

EDITORIAL

This is an exciting time for *Archives and Manuscripts* as we produce our first truly open access issue of the journal in 2022. This moment has been a long time coming and is due to the ongoing persistence of members of the Australian Society of Archivists (ASA) to agitate for a move away from a commercial publishing model, a Council that is willing to take risks and invest in future models of publishing and access to information, and researchers and practitioners who are choosing this form to share their findings. Thank you all!

This is also my first issue as General Editor, a role I took on at the same time as I was shifting my own identity from ‘academic and researcher’ to ‘public servant and practitioner’. My move was motivated by reflections on the past few years of pandemic life (perhaps even making me part of the ‘great resignation’¹), and a desire to apply my skills and knowledge in practice. This shift has given me perspective on the role of an academic journal for a member-based society such as the ASA, and the important role the journal plays in bridging the gap between research and practice. As a society journal, we know our key audiences include practitioner members along with established and emerging academics, and finding the balance of content for you all has always been a challenge.

Our opening article by Jennifer Douglas, Alexandra Alisauskas, Elizabeth Bassett, Noah Duranseau, Ted Lee and Christina Mantey demonstrates the importance of these conversations as they analyse recent research where they interviewed archivists about grief and other emotions in archival work. Of note in their analysis is the importance of listening both in research and in practice; as one participant noted, listening in the archives is a ‘way of honoring a donor or records creator or subject’.² This extends through the paper to ensuring practitioners have the spaces to be heard as they work through their own personal and professional practice. *Archives and Manuscripts* is one place where these voices can be heard and honoured, and to this end, I encourage reflections and reviews in the journal, highlighting the strength and power in the voices and actions of archivists nationally and globally.

This issue includes reflection articles from Carey Garvie and James Doig on the Commonwealth Record Series System at the National Archives of Australia, and from Gianni Di Gravio AM on a recent collaboration with television producers and the University of Newcastle Archives. The breadth of work taking place in the profession is impressive, and we look forward to future reflections from practitioners on risk taking, experimentation and future thinking for practice, along with reflections of what has gone before in Australian archival practice.

We also feature peer-reviewed articles from Australian researchers that both look past traditional archival practice; Kieran Hegarty³ challenges web archivists and historians to think about the absences created through their work, and Matt Balogh, William Billingsley, Mary Anne Kennan and David Paul⁴ propose models for personal record keeping which they translate to a framework for these everyday records. As in Douglas et al., both Hegarty and

Balogh et al. are framing archival work from a human perspective and challenging archival practice to recognise itself within a tangled web of social, technological, environmental and emotional spheres.

There are ongoing discussions in the journal publishing sector of the challenges in sourcing quality content and timely peer reviews, and sustainable funding models.⁵ *Archives and Manuscripts* is not immune from these challenges, and I am particularly thankful for the anonymous peer reviewers for this issue who have all provided constructive, productive and supportive reviews for authors. I aim to ensure each article has been reviewed from both an academic and practitioner perspective to ensure audience needs are met, and I recognise that on many occasions this work is done voluntarily, outside of the bounds of your paid work.

It is open and free, but rights remain with the authors

As we have worked with authors over the past few months to produce this issue, we have had engaging and productive discussions to help shape and understand the open access publishing model for the ASA in particular. Questions of copyright have always driven discussion around the journal's publication; in the commercial publishing era with Taylor and Francis (2011–2021), members often raised questions of copyright and ownership of the journal, and the articles within. But, as the project to publish the back issues of *Archives and Manuscripts* revealed, the copyright status of articles and the journal itself changed regularly, and it was a mammoth undertaking to secure permissions across 55 years of publishing.

The creative commons license that we are publishing under - CC BY-NC-ND 2.0 - allows non-commercial reproduction, without transformation and with full attribution. This license allows the republishing of articles within the journal, which, in turn, amplifies the voices and impact of the research and reflections. We encourage sharing of these articles and at the same time have listened to member and author concerns and ensured the copyright remains with the authors in perpetuity.

In closing

It would be remiss to conclude this editorial without acknowledging the formidable work undertaken by my predecessor, Dr Viviane Frings-Hessami, as she shepherded the journal through extremely difficult times for academic journals during the pandemic years of 2020 and 2021. Viviane started her tenure in Volume 47, Issue 2, with a declaration that she was 'keen to encourage dialogue between researchers and practitioners, and between Australian and international recordkeeping professionals',⁶ and I too declare my intent to continue to forge these conversations and relationships. In this light, I aim to work with the Editorial Board and ASA Council to reimagine the Editorial leadership of the journal, reflecting these dual audiences and roles, and the benefits of collaborative work. Keep an eye out for further discussion of this as we work towards the next volume.

Dr Jessie Lymn

General Editor, *Archives and Manuscripts*

Notes

1. Ariane Cohen, 'How to Quit Your Job in the Great Post-Pandemic Resignation Boom', 2021, available at <https://www.bloomberg.com/news/articles/2021-05-10/quit-your-job-how-to-resign-after-covid-pandemic>, accessed 1 August 2022.
2. Jennifer Douglas, Alexandra Alisaukas, Elizabeth Bassett, Noah Duranseaud, Ted Lee and Christina Mantey, "'These Are Not Just Pieces of Paper": Acknowledging Grief and Other Emotions in Pursuit of Person-Centered Archives', *Archives & Manuscripts*, vol. 50, no. 1, 2022. <https://doi.org/10.37683/asa.v50.10211>.
3. Kieran Hegarty, 'Representing Biases, Inequalities and Silences in National Web Archives: Social, Material and Technical Dimensions', *Archives & Manuscripts*, vol. 50, no. 1, 2022. <https://doi.org/10.37683/asa.v50.10209>.
4. Matt Balogh, William Billingsley, David Paul and Mary Anne Kennan, 'Attributes of Personal Electronic Records', *Archives & Manuscripts*, vol. 50, no. 1, 2022. <https://doi.org/10.37683/asa.v50.10421>.
5. See for example Hamid R. Jamali, Simon Wakeling and Alireza Abbasi, 'Scholarly Journal Publishing in Australia', *Learned Publishing*, vol. 35, no. 2, 2022, pp. 198–208 for a discussion of the issues faced by Australian journals that ceased to publish in the last decade.
6. Viviane Frings-Hessami, 'Editorial', *Archives & Manuscripts*, vol. 47, no. 2, 2019, pp. 175–8. <https://doi.org/10.1080/01576895.2019.1611067>.



ARTICLE

'These are not just pieces of paper': Acknowledging grief and other emotions in pursuit of person-centered archives

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Abstract

This article reports on findings of a series of interviews conducted with 27 archivists on the topic of grief and other emotions in archival work. Centering the words of the interviewed archivists and demonstrating a research ethic of deep listening, this article describes how the interviewed archivists encounter and experience grief and other emotions as part of working with records, researchers, and donors. Interview participants highlighted a lack of preparation for the emotional dimensions of archival work as well as difficulty and damaging silences surrounding emotions in the archival work. This article argues that a first step toward transformative change in the way archival education programs and workplaces address the emotional dimensions of archival work requires sincere and committed acknowledgment of these dimensions and of archival work as person-centered and relational.

Keywords: *Grief; Emotions; Recordkeeping; Archivists; Listening.*

Introduction¹

'I think a lot of us are dealing with these types of things. These traumatic, grief-stricken records are out there. [...] And there needs to be some sort of connection between people dealing with it, to say, "Yeah, we're dealing with the same kind of thing. And it's okay."'

Between May and September 2019, I conducted interviews with 29 archivists and records professionals on how grief and emotions related to grief are involved in and impact archival work. When I issued a recruitment call, I did not expect a large number of responses and was surprised by the high level of interest in the subject. Perhaps I should not have been. As Geoff Wexler and Linda Long point out, although archival theory and professional discourse have tended to avoid the 'negative connotations' of death and dying, the archival endeavor is inherently and 'intimately bound up with these life events'²; the archivists and records professionals

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I spoke with acknowledged the frequency with which they encountered grief, the professional silence about it that existed, and the sometimes urgent need to find a space to talk about it.

In this article, I provide an overview of the findings of my research team's analysis of the series of interviews,³ which sought to explore how archivists and others who work with records and archives experience grief during their work, whether it is their own grief or the grief of others with whom they work or interact. I situate this exploratory work within a focus on the emotional dimensions of records and 'records work',⁴ and as such, the interviews also focused on emotions other than grief. As will be explained, the interviews discussed here are part of a larger project that explores grief and other emotions in archives more broadly; my hope is that this ongoing study of grief and emotion in archives will suggest new ways of improving or transforming professional methods for working with records donors, creators, and users, describing records, providing access to them, and contributing to the scholarship and praxis of others who are likewise seeking transformative change. This article, whose aim is to provide an overview of the ways participants described their experiences and encounters with grief and other emotions, suggests that such change should be first and foremost person centered, and that a first step toward change requires sincere and committed acknowledgment of the complicated emotional dimensions of archival work as well as preparation, training, and support for this part of the work.

Grief and emotion in archives: situating the project in the landscape of archival scholarship

In my work on the relationships between grief and recordkeeping, I use Thomas Attig's definitions of bereavement, grief, and grieving: Attig defines bereavement as 'a condition of being deprived or dispossessed of a loved one', grief as 'an emotion, or how we feel the loss', and grieving as a 'process through which we respond to or cope with the loss'.⁵ Grief may be understood as 'a primarily emotional (affective) reaction to the loss of a loved one through death',⁶ though it is also known that people experience grief over other types of losses. As a response to loss, grief is a 'centrally important human experience',⁷ but its impact and the impact of other emotional responses have until quite recently remained mostly unexplored in archival theory. The emotional dimensions of archives are referred to by those who consult them⁸ and are beginning to be more openly acknowledged by the professional archivists who care for them,⁹ but within the archival studies discipline, there has been little direct study of emotions generally or of grief specifically in archives; some notable exceptions¹⁰ include Tonia Sutherland's analyses of the treatment of Black bodies in archival representation¹¹; Ferrin Evans' (2022, pp. 15–29) work on grief and recordkeeping in the context of two global pandemics¹²; Samantha R. Winn's exploration of the anticipatory grief involved in memory work during climate crisis¹³; Elvia Arroyo-Ramirez's account of experiencing 'suspended grief, or grief experienced, witnessed, and re-lived throughout an archive, and the mutual or secondary grief archivists may experience when processing collections about traumatic events and experiences'¹⁴; Gabriel Solis's writings on grief and records of mass incarceration and state violence¹⁵; and the work of scholars like Jamie A. Lee, Michelle Caswell, and Nancy Liliana Godoy (among others) on the affective impact that records can have in communities.¹⁶ My own research has also focused on grief and its implication in and impact on recordkeeping,¹⁷ exploring how recordkeeping is involved in grief work and can function as a means of continuing relationships with those we have lost and of enacting care and love.¹⁸

Much of the recent writing about grief and archives is grounded in or influenced by the archival studies literature on archives and affect. In professional archivy, ideas about how records are created and how they should be preserved originated based on an understanding of recordkeeping in organizational settings and for 'official' evidentiary purposes.¹⁹ As a result of that narrow focus, affect and emotions – including grief – 'largely remain[ed] unacknowledged'

and unexplored in archival theory and practice. As Hariz Halilovich notes, early archival theory, drawing from ‘positivist traditions’, invoked and encoded ideas of ‘objectivity, neutrality, impartiality and personal detachment – that is, everything that is the opposite of subjective, emotional and affective’.²⁰

More recently, however, archival scholars and professional archivists have begun to think about the different types of emotional labor associated with making and keeping records²¹; about the different ways experience and emotion ‘gesture’²² in records; about types of knowledge about records that are lost when affect is not taken into account²³; and about the inherently affective impacts of some types of records on those who use them, work with them, and/or are documented in them.²⁴ Michelle Caswell and Marika Cifor suggest that affective labor has always been part of archival work despite its lack of recognition and call for it to be resituated ‘at the center of the archival endeavour’.²⁵ They advocate for an approach to archives grounded in ‘radical empathy’ and an ethics of care that would position archivists as ‘caregivers, bound to records creators, subjects, users, and communities through a web of mutual affective responsibility’.²⁶ The importance of radical empathy as an orientation to archival work is evidenced by the number of archivists and archival scholars who are working to further contextualize and extend the work started by Caswell and Cifor.²⁷

In addition to this recent focus on affect and care in archival work, there has been increased attention paid in archival literature to the potentially traumatic nature of records and to effects of trauma and secondary trauma on archivists and other records professionals. Wexler and Long’s discussion of working with dying donors and Judith Etherton’s recognition of the sometimes retraumatizing effects of genealogical research represent early forays into the potentially traumatic aspects of records work.²⁸ Scholars have also begun to study how records of atrocity, genocide, and human rights abuses are treated as evidence and memory, managed within institutions, and accessed and used by survivors and intergenerational survivors.²⁹ In addition to thinking about the creation and management of traumatic records, Nicola Laurent and Michaela Hart reflect on the ‘effects that exposure to records with potentially traumatizing content can have on those working with archival materials’,³⁰ spotlighting archivists’ experiences of vicarious trauma, which were also explored by Katie Sloan, Jennifer Vanderfluit, and Jennifer Douglas through a survey of Canadian archivists conducted in 2016.³¹ In response to the developing awareness of trauma and post-traumatic stress in archival work, archival scholars and archivists, especially in Australia, are foregrounding the importance of trauma-informed archival practices.³² Reflecting on decades’ worth of archival responses to the 1997 *Bringing Them Home Report*, a report of the Australia Human Rights Commission Inquiry that highlighted the roles of records and recordkeeping in the forcible removal of the Stolen Generation, Joanne Evans et al. show how work with traumatic records, when undertaken in trauma-informed spaces with trauma-informed supports, can lead to healing and wellbeing³³; this work, in particular, demonstrates ‘that there is much to be gained in recognising and embracing the archives [sic] role in social and emotional wellbeing’. As repositories of traumatic records, archives are spaces where many complicated emotions may be experienced, but where healing may also be facilitated.

Some of the work cited in this brief literature review was published after the time when the interviews discussed here were carried out; grief, along with other emotional responses to records and recordkeeping,³⁴ has suddenly become a topic about which archivists seem more able to speak, and the euphemism and taboo to which Wexler and Long refer may finally be lifting. As this article will argue, this lifting of the veil is much needed, long overdue, and still only partial; a strong commitment to change in organizational and educational cultures will be necessary to fully make room for grief and other feelings in archival work.

About the interviews

The interviews discussed in this article were carried out between May and September 2019 as one component of a larger project on grief and recordkeeping. This project, titled 'Conceptualizing Recordkeeping as Grief Work: Implications for Archival Theory and Practice',³⁵ aims to explore the relationship between recordkeeping and grief work, or the types of activities mourners engage in to help them integrate the loss they experience. Starting with a tentative hypothesis that recordkeeping might be one way of engaging in grief work and of 'continuing bonds' between the living and the deceased, the project developed along three main lines: (1) interviews with bereaved individuals creating and keeping records of bereavement³⁶; (2) on-site archival research in collections that have been substantively shaped by their creators' experiences of bereavement³⁷; and (3) interviews with archivists who experience grief; who work with donors, researchers, or others experiencing grief; and/or who care for bereavement collections.

For these interviews with archivists, participants were recruited via an invitation sent out to archival listservs and circulated on social media. While I estimated I might conduct 8–12 interviews, I interviewed 29 participants, two of whom withdrew from the study after their interviews were completed. This study was approved by the University of British Columbia's ethics review board,³⁸ and the interviews followed a semi-structured interview protocol; a series of questions in an interview script were provided to participants in advance of the interview, but the interview itself was intended as an open-ended conversation where additional related questions could be asked to clarify or add detail. Participants were also welcome to ask questions and to direct the conversation in ways that would help them to talk about their encounters and experiences with grief.

The questions in the interview script were structured in four sections. In the first section, questions asked about the nature of the participant's work with archives, including the kinds of archival or records work they were involved in, how long they had worked as an archivist or records manager, and who they typically worked with (e.g., particular types of donors, creators, researchers, or communities). The second set of interview questions was more directly focused on how grief was or had been part of their work with archives and records, and included questions about encountering grief in the contexts of working with records, of working with donors, of working with researchers and other users, and of personal grief experienced during archival work. In recognition that grief is not the only emotion experienced by archivists and records professionals and interested in the broader emotional dimensions of records work, the third set of questions inquired about other emotions participants encountered or experienced that impacted their work with/in archives and with those who create and use them. Finally, a fourth set of questions focused on participants' preparation and training for the emotional dimensions of records work as well as on resources they knew of and found helpful in managing difficult emotional responses and/or resources they wished they had access to.

The interviews were conducted in person where possible and otherwise by Skype³⁹ and involved a commitment to engaged listening, or to 'listening as a methodology'.⁴⁰ Quoting the theoretical work of Luce Irigaray, Dorinda t'Hart discusses the role of 'deep listening' in qualitative interviewing⁴¹; listening deeply, she attests, 'requires more than hearing [participants'] words but includes a way of "opening ourselves" to the other. It includes a perceptive listening mixed with feeling in which one can hear the emotions of the other'.⁴² Many of the interviews were deeply emotional; participants opened themselves to me and let themselves be vulnerable, and I have considered, throughout this project, how to be attentive to and respectful of that vulnerability.⁴³ As t'Hart notes, 'when the interviewer has fostered an emotional connection with the participant, she [feels] bound to deal sensitively with the data'⁴⁴; throughout the project, my research assistants and I have continued to attend to our responsibility to *tend to* participants' stories.⁴⁵

For example, we continued to identify a commitment to listening as part of our research process in our data analysis. All interviews were recorded and then transcribed by me and project research assistants, Alexandra Alisaukas, Noah Duranseau, and Elizabeth Bassett. By doing the transcriptions ourselves, we remained, as a research team, deeply engaged in a listening practice. Susan Tilley argues that although researchers often frame transcription as a mechanical or technical act easily contracted out, the transcriber forms a close relationship to research data and can become emotionally connected to that data in a manner that is similar to the kind of embodied connection Hart describes occurring in interviews.⁴⁶ Transcribing the interviews ourselves allowed us to maintain connections with participants' stories, and to attend to pauses, sighs, laughter, and other emotional and affective cues in the interviews in our attempts to attend to those stories.

Each interview was between 45 min and 2 h long, and altogether we produced over 500 pages of transcription. With an expanded research team that included research assistants Christina Mantey and Ted Lee, every interview was coded by two different researchers using a codebook we developed through an iterative process. We used both structured and emergent coding techniques, identifying some codes in advance of our analysis based on concepts discussed in the interviews or known variables (for example, types of archival work) and allowing others to emerge through our deep listening process. Using NVivo software permitted us to conduct careful within- and cross-code analysis, but we relied heavily on our own capacity to listen to the data and to each other as we met frequently over a period of several months to discuss, define, refine, and review the codes we assigned and our analysis of them. Listening as methodology requires deep attentiveness to words, emotions, voice, and embodiment throughout the entire research process. It involves listening not only *during* interviews but also as we transcribe, analyze, and report findings, and it includes listening to ourselves as we process and reflect on interview data⁴⁷; in this way, listening as methodology understands listening as 'complex web'⁴⁸ connecting all parts of the research process and potentially continuing 'long after research has supposedly finished'.⁴⁹

It should be noted that this type of listening practice and attention to compassionate research⁵⁰ practices can take a toll on the research team.⁵¹ The effects of difficult research on researchers are beginning to receive more attention in discussions about qualitative research; our research team has employed many of the techniques discussed by Smita Kumar and Liz Cavallaro as well as by Kathleen B. Rager, including regular debriefing where we reflected on our experiences, reactions, and feelings; taking breaks whenever needed and regardless of other project timelines; allowing members of the research team to choose not to transcribe or analyze interviews that included content that could be triggering to a team member; balancing the transcription of analysis of 'heavier' and 'lighter' interviews; and keeping lines of communication very open.⁵²

Much of the work of transcribing interviews and analyzing data as well as of trying to write up our findings in research articles was carried out during the COVID-19 global pandemic. As a mother of two young children, my work was interrupted for several months, so that I could provide care and schooling; other members of the research team are also parents and/or caregivers and faced similar constraints on their research time. Teaching (for me) and learning (for the students on the project) online involved a steep learning curve and a significant investment of time and energy, both physical and emotional. We all felt a responsibility to the participants in this project to be able to share their experiences and knowledge in a timely manner, but the work of research analysis and dissemination proceeded far more slowly in 2020/21 than it might have in other years. As well, we felt concerned to take our time with the moving and intimate stories participants very generously and trustingly shared with us. Informing all our work has been a desire to 'do right by'⁵³ the archivists and records workers who participated

in our project and frequently a ‘slow archives’⁵⁴ philosophy determined our pace and focus. In our presentation of findings in this article, we continue to focus on doing right by participants; as part of our commitment to deep listening, we foreground participants’ own words, both by including frequent paraphrasing and quotations and by organizing this first discussion of the interviews in a way that reflects as closely as possible the flow of the interviews themselves.

The participants

We did not gather full demographic information about project participants; however, we did compile basic information about each participant’s career stage (early (1–10 years employed), mid (10+ years employed), and late (20+ years employed)) and whether they worked as an archivist, records manager, or other type of records professional. Participants were almost exclusively employed as archivists, with only three participants identifying other types of positions, and were predominantly at a mid-stage in their careers; we identified four participants as early career, 17 as mid-career, and five as late career.

During our consent process, we asked participants to indicate whether they wished their name to be used in published findings; although many participants indicated it would be acceptable for us to use their names in publications, there were also several participants who chose not to be named. In this article, which focuses on providing summative answers to the questions we asked in the interviews and identifying significant themes that emerged in conversation with participants and analysis of the interview transcripts, we have decided not to include real names; in the future work, where we will focus in depth on some key themes, we are more likely to include participant names as we share more complete participant stories.

Grief in archival work

‘I wrote a paper...where I called the archives a “perpetual flashback” because we just relive and relive the same traumas over and over, with different elements, and involving different people in different contexts. But we just – or I should use I statements, I consistently relived trauma and grieving and had to find a way through my grief while respecting the grief of everyone around me.’

‘Grief courses through archives. There’s no doubt about it.’

