work?
    ·   If so:
      a)   Please describe how you do so.
      b)   How long do you plan to keep these preserved outputs?
      c)   What do you use these preserved outputs for?
      d)   Would you be interested in these preserved outputs being made available to other practitioners for research purposes?
    ·   If not:
      a)   Is there a specific reason you don't? e.g. cost, lack of technical knowledge, not a priority, etc.

b)   Is this something you plan / would like to do in the future?

9. Have you ever been involved in digitising materials or in creating a digital collection relevant to the performing arts?

·   If yes, please describe any work you have been, or are currently engaged in that creates digital performing arts resources. It would be helpful if you could tell us where the funding came from.

10. Are you more comfortable with the idea of your preserved outputs being archived by a dedicated central resource, i.e. at one site in the UK, or with each practitioner maintaining their own archive of work?

·   Why?

Your use of archives

11. Can you name any existing archives / collections (including online / digital) that are either exclusively or partially devoted to the performing arts (whether or not you use them)?

12. How important is the use of digital archives in research and preparation for your own work? (Extremely / Somewhat / Not really / Don't use them).

13. If you use digital archives in your research and practice:

a)   Please specify what they are;

b)   Please specify how often you use them (Once per week or more / About once per month / A few times per year or less);

c)   Please specify why you use them, e.g. For abstract inspiration? For factual research? For practical ideas about, for example, set design? For fun?

14. What sort of materials would you find useful in digital resources for the performing arts?

a)   Collections of links to relevant websites

b)   Bibliographies relevant to particular subjects

c)   Searchable raw materials: text (e.g. play scripts)

d)   Searchable raw materials: images

e)   Searchable raw materials: video

f)   Searchable raw materials: audio

g)   Raw statistical data (e.g. audience figures)

h)   Analytical or interpretative material (e.g. articles on aspects of performance)

i)   Integrated resources (e.g. text with images, musical scores with recordings)

j)   Materials documenting the final performance or product (e.g. a digital film, or a video of a dance)

k) Materials documenting the process of creating the performance or product (e.g. director's notes, rehearsal techniques, costume or lighting design, recording techniques)

15. Please ignore the following two questions: they are now out of date, but I have retained them here to preserve the numbering scheme. Please go directly to Q17. Having looked at the AHDS Performing Arts website and the resources available there (http://performingarts.ahds.ac.uk, particularly 'Online Collections' and then the resources relevant to your area), please indicate whether you consider this a useful resource.

·   If not, why not?

16. Before this interview, were you aware of the Arts and Humanities Data Service (AHDS) and its Performing Arts resources website?

·   If yes, did you take advantage of the services or collections, and if you didn't, why not?

17. Do you recommend online resources to colleagues/contacts for research purposes?

·   If so, which ones?
18. Do you use any digital resources which are not online (e.g. on a CD)?
·   If so, which ones and where do you acquire them?
19. What materials or collections (digitised or analogue) would you like to have access to that you currently don't?

General remarks
20. Is there any other feedback you would like to give regarding the role or usefulness of digital preservation, or digital resources for the performing arts?
21. Would you be willing to be contacted in the future to provide me with more feedback?

Thank you!

Appendix B: Participant consent agreement (anonymised)

University *of* Glasgow

Dear ██████

Performing Arts Practitioner Survey

Thank you for agreeing to be interviewed by me as part of my research into the use and understanding of archives by professional practitioners in the performing arts. This letter outlines the details of your involvement – please read it carefully and, if you are satisfied with it, complete and sign both copies and return one to me at the interview. The second copy is for your own reference.

I look forward to meeting you at 3pm on Friday 1 August, at ████████████████ Glasgow. The interview should not take longer than 45 – 60 minutes, but of course the length is dictated largely by the contribution from the interviewee.

Please find attached the questions we will address during the interview. It would be helpful if you could take a brief look at the following website prior to our conversation: http://performingarts.ahds.ac.uk, particularly 'Online Collections' and then the resources relevant to your area.

