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ARTICLE

Literary archives in the digital age: issues and encounters with Australian writers

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ABSTRACT

In considering what constitutes the ideal born-digital literary archive and what interventions are possible, or even necessary, from a collecting institution in determining the make-up and future accessibility of these archives, this article examines, through a set of case studies, the collections and creative methodologies of four Australian writers – Peter Carey, Sonya Hartnett, Alex Miller and Ouyang Yu. The article considers how these writers have negotiated with, and managed, their creative output in the digital space, and how, as a collecting institution, State Library Victoria has responded to their respective requirements of the medium and expectations for how a major institution will deal with their digital collections. Finally, the article examines what practical technologies are necessary to provide a secure digital repository while facilitating access and the delivery of born-digital literary content to the user, both now and into the future.

KEYWORDS

Digital space; born-digital; literary archives

Introduction

The nature of digital literary archives and their creation is one that has been debated for more than twenty years by archivists and librarians alike. As Sue McKemmish noted in 1996, 'the factors which influence recordkeeping behaviour in any context are numerous'.[1] Personal recordkeeping is a social activity, a processed based social system, as varied as the individuals who keep records. What is important for collectors of digital literary archives in assessing, appraising, and making accessible born-digital literary content is to acquire a more nuanced understanding of how writers function in the digital literary space and to use that understanding to contextualise the inherent cultural value of acquired collections and their evidence as an accessible part of society's 'collective memory'.[2]

In this article I want to examine the use of the digital medium and born-digital literary archives produced in that space. I will be drawing closely from the experiences of State Library Victoria (SLV) in Melbourne and its acquisition over the last twenty years of a select number of digital literary collections from four Australian writers. Literary archives in the digital age present a number of challenges. Manuscript collections are invariably multi-format and increasingly combinations of both physical and digital forms, the digital arriving on a number of carriers, some contemporary, some

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obsolete. The collections from the writers I will be examining are no exception. The ideal literary collection captures the full gamut of a writer's work – background notes and research; annotated books and critical editions; literary drafts; photographic components; audio material; personal journals; literary logs; objects like keepsakes or awards; correspondence with publishers, editors and friends; editors and printers' proofs, and final copies.

Creative writers, like all writers, are working in a transitional-medium zone. Information is generated and collected in sometimes unstructured ways, and stored on whatever is most convenient at the time. Most of the writers I will be dealing with have grown up with pen and paper, some with typewriters, transitioning to personal computers (PCs) and laptops but still interchanging between both physical and digital mediums as the conditions suit.[3] Some adhere strictly to one or the other, while others still place considerable emphasis on the materiality of their collections as proof of their work and its enduring value, survival, and future use, and would rather print off and physically store interchanges like emails, than leave them in digital form.

It is however clear that most Australian writers are now working in a born-digital environment in some form, either completely, or moving in and out of this digital space as their needs and inclinations arise. There are many obvious reasons for this. Ease of composition, editing and printing; the idea of the laptop as the 'portable desk', the digital space that is 'home' and therefore not dependent on a fixed environment or location for creativity; and of course the ease of dealing with publishers, editors and personal friends, as well as simple commercial imperatives in the printing industry that require full engagement with digital formats.

In thinking about what constitutes the ideal born-digital literary archive and what interventions are possible by a collecting institution in determining the make-up and future accessibility of these archives, this article will examine closely the mixed-format collections of four Australian writers, all with both local and international reputations – Peter Carey, Sonya Hartnett, Alex Miller and Chinese-Australian writer and translator Ouyang Yu. This paper will consider how these writers have negotiated with, and managed, their creative output in the digital age; how, as a collecting institution State Library Victoria has responded to their respective requirements of the medium and expectations for how a major institution will deal with their digital collections. Finally, the paper will examine what practical technologies are necessary to enable access and the delivery of born-digital literary content to the user.