These participants’ words describe grief as pervasive in archival work, and while not all participants experienced the same kind of ‘perpetual flashback,’ they all described grief as being implicated in and having an impact on their work to some extent. Even the sole participant to gently push back on the project’s apparent presumption that grief was part of the archival work shared stories where they acknowledged feelings of loss and empathy for another’s grief; in other words, although archivists might not personally experience feelings of grief as part of their work, they are likely to encounter those feelings in the records they care for and/or the people with whom they work. In our analysis of how participants described experiencing grief, we identified different types of grief including empathic grief, personal grief, grief for a loss or change in a community, grief for change in the profession, and grief experienced as a more general sense of loss.⁵⁵ We found that grief was experienced across a range of tasks and functions including appraisal, selection, and acquisition; processing, arrangement, and description; reference and access; outreach and community engagement; records management; freedom of information and protection of privacy (FIPPA)-related work; and work on various special projects and commissions, including work related to the Truth and Reconciliation Commission (TRC) in Canada.⁵⁶ As several participants indicated, it is not always easy to

distinguish between types of grief or to strictly delineate when or where encounters with grief will occur:

‘I find [it] hard to parse out where all of this begins and ends, you know, like, working with donors, or working with records, or working with researchers, and my own grief in my own life, and...and what is grief? It’s just all – you’re probably experiencing this, but it’s – there’s a lot to parse out.’

The interview questions we asked ‘parsed’ grief into four types of ‘encounters’: with records; with donors and/or creators; with researchers; and with those who are documented in records. In the next sections, I outline how participants described encounters with grief that occur in the contexts of working with records and their subjects, with donors and creators, and with researchers and users of archives.

Working with records and their subjects

Discussing the ‘unwritten ethical imperative[s] that permeate’ archival work, Catherine Hobbs emphasizes that all records are connected to a life.⁵⁷ Indeed, records are usually connected to many lives; they are created by people and about people and as such have what Genevieve Weber has referred to as an ‘intrinsic humanity.’⁵⁸ Archivists and records professionals interact with records in many different ways, as they process, arrange, and describe records, come to know them by providing reference services, or prepare them for digitization, for example. Many participants we spoke with described feeling like they came to know the people whose records they worked with and/or who were documented in the records through these interactions; some described feeling they were ‘forming a relationship’ with this person about whose life they knew so much. ‘You’re researching somebody’, one archivist explained: ‘You know their life story’. Several gave examples of particularly strong attachments formed with people in the records and explained how these attachments could involve experiences of grief and other emotions. One participant described the experience of a summer student transcribing records:

‘Several years ago we were donated a number of diaries from a family who were dedicated diarists, they wrote every day for years and years and years. And they lived right on the Alouette River and their diaries contained an awful lot of observation information on the state of the river, and the water flows, and whether it was muddy, and how many fish they were catching, which was of great value to our environmental groups. So we were transcribing these records and the older man, his name was Claude Holt and he was quite a character, he had a degree in classics, and he named his chickens things like Clytemnestra, and was quite a person. So the young girl who was transcribing his diaries and got into 1929 and she turned a page and there was a blank page, and that literally had never happened. She turned the page again and someone had pencilled in RIP. And she burst into tears and was inconsolable. I mean you’d have thought her grandfather had just died. She just got so invested so quickly in this man’s life from diving in to his day-to-day existence. So we do get sort of attached.’

Another participant described the bond they developed to a creator as they processed her archives and the corresponding grief that entailed:

‘Like, kind of dealing with my own feelings towards the records and getting to know this person. I experienced grief a lot during the processing of that spiritualist’s fonds. I came into the fonds being super skeptical of the creator but in the process of going through the

very specific and unique way that she framed her life and her own losses, I began to feel like I got to know her and experienced her grief concurrently going through and trying to arrange her records. I would be putting things into acid-free enclosures, and read the notes that she had about death and the afterlife and feel her grief palpably. Other times it would be reading her sheet music or looking at her sketches that I myself began to feel connected to her and mourn her loss. It was like I was getting to know her and she was already gone and it was heartbreaking.’

As well as feeling personal grief while working with records, participants described a kind of empathic grief, or grief felt in sympathy for a record creator or subject who was grieving. One participant described processing a set of records in which ‘you could hear this – the grief pouring out of the writer,’ and confessed it was ‘very painful to read.’ Another participant described working with the records of a creator who had passed away suddenly, saying ‘it’s really upsetting to see a life that was supposed to continue and then just, that’s it, you know?’ Several participants described working with letters sent home by soldiers during the two World Wars and experiencing empathic grief for the families who long ago received them, and for the writers, their lives cut short. Participants who worked with the records of residential schools in Canada described a deep empathic grief for children who died and/or were abused and mistreated; these participants described the importance of finding a way to experience and acknowledge this type of empathic grief, while respecting the very different and more immediate type of grief experienced by the children’s family members, other Survivors and Inter-Generational Survivors of genocide.

One participant who worked with records of residential schools wanted to talk, too, about ‘what it was like to physically handle those records’, about ‘the grief that is embedded in the physicality of the records’, and about the possibility that records themselves grieve:

‘So, this is going to sound, maybe, really weird, but I believe that the records grieve. You know? That there’s something about objects that are sacred. And, um...I don’t know that I’ve formulated that into a language yet, but...in the context of working with the records, for me, it wasn’t just about working with them, it was about the records themselves. Like, every time I went through those quarterly returns, listing all the students hundreds, maybe thousands of times. And you know, I watched as, you know... even the finger prints on the edges of the page have that...kind of build up...every time I went through them there were new, kind of, dents in the pages....Or when we unwound the tapes, the magnetic tapes, and even the sounds that those – like when we did a reel-to-reel film, the sound of the film coming off, and even rubbing against – it almost sounded like crying. Like screaming. And again, I’m a very highly sensitive person, both emotionally, but also kind of spiritually. And so, there was something about the sounds, and the formats, and the physicality of the records, that I believe even the records grieve.’

Throughout the interviews, it was clear that although grief was not *always* a part of working with records, it was also *not unusual* for participants to experience grief, both personal and empathic, as they processed and handled the records in their care. Participants connected the ubiquity of these types of feelings to their recognition that behind every record and ‘bound up’⁵⁹ with it lies a human life: ‘you can’t’, one archivist began, ‘you can’t, even if you’re sitting in the stacks processing records, and never talking to another person, you can’t separate the human element. [...] Humans grieve, and that’s part of it’.

Working with donors and/or creators

When archivists work with donors and creators over a period of time, they can develop lasting relationships, and as in other types of long relationships, they might witness difficult events and changes in the lives of creators (e.g., illness, loss of work or community, and death).⁶⁰ The participants in this project described this type of witnessing, which could bring up many emotions. They also described experiencing their own grief when a donor or creator died. ‘There’s grief from actual death’, one participant asserted, ‘for sure. For sure. For sure’. Participants talked about how it took them by surprise the first time, to realize a donor they had developed a relationship with would die, and even to be involved to some extent in those deaths, visiting death beds, and working to complete a donation and to be certain of a creator’s wish for their records.

‘I don’t know why, it just never occurred to me that I would be sitting and holding hands with someone who’s skin and bones, and on morphine, and looking at me with those big eyes and talking about their life, and it’s an amazing place to be and to be witness of that and witness to their process and to honor them while they’re there as opposed to waiting until they’re gone. It’s an amazing thing to be able to do and it’s so great that I’ve been able to do that for more than one person. But I did not expect that, those really real encounters. But of course it makes sense that it would be that way. Records don’t change hands without some kind of trigger. And often those triggers are not necessarily happy ones.’

Participants described going to memorials as well as helping loved ones prepare for them by going through a creator’s fonds to find records to be used in ceremony. The kind of grief archivists experienced for a creator is particular in some ways: ‘You actually know them more than they know you because you’re also in their papers, right? It’s more of a one-sided relationship’, one archivist who worked in an academic archives explained. ‘I mean if I died, I don’t know if they’d feel that badly, right? I know them better than they know me’. The one-sided nature of donor relationships could compound both the loneliness of grieving and the feeling participants sometimes described of not knowing whether they were entitled to grieve.⁶¹

Participants also discussed working with donors who were themselves grieving the loss of a loved one; donating records can be part of a personal grieving process, and participants described sometimes playing a kind of ‘therapist’ role, trying to help a donor process their loss. Archivists might also play a kind of ‘therapist’ role for creators/donors who are dying. Some participants explained how, for some dying donors, the relationships with ‘their’ archivist can be an important one. One archivist described being invited for breakfast at a donor’s house shortly before he died; ‘all he did was sit there and talk to [me], about all these stories, stories when he was [redacted for privacy] and so on...And I knew he was hoping...that somewhere, like I would be able to take this and put it in his papers’.

Participants also described working with donors and creators who were grieving other kinds of losses, including the end of a career or the loss of a particular job or community. Grief, as one participant put it, ‘courses through’ aspects of all donor relationships in archives:

‘In fact, what we were really doing was dealing with people’s grief, because they were losing their jobs. These records were the last embodiment of their workplace. Or in private records, you’re taking away the last bit of the body of the person. You look at what these records mean to people at different stages in the archive world, and you do have to know what you’re doing. You have to understand the power and meaning of records before you can do this role.’

Working with researchers

Participants pointed out that not all researchers are like the imagined researcher presented to them during their archival education: a ‘removed’ historian or other academic researcher. On the contrary, researchers might have intimate relationships with records and react to them in highly emotional ways: ‘when it connects to something that’s personal to them, and that’s high stakes for them, then you can expect there to be an emotive response’. Participants described working with researchers who were trying to find information about their own past or about a deceased family member’s or loved one’s past, often involving some kind of trauma, including time spent in residential schools or in other forms of institutional ‘care’, violent crime, war, and white supremacy. In line with Judith Etherton’s observation that not all family research is happy research,⁶² participants explained how genealogical research could sometimes trigger trauma and grief responses; researchers looking for biological family members or discovering uncomfortable or distressing secrets might experience complicated and difficult emotions, and these can be heightened when the researcher is also the subject of the records.

One participant described how, in their experience, researchers might be hoping for closure, but instead find that working with records re-opens wounds, or they might find that there are no records that answer their questions. This participant, who described reviewing and making government records available as part of FIPPA requests, explained:

‘I found, for a lot of ... a lot of records for people who later [died by] suicide, the relatives are looking for an answer that is never going to be in any file. Like, of course, and this is understandable, you want to know why your relative got to that point... [...]. No one ... no one can answer that, and I think sometimes there’s a lot of anger, as well. Because they’ll receive the records that they requested, and the ... the information they want isn’t in there, and it kind of comes back, ‘Well, this isn’t what I wanted. What more do you have?’ None of our records will ever be able to answer those kind of questions.’

Sometimes the reference process is less devastating, but grief still ‘courses through’. For example, participants talked about experiencing a kind of ‘happy grief’ as part of the reference process, when they were able to help a researcher make a connection to a lost loved one. One archivist described working with a woman who had never seen a photograph of her father:

‘I was able to pull those for her based on the information that we pieced together and I sent her those. So there’s one phone call where I was dealing with somebody crying, which in this case it was very positive... it was a very positive experience but it clearly made an impact.’

Another archivist describes helping an Indigenous researcher who had come in with a group to work with government records that documented their community:

‘They came in to look at these specific records, but then we were able to find other records relating to them, as well. And we have a large oral history collection, and we found a recording of this man’s father. And, this man was hard of hearing and wore hearing aids, so he was already quite loud when he spoke. And then he went, and we put on the big headphones. [...] And he started listening, and he just shouted across the room to one of his daughters, “I ... I can hear him! I can hear his voice!” [...] And he was so excited. And he later said, you know, he hadn’t heard his father’s voice in twenty years.’

As these two examples show, grief is not always a negative emotion, and archives can facilitate positive connections between people and their deceased loved ones.⁶³

Other emotions in archival work

As explained above, our project focused on grief as a particular emotion, but we were not interested only in grief, especially knowing that grief does not occur in isolation from other emotions and feelings like love, sadness, anger, and guilt. Participants shared feeling a range of emotions other than grief, including anger, boredom, frustration, guilt, shame, hope, inspiration, joy, happiness, loneliness, pride, sadness, and reverence.⁶⁴

The most commonly discussed emotions other than grief were sadness, anger, joy, or happiness; guilt or shame; and pride or reverence. Sadness was often distinguished from grief as a less intense feeling, and as something that was felt ‘not so much in the big kinds of loss, but in the small[er] things’, such as when observing visible signs of aging in donors or as revealed in their records, or listening to donors tell stories about their own experiences of grief, loss, and sorrow. Several participants discussed the sadness they experienced working with creators and/or donors at the ends of their careers or lives or when an organization or association to which a donor belonged was closing its doors. One participant discussed this feeling in the context of women’s organizations like the International Order of the Daughters of Empire (IODE) falling out of fashion: ‘That one makes me sad’, they said, ‘because you think, “you’re still here”... with somebody who’s passed away, it’s sort of done for them, but these people have to orchestrate the closure of their organization, and to me that’s actually a little more melancholy’. Participants remarked that it could be difficult to separate grief from other emotions, and sadness was often felt in conjunction with different degrees of grief; for example, when archivists were involved in helping to sort and clean out an office space after the death of a donor or working with the living relatives and friends of a recently deceased donor they might feel a combination of grief and sadness.

Anger was another recurring emotion described by several participants. When anger was felt, it was often in response to reading records that evidenced mistreatment of others (records creators or records subjects, for example). Anger was invoked in discussions about records related to residential schools in Canada, with participants describing feeling angry about the abuse experienced by Indigenous children as well as anger at policies and conditions that made it difficult to produce records for the TRC or to respond as an institution or profession to the TRC’s Calls to Action. With respect to feeling anger, one participant raised an interesting aspect of temporality. Archivists, they explained, might experience strong emotional responses to records long after any incidents documented in the records occurred, which might leave them feeling isolated and uncertain about their reactions:

‘Even though some of those things might have happened a long time ago, and – and maybe the donor themselves, the recordkeeper themselves might have worked through these things, for me I’m seeing it for the first time. And so I’m back with experiencing the ... the anger. And I haven’t worked through to the point that they might have.’

Anger combined with frustration was felt, too, by some participants when they felt unable to respond adequately to the needs of donors, creators, and researchers because of constraints on their time and other resources in their workplaces. In their work on neoliberalism and archives, Marika Cifor and Jamie A. Lee discuss ‘adoption of market language’ in archival institutions alongside emphases on ‘cost efficiency’, ‘customer service’, metrics, and measurable outcomes; they argue that efficiency-based initiatives such as the ‘More Product Less Process’ approach to arrangement and description position archivists as ‘workers on an assembly line aiming for standardization, ever-greater amounts of linear feet processed, and at increasing speed’, at the cost of care for records and the people involved in their creation, preservation, and use.⁶⁵ Though participants did not specifically refer to the adoption of neoliberal policies

– or of MPLP specifically – the increased strain that large backlogs and scarcity of resources creates was evident, as was the perceived impact this strain had on workers' ability to respond fully and sensitively to the needs of records' creators, subjects, and users.

Linked to this type of strain, participants also discussed feeling guilt at work. Some expressed feeling guilty at not being able to 'keep up' with their work, about the backlog and work left undone or done less fully than they would like, as, for example, when time pressure meant a finding aid would necessarily need to be completed more quickly and with less detail than they would prefer. 'There was just such a backlog', one participant who worked with sensitive records recounted, 'and it was just me, and...and it did feel like this kind of, I don't know, emergency management, triage kind of thing, where I just...[sighs] – there was a lot that just didn't get done, or didn't get done, you know, as well as I could'.

Another participant expressed guilt about seeming 'cold' in their interactions with donors and in their descriptive work; this participant and several others expressed concern for 'doing right by'⁶⁶ the people who created or were documented in records. These archivists experienced guilt tied to their feeling of being responsible for representing the lives of others in appraisal reports and finding aids and of having to balance this responsibility against other demands on their time and resources as well as with efforts to be professional and 'objective':

'I do think that guilt about not doing things as well as I could, or – but you also try and balance, and the idea of trying to balancing it with a more objective tone, and trying to point to the records always, and express what's in the records, rather than what the record might mean to that individual... Yeah, I think – and sometimes, maybe, coming across as cold – I don't know, I feel guilt about not being able to do the best job that you can do, and not knowing enough about the particular histories in the different countries of origin of many of our donors. Also, you hear that, you know, victims of trauma, and also especially child survivors, people who didn't have families and always have holes in their hearts that are unfillable. And then I feel like, a lot of, uh ... you can't fill a hole. Then that's kind of ... [short pause] um, you know, sad. But it's not my job, either, to do that.'

Participants spoke, too, of being inspired by the lives and stories documented in the records they cared for as well as by the spirit of optimism that might be seen to underpin a decision to preserve personal records. One participant who had worked with AIDS activists and their records identified how the personal relationships they formed were intense: both heartbreaking and inspirational. Another participant described working with the records of a woman 'who was very involved in the labour movement and the Winnipeg General Strike':

'It wasn't that she had done anything astounding, or, you know, been really in the public eye. But she had felt that she had worked really solidly behind the scenes for over fifty years, and really made a difference. And I read that one day, and I went home on the bus, and I thought, That's really inspiring. Like, you know, someone who – yeah, lots of people don't know her name, but she could see that she had contributed, and felt a lot of pride in that.'

The kind of inspiration that participants described can also be connected to a feeling of pride in their work, and especially to a kind of pride that comes from being in the privileged position – as many described it – to care for the records and stories of these inspirational lives.

While the focus of this research project on grief might suggest to many that the emotions discussed would largely be sad or difficult, joy and other positive emotions were frequently discussed. As mentioned above, participants discussed a kind of 'happy grief' or 'positive grief', where feelings of happiness resulted from being able to help a researcher or donor connect with a loved one through their records. One participant highlighted the 'joy and hopefulness'

of archival work over sadness and grief, calling attention to the ‘inherent optimism in preservation and the act of keeping stuff’,⁶⁷ and to the kind of ‘second life’ that records preservation permits, discussing this ‘second life’ in the context of a creator whose own research was not completed, but whose research files are now being used by others:

‘People are now coming who are interested in the history of those events to look at the records and it’s fantastic, I’ve been seeing them popping up, I saw them at a gallery show in town. So it makes me very happy, because it’s this whole other life, and it’s a level of acknowledgment that I think he would’ve appreciated, because he was always looking for that. He always wanted to be known. It’s quite lovely, actually, to know they have that second life.’

Preparation for the emotional dimensions of archival work

In the fourth set of questions we asked participants, we inquired whether they felt their education and training had prepared them for the emotional dimensions of archival work as well as what types of resources and/or practices had been helpful to them, and whether there were any resources and/or practices they had not yet encountered but felt would be helpful in dealing with grief, loss, and other emotional experiences in archival work.

Overwhelmingly, participants reported that their formal education and professional training had not prepared them for the emotional dimensions of archival work; in fact, many of them laughed when asked, suggesting how truly far from prepared they felt. Participants reported being unprepared for ‘the intimacy’ of some types of records as well as for being ‘emotionally involved with people’ who were also ‘very emotional about their records’. Participants also described being unprepared for working with donors or creators at the end of their lives or even on their deathbeds, for the grief counselling that seemed required in working with friends and family of deceased creators as they negotiated donation of records, and for working with people who were trying to access distressing information from records. ‘In the research room’, one participant explained, ‘there’s a different kind of counselling that goes on...and often we don’t feel equipped to do it’. As another records worker put it, ‘I don’t think we’re always prepared to talk about someone’s mother’s coroner’s report’.

Participants talked about how in their formal education there had been a focus on care for materials rather than care for people:

‘There was a lot of focus during my studies on how to maintain the *information*, which clearly is invaluable and the majority of my job, but not so much a focus on donor relations, or subject relations, not on the emotional impact that a collection will have either on the archivist or researchers or users or what have you.’

Participants further reported feeling that in school, they had learned they were supposed to be an ‘objective observer of the records’; out in the working world, they remained uncertain if they were ‘allowed to feel anything’ and so when feelings did assert themselves, internal conflict or tension could arise. One participant explained: ‘I didn’t know what I was doing. [...] I knew what I had been taught to do...and that was in pretty supreme conflict with...with my humanity, really. Nobody was talking about it. And if they were, it was still very much, “You leave your feelings at the door”’. Sometimes this type of conflict could lead to an archivist feeling as if they were failing to meet professional standards. For the participant quoted above, the conflict between what they ‘had been taught to do’ and their ‘humanity’ left them

feeling that they were ‘a bad archivist’. This participant added, ‘I took it as, you know, I just need to pull my socks up. I just need to go to more therapy. Like, I am the problem. Not the profession. It’s me’.

Some participants raised concerns that their lack of training and preparation for the emotional dimensions of archival work led them to make mistakes, especially in interpersonal relationships: ‘I just wonder’, one participant mused, ‘how I might have responded differently if I had had some other formation’. They added:

‘That was a big reason I wanted to be in this study, because I do think we have to find a way to get people ready for it. I think it will just help us work better with the records, and I think it will help us work better with people who are creating these kinds of records and witnessing them. Even if we’re not there with them when they witness it, we need to understand how they might react to it and be prepared. Yeah, and I don’t think we are. Not really. You might have some individuals because of their own experience, but I think across the board, we’re not really ready for it.’

When participants did express feeling some type of preparation it was not provided through their formal education or professional training. A few participants indicated feeling prepared for the emotional dimensions of archival work because of personal experience of grief and loss, while a small number indicated that aspects of previous (non-archival) jobs had provided them with useful experience.

Resources

We asked participants about resources that existed and which they found helpful and made use of as well as about resources they *wished* existed. The most frequently discussed existing support mentioned was other people, specifically colleagues with whom participants were able to discuss and debrief. As one participant put it, ‘Creating community amongst ourselves is... one of the ways that we support each other in a de facto way. And just by having a chat’. The importance of being able to ‘have a chat’ was brought up by several other participants, but it was also recognized that not all workers have access to such support on the job: ‘What does one do’, someone asked, ‘when there isn’t an obvious place to go for that?’