In the interview, I will pose these questions to you and record our conversation, identifying you by a participant number in order to preserve the anonymity of your remarks. I may also take written notes during our conversation. If I should decide at a later date to attribute any of your contribution to you, or re-use any of the resulting recorded material, I will write to you and ask your permission. All materials resulting from the interview process will be kept securely and will be destroyed after the survey is complete, in line with the University's policy on Data Protection.

My research proposal has been approved by the Faculty of Arts Ethics Committee, and I am therefore obliged to observe the ethical requirements of that committee. These requirements are based on guidelines established by AHRC, ESRC and other UK funding councils.

![University of Glasgow logo]

My contact details for your reference are provided at the bottom of this letter. Please do contact me as soon as possible if you have any questions or concerns, and thank you for your participation.

Yours sincerely

[signature]

Laura Molloy

Date: August 2008

I agree to participate in this research interview as described above, and agree to the proposed use and storage of the resulting data.

Name: ████████████████

Date: August 2008

Address: ████████████████████████, GLASGOW

Contact telephone number: 0141 ████████████

Email: ████████████████████████████████

Signature: ████████████

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Appendix C: Participant recruitment network diagram
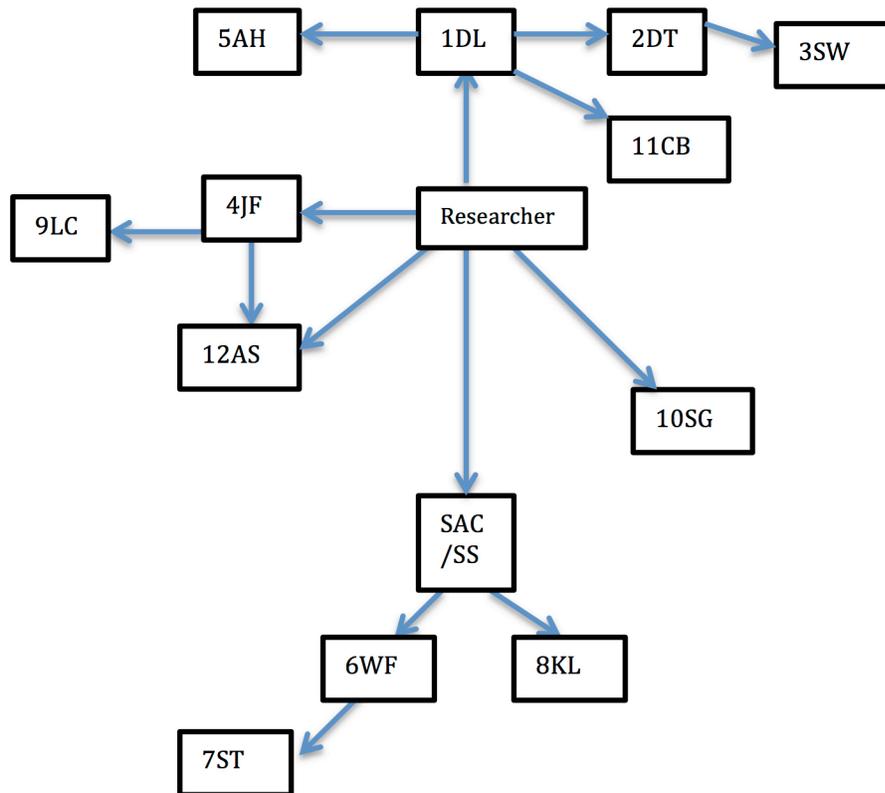
Notes:

- Each participant here is identified by an alphanumeric code. The numeric element provides each participant with a number from 1 to 12, which corresponds with the order in which they were interviewed.

- 'SAC/SS': Scottish Arts Council/Scottish Screen. At the time of writing these two bodies are now combined as Creative Scotland; at the time the study began, this process of combining these two bodies had also begun but had not yet been completed and participants still referred to them by the older names.

- As is shown in the figure, I contacted the SAC/SS for participant suggestions as SAC had emerged as the most common single funder in the first five interviews.

- Arrows represent the order in which participant *x* suggested participant *y* for the purposes of this study. They do not necessarily represent the full complexity of social contacts across this group of practitioners.