More formal supports and resources existed for some participants. As in the survey conducted by Sloan, Vanderfluit, and Douglas, participants in this project were more likely to have access to formal supports such as counsellors and employee wellness programs when they were employed on projects or in institutions where records were expected to include traumatic content (for example, records related to residential schools and Truth and Reconciliation Commissions and records related to the Holocaust and to other atrocities).⁶⁸ Participants who worked at academic archives were also more likely to report having access to wellness programs through the academic institution, as well as workshops on what one participant called ‘the soft skills, people skills’, for example, related to management styles, or on how to work with people who are distressed and on de-escalation. ‘Cultural awareness’ or cultural competency training was only reported by one participant, working outside Canada.

While some participants could identify resources to which they had access, others expressed feeling like they were not well supported in their workplace and were not sure where to look for other resources. One participant, who works doing FIPPA review, said: ‘I’ve never seen anything that really laid out, like, it’s normal to feel like this. These are some coping strategies’. This participant was careful not to blame the lack of support on their workplace, or more specifically, to stress that the lack of support was not a deliberate choice; their employer’s

oversight was not surprising to them in a field that has not more widely acknowledged that these types of supports are necessary.

Some participants talked about the problem with relying on family members and friends outside their workplace as support. The participant quoted above who works in FIPPA told us: 'It's hard to take it home, you know? I have a partner who works in a pretty light, happy industry. And, you know, I'll come home and we'll be eating dinner, and he'll say, "Hey how was your day today," It's like, "Well, you probably don't really want to know what I was reading about"'. This sentiment was expressed by other participants, who, in addition to feeling their work was too 'heavy' to discuss at home, also noted that privacy concerns often meant that even if they wanted to talk at home, they were not always able to do so.

When we asked participants if there were resources or supports that they wished were available to them, training by professionals in other fields was frequently mentioned. Participants suggested that skilled professionals from fields like social work and psychology could provide training to help develop active listening skills and on how to support people going through difficult experiences as well as training for archivists to manage their own emotional responses. Participants also called for more research and writing from within the archival profession on donor relations, including writing that is accessible outside of academic journals. Participants wanted to hear more 'just of what we're doing every day, and how we're feeling about it', and they stressed that while they appreciated scholarly writing on topics like secondary trauma and emotion in archival work, 'it often requires reading long articles and doing self-reflection, and if you're already at capacity, well you just don't have the bandwidth for rigorous academic reading at the end of the day'.

Several participants suggested there could be more opportunities for archivists and records professionals to share stories with colleagues, describing support networks that might take the form of group blogs or online networks, where people could say: 'This is the case that I'm up against, or even just like, Hey this is what I had to deal with today'. Participants identified the role that professional associations could play in making some of these types of spaces available:

'...we have a lot of archival associations. We should think about running workshops and seminars. Where people can come and get information and share their experiences, maybe somebody's had an experience and you can learn from it. And it'd be kind of nice I think to meet people who maybe have had a similar experience to yours and you can talk to them about it and feel like, oh god okay, I'm not weird, this happens.'

'What would it be like', one participant asked, 'to have a special interest section, or a group... just, for people to be able to bring situations, bring experiences, bring, god forbid, feelings that they're having to a group that is safe and knowledgeable?'

This desire for an online network or larger support group indicates the need for conversations that can happen 'in the shop' to also be brought into 'interinstitutional spaces'.⁶⁹ The participant's stress on spaces that are both safe and knowledgeable is important and tied to the sense that records professionals have a good deal to learn from other professionals who are explicitly trained in trauma-informed practices and harm reduction. Participants stressed the need to be able to connect with peers *and* with professional help: 'I needed a safe space. But I also needed people with good foundational knowledge, as well'.

When describing wished-for resources and supports, participants noted the need for a shift in professional and organizational culture to prioritize care for employees: 'Having therapy, or other sort of mindfulness and wellness things, baked into your institutional support. I feel like an emphasis on that, even just from the profession itself, is something that would be really

important'. Participants suggested that workplaces could consider providing extra sick days and/or holiday time, checklists with links to accessible resources, and even employee low-stress team-building activities; one participant talked about how when they worked in another field, there was a sports day where 'you take a day and you just goof off together' and how helpful that was for employees' physical and mental health.

Precarious work conditions were cited as a barrier to accessing existing supports, and this concern will also need to be addressed by a shift in employment culture. As Sloan, Vanderfluit, and Douglas found,⁷⁰ participants worried that admitting to struggling emotionally could negatively impact their employability, especially if they were currently working on short-term contracts or were in the early stages of their career. Archivists on short-term contracts reported feeling isolated, and job instability contributed to all other stresses; as Sajni Lacey explains, 'existing within an uncertain work cycle can cause anxiety [and] stress' and can lead to a variety of 'health consequences', including but not limited to exhaustion, emotional strain, and burnout.⁷¹ High turnover due to the prevalence of short-term contracts also contributed to the strain of working in emotionally demanding positions, while some of the same stresses reported due to precarity were also attributed to the effects of working with a shrinking or small archives staff and high workloads. Participants expressed the importance of archival work and the weight of responsibility they felt to do it well; because archivists are often highly dedicated,⁷² they may be likely to work in precarious positions for a long period of time, and as Ean Henninger et al. report for library workers,⁷³ archival workers in precarious jobs are less likely to have benefits to cover counselling and other wellbeing supports.

Towards person-centered and acknowledging relational archival work

The conversations with archivists discussed in this article highlight different ways that grief is, or can be, part of many different types of archival work. Significantly, it was acknowledged by participants that grief – and other emotions – arises because archival work involves not only records but also people; a pervasive theme of the interviews relates to participants' understanding that archival work should be far more explicitly focused on the persons connected in and through archives. Overwhelmingly, the interviews included discussions about the ways that records are intimately related to people and/or that records work involves forming and maintaining relationships. Participants not only highlighted the responsibility they felt as caretakers of records but also stressed that this role involves not only care for records but also care for – and accountability to – the people who create and/or donate records, who are documented in them and who consult and use them.

In their influential work on radical empathy and a feminist ethics of care in archival work, Caswell and Cifor outline a series of care-connected relationships archivists have as a result of the nature of their work: relationships with creators, relationships with records subjects, relationships with users, and relationships with communities.⁷⁴ One participant, who worked in a provincial archives, described how they think about this article every day:

'They talk about the four types of people connected to the records, and I just think about that all the time. That there is – we're so deeply connected to other humans at every stage of the work that we do in archives, we can't separate that human element... You can't, even if you're sitting in the stacks processing records and never talking to another person, you can't separate the human element.'

Describing the fundamental way that all records are inherently connected to a person(s), this archivist – and others we spoke with – advocated for a person-centered approach in archival

theory and practice that recognizes that even as we work with records, we work in relationship with people and must learn to center and tend to those relationships.

Participants discussed the centrality of people to records work in a variety of ways. For example, they connected archives, as material remains, to the lives of those who created them. ‘The records aren’t just, you know, dispassionate records to these people. They are intricate parts of their lives’, one archivist commented, adding: ‘these are not just pieces of paper for these people. These are very important parts of their life, or their parents’ lives, that they’re handing over’ to the archives to care for. Another participant, facing the loss of records during a digital migration, lamented, ‘it’s not data, it’s people’. This type of recognition was echoed by several other participants, one of whom described the connection between records and their creators as a kind of ‘continuity of humanity’.

The archivist who was so impacted by Caswell and Cifor described an interaction with Indigenous researchers who reminded her not only just how intimately connected archives are to the lives they document but also how awareness of that connection can guide the archivist. ‘These boxes’, she was told, ‘these are people... These are the people that experienced going to [residential] schools, and being in these mission communities, and they are here, and you know, as long as you remember that these are people that you’re dealing with, then it’ll make it easier on you’. In this conversation, the researchers were reminding the archivist that focusing on the people in the records would help the archivist make the right decisions about how to treat the records and should guide the archivist in their interactions with the records; in other words, it was not by following archival theory that they would find answers but rather by attending to the lives, experiences, feelings, and needs of the people connected to the records.

The inability and/or failure of existing archival theory and methodology to acknowledge the centrality of people to records and recordkeeping was noted by several participants. As one participant explained,

‘I think in some ways when we deal with donors, while we try to be sympathetic and alleviate their concerns about, you know, where the material’s going, how it’s going to be handled, I don’t think we really acknowledge the whole concept of people giving up something that sort of formed part of their identity. And I think we don’t validate the importance of that.’

Participants discussed how policies focused on the preservation of records without full consideration of the people connected to those records impede efforts to ‘do right by’, to treat people ‘respectfully and ethically’, and can result in harm. The archivist quoted earlier in this article who described themselves as a ‘bad archivist’ noted that they most often felt this way when they prioritized ‘people’s humanity’ over established archival policies and procedures: ‘every time I did one of the things that addressed peoples’ humanity, and addressed their grief, and addressed my own grief, in my mind I just said, “Well, hashtag-worst-archivist,” or “hashtag-bad-archivist”’. This archivist, who felt the record-centric nature of traditional archival theory as an impediment to compassionate practice *and* as a judgment on their attempts to enact compassion, wished for a way to nuance the ‘integrity’ of their archival training, wondering, ‘How can we not baby and bathwater, just throw out our theory and practice, but do it in a way that recognises humanity? Both my humanity and the humanity of the people in the records, the donors... that would be what I really wish for’.

Quoting work by Ellen Ramvi and Linda Davies, Douglas, Alisaukas, and Mordell suggest that archivists share similar experiences and characteristics with ‘occupational groups like social workers, nurses, and teachers... i.e., professionals who work in close contact with other people and for whom empathy and the ability to build relationships are crucial’.⁷⁵ Douglas, Alisaukas, and Mordell argue that the ‘relational work’ of archivists has remained ‘more hidden

than it should have',⁷⁶ and this argument is borne out in the interviews we conducted for this project, where participants clearly articulated the relational quality of their work as well as the lack of acknowledgment of and support for it. Participants felt unprepared for, sometimes overwhelmed by and alone and unsupported in facing the relational work of archives. The strangeness of this absence in archival curricula was noted, when, as one archivist put it:

'People are centric to what we do. Because we're not a warehouse, right? If it was [just] about the records, we'd just be warehouses, wouldn't [we]? But it's about getting it back out to the community, what, you know, depending on how you define your community. And, taking it from your community, so, that's all people.'

The lack of acknowledgment participants felt for people (including archivists as people) and their emotions is important for the archival profession and for archival educators to attend to; despite the increase in scholarly and professional writing on grief and trauma in archives, silences abound in archival education programs and job sites. In several of the interviews for this project, participants told me that they were opening up for the first time about their experiences of grief or of secondary trauma and had been moved to participate in the project because of the need they identified to be able to speak and the difficulty of finding spaces where they felt safe to do so.

One archivist who was an early public speaker on secondary trauma in archival work shared that, 'When I started to write and speak publicly about it, there was certainly an outpouring of, "Oh my god, me too," and "I didn't know what to do," or "I'm going through that right now and I don't know where to turn"'. Another participant shared their experience of having attended a panel on intimacy, trust, and care in archives where participants engaged in discussions about the emotional dimensions of archival work; they described feeling, as they listened and shared with others, like 'Oh man, I'm so not alone in...in dealing with this, whether it's working with material that has this burden or whether it's working with researchers or donors. It was hard to go to the panel', they went on, 'but at the same time, I was just like, man, we gotta talk about this. Because, yeah, it's a big thing'. One participant described themselves as 'maybe just...absorbing a little bit too much of this on my own' and recognizing that 'maybe there's some things I have to do in terms of self care', but also that 'that's something we're not really taught in archives school'. 'Maybe', they suggested, 'there's aspects of that that can be talked about more'.

Participants raised the need to talk openly about the emotional dimensions of archival work in archival education programs as well as in workplaces. As one put it, 'It would just be nice if there were – if it was somewhere stated, like when people are hired, that it's something – maybe even acknowledged or noted that, you know, we work with records, and this can happen. You're not alone'. Another participant stressed that 'we should start talking about it *everywhere*, at sort of every level'. They added:

'I think there should be more discussion among colleagues, more discussion at the managerial level...But I also think we need to talk about it at the national level, as well...These traumatic, grief-stricken records are out there. And there sort of needs to be some sort of connection between people dealing with it, to say, "Yeah, we're dealing with the same kind of thing. And it's okay."'

Conclusion

As the last quotation urges, there is a real need to acknowledge the emotional work of archivists and other records professionals. By providing an overview of conversations with archivists

about how grief and other emotions are implicated in and impact archival work, this article is part of a growing response to this need. More research is necessary before new practices can be identified and implemented, but the exploration of archivists' experiences recounted in this article suggests that grief and other emotions are a prevalent part of archival work, that these emotional dimensions of archival work need to be fully and widely acknowledged, and that theory, training, and support for person-centered archival approaches and methods must be developed. Our hope as a research team is that this research adds weight to the increasing emphases in archival discourse on person- or human-centered theory and practice. Calls for and explorations of person- or human-centered recordkeeping approaches are not new but are mounting in frequency and volume. New focuses⁷⁷ on trauma-informed archival practices⁷⁸ and on 'human-centred participatory' recordkeeping for care-experienced people,⁷⁹ for example, emerge at least in part out of over a decade's worth of a shift in archival discourse to the pursuit of social justice⁸⁰ and the development of community-led,⁸¹ reparative,⁸² and liberatory praxis.⁸³ The voices heard in these interviews provide another lens through which to consider the urgency of this shift.

As discussed in the methodology sections of this article, the research design for this project centered a continuing process of deep listening. A focus on deep listening was also frequently flagged by participants, who stressed the importance of listening to donor relations, to working with researchers and to working with records. As one participant explained:

'Understanding how to listen is a huge skill to learn. And I think of it not only terms of listening to donors in that moment where I'm encountering the donor, but also listening to the records when I'm processing them and what are the records trying to say to me, and how can I describe them adequately enough that, you know, these records can speak to other people? So, it's that whole process of trying to honour through – not just through the first donor encounter, but through the whole process of processing.'

This participant's commitment to listening, and their view of listening as a way of honoring a donor or records creator or subject, is echoed by another participant who emphasized that listening is an important part of 'getting it right' in archival work. The interviews conducted for this project are also deserving of deep listening, not just by me and my research team, but by archival scholars, educators, employers, managers, and colleagues. 'Getting it right' in archival education and training, and in on-the-job support, requires taking seriously the feelings and experiences participants shared. 'Getting it right' will require changes to archival curricula, to professional development programs, and to organizational cultures that are beyond the direct scope of this article, but which must begin, as I hope this article has made clear with sincere and committed acknowledgment of the complicated emotional dimensions of archival work that is person-centered and relational. We 'can't separate the human element'; in a person-centered field, archivists are people, too, and care, and attention must be paid to their experiences, their needs for connection, and their support. Grief – and other emotions – 'course' not only through archives but also through archival work. They demand that we learn to listen.

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Notes

1. This research has been funded by the Social Science and Humanities Research Council (SSHRC) Canada through an Insight Development Grant (2018–2022).
2. Geoff Wexler and Linda L. Long, ‘Lifetimes and Legacies: Mortality, Immortality, and the Needs of Aging and Dying Donors’, *The American Archivist*, vol. 72, no. 2, 2009, p. 478.
3. The research team I refer to in this section includes graduate research assistants who worked on this project between 2018 and 2021 and who are listed as coauthors. This team contributed significantly to the design of the interview protocol, interview transcription, and data analysis. Although, in this article, I frequently use the first person as the principal investigator on the project and the writer of this article, and for simplicity and clarity in writing, the first person is always informed by the team. ‘We’ is used when discussing decisions made or actions taken by the research team together.
4. Jennifer Douglas, Alexandra Alisaukas, and Devon Mordell, “‘Treat Them with the Reverence of Archivists’”: Records Work, Grief Work, and Relationship Work in the Archives’, *Archivaria*, no. 88, Fall 2019, pp. 84–118.
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6. Margaret S. Stroebe, Robert O. Hansson, Wolfgang Stroebe and Henk Schut, ‘Introduction: Concepts and Issues in Contemporary Research on Bereavement’, in Margaret S. Stroebe, Robert O. Hansson, Wolfgang Stroebe and Henk Schut (eds.), *Handbook of Bereavement Research: Consequences, Coping and Care*, American Psychological Association, Washington, DC, 2001, p. 6.
7. Attig, xii.
8. See, for example: Ann Cvetkovich, *An Archive of Feelings: Trauma, Sexuality, and Lesbian Public Cultures*, Duke University Press, Durham and London, 2002; Gesa E. Kirsch and Liz Rohan (eds.), *Beyond the Archives: Research as a Lived Process*, Southern Illinois University Press, Carbondale, 2008; Maryanne Dever, Ann Vickery and Sally Newman, *The Intimate Archive: Journeys through Private Papers*, National Library Australia, Canberra, 2009; Victor Rosenberg, ‘The Power of a Family Archive’, *Archival Science*, vol. 11, no. 1, January 2011, pp. 77–93; Jacqueline Z. Wilson and Frank Golding, ‘Latent Scrutiny: Personal Archives as Perpetual Mementos of the Official Gaze’, *Archival Science*, vol. 16, no. 1, 2016, pp. 93–109; Lynette Russell, ‘Affect in the Archive: Trauma, Grief, Delight and Texts’, *Archives and Manuscripts*, vol. 46, no. 2, 2018, pp. 200–207; Jessie Loyer and Darrell Loyer, ‘Talking With My Daughter About Archives: Métis Researchers and Genealogy’, *KULA: Knowledge Creation, Dissemination, and Preservation Studies*, vol. 5, no. 1, 2021, <https://doi.org/10.18357/kula.140>.
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10. Most of the articles cited here as exceptions were published after the interviews discussed in this article were carried out and were, therefore, not available to those interviewed.
11. Tonia Sutherland, ‘Making a Killing: On Race, Ritual and (Re)membering in Digital Cultures’, *Preservation, Digital Technology and Culture*, vol. 46, no.1, 2017, pp. 32–40.
12. Ferrin Evans, ‘Love (and Loss) in the Time of COVID-19: Translating Trauma into an Archive of Embodied Immediacy’, *American Archivist*, vol. 85, no. 1, 2022, pp. 15–29.
13. Samantha R. Winn, ‘Dying Well in the Anthropocene’, *Journal of Critical Library and Information Studies*, vol. 3, no. 1, 2020, <https://doi.org/10.24242/jclis.v3i1.107>; Sam Winn, ‘Our Monstrous Archives: Memory and the End of Time’, *Medium*, 2021, available at <https://medium.com/on-archivy/our-monstrous-archives-memory-and-the-end-of-time-d439359ca5f2>, accessed 14 February 2022.
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- pp. 56–81; Michelle Caswell, ‘Affective Bonds: What Community Archives Can Teach Mainstream Institutions’, in Jeannette Bastian and Andrew Flinn (eds.), *Community Archives, Community Spaces: Heritage, Memory and Identity, Facet*, London, 2020, pp. 21–40; Jamie A. Lee, ‘Mediated Storytelling Practices and Productions: Archival Bodies of Affective Evidences’, *Networking Knowledge*, vol. 9, no. 6, December 2016, pp. 74–87; Michelle Caswell, Joyce Gabiola, Jimmy Zavala, Gracen Brilmyer and Marika Cifor, ‘Imagining Transformative Spaces: The Personal-Political Sites of Community Archives’, *Archival Science*, vol. 18, no. 1, 2018, pp. 73–93; Nancy Liliana Godoy, ‘Community-Driven Archives: Conocimiento, Healing, and Justice’, *Journal of Critical Library and Information Studies*, vol. 3: Radical Empathy in Archival Practice, July 2021, available at <https://journals.litwinbooks.com/index.php/jclis/article/view/136>, accessed 14 February 2022.
17. The story of how my research came to focus on grief and grief work is told in more detail in Jennifer Douglas, ‘Letting Grief Move Me: Thinking Through the Affective Dimensions of Personal Recordkeeping’, in Linda Morra (ed.), *Moving Archives*, Wilfrid Laurier University Press, Waterloo, ON, 2020, pp. 147–167 and in Douglas, Alisaukas and Mordell, 2019.
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 26. Caswell and Cifor, 2016, p. 24.
 27. See articles in the special issue of the *Journal of Critical Library and Information Studies* on 'radical empathy in archival practice' edited by Elvia Arroyo-Ramirez, Jasmine Jones, Shannon O'Neill, and Holly Smith.
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 29. See, for example: Tricia Logan, 'Questions of Privacy and Confidentiality after Atrocity: Collecting and Retaining Records of the Residential School System in Canada', *Genocide Studies International*, vol. 12, no. 1, 2018, pp. 92–102; Michelle Caswell, *Archiving the Unspeakable: Silence, Memory, and the Photographic Record in Cambodia*, University of Wisconsin Press, Madison, 2014; Lisa P. Nathan, Elizabeth Shaffer and Maggie Castor, 'Stewarding Collections of Trauma: Plurality, Responsibility, and Questions of Action', *Archivaria*, vol. 80, November 2015, pp. 89–118; Kirsten Weld, *Paper Cadavers: The Archives of Dictatorship in Guatemala*, Duke University Press, Durham, 2014; David A. Wallace, Patricia Pasick, Zoe Berman and Ella Weber, 'Stories for Hope-Rwanda: A Psychological-Archival Collaboration to Promote Healing and Cultural Continuity through Intergenerational Dialogue', *Archival Science*, vol. 14, no. 3–4, October 2014, pp. 275–306; Anne Gilliland, 'Moving Past: Probing the Agency and Affect of Recordkeeping in Individual and Community Lives in Post-Conflict Croatia', *Archival Science*, vol. 14, no. 3–4, October 2014, pp. 249–274; Michelle Caswell, 'Toward a Survivor-Centred Approach to Records Documenting Human Rights Abuse: Lessons from Community Archives', *Archival Science*, vol. 14, no. 3–4, October 2014, pp. 307–322; Krista McCracken and Skylee-Storm Hogan, 'Residential School Community Archives: Spaces of Trauma and Community Healing', *Journal of Critical Library and Information Studies*, vol. 3: Radical Empathy in Archival Practice (pre-prints), 2021, available at <https://journals.litwinbooks.com/index.php/jclis/article/view/115>, accessed 14 February 2022; Krista McCracken, 'Community Archival Practice: Indigenous Grassroots Collaboration at the Shingwauk Residential Schools Centre', *The American Archivist*, vol. 78, no. 1, Spring/Summer 2015, pp. 181–191.
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 34. In the same year I conducted these interviews, Wendy Duff and Cheryl Regehr also gathered information about 'emotional responses in archivists' through an initial survey and then a series of semi-structured interviews; when a first article reporting on their findings was published, this article was under review. See Cheryl Regehr, Wendy Duff, Henria Aton and Christa Sato, "'Humans and Records Are Entangled": Empathic Engagement and Emotional Response in Archivists', *Archival Science*, 2022 (online first).
 35. Conceptualizing Recordkeeping as Grief Work: Implications for Archival Theory and Practice was funded by the Social Science and Humanities Research Council of Canada (SSHRC) from 2018 to 2022 through the Insight Development Grant program.
 36. Findings of this phase of the research project are reported in Douglas and Alisaukas, 'It Feels Like a Life's Work', 2021.
 37. Findings of initial exploration of bereavement collections are reported in Douglas, Alisaukas and Mordell, 'Treat Them With the Reverence of Archivists', 2019.
 38. Ethics approval was granted April 24, 2019, certificate number H19-00250.
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 51. Ratnam discusses the impact on the researcher of embedded and engaged listening to difficult stories. See also articles in a special issue of *Emotion, Space and Society*, 'Researcher Trauma: Dealing with Traumatic Research Content and Places', Danielle Drozdowski and Dale Dominey-Howes (eds.), vol. 17, 2015.
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 57. Hobbs, 2012, p. 184.
 58. Genevieve Weber, 'From Documents to People: Working Towards Indigenizing the BC Archives', *BC Studies*, vol. 199, Autumn 2018, p. 97.

59. Wexler and Long, p. 478.
60. Wexler and Long's article includes a detailed description of this type of long-term, personal relationship with a donor.
61. This echoes findings from Sloan, Vanderfluit and Douglas's research on archivists' understanding of and experience with secondary trauma, where they found that some archivists questioned whether they were entitled to feel upset or traumatized by the records they worked with when they were not directly experiencing the events documented in the records. See Sloan, Vanderfluit, Douglas, 2019.
62. Etherton, 2006.
63. On how archives can facilitate relationships, or continuing bonds, between the living and their lost loved ones, see, for example: Douglas, Alisaukas and Mordell, 2019; Jennifer Douglas and Alexandra Alisaukas, "It Feels Like a Life's Work": Recordkeeping as an Act of Love', *Archivaria*, vol. 91, June 2021, pp. 6–37.
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66. Hobbs, 2012.
67. On optimism in archives, see Rebecka Sheffield, 'Archival Optimism, or, How to Sustain a Community Archives', in Jeannette A. Bastian and Andrew Flinn (eds.), *Community Archives, Community Spaces*, Facet, London, 2020, pp. 2–20.
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ARTICLE

Representing Biases, Inequalities and Silences in National Web Archives: Social, Material and Technical Dimensions

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Abstract

Contemporaneous collecting of the publicly available web has provided researchers with an invaluable source with which to interpret various aspects of the recent past. With millions of websites gathered, stored and made accessible in national web archives over the past 25 years, this paper argues for the need to reflect upon, and respond to, the biases, inequalities and silences that exist in these vast repositories. This article presents a research agenda for web archivists and web historians to together think broadly about the social, material and technical dimensions that shape what is included in web archives, and what is excluded. A key challenge impacting this effort is that various complexities and contingencies of archival formation are obscured. These include wider social inequalities, the entanglement of human and machine decision-making in the archiving process, changing dynamics of power over information online and the environmental impact of technical systems. Accounting for these social, material and technical factors that shape the formation of web archives provides opportunities to develop and use archives in ways that better acknowledge both the strengths and limitations of national web archives as a proxy for the web's past.

Keywords: *National web archives; Social inequality; Research ethics; Bias.*

In 2019, Ian Milligan challenged fellow historians to think about what it might mean to write a history of the 1990s or early 2000s. What would the archives look like? Whose voices would be heard, and whose would be silenced? What are the ethics of using the abundance of (sometimes very personal) information that is now only a few keywords away? These kinds of questions, whilst aimed at historians, are also critical for those building and providing ongoing access to contemporary archives. Consider Milligan's warning to historians:

Imagine a history of 2019 that draws primarily on print newspapers, approaching this period as 'business as usual', ignoring the revolution in communications technology that fundamentally affected how people share, interact, and leave historical traces behind.¹

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Milligan argues that historians need to put themselves in a better position to use those ‘historical traces’ that people leave behind online, some of which are captured in web archives. Milligan’s work opens a dialogue between those doing contemporaneous collecting and the users of these collections, noting that it is key for scholars ‘to become knowledgeable about the construction of the web archives they use’.² Untangling the social, material and technical dynamics that help shape the content and character of web archives illuminates both the strengths and limitations of these vast archives as a proxy for the web’s past. This article uses the Australian context to examine various complexities and contingencies that are central in shaping web archives yet have either not been fully explored, or are treated separately, in the growing literature on web archives.³ These include wider social inequalities, the entanglement of human and machine decision-making in the archiving process, changing dynamics of power over information online and the environmental impact of technical systems. Recognising the entanglement of these dynamics might allow the development and use of web archives in ways that better acknowledge both the strengths and limitations of national web archives as a proxy for the web’s past.

Context

For the most part, the web of the past, at least in its publicly accessible form, has been gathered, preserved and made accessible by libraries and archives around the world.⁴ From the mid-1990s, national and state libraries, particularly, have used their mandates to collect, preserve and provide ongoing access to the documentary record at national, state and regional levels to include online content. Whilst the first, most famous and largest web archiving institution, the US-based Internet Archive, is no doubt the key actor in this space, Australia has also played a key role in the global web archiving movement.⁵ After several years of seeking to understand what it would take to absorb web resources into their collection, the National Library of Australia (NLA) released selection guidelines for ‘online Australian publications intended for preservation by the National Library’ in December 1996. By advancing the idea that ‘anything that is publicly available on the Internet is published’,⁶ these guidelines provided a conceptual framework for the library to absorb a wide array of websites produced by individuals, government, businesses and community organisations into their collections (not just those ‘published’ in a formal sense).⁷

Whilst a comprehensive history of Australia’s web archiving efforts is beyond the scope of this paper,⁸ five key developments are important to detail when seeking to address the inequalities, silences and biases that exist in Australia’s web archives. First, the NLA decided early on to take a *selective* approach to collecting, with an emphasis on the quality of capture and providing immediate access to content.⁹ Because legal deposit did not at this time include online material, the library had to seek permission from the website owner to capture and provide access to their site. An estimate from the late-1990s suggests that archiving just one website would take 5 to 6 hours of staff time, whereas now ‘we could shoot a title through in a few minutes’, as one NLA staff member put it to me in a 2021 interview.¹⁰ Second, selection is undertaken as a collaborative exercise amongst the NLA, Australia’s various state libraries and other major collecting institutions. Third, the NLA has obtained annual ‘contract crawls’ of the entire Australian country code top-level domain (.au) from the Internet Archive since 2005.¹¹ Fourth, 2016 saw a key change in Australia’s *Copyright Act* that allowed libraries to proactively capture and provide access to content without the written permission of website creators under revised legal deposit provisions.¹² Finally, in 2019, the various resources collectively captured since 1996, along with annual domain crawls since 2005, were made accessible and full-text searchable through the rebranded *Australian Web Archive*, accessible through *Trove*.¹³ This history reflects a steady increase in the scale and pace of capturing and

making available content, driven by technical, organisational and legal factors. All these contingencies have shaped both the content and character of the web of Australia's past in critical ways.

Asking big questions of big collections

As suggested, a wide array of factors have shaped the web of Australia's past: the available technology, institutional resources, individual decisions of curators, the processes and ideals of international organisations like the Internet Archive, the prevailing legislative environment and more. These contingencies, I suggest, should not be seen as factors to be concealed on the way to inevitably larger and more accessible collections of content. Rather, these factors should provide critical reflection on the nature of the silences, biases and inequalities nestled within the masses of data that make up Australia's web archives. After a quarter of a century of collecting, I believe it is time to reflect upon questions rarely asked in reference to the archived web:

- What inequalities exist on the web that are carried over or amplified through the process of archiving?
- What gets lost in the process of assembling the web of Australia's past?
- Whose stories are silenced or invisible?
- What ethical protocols should surround the collection, ongoing dissemination and use of content from the web?
- What does all this mean for a critical understanding of the recent past?

These are, no doubt, big questions. But by asking them, one is in a better position to reflect and respond to the work that still needs to be done to ethically create and provide access to archives that respect and represent the complexity and diversity of networked life on this continent.

To help me with these questions, I introduce two related concepts that I will be referring to throughout this paper. The first is the notion of 'representative' collections. Because exhaustive collecting is impossible in the context of the web, those developing national and state library collections aim for selections that are broadly 'representative' of a diverse range of groups, events and topics across society. In recent decades, these aims have been reflected in collection development policies and other strategic documents, which have stated aims to improve representation of 'groups who may not be well represented in library collections and programs'.¹⁴ Traditional approaches, such as the use of census data to ensure linguistic diversity in collections, are well-established, even whilst they have been critiqued for assuming that people conform to strictly bounded identity categories.¹⁵ More recent approaches aim for stronger community partnerships and building capacity amongst groups to help tell their own story (including through community archives).¹⁶

There are both conceptual and practical limits to the concept of a 'representative' collection. Over the past two decades, the field of critical archival studies has challenged the perception that the archivist is but 'an objective, neutral, passive... keeper of truth'¹⁷ and instead seek to highlight how the *texture* of archives – their regularities, omissions and inconsistencies – reflect prevailing relations of power.¹⁸ Reflecting this, South African archivist Verne Harris has argued 'that in any circumstances, in any country, the documentary record provides just a sliver of a window into the event. Even if archivists in a particular country were to preserve every record generated throughout the land, they would still have only a sliver of a window into that country's experience'.¹⁹ I use Harris' notion of 'the archival sliver' to highlight the power-laden logics that underpin the formation of web of Australia's past. In short,

despite the unprecedented scale of contemporary web archives, they remain saturated with biases, inequalities and silences – it is the job of this article to explore several social, material and technical dynamics that shape contemporary archival formation. Because of the nature of the web – its materialities, its cultures of use, its power relations – these dynamics raise critical questions for those developing and using web archives.

Structure of paper

In thinking about the web of Australia's past as 'a sliver of a sliver of a window into process',²⁰ I first reflect upon what the web is, who has access to it and what has changed since its emergence in Australia in 1993.²¹ From here, I dig into the process of archiving the web, and how changes in the character and governance of content on the web raise challenges to developing representative collections. I then reflect on recent ethnographic fieldwork at the NLA to explore how and when the ethics of capturing and making available the historical traces of people's lives on the web come into the picture. I illustrate in this section that silences do not necessarily reflect a 'gap' that needs to be 'filled'.²² Rather, silences can reflect people expressing agency over their voice in the archives. Therefore, sometimes *not collecting* something may be the most respectful and ethical option. Finally, I expand the frame to explore what it might to 'represent' our collective, digitally entangled lives to highlight different dimensions of experience. To this, I present recent creative projects that highlight the material, ecological and affective dimensions of networked communication infrastructures. Taken together, these avenues offer promising directions for critical and reflexive engagement with the web of Australia's past.

Archiving inequalities

The first webserver was installed in Australia in 1993, and the system steadily expanded from being a sole concern of academics (initially coexisting with other information systems like Gopher) to include the websites of community organisations, individuals (1994), government, the media (1995) and businesses (1996).²³ As this progression suggests, the web has expanded to include more and more voices, and with it, more and more content. Whilst it is important to distinguish the web (the resource-layer) from the internet that enables its access, it is also crucial to reflect on who has access to the internet (and by extension the web) in Australia, and who has the skills, time and resources to contribute to it. Digital exclusion has significant implications for what voices are, and are not, included in web archives.

Internet access emerged as a social justice issue and concern for policymakers in the 1990s, usually conceived in terms of a 'digital divide'. Whilst access is clearly critical for many forms of social and economic participation, it is worth briefly noting the limitations of the 'digital divide' as a framework for addressing social inequality. As Daniel Greene notes, this narrative reduces 'the complex problem of... poverty to a much more basic binary: a digital divide that could be crossed with the right tools and skills'.²⁴ It also marginalises the many forms of digital engagement, innovation and resistance by those seen by policymakers to be on the 'wrong side' of the digital divide.²⁵ Nonetheless, demographic data on access to, and use of, the internet illustrate that social and digital inequalities are mutually constituted. Since it started being used as the measure of the digital divide in 2015, the Australian Digital Inclusion Index (ADII) has shown, again and again, that 'digital inclusion in Australia remains profoundly shaped by geographic and sociodemographic factors such as age, education, income, employment, and location'.²⁶ In short, digital exclusion is built on top of, and amplifies, broader social inequalities in Australia. This is important to reflect upon as collecting institutions go about building large-scale digital collections that seek to represent the complexity and diversity of life on this continent.

Digging a little deeper into the ADII for the purposes of this paper, I focus on how the skills, time and resources to *produce* content for the web are unevenly distributed across the population. Whilst in the 1990s, user-generated content may have looked like a personal website, and in the early 2000s a blog, over the past decade, this is more likely to be updates, posts and media distributed to an ‘imagined audience’ on social media platforms.²⁷ The kind of skills that fall under editing, producing and posting content are labelled as ‘creative’ in the ADII. As with other measures, these skills are not evenly distributed across the population, with the most ‘digitally creative’ more likely to be young, employed, abled bodied, on a higher income and with higher levels of education.²⁸ As such, the raw mass of content that people in Australia contribute to the web is but a sliver of representing the lives of all people on this continent.

Earlier, I mentioned that the contemporary ‘historical traces’ (to use Milligan’s phrase) that people leave behind are now likely to be on social media. Yet, these platforms are hardly a perfect democracy. Whilst there is no authoritative source of data on social media use in Australia, studies have suggested that between 10 and 15% of people use Twitter.²⁹ The same sources suggest most Australians have a Facebook account, and just over half use the service reasonably regularly. Instagram and YouTube also remain popular amongst most people in Australia, whilst LinkedIn, Pinterest, and/or Snapchat were each used by around 10–20% of survey respondents.³⁰ However, these raw numbers tell us very little about how actively or passively these users engage with these services. What is clear, however, is that women, Indigenous people and LGBTQI+ people are much more likely to be trolled, harassed and vilified on social media.³¹ Needless to say, despite some residual buzz around social media as being inherently more participatory or representative, it is worth taking a broader view to examine the inequalities, silences and biases embedded in who uses these services, and who benefits from their popularity and commercial-driven reliance on virality.

The web archival sliver

From the ‘sliver of a sliver of a window into process’³² that is all the content on the web, what gets assembled in the archives? What is unable to be collected? What are the decisions and contingencies that underpin selection? Whilst web archives may be sizeable, ‘web archives and the data they contain do not represent any form of objective or complete knowledge about the past, no more than any other inherently subjective historical method’, as Milligan notes.³³ ‘More’ does not necessarily mean ‘more representative’.

‘Selection’ may be the wrong word to think about what ends up in web archives. The decisions of individual curators and collecting guidelines, whilst important, can be tempered by the technical challenges of capturing a particular website, the prevailing legislative context, the in/ability to obtain permission, and the fact that online content can be removed or changed without a moment’s notice. Sometimes one’s decision to collect or not to collect is decided by whether it is technically possible to do so. As Valérie Schafer and colleagues note, ‘the constitution of heritage is often contingent upon the accessibility of pages, rather than their content – the device determining the (im-)possibility of inclusion, the design becoming prescription’.³⁴ As such, ‘contingencies’, rather than ‘selection’ or ‘curation’, might be a more appropriate way to think about the factors that drive both the content and character of contemporary collections.

Content on the web, as Schneider and Foot note, is a ‘unique mixture of the ephemeral and the permanent’.³⁵ Whilst librarians and archivists may consider the ephemerality and dynamism of content on the web to be leading to a ‘digital dark ages’,³⁶ for users, the fact that content about them is circulating online, or stored and used by third parties, means the right to permanently delete content might be a more pressing need, rather than selection and ongoing

preservation.³⁷ Yet, a sense of moral urgency over permanently losing information of potential cultural value sees web archiving institutions and actors generally attempt to collect desired content, even if providing access is presently legally or technically difficult.³⁸

To illustrate the contingent nature of web archiving, I will briefly explain the process that sees content captured and included in the archives. Archiving websites is achieved through the deployment of automated software called ‘crawlers’. After a site is specified in the software (called a ‘seed’), the crawler contacts the server where the page is hosted and requests permission to collect the code and files that make up the page.³⁹ Depending on the specifications of the software, the crawler will then find and follow all hyperlinks on a page, capturing and storing content as it goes. The web archivist might limit the crawler by specifying that it does not stray beyond a particular domain, or a particular part of the website. This is a common practice for site-level curation that continues to be practiced by the NLA and many state libraries. For larger crawls (e.g., the entire .gov.au domain), the crawler is ceased ‘when we hit a target, or when we run out of money’, as one library staff member told me during my fieldwork at the NLA in 2021. The content is aggregated in a container file called a WARC file, and after a process of ‘quality assurance’, the content is reassembled using software (such as Wayback) to replay the content as it appeared during the time of the crawl.

From looking at the content, the web of technical, legal and organisational contingencies that lead to something being included in the archive is largely concealed. Science and technology studies scholars call this a ‘black box’, in that all that we see is an input (the seeds) and an output (the WARCs).⁴⁰ But, ‘black boxing’ web archives limits the questions that can be asked when thinking about representative collections. One may ask, why was *site Z* captured *X times* one year, and only *Y* the next? Why was *site A* captured but not *site B*? Why did the library stop archiving *site C* on a particular date? The mere fact of something existing in an archive – in the past suggesting significance because of its presence in the archives and the material resources taken to collect, catalogue and preserve it – may not signify something significant in the contemporary context. In the move to increasing pace and scale of collecting, the selection of content is increasingly driven by algorithms, rather than being determined solely according to a source’s potential historical significance.⁴¹

With the contingent nature of collecting traces from the web in mind, it is important to recognise that there is a great deal of content on the web that collecting institutions simply cannot capture. Given crawlers travel through the web by following hyperlinks, there are many places where the crawler cannot go. Anything requiring user authentication (e.g., a CAPTCHA code, password, or IP authentication) is out of bounds. Really, any form of user interaction apart from clicking on a link impedes the crawler’s journey through the web.⁴² For these, and for ethical and legal reasons, web archives really only reflect the publicly accessible, or ‘open’, web.⁴³ Whilst those doing the web archiving have come up with an array of creative workarounds to potential problems,⁴⁴ there are limits. The migration of content from sites and blogs to platform environments is a key challenge.⁴⁵ Because of the nature of social media platforms, web archiving techniques, standards and tools do not translate to the so-called ‘walled gardens’ of social media platforms.⁴⁶ Facebook, for example, is largely closed to crawlers, and Facebook’s *Terms of Use* explicitly prohibits ‘data mining, robots, scraping or similar data gathering or extraction methods’, regardless of the intent around its use.⁴⁷ On a web that is – in many cases – ‘unarchivable by design’,⁴⁸ an awareness of the contingent nature of web archiving is critical to consider the array of forces that currently exert power over the character and content of the web of Australia’s past.⁴⁹

‘Ethically important moments’ in web archiving

In this section, I reflect on findings from my ethnographic fieldwork at the NLA to explore the process of negotiation that takes place between website creators and web archivists.

The dynamics of these negotiations can shape how and when the content is collected, and how it is made available in the archives. Through a short ethnographic episode that attends to this negotiation, I suggest that silences do not necessarily reflect a ‘gap’ that needs to be ‘filled’.⁵⁰ Instead, silences can reflect people expressing agency over their voice in the archives. Therefore, sometimes *not collecting* something may be the most respectful and ethical option.⁵¹ These ‘ethically important moments’⁵² highlight how the complex dynamics of online sociality challenge strict binaries between open and closed, and visible and invisible.

Whilst many materials that end up in libraries – particularly published materials – are by their nature firmly ‘on the public record’, content on the web occupies a more ambiguous position. Users share content with an ‘imagined audience’ in mind – does this include anyone who happens to locate this content in web archives?⁵³ Furthermore, the web blurs the boundaries between a ‘public personality’ and a ‘private individual’. Keyword searching of web archives enables easy access to content relating to individuals, often dating back decades. Whilst this might be considered by some a mere embarrassment, for others, the implications may be more urgent. This has led a number of researchers using web archives to ask: what do creators and users of these collections owe to the people whose traces of lives they contain?⁵⁴ Unfortunately, public debate on privacy, visibility and surveillance often falls along simple binaries of open/closed, public/private and free/proprietary. As Kimberly Christen notes, ‘these are not zero-sum games, and information sociality and creatively is more porous than these choices allow us to imagine’.⁵⁵

The practical ethics of web archiving were illustrated to me when, in May and June 2021, I spent 6 weeks at the NLA conducting ethnographic fieldwork in the Web Archiving Section (WAS). During this time, I observed and participated in the everyday activities of staff, conducted formal and informal interviews with current and former NLA staff, and consulted 30 years of reports, memos, minutes and other documents relating to Australia’s web archiving program. In relation to ethics and web archiving, I found that web archivists deftly navigate the complex challenges that privacy and visibility raises, whilst seeking to balance the various needs of the library, users of the archive and the creators of sources. To illustrate this, I present one story from my fieldwork.

Until 2016, WAS staff would have to contact the creator of a website to seek written permission to capture their site and make it available. Staff would note how time intensive this was. Nonetheless, it provided an opportunity for staff to interact with website creators. Staff could often find themselves giving advice on how the creator could make their site more amenable to web archiving. Or the creator would have questions about the process or express pride in the fact that their website was included in the national collection. Following a 2016 change in the *Copyright Act*, the library could capture material without having to gain explicit written permission, increasing the efficiency of web archiving considerably. However, it is worth reflecting on how interaction was an opportunity for navigating the ethics of capturing online traces.

During my fieldwork, I was processing titles at the library and noticed that a specific title had conditions attached to the publisher’s granting of permission to capture it and make it available.

The correspondence read:

I have decided to grant permission for the Library to [collect my website] ... HOWEVER: I wish to be credited simply as [my pseudonym] and do not give permission for my full name to be used in the catalogue record.

This negotiation allowed access to proceed, whilst respecting the rights of the creator. Now, these interactions between humans have been supplanted by machine-to-machine interaction.

Behind every website, there is a user, who will have their own reasons for the creation of the website. Extending its life, or including it in a national collection, may converge or come into conflict with these aims, involving negotiation and compromise.

Reflecting on these ‘ethically important moments’⁵⁶ illustrates that silences do not necessarily reflect a ‘gap’ that needs to be ‘filled’: silences can reflect people expressing agency over their voice in the archives. Collecting is not a binary proposition (collect/do not collect). Navigating the web of the past involves negotiating tensions between the responsibility of collecting institutions to preserve the documentary record, the rights of individuals and groups to decide the fate of their digital traces and the ongoing popularity of social media platforms that seek to control and profit from these traces. All this raises a raft of ethical challenges that require ongoing negotiation and offer methodological possibilities to advance a more ‘care-full’ research practice.⁵⁷

Embodied, affective and material dimensions of web archives

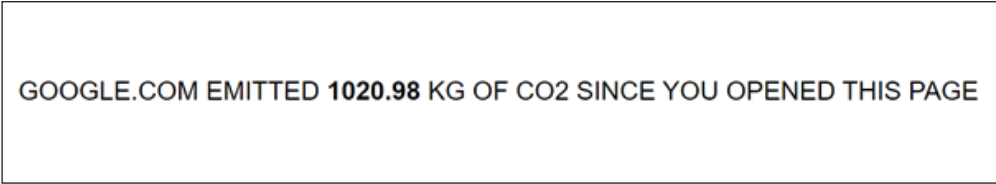
In this final section, I highlight recent creative projects that illustrate the material, ecological and affective dimensions of networked communication infrastructures. These elements, I suggest, offer promising directions for developing a critical and reflexive mode of archiving and using the web of Australia’s past. Together, they push the boundaries of what it might mean to represent contemporary digital life, opening different avenues of experience to critical reflection.

First, whilst it is easy to consider internet-enabled communications as transparent, they are, in fact, deeply material.⁵⁸ As Fiona Cameron notes, understanding digital heritage and curation in a ‘more-than-human’ world means attending to data centres, sensors, robots, cables, earth minerals, land and so on.⁵⁹ How can collecting institutions and their users bring these material dimensions of web archiving to the fore?

A range of art projects have sought to raise awareness of the materials required to sustain contemporary technological production and internet-enabled communication infrastructures. For example, Kate Crawford and Vladan Joler’s *Anatomy of an AI System* (anatomyof.ai) traces the materials, places and systems required to produce and power one specific AI-powered gadget, the *Echo*, a ‘smart’ speaker by Amazon. As Crawford and Joler note in a 2018 interview:

The Echo sits in your house, looks very simple and small, but has these big roots that connect to huge systems of production: logistics, mining, data capture, and the training of AI networks. It’s an entire infrastructural stack you never see. You just give a simple voice command... and it feels like magic.⁶⁰

This critical reflection on the planetary costs of commercial data infrastructures offers the viewer an opportunity to understand, and challenge, the increasing scale and pace of contemporary communication systems. Similarly, artist Joana Moll’s 2014 online installation *CO2GLE* (janavirgin.com/CO2/) displays in real-time the amount of carbon dioxide emitted from visits to the most popular site in the world – google.com. It starkly displays ‘GOOGLE.COM EMITTED [#] KG OF CO2 SINCE YOU OPENED THIS PAGE’ in black text on a white background, whilst the number grows each second ‘GOOGLE.COM EMITTED 510.49... 1020.98... 1531.47... 2041.94... KG OF CO2...’ (see Figure 1).⁶¹ The artwork offers a very different reading of Google, shifting the user’s focus from a commercial product with technical affordances to the materiality and environmental costs of data-driven convenience. In this spirit, what would it take to ‘read’ the web of Australia’s past as a web of social and material relations, rather than simply a collection of archived websites?



GOOGLE.COM EMITTED 1020.98 KG OF CO2 SINCE YOU OPENED THIS PAGE

Figure 1. Screenshot on Joana Moll's 2014 online art installation, CO2GLE, that displays the amount of real-time carbon dioxide emissions from global visits to google.com (screenshot taken on 13 December 2021). © Joana Moll. Reuse not permitted.

To read the materiality of this particular web of Australia's past, one might start when it is physically located – on unceded Ngunnawal land. Web servers exist in physical space, and when one uses the archive, one uses land. To illustrate the connection between the web and occupation of Indigenous lands, Brooklyn-based designer Caleb Stone developed *Web Acknowledgement*, an extension for the Google Chrome browser that performs an acknowledgement of country based on where the website one is visiting is physically stored (see Figure 2).⁶² *Web Acknowledgement* offers an alternative reading of content on the web, mobilising the possibility of unceded land itself as 'a recording medium, an embodiment of the context of creation'.⁶³

Finally, I consider what it would mean to capture not only the traces left behind on the web but also the affective dimensions of its use. The 'surfing' (via hyperlinks) of the 1990s is a very different experience of the web than the 'searching' of the 2000s or the 'scrolling' of today.⁶⁴ How could these experiential dimensions of the web be captured? The browser emulator, *OldWeb.today* by developer Ilya Kreymer, allows one to navigate web archives using a range of emulated browsers, including the now defunct Mosaic, Netscape and Internet Explorer.⁶⁵ This presents the user not only the *content* of an archived webpage but also some of the *experience* of the web in, say, 2001. Understanding the experience of using the web in 2001 would not only involve consideration of the visual culture of the web at this time but also its affective dimensions – the waiting as a website slowly loads, the purring of a bulky desktop computer, the limits on use imposed by cost and access. With this comes the recognition that the web of the past is at once material and affective, produced at a time and place, and involving an array of people, things, machines and environments.

Conclusion

Web archives should not be treated as a 'black box', but rather as a site from which creators and users of these sources can reflect upon the material, cultural and affective dimensions of contemporary digital life. Attending to the contingent nature of archival production illustrates the web of actors and factors that sustain the inequalities, silences and biases existent in these vast repositories. A critical and reflexive approach to developing and using web archives would involve understanding, respecting and, in some cases, challenging, the plurality of ideas of what the web is, could and should be. The seemingly relentless pace and the scale of content creation and distribution in a mediatised world mean that it is time to rethink what 'representative' means, remembering that 'more' does not mean 'more representative'. The next step is to collectively reckon with the ongoing task of collecting, providing access to and using archives in ways that respect and reflect the complexity and diversity of contemporary networked life on this continent.

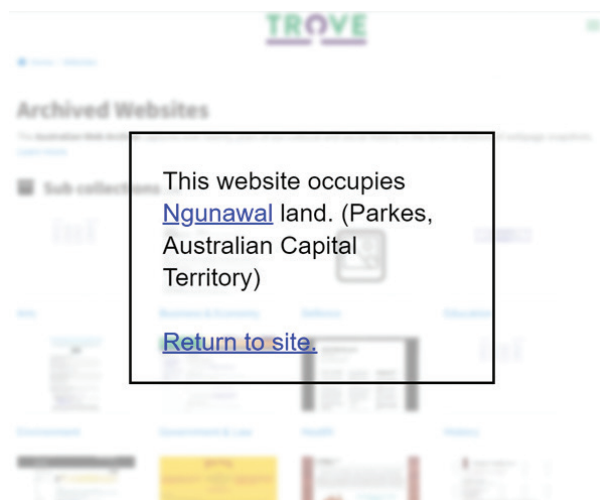


Figure 2. An acknowledgement that the Australian Web Archive website is physically stored on unceded Ngunawal land, using the Web Acknowledgement extension for Google Chrome by Caleb Stone. The website used is webarchive.nla.gov.au (screenshot taken on 11 December 2021). © Caleb Stone. Reuse not permitted.

Reflecting upon, and responding to, the inequalities, silences and biases that exist in web archives opens a space for several critical interventions for both archivists and researchers. First, the web is certainly not universally experienced as a democratic means to express oneself. As such, archiving institutions could use measures of social and digital inequality to identify those marginalised on dominant channels of online communication, and consider why this may be the case. As I have outlined in this article, silences should not be treated *a priori* as a ‘gap’ that needs to be ‘filled’; rather absence can reflect people expressing agency over the contexts in which they interact. The dominant understanding of absence as fundamentally negative, and the inability to adequately represent absence in institutional metrics, might require new ways of both doing and representing archival work that centre relations sustained through care, ethical responsibility and radical empathy, rather than machine-driven efficiency.⁶⁶

Second, archivists could surface the labour involved in developing, maintaining and providing access to collections. Emily Maemura’s recent push for an ‘infrastructural description of archived web data’ is a step in this direction.⁶⁷ ‘Web archival labour’ could be reflected in catalogue records; however, there are many other ways to illustrate the complexities and contingencies of archival work.⁶⁸ For example, from 2012 to 2015, staff responsible for web archiving at Australia’s national and state libraries developed a series of regular blog posts that highlighted some of the challenges and peculiarities of collecting online content.⁶⁹ For users, these posts provide an engaging and insightful look at the logics of these collections, and the various sociotechnical contingencies that shape web archives. For those wanting to use web archives for research, sustained engagement with those doing the collecting is critical.⁷⁰

Third, there are ways of representing collections that go beyond the dominant mode of access (i.e., playback via Wayback software). For example, web archives could build in optional browser emulators, such as *OldWeb.today*, so that the user can better understand what the page may have looked and felt like a particular moment in history. Providing another example, the State Library of New South Wales has partnered with CSIRO’s Data61 Business

Unit to visualise the affective dimensions of social media activity in the state using an ‘Emotion Clock’ as part of their Social Media Archive.⁷¹ Archiving institutions could also provide users with an insight into the material dimensions of their collections by encouraging artists to experiment with collections or offering users a ‘backstage’ look at the operation of the institution. This was done very effectively during the NLA’s 50th anniversary of the current library building, where the library ran a ‘50 People of the NLA’ promotion on Instagram (see @NLA50ppl) that included photos of library users, staff and machines along with their response to two simple questions: what they do in the library and what they love most about it. Initiatives like this highlight that libraries and archives are more than collections: they involve people and their labour, and buildings, materials and technologies that require regular maintenance and care.

Finally, the web archives community should continue to engage with those using their collections, including the lively field of Internet Studies, which incorporates perspectives from media studies, sociology, cultural studies and more. This need not be onerous and could include signing up for the Association of Internet Researchers mailing list, attending some sessions of their affordable online events, or attending events run by various institutions leading the way with internet research. This will help with developing collections that are used and useful and provide space for greater dialogue between archivists and archive users (and may help productively blur these distinctions). For example, an exciting research agenda is presently being pursued by Canadian researcher Katie Mackinnon, who is forging new modes of using web archives that pay better attention to the contextual and relational nature of ethics involved in researching young people online.⁷² Mackinnon wisely encourages us to ‘begin with the person rather than their data’, and her work has seen her engage website creators in a walkthrough of their archived website, allowing the research participant ‘to reconstruct a history of what it meant to them to exist in this space’.⁷³ Methodological innovations such as these offer a way of understanding the myriad ways researchers are using web archives as part of understanding social and cultural life. Following the lead of these various inventions, innovations and interventions allows us to both acknowledge the strengths and limitations of using national web archives as a proxy for the web’s past and push the development and use of web archives in exciting new directions.

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ARTICLE

Attributes of Personal Electronic Records

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Abstract

The purpose of this article is to identify the key attributes of personal electronic records in order to develop systems that may enable people to manage them in the home. As more personal information becomes electronic, this is increasingly necessary. Personal electronic records were identified and categorised using interviews and virtual guided tours. Three main attributes were identified: primary user-subjective categories; attributes which identify the circumstances that give rise to the records; and attributes which describe the legal validity of each record. In addition to providing an improved understanding of personal electronic records in the home, these attributes are developed into a set of potential metadata fields.

Keywords: *Archives; Metadata; Personal electronic records; Personal information management; Records.*

In this article we define what we mean by personal electronic records and explore their attributes. Our aim is to better understand the categories that people may use to sort their personal records with the purpose of re-finding them when required. To achieve this, people need to know what records they have created or received, and how to prioritise the task of keeping them. We draw on research from different fields to establish our background knowledge, prior to conducting a study using interviews with the guided tour method to establish a database of personal records retained by a sample of participants. The database was then analysed to address our questions about personal records.

For reasons explained below, in this article we adopt the term ‘personal records’ to describe the personal information and documents that people deal with in the home relating to their personal affairs, such as bills, insurance documents, receipts and so forth, as opposed to information and documents that people may deal with for the purpose of work or study tasks. We refer to those records that people retain in an electronic form in the home as personal electronic records. In this article we focus specifically on the nature of the personal information and documents themselves, rather than the practices adopted in managing these records.

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It is important that people keep and manage some personal records to ensure that they pay bills on time, maintain active insurance policies for concerns such as their motor vehicles and have the information they need for tax reporting when required. A notable example of the need to retain documentation for unforeseen events is illustrated by the Australian Government's '*robo-debt*' scheme that operated in 2018 and 2019. The scheme compared customer records of a social services department, Centrelink, to the same person's income records at the Australian Taxation Office (ATO) and automatically issued debt recovery proceedings if the information appeared to indicate an over-claim on Centrelink benefits.¹ A major problem with the scheme was that Centrelink benefits were paid based on the recipients' financial status at a given time during the financial year, such as when they were unemployed. The tax records relied on a full-year summary, so that if the recipient got a job later in the year, the figures could make them appear to have been ineligible for the Centrelink benefit based on income averaging through the year. The burden was placed on the recipient to disprove the debt. The recipient had to have week-by-week income records from up to 6 years prior to argue their case. This debt collection process was later curtailed by the Australian Federal Court, but highlighted significant record-keeping issues for people, including the need to keep pay slips and their own bank statements. Banks in Australia are only required to keep records for 5 years.²

The habit of keeping paper records of bills, payments, and similar records will be familiar to people whose personal record-keeping pre-dates the prevalence of electronic transactions. The more recent ubiquity of the option to receive electronic bills, pay bills online, shop online, or conducting one's correspondence by email and text messages raises the question of the validity of personal electronic records in providing a comparable level of evidence of transactions, as previously accepted for paper records. While it is understood that people need to retain personal records, there are no clear rules that describe which records need to be retained, nor guidelines that predict which records may need to be re-found in the future, perhaps long after they have been forgotten about. As people increasingly rely on electronic versions of their records, a further challenge lies in ensuring that the electronic versions are sufficient for future needs. By studying the nature of personal electronic records in the home, we contribute to improved understanding of the value of personal records and an ability to predict and identify records that need to be retained and how to best manage those. These may comprise records of transactions or purchases, life documents such as certificates, or a myriad of other records or notes of interest to the owner. Each type of record may need to be retained for a different amount of time, officially 5 years for tax documents in Australia, records of purchases may need to be kept for different periods depending on the item purchased, while other records may need to be kept for a lifetime or longer.³ However, there are currently no disposal schedules for an individual's personal records, such as those created by state and federal authorities for public and private organisations.

The aim of this research was to better understand the nature of personal electronic records in the home in a way that helps identify, foresee, and prioritise the records that need to be retained. By achieving a better understanding of what gives rise to personal records (including those received and/or retained electronically) and the role they play in our lives, we may be able to lay down the groundwork for a more effective management system for personal electronic records.

We explore the question of whether it is possible to predict the creation of personal records in the future. We also explore the legal validity of different kinds of records and investigate the components of personal records and how they can be categorised. To address these questions, we have surveyed the literature for the types of items to which we are referring and have selected to call them personal electronic records for the reasons described in the next section. In addition, research was conducted with 30 participants to establish a database of personal

electronic records. We then analysed this database of records elicited from participants to develop three perspectives on personal electronic records reported below.

Defining personal electronic records

We have selected to use the term ‘personal electronic records’ to describe the combination of personal electronic information and documents maintained in the home. In part, this terminology is intended to distinguish discussion of such records in the home, as opposed to the information discussed in the Personal Information Management (PIM) literature, which largely examines the personal information of individual students and people in the workplace, particularly knowledge workers.⁴ There is extensive PIM literature, the examples of which include Bergman, Israeli, and Whittaker,⁵ Bruce, Jones, and Dumais,⁶ Henderson,⁷ Kwasnik,⁸ and Oh.⁹ Some aspects of PIM are quite applicable to the study of personal electronic records in the home, such as the importance of taking control of our records and information. As Jones¹⁰ explained:

...PIM is about finding, keeping, organizing, and maintaining information. PIM is also about managing privacy and the flow of information. We need to keep other people from getting at our information without our permission. We need to protect our time and attention against an onslaught of information from telephone calls, email messages, the television, radio, and the Web. PIM is also about measurement and evaluation: Is this new tool worth the trouble?¹¹

The study of personal electronic records in the home also has roots in records management, which is the study of information in records that are an account of something of enduring value.¹² Documents on a computer are often synonymous with files; however, a file can include multiple documents, or a document may comprise several files. For reasons discussed in the related literature section of this article, we have adopted the word ‘record’ to embrace a wide variety of content and formats and avoid confusion with the use of the word ‘documents’ in computing to describe computer files. In support of this choice of terminology, we draw on Finnell’s definition of records, which includes memos, e-mails, and instant messages as examples of formats of records.¹³ Additionally, the Society of American Archivists defines records as ‘data or information stored on a medium and used as an extension of human memory or to support accountability’, providing more than 50 examples of types of records, including ‘graphic records’, ‘narrative record’, and ‘housekeeping records’.¹⁴ McKemmish used the words ‘personal recordkeeping’ to describe records that are ‘evidence of me’.¹⁵ Bass also used the word ‘records’ to describe the lifetime ‘day after day’ accumulation of records in a digital format as ‘personal digital records’.¹⁶ In practice, as in PIM, a significant proportion of research and published literature relating to records management ‘has had a governmental or large organizational focus’.¹⁷ The Sedona Guidelines for Managing Information and Records in the Electronic Age were specifically framed for organisations.¹⁸ The study of records management alerts us to the breadth of personal information and documents that people may deal with in their day-to-day lives and suggests the adoption of the word ‘records’ to describe these, at least in the electronic context.

The study of personal electronic records in the home is also informed by personal archiving, which explores continual storage of personal documents through one’s life, and particularly those in an electronic format.¹⁹ Personal digital archiving focuses on long-term heritage, rather than on the short-term task of document management. Kim²⁰ observed that personal digital archiving offers a way of preserving records of sentimental value, historical value, the value of self-identity and personal legacy, and value in sharing useful or interesting documents with

others. However, these attributes differ from those required for the classification of current and active records.

By contrast, this study of personal electronic records includes and focuses on the active stage of records dealt with in the home, such as bills pending payment, records relating to acquisitions in progress, reminder notes, and shopping lists – in other words, records with a currency that does not associate comfortably with the word ‘archiving’. Another point of difference between the study of personal electronic records and other areas of study that reference digital archives or digital records is the adoption of the broader term ‘electronic’. We use the word ‘electronic’ to embrace all forms of information and documents that are not in a physical paper or engraved format. Digital records comprise those electronic records that are in the form of combinations of numbers and letters that are machine readable, such as a Word document.²¹ ‘Electronic records’ includes records in more formats, such as photographs and image scans of documents which are not easily machine readable.

Hence, the term ‘personal electronic records’ describes the mix of records that people deal with on a daily basis related to their home affairs. We consider the content and the function of the records, which may manifest in a variety of formats including emails, text messages, and photographs of records such as receipts, recipes, and notes. Personal electronic records may also include some work-related records, such as payslips or pay stubs, but exclude work documents or correspondence that are not personal to the user.

Some of the attributes of personal records in the home are well understood. Whether they are in a hardcopy or electronic format, they typically have a creation date. If they have been sent to someone, there is a sender and a receiver: a ‘from’ and ‘to’ in digital terms. Electronic documents often have a most recent modification date in lieu of, or in addition to, the creation date as well as an indication of size. Electronic documents have a file name. But in addition to these elements, there are attributes of records that do not have a standardised format, such as the subject and purpose of the record. Prior to conducting this research, we explored what might already be known about personal electronic records in the home focussing on the nature of the records themselves, rather than related behaviours.

Related literature

As we have noted, the study of personal electronic records management draws on several different disciplines, including PIM (which is a branch of computer science), records management, and personal archiving. PIM also provides a range of relevant case studies and findings discussed below.

Documents and records

In the glossary to ‘Keeping Archives’, Acland defined a document as ‘recorded information regardless of medium or form’.²² Documents may contain information to which they relate or may form a record of that information in a required format. Documents can encompass any form of records if they are compiled in a ‘collection, indexed, cross-referenced, etc’.²³ Yeo, citing Oliver and Foscarini, described records as ‘information as evidence’.²⁴ Buckland also described one purpose of documents as ‘storing...evidence of some assertion’.²⁵ Conversely, Roberts observed that ‘Where the essentially evidential quality of a record is not accepted, that is, where records are simply equated with recorded information, the distinction between records and documents tends to disappear’.²⁶ We concur with this interpretation and do not concern ourselves with a definitional distinction between documents and records. We use the word ‘records’ in reference to items in the home, partly to draw a distinction between personal records management and PIM, which as we have previously observed tends to investigate

information and document management in workplaces,²⁷ and to avoid confusion with the use of the word ‘documents’ in reference to individual computer files.

Records as evidence

Records management contributes to the study of personal records management in the home as both fields explore the nature and use of documents and records. The notion of records as evidence is useful in that it explains why many records need to be retained. For instance, a collection of telephone bills and receipts provides evidence of how much one has been charged and paid. In the same vein, an entry for the Records Continuum Model in the Encyclopaedia of Library and Information Sciences observes that all transactions ‘can leave archival traces’,²⁸ as they become records and hence subject to the unified process for record-keeping including archiving. Myburgh described records as ‘documents which provide evidence of business transactions that have taken place’.²⁹ Existing literature clearly shows a relationship between personal records and their use as evidence of transactions. Zacklad³⁰ suggested that if a digital document is a record of a transaction between two parties, then the transaction and terms described in the electronic record are partially verified by the fact that a co-operative transaction occurred. To be clear, where we are talking about records as evidence, we are talking about a subset of all personal records that perform this function. We do not suggest that all records are evidentiary; rather we adopt McKemish and colleagues’ broader definition that records ‘...are vehicles of communication and interaction, facilitators of decision-making, enablers of continuity, consistency and effectiveness in human action, memory stores, identity shapers, repositories of experience, evidence of rights and obligations’.³¹

Many records in hardcopy comprise letters or agreements endorsed by one or more signatures. A signature created by hand is sometimes referred to as a wet signature,³² as opposed to electronic signatures, often referred to as E-signatures. Financial transactions and trade occur readily through the Internet with no wet signatures, relying on the expectation that if there is a problem, transactions and terms can be verified.³³ The legal validity of electronic records in lieu of paper documents with wet signatures for a range of purposes has been re-affirmed by a wave of legislation around the turn of the century. There is little indication of legal recognition of E-signatures; rather, Australian federal law adopted the notion that signatures on documents are not required if authentication of a document is:

... as reliable as appropriate for the purpose for which the electronic communication was generated or communicated, in the light of all the circumstances, including any relevant agreement.³⁴

Similar laws came in around the developed world enabling paperless transactions.³⁵ The general acceptability of E-signatures on contracts and documents in the United States and Canada increased significantly in 2020.³⁶ Laws relating to signatures were further relaxed during the coronavirus disease 2019 (COVID-19) pandemic in 2020. For instance, in New South Wales, documents requiring witnessed signatures were amended to provide for witnessing of signatures by means of video calls.³⁷

In combining the interpretations of Myburgh,³⁸ Zacklad,³⁹ and Alba⁴⁰ with the legislation on electronic transactions, it is apparent that, for day-to-day transactions, personal electronic records are sufficient as evidence and neither paper records nor signatures in any form are generally required. In the case that there is a matching transaction, the electronic record and the transaction work together. The electronic record describes the transaction, typically a product or service in exchange for money. The transaction provides verification that the record describes something that really occurred. Electronic records verified by a matching transaction

are accepted as valid, without the necessity of paper evidence. For example, an email regarding the details of an online purchase is verified by the simultaneous transfer of a matching payment from one party to the other.

Personal records

Taking a broad perspective on personal electronic records, Jones⁴¹ described everyone as having a '*Personal Space of Information (PSI)*' which we inhabit in a similar way to the habitation of a physical space. A PSI contains information that is personal in any of six senses:

- (1) Owned by me
- (2) About me
- (3) Directed to me
- (4) Sent by me
- (5) Already experienced by me
- (6) Useful to me⁴²

Jones' observation describes the relationship between a person and their electronic records but does not explore the nature of the records themselves. The most specific definition of personal records was provided by Smith,⁴³ comprising a list of 36 common documents, of which the personal documents were:

- (1) Accident report
- (2) Bank or pension records
- (3) Bankruptcy certificate
- (4) Birth certificate
- (5) Death certificate
- (6) Diploma
- (7) Divorce decree
- (8) Insurance/health
- (9) Insurance card/cert.
- (10) Insurance claim form
- (11) Insurance plan
- (12) Marriage licence
- (13) Medical records
- (14) Mortgage agreement
- (15) Passport/visa
- (16) Payslip
- (17) Rental records
- (18) Stock certificate
- (19) Tax form (some categories have been combined, indicated by a slash '/')⁴⁴

Smith also suggested, somewhat counter-intuitively, that documents that are used for a consequential purpose, such as a contract, licence, completed form, or a certificate, are deemed 'creative', while documents with fewer consequences, such as a novel, textbooks, or painting, are deemed 'non-creative'.⁴⁵ Smith further distinguished between allographic and autographic documents – allographic being those documents for which there is no particular original form, as opposed to autographic documents that have a clear original, and therefore other possible versions that are inevitably copies. Smith cited books, recipes, advertising fliers, and a completed tax form as examples of allographic documents and a painting, birth certificate, and

will as examples of autographic documents.⁴⁶ Bergman, Whittaker, and Tish⁴⁷ studied personal music collections, commenting: ‘Surprisingly there is very little research on music collections within the PIM research community... Nevertheless, there are similarities between the organization of music collections and prior PIM literature’.⁴⁸ The similarity observed here is that software tools used to manage music collections help people to search for and find music in a variety of ways such as by the title or genre of music, but the music files remain independent of the software used to manage them. The same is true of software used to manage photographs and other collections. In our research we do not consider the management of personal records by systems that are already in existence and specific to a particular kind of collection such as photograph or music collection management software.

Smith’s detailed list of personal documents provides useful examples, but leaves open the question of how these documents come about, and why these documents, and not others, are retained. The literature does not answer the question of what gives rise to personal documents, but it informs our perspective on this question by telling us that documents and records are the outcome of how users manage and retain them. The question of why people keep certain records has been addressed to some extent by Furner’s extension of Smith’s framework, taking the concept of a document defined by what one can do with it to include actions such as ‘finding it, identifying it, selecting it, and obtaining access to it ... as well as organizing it, classifying it, and indexing it, and reading it, interpreting it, citing it, and using it, in many and various ways’.⁴⁹

Oh observed that personal electronic items often transition through a temporary categorisation and storage stage, such as the desktop or downloads folders.⁵⁰ Oh noted that items go through an ‘active’ stage, as also observed by Barreau and Nardi.⁵¹ Oh also noticed a reluctance to add new categories, with people preferring to force items into existing categories.⁵² She also observed that categories have blurred boundaries.⁵³ Oh found that, over time categories, and therefore folders, may be merged. For example, when users found they only had one or a few items in a particular category, those items may later be moved to be incorporated in another category. Similarly, categories can be subdivided (or new categories created), not necessarily at inception of the first item in the category, but at the point that the new category had sufficient items to merit its own creation.⁵⁴ Oh described ‘purpose’ and ‘use’ as being the most influential factors on how items are categorised,⁵⁵ and, to a lesser extent, ‘accessibility’, ‘topic’, ‘format’, ‘source’, and ‘time’.⁵⁶ Oh also identified the challenge of filing items that could equally fit into more than one category. Such items either need to be allocated to only one category or duplicated. Some items don’t fit into any existing categories and people are reluctant to create a new category for just one item.⁵⁷

Categorising records

In Cognition and Categorisation, Rosch observed multiple ways that people might approach categorisation, depending on their perspective and purpose.⁵⁸ For example, consideration must also be given to the subjective priorities of the user. Bergman and colleagues also noted that documents that one user might consider important may not be considered important to another.⁵⁹ This can be contextual to the circumstances. For example, a document may be vital in the context of a short-term situation, but unimportant in the long term. A user may consider that a file belongs to one category on one occasion, but that the same file belongs in a different category on a different occasion.⁶⁰ Similarly, Oh drew on Rosch’s notion of ‘prototype’ categories for given items⁶¹ selected by the users, and some items clearly fit into one category or another, while the categories of others may be more blurry.⁶² This begs the question as to whether and why an individual record needs to fit into only one category. Could a record not be classified

into several categories? Jones observed that ‘Folders – file folders, in particular – can be regarded as an expression... of a person’s internal categories’.⁶³ Jones cautioned that people are not very good at creating clear definitions of categories. He suggested an alternative approach wherein the computer ‘learns’ the definition of a folder through the items saved within it.⁶⁴

A common topic in the PIM literature addresses how files are saved within a hierarchical folder structure where folders are named in order to categorise their contents.⁶⁵ For a file to be categorised under two different categories, it requires that the file is either duplicated or a link or shortcut is created to represent the document in additional folders. Multi-categorisation also tends to be associated with a preference for searching for files rather than navigating them through the hierarchical folder structure.⁶⁶ Despite many experiments with tools designed to make multi-categorisation of files easier, hierarchical structures still dominate local computer systems and people often prefer to navigate to find items rather than to search.⁶⁷

Many people use their email software or host as the repository for personal records, either because they leave email and associated records in their inbox, or sort email into folders or tag email rather than saving items to an alternative location.⁶⁸ Research in 2018 found that over 80% of respondents received at least some of their personal records electronically.⁶⁹ Crawford and colleagues developed a system, ‘i-ems’, that took into account the sender’s email address and keywords in the subject and body of the email to predict how the email should be categorised. The predicted category was provided to the user as a suggestion, which the user could accept or amend. This system stored the user’s decisions in order to improve future categorisation.⁷⁰ The paper concluded that using only the sender’s email address ‘achieved high precision’ in predicting the correct category for email.⁷¹ In 2014, a team at Yahoo proposed a system to automatically categorise emails in terms of category names and optimising the number of email folders.⁷² The research of Grbovic and colleagues has noted that navigating to find emails was more effective than searching all email folders when users had up to 20 email folders, and that search was more effective for finding email if there were more than 20 folders. The Yahoo team sampled 600 email senders to find six latent email categories:

- (1) Shopping
- (2) Financial
- (3) Travel
- (4) Career
- (5) Social
- (6) Human

The Yahoo research comprised an experiment in automated classification of emails and claimed a success rate of more than 70%.⁷³ Nevertheless, the research did not address the nature of the emails, such as whether they indicated that a payment was required or comprised a receipt – or indicated a future appointment that might require a calendar or diary entry. This latter aspect of personal records was studied in research conducted in order to develop ‘*common sense*’ task reminders based on calendar entries that identified 25 fields from an electronic calendar entry.⁷⁴ Comparing these two approaches indicates that personal records can be perceived from different angles – the Yahoo study classified emails into broad topics, whereas the Lieberman et al. study did not pre-empt categories, and instead searched multiple fields in order to identify the most likely matches for the required information.⁷⁵

Metadata

Amidst the discussion of how personal records are saved and the role of folders or other sorting systems is consideration of where the categories or other descriptive information are

stored. Are they part of the record, such as a file name, or maintained in a database outside or encompassing the records, such as an operating system or folder? Metadata are information that describes other information, such as a catalogue.⁷⁶ For example, email software stores and displays the date and time of when an email arrived, as well as who it was from and to. That information is not part of the content of the email, but is the metadata about the email. The aspects of the information that the metadata describes are referred to as the ‘data elements’.⁷⁷ Examples of data elements include the ‘ownership and authenticity’ of the information.⁷⁸ The US National Science Foundation describes metadata as a subset of data: ‘Metadata summarize data content, context, structure, inter-relationships and provenance... They add relevance and purpose to data, and enable the identification of similar data in different data collections’.⁷⁹ An important aspect of metadata are that it usually comprises ‘controlled vocabularies applied to a digital object to classify or index its content...’⁸⁰; however, there can be exceptions when ‘non-specialists’ catalogue their own information.⁸¹ Oliver and Harvey⁸² emphasised the importance of the design of a metadata system to ensure that necessary information is collected from the outset and stored in a suitable format. They included consideration of the file names used and the structure of folders. In addition to ensuring that all the necessary metadata are captured from the outset, it is also highly beneficial for that data to be stored with interoperability in mind, so ‘that digital objects can be successfully exchanged between computer systems...’⁸³ An example of a metadata system is Dublin Core,⁸⁴ a set of 15 core elements used to describe resources but there are many other such schema.⁸⁵ Perhaps one challenge to using metadata to catalogue or describe personal information has been the lack of a single standard⁸⁶ relevant to personal information.

There is also an important lesson to be learnt from Dourish and colleagues who proposed to avoid the use of folders and eliminate the file duplication that occurs in a typical distributed system such as a home or work computer or network.⁸⁷ *Placeless* used file properties, such as the topic (*active properties*) in a metadata database. *Placeless* cached the contents of active files in order to make it faster, and allowed for Application Program Interfaces (APIs) so that it could communicate with a variety of other operating systems and programs.⁸⁸ *Placeless* also permitted different users to apply different properties to the same file. *Placeless Documents* was intended to cater for work flow, with the notion of active document properties, a form of metadata.⁸⁹ However, there was little uptake of *Placeless*. The failure of Microsoft’s experiment with *Placeless Documents* was attributed to a lack of collaboration and its inability to interact with other systems.⁹⁰

Karger discussed a range of file formats and approaches for managing personal records and proposed a unified database structure.⁹¹ However, he cautioned that:

The database community has argued for decades that we would all be better off storing all our personal information in (personal) databases. This clearly has not happened, most likely due to the apparent complexity of interacting with a database. No one has yet come forward with applications that hide the complexity of installing and maintaining a database, designing the schemas for the data to be stored and creating the queries that will return the desired information. And people seem generally allergic to having all their information presented to them as lists of tuples.⁹²

Karger considered the issue of an address book format for a PIM system comprising a single file, and the challenge at the time of sharing single records within that with another application, something that can now often be resolved with APIs. Karger made the key observation that ‘Agreeing on names for particular fields seems less demanding than agreeing byte-for-byte on file formats for all applications’ data’.⁹³ Karger proposed the use of metadata to group and link

files, thereby removing the requirement for each file name to comprise a thorough description of the purpose and content of that file, nor for the database to interpret the file's content – while advocating that the database offers 'click-to-open' accessibility to the file. Metadata describing personal records may not be confined to a single flat database. IBM has been structuring databases into sets of inter-related data in order to be more succinct for more than half a century.⁹⁴ Kelly also described a file system that automatically maintained a limited range of metadata about each file, such as the creating software, size, and modification date; however, this was limited to attributes that the system could determine automatically.⁹⁵ One solution Jones suggested was to use long descriptive file names.⁹⁶ A key question is whether people are willing to put the effort in from the outset to label records or create metadata consistently and from the outset for their own personal records. As Marshall observed, disorder occurs over a long period of 'benign neglect',⁹⁷ and may only become apparent at the point that labelling or categorising records becomes an unappealing task. A study among Croatian university students found that nearly all of them organised their files into folders (97.4%), approximately half (53.3%) added metadata, and less than 1% (0.9%) used a tool to organise their digital information.⁹⁸

In summary, the existing literature describes personal electronic records as records people choose to retain, often because they relate to transactions and the electronic records act as evidence of those transactions both for personal and legal use. Personal electronic records include records sent to or sent by people, about those people, or otherwise owned by those people. Oh's references to the purpose and use of documents raise a similar question of validity. Might an electronic document have the purpose of being the legal record of something? How is the document to be used? As noted above, a list of example documents has been published⁹⁹ but it falls short of fully embracing all possible forms of personal electronic records. Despite the volume of research in PIM, as we have noted, this primarily relates to information management in the workplace or among knowledge workers or students and does not inform us regarding the attributes of personal records in the home. More research is required to understand when and how personal electronic records are created and used, which records need to be retained, and why and how they can be categorised, so that we can develop systems to improve personal electronic records management. The purpose of this article is to identify the key attributes of personal electronic records which may be used in future to develop systems that may enable people to manage their personal records in the home. While there is extensive work on similar topics in other archives and records environments, especially workplaces and organisations, this work may be applicable in more niche environments staffed by volunteers or extremely small staffs where full archives and records management systems are not an option.

Method

The method for this research was drawn from the field of PIM using a 'guided-tour' method wherein the participant leads the researcher on a tour of their hardcopy personal records, showing a physical desktop or any other tools, as well as their electronic desktop and electronic tools with the researcher.¹⁰⁰ In this research we used an online virtual adaptation of the guided tour due to the requirement of maintaining social distance during the outbreak of COVID-19 in 2020.¹⁰¹ Interviews and guided tours of participants records were conducted using Facebook Messenger, selected for both its audio and visual capability, and its availability to participants who were recruited through Facebook.

Data collection method

Twenty-two interviews were conducted, which involved 30 participants, as eight of the interviews were conducted with couples. As participants were recruited online via social media

(Facebook), they were therefore known to the researcher. A selection procedure screening potential interviewees was used to include a balance of people by gender and broad age group until saturation was reached, in that no new information was being contributed by participants. The sample size of participants was insufficient for quantitative analysis of their comments or observed behaviours. Nineteen of the interviews were conducted with people in Australia, two in the United Kingdom, and one in the United States, the latter interviews providing insight into alternative terminology used outside of Australia, such as 'pay-check' instead of 'pay slip', as well as some other minor variations. Nevertheless, the number of international participants was insufficient to draw conclusions as to any significant behavioural or practical differences from one country to another. Ethical approval was granted by the ethics panel of the first author's institution, subject to ensuring the privacy of the research participants and the confidentiality of the information they shared. Participants were invited to talk about their records including bank and credit card statements, receipts, insurance policies, vehicle registration documents, or any other records they received or retained. Where necessary, participants were prompted with examples of common records such as utility bills. Each participant was asked about how they received each of their regular records such as bills and statements, and the steps they took with each record type. They then shared video stream of their physical and electronic files and filing systems with the first author.

Analysis method

A database was created to analyse the data collected regarding records that participants retained. The database included a field for the method of delivery where applicable (electronic or hardcopy); a field for each of the steps that each record went through; and a field to record where the record was finally saved, if at all. In some cases, the information that populated the fields of the database were not verbally expressed but they were implied. For example, participants did not need to explain that a gas bill came from the gas company. Bills necessarily included an amount and a date due. Emails always have a sender, receiver, and usually a subject line, as well as their contents. Using this information, relevant fields were added to the database to represent the owner of the record, the sender (when applicable), the subject, and so forth. Fields were also created for each step or action applied to the record, such as saving the contents, forwarding the record, making a payment, or any other action.

The description of each record was 'cleaned' and a consistent set of labels was created for synonyms. For example, the phrases 'documents for tax', 'tax stuff', and 'tax documents' were standardised to 'tax documents'. Additional fields were then added to the database to describe (1) the practical event that caused the creation of the record so that future records could be anticipated and (2) the validity of the record in terms of legal standing, so that records management tasks could be prioritised. All categorisation fields were developed using an iterative process for categorising text responses.¹⁰² To categorise the records according to causation (by which we mean what caused them to be created), we looked at the first record in our list. For example, in the case of a regular bill, the practical creation of the record was the arrival of the date for the issue of that bill. Using the iterative method, we looked at the next record. Was it also created by the arrival of a date? And if not, what gave rise to it: a decision to take an action? Each record was evaluated to decide whether it fitted the categories already established or required a new category. Our test of the reliability of this approach was the expectation that someone else tackling the same task would replicate the results.

To categorise the validity of each record, we asked a set of evaluative questions: is this the only version of the record? Does the record stand up in its own right or does it need to be validated in another way? If it needs to be validated, what was required to validate it? As the

30 participants in our research collectively described 489 records, we were able to analyse the database quantitatively, as has been done in previous studies with comparable samples.¹⁰³ In this article, we focused exclusively on the question of categories of electronic records described by participants in the study.

Analysis and findings

We began the analysis by addressing the elements that comprise a personal electronic record. We then explored the categorisation of personal electronic records, what caused the records to come into existence at inception, and, finally, the legal validity of personal electronic records.

What is in a personal electronic record?

By examining the contents of the database created during the guided tour interviews, we determined the key elements that form personal records, thus creating the metadata fields that may be most useful in describing personal records. These metadata fields were then tested against all the records in our database to ensure their relevance and check for omissions. Six fields were required to describe the core elements of every record and they are:

All records

- (1) The record owner, and who the record relates to (may be several people)
- (2) Records categories (there may be several)
- (3) A record subject, such as an account, dwelling, vehicle, or person
- (4) A creation date
- (5) Content of the record – what is the record about?
- (6) If the metadata are not stored with the record itself, then the location of the record and a hyperlink to that record are required.

Additional fields are required for other records, for example, transactions, appointments, and the documentation of journeys, which are listed below.

Transactions

- (1) The record creator, which may be an account, supplier, or the author/sender of an email
- (2) An account number or reservation number
- (3) Causal event, such as a bill cycle, if and when necessary
- (4) Additional dates and times, such as a due day for bills, reminder date or check-in time for a flight, expiry date of a membership, etc.
- (5) Location details for appointments, events, and start point for journeys
- (6) A transaction amount and currency
- (7) Related tax amount
- (8) Whether an item is paid, how paid and when paid
- (9) A receipt number
- (10) Other notes or relevant hyperlinks

Additional for records of an event

- (1) A start and end date (and possibly time and time zone) related to the record, such as a billing period, or the start and end of a journey

Additional for records related to a journey

- (1) Destination location

Additional for transmitted records such as emails and text messages

- (1) Sender and receiver
- (2) Date and time sent and received
- (3) Other recipients (CCs), delivery receipt, whether the record was read, what was attached, and other metadata, such as flags and subject line.

User-subjective categorisation of personal electronic records

The outcome of the analysis of the records gave rise to 88 detailed categories based on the purpose and content of the records, such as phone bills, rental documents, warranties, and travel tickets. These categories were further combined into 13 (overlapping) broader groups of categories, suggested by the way in which participants described the records they discussed. These broader categories comprised:

- (1) Advertising/brochures (that people wish to keep)
- (2) Music, for example, downloaded music
- (3) Interests, for example, hobbies, personal development, recommendations, restaurants, movies, books, and volunteering
- (4) Personal budget, for example, a spreadsheet or budgeting application
- (5) Photos
- (6) Travel and tickets
- (7) Receipts
- (8) To do lists/reminders, for example, addresses, appointments, birthdays list, change of address notification list, credit card numbers, exercises, packing list, passwords, recommendations, restaurants, movies, books, shopping lists, and sports registration numbers
- (9) Study documents
- (10) Bills and statements, for example, bank statements, council rates, credit card statements, electricity bill, statements for toll road transponders (called etag in Australia, equivalent to US E-ZPass), garbage bills, household bills (no further information), Internet subscription bills, online subscriptions, bills (no further information), phone bills, store cards, natural gas bills, subscriptions, water and sewage rates
- (11) Documents that 'need to be retained' (user-subjective definition), for example, bicycle insurance, car loan, correspondence – non personal, deeds, health insurance documents, house sale/renovations, insurance (no further information), investment documents, job-seeking documents, lease on house, liability insurance, manuals, motor vehicle documents including insurance, pet documents, property acquisition documents, recipes, renovations, rental documents, strata/managing agent documents, superannuation statement / documents, television licence, warranties, work documents/registration
- (12) Income and tax documents, for example, pay slips/pay stubs, payment notices, property tax, rental statements, work invoices, shares-related documents, pension documents, tax documents
- (13) Personal documentation, for example, baptism certificates, birth certificates, personal correspondence, certificates/licences, driver licences, family history, health records, identity documents, children's documents, marriage certificates, memorabilia, motor-ing association memberships, passports, resumes, school and sports reports, sports club records, visa documents and wills.

Many records fitted into several categories with the same functionality. For example, personal documents may include scans of passports, birth certificates and educational certificates.

For another example, consider the case of households with more than one person, notionally person 'A' and person 'B'. In some households, documents were sorted in a shared folder by category, including similar documents for person A and person B in the same folder. In others, documents were stored separately for person A and person B. In other words, the structure of categorisation that participants used varied. Further, when people look for documents in a hierarchical structure, a different approach is used and needed, depending on the structure that each person adopts.

The causal inception of personal information and documents

An additional form of categorisation was applied to the record codes identified in this research: what is it that gives rise to the existence of the record? For instance, regular bills are generated on a specific date. When that date occurs, the bill is created. Irregular bills are caused by a decision to purchase something, or an unexpected occurrence that created a cost. It was found that every personal record is generated by one or more of five circumstances: either an event occurs; an event is anticipated; a transaction occurs; a date is arrived at; or the item is generated by interest. From these another set of categories was created, which describes the determinant circumstances. Just as the record categories are not mutually exclusive, accordingly, the inception categories overlap. Records can be initiated by several antecedent circumstances:

- (1) Anticipated future events, for example, travel, a planned purchase such as a car, appliance, or home
- (2) Dates, for example, the billing date of an account, a due date for payment, or a birthday
- (3) Events, for example, an accident, school re-union or receiving an award
- (4) Interests, for example, cooking, destination, or artistic pursuit
- (5) Transactions, for example, a purchase, or execution of a contract

We refer to these categories of events that cause the creations of the records as the causal categories of personal records. Understanding causal categories helps us to recognise what occurrences are likely to generate personal electronic records, how to begin to categorise them, and to improve how people deal with them.

The validity of personal electronic records

A second iterative categorisation process was used to classify each of the records in the database with regard to its purpose or legal validity. Categories were established in consideration of the reviewed literature to determine the legal status of the record. Did the record relate to a transaction? Was the record an electronic copy of a paper record? And if not, what was the legal validity of each record? How could the record be authenticated? Six categories were established from this process that described the legal validity of the records in our database. These categories were:

- (1) Electronic assertions of legal validity: a digital document embedded in an application (usually in lieu of a physical equivalent) making an assertion (usually about a person's identity or rights) such as a driver's licence, Medicare card, or electronic credit card.
- (2) Electronic records matching a transaction, such as an electronic receipt, pay slip, or insurance certificate. This includes scans or photographs of original paper documents (which may then be discarded). The electronic versions of these generally have transaction numbers and are authenticated by a matching transaction, such as a payment. These electronic records comprise the official record of the transaction.

- (3) Original electronic documents that make assertions not related to a transaction, such as academic, literary, or artistic works. These items are not copies of hardcopy. Their content is intellectual or artistic, rather than representing a transaction or a legal status.
- (4) Electronic records reflecting an agreement taken on trust, such as a digital document making an assertion that does not have a matching transaction because it comprises an agreement or promise, typically relating to a foreseen future event. The electronic form of these documents is accepted in lieu of a paper document, such as an unsigned contract or a letter of offer, quotation, or acceptance of a quotation. These are accepted on trust that, if necessary, a paper version can be created and, in some cases, signed in ink. They may not be substantiated by a transaction, usually because the transaction is yet to occur.
- (5) Electronic copy of a hardcopy document, either comprising the unsigned version of an agreement or a scan of a signed agreement.
- (6) Records that make no assertions and do not relate to transactions. Examples include recipes, manuals, and letters (although depending on the content of the letter, it may belong into the second category above). Many of these may function as a memory aid.

The above list can be interpreted as a hierarchy of legal validity for electronic documents, from the first item which has the highest level of legal validity to the sixth item that has the least legal validity. As in the cases of the previously discussed categories of personal electronic documents, there may be overlaps and grey areas among validity categories. For instance, a record of a deposit in part payment of an item may be both a record of a transaction and a future agreement to complete the purchase. E-signatures on documents may be recognised as adding legal validity in certain circumstances but may add little legal validity in other jurisdictions. Wet signatures may be required on certain kinds of documents, but not others. The legal validity of an electronic record is unlikely to be recorded in a metadata field despite the importance of understanding and being aware of the legal validity of each personal document. Once the notion of legal validity for each type of record is understood, it is not necessary to document this with each record.

In summary, we find that every personal electronic record can be categorised in several ways, each of which adds depth to our understanding of the nature of that record. The primary categorisation of personal records relates to the subjective categories that the research participants used to describe records. These categories essentially describe what the personal electronic records are about – for example, whether the records are bills, travel documents, income and tax documents, or documents that people feel that they need to retain. These user-subjective categories have blurred boundaries and records can fit into more than one category.

The second form of categorisation relates to the inception of personal electronic records. Personal electronic records are born of either the anticipation of a future event, the arrival of a date or a certain event, the adoption of an interest, or as documentation of a transaction.

A third categorisation of personal electronic records groups them for the purpose of prioritisation according to legal validity. Some personal electronic records can make a legal assertion without a hardcopy version ever being created. Other records comprise the documentation of a transaction, and are verified by the existence of that transaction, such as a payment. Still others may make an assertion that is taken on trust or make no assertion. Collectively, categorising personal electronic records using these three attributes describe what the record is about, how it came about, and the nature of what it says in terms of its legal validity. It is also

possible to identify a set of fields that describe records, and which could be used to establish a metadata database that describes personal electronic records.

Discussion

In this research we have identified three attributes of personal electronic records that assist in understanding the nature of the record, namely, the subjective categories that people apply to their personal information and documents; the circumstances that caused the record to come into existence; and the legal validity that can be attributed to the personal electronic record. We use the term ‘attributes’ as opposed to Hider’s ‘data elements’¹⁰⁴ because attributes such as the cause of the creation of the record may not be in the records themselves. Collectively, understanding these attributes could help people to anticipate the creation of future records, determine the importance of keeping the record and choosing how to categorise the record, and thus re-finding the record if necessary.

It has been established that there is a need for people to retain personal information and documents, including their personal electronic records. The long-term curation of personal electronic archives is an established area of study, but there is also a need for the disciplined management of current active personal electronic records, in order to ensure effective day-to-day management of people’s personal affairs – not the least because many of these electronic records have acquired legal recognition. Our study provides the foundation for analysis to determine a greater understanding of personal electronic records in the home.

Analysis of the 489 records that participants in the research described found that, in addition to the well-understood attributes of personal electronic records, such as the date, form, and who they are from or to (if applicable), records can be categorised into several ways. Firstly, there is a user-subjective categorisation that builds on Smith,¹⁰⁵ adopting the terminology that the item’s owners used to describe their records, such as bills, receipts, study documents, and so forth. Keeping personal records in user-defined category groups can improve people’s ability to re-find their own records, but conflicts with the benefit of having a standardised category vocabulary for all users.¹⁰⁶ A single major category can help people to save and re-find records in a hierarchical folder structure and may lend itself to standardisation more readily than a multi-tagging system. Additional categorisation may provide improved search results for people who choose to find records using search applications.

An additional, novel, level of categorisation can also be applied to personal electronic records as each record has an identifiable causal circumstance, comprising an anticipated future event, a date, the occurrence of an event, an interest, or the execution of a transaction or registration. For example, if a person decides to take a vacation, they may start collecting brochures about potential destinations. They may purchase a ticket that needs to be retained until the time of travel. Shortly before departure they may obtain a boarding pass for a flight. These are foreseeable records instigated by the anticipation of a vacation, the transaction of booking a flight, and the arrival of the date of that journey. Another example consists of regular bills usually generated on a regular specific date, such as each month. An interest in a hobby or club typically results in a collection of records related to that interest or activity. The key benefit of this form of categorisation is that it gives rise to valuable predictions about the generation of future records. Regular bills can be expected on certain dates. Specific actions will generate a predictable set of records. Knowing what records to expect in the future is useful for budgeting and other purposes – but most particularly for identifying missing records. By predicting what records to expect, people can be notified when a required record does not occur. Such a prediction would significantly minimise overlooked bills and late bill payment fees and missing documentation. A reminder system to retain a complete set of pay slips or

pay stubs, as well as other documentation may have significantly reduced the burden placed on individuals by Australia's 'robo-debt' scheme. The recognition and systemisation of predictable personal electronic record generation lends significant value to the secondary categorisation of personal electronic records in terms of the circumstances of their creation.

This research identified a further categorisation of personal electronic records also inspired by Smith,¹⁰⁷ in terms of the form of the legal validity of the record. This differs from the 'authenticity' of records described by Hider¹⁰⁸ because many records may be entirely authentic but lack legal validity. This form of record categorisation is particularly useful for identifying the importance of specific records. For instance, original electronic documents need to be retained and backed up very thoroughly, as they are not substantiated by any other records or in other forms. If such documents are lost, they may be irreplaceable. The particularly interesting category comprises electronic records taken on trust. This group of documents is increasingly replacing paper documents both in practical terms and in legal recognition. Understanding the legal validity of personal electronic records contributes significantly to understanding which records need to be maintained in various formats and helps identify important records that need to be backed up or secured. To re-visit the example of the Australian Robo-debt incident, it is apparent that a well-managed application of these categories could have increased peoples' ability to prove their eligibility to receive social security at the time.

Metadata fields for personal records

In addition to attributes of personal records described above, each record contains information. Unless those records are in a structured database, there are elements of information in the records that people need to be able to easily extract. As Karger¹⁰⁹ pointed out, there are considerable benefits to ordering personal information in a structured metadata format. Due to the unlimited range of information that personal records may contain, a definitive list of personal records metadata fields could never be complete. By examining our database of personal records, we have been able to identify a set of fields that would likely be most useful. Nevertheless, a metadata database for personal electronic records may also have related objects, such as an index of categories, or sub-records. For instance, a single invoice or income statement may have several items on it that could form sub-records. A travel reservation record may list several flights, each meriting a record in its own right. Equally, there is also the issue of records that exist in several different files. For instance, an insurance renewal may comprise an insurance document, a separate invoice and separate product disclosure document, or terms and conditions. These parts of the record need to be linked so that someone who searches for the record will find all the components. Determining the fields (or data elements) that would comprise a personal records metadata system would be an endless task. However, our research indicates that a limited set of fields would be almost ubiquitous for the most common types of records, such as owner, date, subject, and some description of the contents of the record, some of which are described by Hider.¹¹⁰ A common labelling of such fields would allow records to be shared between personal records management systems, thereby providing some standardisation which would address some of the problems in saving and re-finding records as well as other possible personal records management functions. This differs from the adoption of a standardised vocabulary for categories and records within the fields. Standardising categories or labels for records would be more difficult because our research showed that different people use different terminology for the same types of records. People also re-categorise records from time to time unpredictably. Hence, the field (or data element) benefits from a standardised field label and format, even if the content of the field is not from a standardised vocabulary.

In summary, comparing the types of documents described by Smith,¹¹¹ our research found three ways of categorising personal electronic records, each of which adds depth to Smith's examples: firstly, the user-subjective categories into which people sort their records; secondly, categorisation in terms of the causal events that gave rise to the records; and, thirdly, the different levels of legal validity of personal electronic records. We also propose that some form of metadata could be used to provide a level of consistency in personal records databases. In combination, these findings dovetail with Smith's observations, adding another layer of depth, and a further step towards improving the management of personal electronic records in the home.

Conclusion

In this research we identified a set of metadata elements that we can usually expect to find in relation to personal electronic records, such as the record owner, its creation date, and in the case of records of transactions, various details of those transactions. Some of this information is stored within the record, and some is stored in descriptive metadata about the record.

This research has also identified three attributes of personal electronic records that contribute to our understanding of these records and provide for improvements in personal electronic records management in the home. The most recognisable form of categorisation of personal electronic records comprises user-subjective topics, such as bills and receipts, records related to income and taxation, travel records, interests, and music. These categories are organic and sometimes overlapping categories are the primary way that people categorise their personal electronic records. A second attribute of personal electronic records comprises the circumstances of their creation, such as an event or the occurrence of a date. Understanding the conditions that give rise to new electronic records is useful for predicting when new records will be created and invaluable for ensuring that records are not overlooked. A third attribute of personal electronic records comprises the records' validity. Many electronic records have substantial legal validity and may comprise the only record that describes certain transactions. Further records are taken on trust, assuming that a paper copy with a wet signature could be provided if required and still other records have little legal validity, such as notes and memory aids. Recognising the legal validity of personal electronic records helps identify the importance of keeping certain kinds of records, as well as ensuring that irreplaceable records are backed up.

Considering these types of categorisations in combination and knowing what records to expect (such as regular pay slips) would alert people to ensure that they received each payslip to which they were entitled. Understanding that the electronic payslips were the only record of payment and that these were of legal significance and validity could encourage people to save these. Together, these three attributes of personal electronic records, their primary user category, what causes their formation, and their legal validity lend considerable insight to the understanding of these records and provide a groundwork for future research and the development of improved systems for the management of personal electronic records.

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REFLECTION

Reimagining the Commonwealth Record Series System

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Abstract

In the 1960s, Peter Scott proposed a new way of controlling records at the National Archives of Australia that became known as the Commonwealth Record Series (CRS) system. Acknowledging the ever-changing nature of governments, the CRS focused on the Series as the central entity for controlling records allowing connection to multiple Agents (creators/controllers). What constitutes a record though has always been open for discussion and has become potentially more ephemeral in the digital realm. This paper looks at recent work undertaken at the National Archives to reimagine the underlying data model of the CRS system to allow for more flexibility in capturing digital records.

Keywords: *Archival control; Series system; Digital records*

**... you should not let the functionality of existing mechanisms drive your decisions
about how you should describe and arrange digital content**

Digital Preservation Coalition
Novice to Know-How: Providing Access to Preserved Digital Content
May 2021

**The farther backward you can look
The farther forward you are likely to see**

Winston Churchill

These quotes sum up rather nicely both the challenges the National Archives of Australia has been trying to address over the past few years in revising the National Archives' archival control model and the approach we took in developing it. This reflection article will range backwards and forwards in time to give a flavour of the challenges faced and also demonstrate that in many respects these are not new challenges; in fact, in one form or another they have been around since the Australian Series System was developed.

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The genesis of the work was the creation in 2017 of a short-term Branch within the National Archives called the Digital Archives Taskforce (DAT). The aim of the DAT was to accelerate digital transition at the National Archives by reviewing, developing requirements and improving or replacing current systems and processes, particularly in relation to the management of digital records. Our digital archive, including an in-house developed digital preservation software platform, had been operational since 2007 and RecordSearch, our modular archival management system, for much longer. The key modules of RecordSearch, including Search and Retrieve (the internal and public catalogue), Describe Records and Provenance (the module for intellectual control of records) and Transfer, Location and Lending (the module for physical control of records), had been introduced at different times between 1997 and 2001.

One of the areas of work identified by the DAT was to review our archival control model and develop an improved metadata schema for records. What started out as a seemingly straightforward task morphed into something much larger. Whilst there was universal agreement within the National Archives that our existing archival control model, the Commonwealth Record Series (CRS) system, was sound, it became apparent that our implementation of the record Item in RecordSearch was problematic. In particular, it became clear that the current management of items was compromising our ability to control the different representations of records that we receive either in transfers, for example, complex digital objects, or generated internally through digitisation and migration processes. This made developing a metadata schema for digital records difficult for a variety of reasons.

Some context and a historical interlude

To better understand this, let us take a step back and look at the Series system as originally conceived by Peter Scott, Ian Maclean and others. Figure 1 shows the original CRS system as drawn by Peter Scott in 1969.¹ The diagram is interesting for a number of reasons, for example in demonstrating the totality of his vision for an archival control system. However, it clearly shows the CRS system as a web of interconnected relationships with the record series at its centre, in much the same way that medieval maps show Jerusalem at the centre of the world.

In fact, the first thing that leapt out at us was the similarity with linked data visualisations, which, in turn, reminded us of the recently released Records in Context Conceptual Model and its call for the use of graph technologies to underpin archival description to ‘enable unbounded representation of networks of interconnected data objects as well as real world objects (represented by data)’.² Certainly, we felt that the ability to record and manage complex relationships between record Items would solve many of the problems staff were experiencing in trying to manage complex records that consist of various related parts, for example:

- the various physical representations of the same intellectual content, as is common with photographic records, audio-visual records and digital records;
- digital records that were linked with other records in the business system in which they were created and managed;
- digital records that must interact with other records or digital objects in order to be accessed or understood;
- instances of multiple parallel provenance, where the same records may exist in different series created by different agencies.³

Other standards like PREMIS, the international digital preservation metadata standard and its concepts of Intellectual Entity and Representations were useful here in both helping us to understand the problem and in developing a solution.

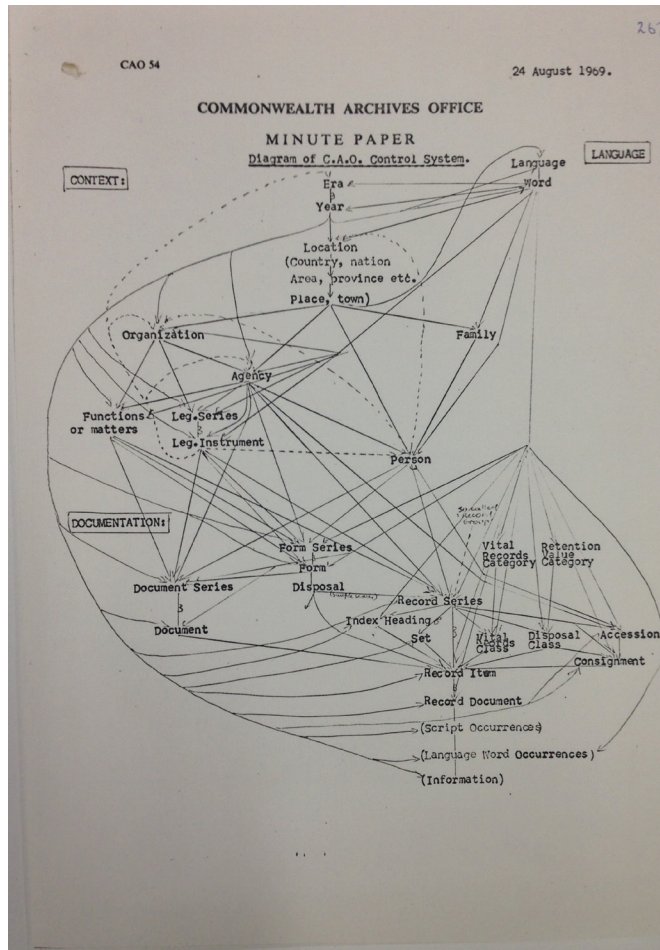


Figure 1. Diagram of the C.A.O. control system. National Archives of Australia, A750, 1967/19: Development of Context Control System, fol. 267.

We noted that these problems relate almost exclusively to the item entity. In the existing CRS data model, the other entities have well established relationships; for example, series has ‘related series’, ‘controlling series’, ‘previous series’, ‘subsequent series’, and ‘series controlled’. In fact, the relationships for series, agency and organisation were fundamental to the development of the CRS system. They were recorded in the paper-based finding aids (the Australian National Register of Archives and Documentation⁴) that were used from the 1960s to the introduction of the first computer systems at the National Archives in the mid-1980s. The first volume of the massive four volume tender documentation for a computer system issued in 1984 diagrammatically illustrates the relationships required in the system (see figure 2. Intellectual control was implemented in the Records Information Service, or RINSE, one of the three main applications developed).

The focus on the agency and series entities is to be expected, as the essential features of the CRS system are that the series is the basis of archival control and description, and that time-bound series relationships with the provenance entities are the basis of managing and recording administrative change over time. Item relationships were not a priority – in the analogue world, the need for piece or sub-item relationships was rare; in any case, item relationships

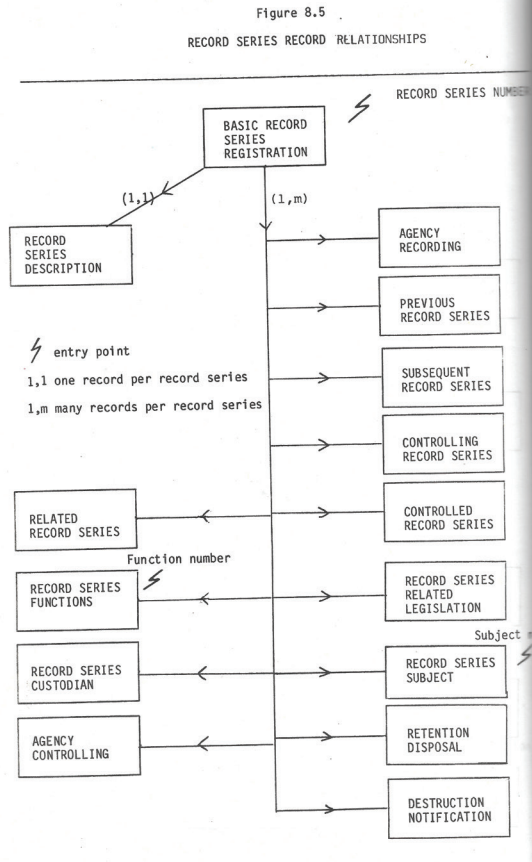


Figure 2. Diagram of record series record relationships (*Request for tender [volume 1] for the supply of a computer system for the Australian archives* [Canberra, ACT: Department of Administrative Services, 1984], page 8–44).

such as previous and later papers were written on the covers of paper files! In their exhaustive 1993 review of the CRS system, Russell Kelly and Mark Wagland observed: ‘There has always been the scope within the CRS system to include information at the piece level in inventories of items. This has been done on rare occasions. Because of the marginal nature of this information level, a comparative table for piece level information has not been prepared’.⁵

The last quarter of a century has seen a revolution in access to information brought about by the World Wide Web, globalisation, digitisation and changing research paradigms, and as a result, the expectations of users have forever changed. Users expect more and more granular levels of description and discovery, and these expectations are increasingly being realised through the trend for digital collections to be treated as big data sets that can be mined using computational techniques.⁶ At the same time, the management and preservation needs of complex digital records require relationships to be established with, for example, multiple aggregations of related records reflecting recordkeeping structures, dependent digital files like software or system files, or artefacts that provide meaning

and context like data dictionaries or a simple readme file in plain text. These developments have focused attention on the record item and the types of relationships that can exist within and between items.

When, in 1995, the Systems Integration and Redevelopment Project was conceived to integrate different applications and automate information retrieval and data capture, three-item relationships were built into the resultant system, RecordSearch: parent item-sub item; source item-copy item; and an odd relationship responding to a very 1990s issue – managing records from multiple series that have been copied for preservation or other reasons to physical carriers such as microfilm, photo albums, tape, compact disks, etc. This was the aggregate series-aggregate item-constituent item relationship. It is a relationship that has been rarely used for the purpose for which it was developed; it has been decoupled from the aggregate series concept and has been applied inconsistently over time. Similarly, the parent item-sub item relationship has been reinterpreted over time and implemented in many different ways. It was originally conceived as managing parts of items that were physically removed and stored elsewhere, for example, for preservation, security or other reasons. It has become used for most parent–child relationships, to manage aggregations of records and their component parts regardless of whether the component parts are physically separated. In effect, over the years, the aggregate item-constituent item and parent item-sub item have been used interchangeably to manage all types of hierarchical parent–child relationships. Description decisions were increasingly being driven by the capabilities of the archival management system, RecordSearch, and not CRS policy.

This notion of ‘CRS policy’ leads us down another interesting historical path. We have outlined in a potted way the development of the National Archives’ archival control systems, from paper registers to the first, unintegrated computer systems, to the current integrated computer system, RecordSearch. But where does CRS policy reside?

The CRS manual: another potted history

Peter Scott has said that he regretted not being involved in the development of a CRS Manual before he left the National Archives in 1989. The first CRS Manual was developed in the mid-1980s and was conceived as forming the single source of truth, as different practices had developed in the different state and territory offices. Originally, the CRS Manual was estimated as consisting of two volumes, and a draft of the manual was completed by July 1985.⁷ A report on the proposed format of the CRS Manual set out its purpose: ‘The manual will serve as a guide for Archives officers to the systems of intellectual control operating within the Australian Archives...At another level the manual will assist in the establishment of a consistent standard of documentation throughout the Archives...This standardization of format has become more essential as the Archives moves towards the implementation of the ADP [i.e., Automated Data Processing] System’.⁸ However, issuing the manual was delayed until the introduction of ADP as the computer system would result in ‘major changes to some procedures and it is hoped to incorporate these changes before issuing the manual’.⁹ In 1987, with the introduction of the computer applications RINSE, ANGAM II and the Physical Control System (PCS), a much expanded 13 volume ‘CRS Manual’ was conceived, which included volumes with detailed procedures for each major functional activity or process (e.g., a volume for RINSE, volumes with procedures for Series registrations, Agency registrations, administrative change and so on). Notwithstanding the completion of the CRS Manual and the release of a third edition in 1990, variations in key CRS definitions, for example, the major CRS entities, had arisen, which was causing confusion and resulting in inconsistent practice. One of the recommendations of the 1993 review of the CRS system was that ‘the definitions of terms used in the CRS System be set by and controlled from a central point within the Archives’.¹⁰ As a result, a completely revised, definitive edition of the CRS Manual appeared in 1997. With the

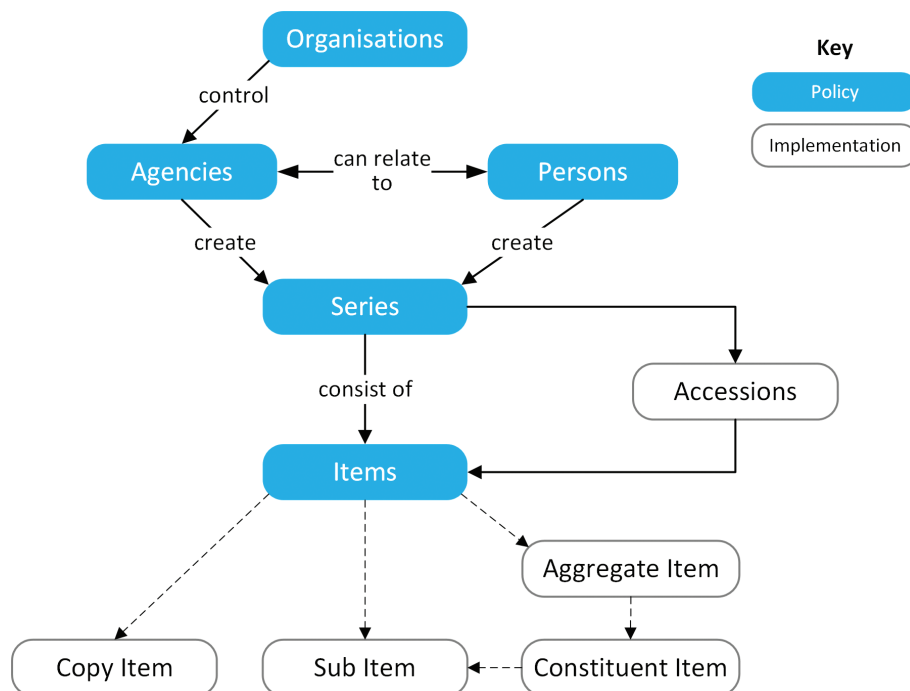


Figure 3. RecordSearch data model showing item relationships. Figure adapted from 'Basic structure of the CRS system', National Archives of Australia, The CRS Manual, October 2004.

introduction of RecordSearch, a new edition of the CRS Manual was released in 1999. Whilst it retained much of the language and definitions of the 1997 edition, it codified and defined the item relationship concepts that were introduced in the Identification (i.e. intellectual control) module of RecordSearch. The last major review of the CRS Manual was undertaken in 2004 and did not result in significant revisions of the 1999 edition.

The analysis of the development of the CRS Manual over time illustrates a couple of key points: first, the close, symbiotic relationship between the CRS Manual and the National Archives' database systems for archival control, and second, the ongoing view that the manual must be a definitive and exhaustive account of descriptive practice. This can be compared to debates about the value of 'black letter' versus principles-based legislation. Black letter legislation attempts to cover every possible example and, therefore, is designed to be easy to interpret and make judgements, but it requires frequent amendment to accommodate every new situation, whereas principles-based legislation requires interpretation by Judges, which can lead to some idiosyncratic decisions, but it does not require constant amendment. Certainly, there is a strong case to redesign the CRS Manual and pull out its component parts: policy, procedures, data dictionary and system business rules, so that it remains flexible, responsive and relevant.

So, to summarise the situation at the commencement of the Archival Control Model (ACM) project:

- RecordSearch is a bespoke in-house database designed in the 1990s, primarily for paper-based records.
- It uses a 1:1 data model where intellectual and technical metadata are captured together to describe the Item (see Figure 3 for the RecordSearch data model).

To deal with access and preservation requirements, Item sub-types were introduced which

- were given strict definitions and constrained connections producing hierarchies as opposed to relationships,
- were increasingly being used beyond their original intent to deal with more complex configurations of records,
- were inconsistently applied for the same situations resulting in confusing and misleading item descriptions hampering access,
- did not have the flexibility and extensibility to deal with aggregations of records beyond three levels, and
- only documented analogue records ignoring the attached digital surrogates which are considered an important asset and part of the collection.

Archival Control Model project outcomes

The ACM project brought together subject matter experts from across the organisation a series of workshops, and sprints were run to investigate and design a potential solution. Whilst the principal focus was the Record entity the project also reviewed the implementation of other Entities to see how they could be updated to meet the complex challenges of the digital environment.

A valuable exercise to improve the understanding of recent developments in archival description and the emerging technology landscape were to invite Adrian Cunningham, a member of the ICA's Experts Group on Archival Description, to deliver a presentation on the Records in Context Conceptual Model. Some of the recent trends he identified included:

- Reimagining description in relation to new and emerging communications technologies and avenues for online sharing/exchange of descriptions;
- Trend towards separating the components of description (started in Australia with the series system, continued with International Standard Archival Authority Record for Corporate Bodies, Persons and Families, 2nd Edition, etc.);
- Need for description to support multiple modes of access, plus renderings of descriptions for different audiences via different channels;

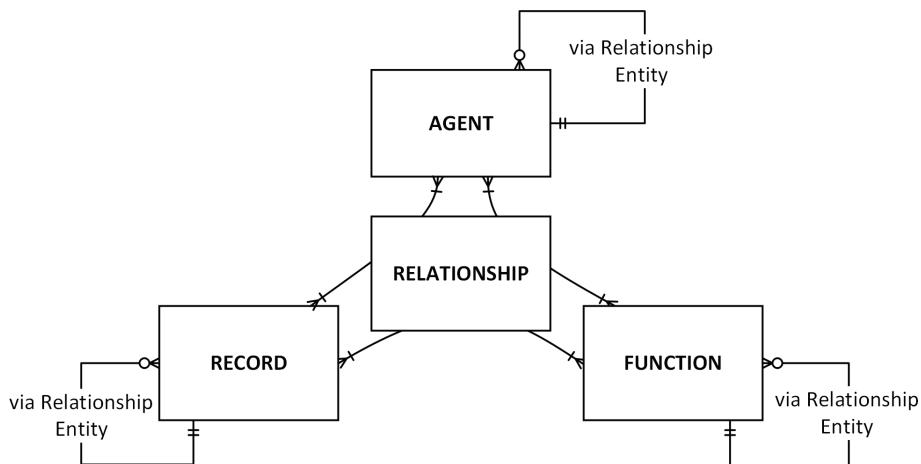


Figure 4. ACM data model. National Archives of Australia, Archival Control Model, 2 August 2019.

- Interoperability and automated reuse of descriptive metadata, for example, Linked Open Data;
- Convergence of archival description with metadata for recordkeeping (ISO 23081, Australian Government Recordkeeping Metadata Standard [AGRkMS], etc.).

Ultimately, the ACM project team settled on four entity types: Agent, Record, Function and Relationship with recommendations made to look at future implementation of Mandate and potentially Event, which is currently absorbed into Relationship (see Figure 4). For each entity, we created updated definitions and types and rules of application.

The project team also proposed adopting the use of relationship statements like ‘has part’ to create linkages, rather than the existing strictly defined relationship types. It also proposed adopting the concept of Intellectual Entities and Representations as described by PREMIS to manage digital surrogates.

These were based on concepts taken from the existing CRS system, AGRkMS, the Commonwealth’s implementation of AS/NZS 5478, and PREMIS the international standard for digital preservation metadata.

The goal was both to return to the original vision of the CRS system and move towards a linked data approach. Key changes to the existing CRS data model include:

- A simplification of the Record entity from Series, Item, Sub item, Aggregate and Constituent to Intellectual Units and Representations. An Intellectual Unit may be either a Series or Record unit whilst a Representation may be either original or created. This allows us to link multiple representations to the same intellectual content and identify and manage the primary archival representation including those created through the digitise and dispose policy where the original analogue record is destroyed and the digital surrogate is the primary archival representation, from which other representations can be made.
- The Agent entity has been changed from Commonwealth (i.e. federal government) Organisation, Agency or Person to Organisation, Person and Other allowing for the capture of technologies (software and hardware) and non-commonwealth entities involved with the creation of records.
- The movement of functions between agencies is a core part of the reasoning behind the CRS system. Previously, we had captured functions in a static thesaurus linked to the Agent, thus the series (in fact, migrated to RecordSearch from the earlier RINSE application). The new model promotes function to a more dynamic entity mapped to the core business functions of Agents as captured in Record Authorities.
- Finally, whilst relationships existed previously, they had become hidden as specific properties of other entities. The new model now requires that all links between entities occur through the Relationship entity. The new relationship entity captures both intellectual and technical relationships in semantic terms such as ‘has part’ rather than archival terms like constituent or aggregate item. This has been done to move us closer to being able to institute a linked data approach as Peter Scott originally envisioned.

Implementation challenges

The National Archives is currently in the process of upgrading our archival management systems including our digital archive. There are several challenges that we face in implementing the ACM data model and schema.

Whilst modern digital preservation systems align to the concepts in PREMIS, our RecordSearch catalogue database, developed over two decades ago, was developed on analogue principles where an item is a single representation such as a paper file. As such, it holds both the intellectual and physical/technical metadata at the same level.

Given that relationships form the core of the CRS system, to operate effectively they need to be automated as much as possible particularly given the scale of the collection, which is estimated at 40 million records with around 15 million described at Item level. This figure does not include the aforementioned digital surrogates and the born digital records that have not been described as well as we would like.

Existing archival processes are also a challenge, for example, the incremental partial release of records through the access examination process. Managing multiple digital access versions was not envisaged when RecordSearch was developed. In the analogue world, redactions and masks are generally contained within the original paper record; thus, the identifier does not change, only the access status of the record. In the digital world, new digital objects are created that require their own management and hence require their own unique identifier. These need to be clearly distinguishable from the unredacted master to prevent inappropriate release.

The key lesson that we have learnt is to see our data model as a living thing that will need to be regularly reviewed and updated to continue to meet the challenges ahead. Over time, we have confused system implementation with policy, and our descriptive practices have been driven to a large extent by the systems that implement the CRS data model, schema and descriptive rules. We have also tended to impose an analogue view onto digital records, resulting in a rich source of data being effectively hidden. We hope that the updated archival control model will assist us in reassessing our approach to records in all forms and improve access for our users.

Notes on contributors

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REFLECTION

Dusting off Australia's Cinderella city: reflections on the Stories of Our Town Project 2020-2022

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Abstract:

This reflection describes the highs and lows involved in the making of a set of films sharing the key historical stories of Newcastle (Australia) with the world. The Stories of Our Town Project aimed to tell Newcastle's key historic stories through Novocastrian eyes and points of view using interviews and archival information across a myriad of formats. It was funded in part through a NSW Government Community Grant and was a great example of partnership and cooperation among the filmmakers, the University of Newcastle, and Australia's major Cultural Institutions and local community organisations.

Keywords: *Community storytelling; archives; film making; GLAM; stories; personal narratives; Australian stories; Aboriginal people; Aboriginal stories.*

Who is Chit Chat von Loopin Stab?

I did not know Chit Chat von Loopin Stab (a.k.a. Glenn Dormand from Waratah) personally, or from a bar of soap, except seeing him as host on Foxtel's MaxTV interviewing rock stars on one of the seven TVs at the gym while I was peddling my heart out. He turned up at the University of Newcastle's GLAMx lab in September 2019 having made two films under the series title of *Stories of Our Town*¹: one on the Newcastle Broken Hill Proprietary Company (BHP) Steelworks and the other on our globally infamous Star Hotel Riot.

What did he need?

He was looking for someone at the University to back a grant application to the New South Wales Newcastle Port Community Contribution Fund to make further six films (of a projected twelve) as 'digital infrastructure'.

He and his film-making partner Tony Whittaker are both married to teachers and understood the difficulty of sourcing high quality and entertaining local history educational materials for teaching. So, they set about changing that, and we decided to come along for the ride.

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Why did we get involved?

We believed that such a project was crucial for local communities to be able to tell their own stories in their own words. And, along the way to make accessible hidden historical archives and little-known histories of local people who have helped shape the character of the Australian nation.

We had also recently set ourselves the monumental task of digitising the massive Newcastle Broadcasting New South Wales (NBN) Television Archive, estimated at over a million feet of footage dating back to 1962, as well as the audio-visual archives of Hunter families lucky enough to have owned 16mm cameras dating from at least the 1920s. All this archival material could be made available to Chit Chat and his team as part of our commitment to the project.

This historic footage provided such a rich visual treasure trove, a real window into all the highs, lows and everything in-between that our community had been through. It could help us understand what worked and what did not work and provide prudent pathways to our collective futures. If we do not know where we have been and who we were, then we do not know where we are going or who we could be. Nothing beats having your own filmmakers telling your own stories, especially if they are *good* at it.

Who are 'we'?

We are the University of Newcastle's Special Collections (i.e., the Archives) located on Level 2 in the Auchmuty Library. We were established in 1975 and hold arguably the largest and most diverse evidential archives of a regional university anywhere in the country. Our holdings safeguard records of Indigenous peoples dating back thousands of years along with those of the more recent European migrant and ethnic peoples who have since called Newcastle (Mulubinba) home.

What did we do?

Identified as Executive Producers by the filmmakers, both Dr Ann Hardy, Co-ordinator GLAMx Lab, and I (as University Archivist) worked closely with them to develop and pitch potential compelling story narratives. We identified interviewees from across local Indigenous communities, National GLAM and tertiary sectors as well as local cultural institutions. We organised meetings to introduce the film makers to academics and community participants through Hunter Living Histories networks. We assisted in creating backgrounder material with primary sources on Hunter Living Histories site for each of the stories and kept the production diaries up to date. We sourced in-house and external archival material in textual, audio, photographic and audio-visual formats for use in productions. Once the films were made, we quality control checked draft edits of film in the productions. Once completed, we promoted film premieres through community networks and undertook public presentations and media interviews. We also sought to coordinate student work integrated learning (WIL) participants through the GLAMx lab, which unfortunately was thwarted by multiple COVID-19 lockdowns.

What was the result?

Despite two major COVID-19 lockdowns, 15 films were finally produced using local artists, animators, academics and actors and received enthusiastic receptions from audiences. The films' quality has exceeded all expectations. Local broadcaster, councillor and founder of the Lost Newcastle Facebook Group, Carol Duncan promoted the films to her 68,000 members.

The Stories of Our Town YouTube channel has received over 100,000 views (as of June 2022) with 988 subscribers. The Hunter Living Histories production diary posts documenting

the creation of the films and primary source backgrounders have had over 12,000 visits. Thousands of people have attended the 14 (COVID-19 safe) public screenings held across the Hunter Region as well as 'zoom' screenings held during the COVID-19 lockdowns.

Once news got around town, further funding for more film productions came through community groups under the Fortress Newcastle Project. They prepared their own applications, with the help of the now Head of Knowledge at the Australian Maritime Museum, Dr Peter Hobbins, who took a personal interest in supporting them through the process for the Federal Government's *Saluting Their Service* grant.

The resultant Fortress Newcastle Exhibition screened films continuously over 15 days with 2,300 visitors. The Fortress Newcastle film itself is especially important due to the advanced ages of the interviewees, with the eldest being 100 years of age. Sadly, we have lost three of the interviewees since, serving to reinforce our great admiration and appreciation at the pace at which all the community partners, University and filmmakers acted to record their voices and experiences before they passed away. They completely met the *Saluting their Service* brief.

The City of Newcastle Council also invested in the *Architecture* and *Biraban and Threlkeld* films, with the latter also attracting funding from the Awabakal Descendants Traditional Owners Aboriginal Corporation. These films are also very important achievements, as it is the first time Indigenous voices have been brought together on such a scale to tell stories of great importance to their peoples.

Stories of Our Town has been brought to national attention through the decision of Australian pay TV providers Foxtel & Binge to screen two of the films for the next four years for their subscribers, as well as National Indigenous Television (NITV) screening two of the films.

The Stories of Our Town also received a 'Highly Commended' acknowledgment for their services to Education and Interpretation at 2022 National Trust Heritage Awards in Sydney.

What Did Not Go So Well?

Our original intention was to provide our next generation of local student film makers opportunities for collaboration. We had hoped that work integrated learning students from the University of Newcastle's Schools of Creative Industries and Humanities and Social Sciences would have the opportunity to work in the Auchmuty Libraries GLAM^x Lab² to assist the film makers in locating historic content and understand the process of professional film production. Two COVID-19 lockdowns prevented us from involving students.

Conclusions - meeting a mystery in a grain of dust

We are very proud of the overall achievements of the Stories of Our Town Project. These films may be the first time that such stories, some of national importance, have been told and have received great enthusiasm by the community.

The quality has been exceptional, and we are immensely proud of the work of Glenn Dorman (Chit Chat) and Tony Whittaker as our contracted filmmakers.

Every place in our world has something special and extraordinary to it if you delve a little deeper. Archivists, working within the beautiful archives, get front row seats to such important things treasured by our communities. We get sucked up into the vortex of interesting people, the stories, connections and storytelling that characterise how human beings express their relatively brief lives across time. There is a mystery lying under every nook and cranny across this land, and the voices almost burst out wanting to be heard as living histories. We see 'not the dust, but a mystery, a marvel, right there in your hand.'³

We have always considered Newcastle a ‘Cinderella’ city of Australia, pushed to one side by her major sister capital cities that have long prospered on the raging rapids of the ‘river of black gold’ coal mines that have enabled Australia to become a prosperous nation. But whenever the city needed something, Newcastle, just like Cinderella, had to settle for fourth best, if at all, to the whims of her stepsisters, who always craved the greater attention, the lavish extravagant spends and, most notably, the starring character roles in the national story. Without Cinderella in the story, the tale just does not make any sense. Similarly, the story of Australia cannot be properly told, unless characters such as Newcastle and the Hunter Region, and their key stories, be included.

See all the Stories of Our Town films here: <https://www.youtube.com/channel/UCFr0o5nIRF46pnQOkLOo1mw/videos>

See the Stories of Our Town Production Diaries:

<https://hunterlivinghistories.com/category/stories-of-our-town/>

Notes on contributor

Gionni Di Gravio, is University Archivist at the University of Newcastle, Chair of the Hunter Living Histories and an Australian Society of Archivists Accredited Professional (ASAAP). His passion is to use emerging and evolving technologies to connect people, with historic records and archives, across time and space. Gionni is a strong advocate for supporting Aboriginal history. In 2020 he received an OAM as recognition for his dedication and many years of archival work towards preserving regional history.

ORCID

Gionni Di Gravio 

Notes

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