Background: digital collections

The history of State Library Victoria's digital archives predates the acquisition of its first born-digital literary collection, the papers of Peter Carey, by almost a decade. The Library began digitising its collections in 1991, acquired its first born-digital literary collection in 2001, and its first born-digital photographic collection in 2005. Collectively its digital holdings fall into three distinct categories: digitised items (copies of collection material); born-digital objects (usually externally generated digital content deposited by newspapers or commercial, government or independent publishing concerns); and digital objects on physical carriers (both published born-digital content, pictorial and literary collection material).[4] The exponential growth in digital collections and the

requirements for safely preserving, storing and making different component accessible on an ongoing basis led to the introduction of State Library Victoria's Digital Object Management System (DOMS) in 2009. Here, for the first time processes and defined workflows for ingesting and managing digital content was begun. However, the Library lacked digital preservation functionality, critical infrastructure if one is to successfully manage, migrate, and make available born-digital content over extended periods of time. The Library had been using the product DigiTool, managed by the software company Ex Libris (since acquired by ProQuest). This move, from the Ex Libris product Digitool into Rosetta was begun in 2016. Unlike Digitool, which is an end of life-cycle product, Rosetta covers ingest, discovery, and preservation, what its publicity calls the 'full range of asset-management'.[5] What is particularly important from a collection management point of view is its deposit and ingest systems, and its preservation, metadata and viewer functionality. These constitute some of the key components for making digital literary collection manageable, over time, and fully accessible. State Library Victoria is currently in the last phases of migrating data from Digitool to Rosetta.

At the outset it should be stated that State Library Victoria has not made the availability of born-digital literary content its first priority, preferring to integrate the availability of these collections into the overall development of its new systems and workflows.[6] It is upon completion of this step that the Library will then embark upon the implementation of its planned digital forensic program with its digital literary collections, and similar formats in other collection areas. This is not a complex task but simply a matter of embedding the program in the right business unit within a new library structure.[7] Other institutions in Australia have taken a different approach, preferencing access over long-term preservation as an initial step.[8] However, having a digital preservation system in place, and operating to international standards, will allow us to build our digital curatorial experience and collecting in ways that would not otherwise be possible, and will ensure we have all the necessary technical systems in place as we move to providing access.[9] It is within this context that I now want to examine the acquisition of a number of digital literary archives and the creative complexities of such collections.

Digital literary collections: content case studies

How are writers using the digital space and what level of engagement do we find in the digital literary world in Australia? In 2001, State Library Victoria acquired a significant collection of papers from the novelist Peter Carey (1943–). Carey, twice winner of the British Booker Prize for the best English language novel published in that country has produced many works of fiction exploring aspects of Australian and on occasion American history, including *True History of the Kelly Gang* (2000), *Oscar and Lucinda* (1988), *A Long Way from Home* (2017), and *Parrot and Olivier in America* (2010). He has been New York-based for over twenty years.

Carey's mixed format collection with both hard copy and substantial born-digital content presented a number of challenges, principally related to the most efficient way to manage a considerable number of emails between Carey, and his then editor Gary Fisketjon. This issue was resolved at the time by the acquisition of the laptop, an

AppleMac, with its in-built Eudora email system. In acquiring the laptop the Carey collection became the first substantial born-digital literary archive to find a home at the Library. At the time the reasons for acquiring the laptop were purely pragmatic, digital content was considered a less stable, less reliable medium, and the importance of the operating system barely surfaced in any discussion or decision making. It was the importance of acquiring the emails, which existed only in digital form, unlike the literary components, that overrode any outstanding concerns, so the acquisition of the laptop was included with the collection. It was only later that the social and cultural implications of having the machine on which the classic novel *True History of the Kelly Gang* was written, became glaringly apparent. The reasons for acquiring the laptop, its obvious 'mythic status' within the home of the Jerilderie Letter manuscript (MS 13361), and other key Kelly Gang memorabilia, have been well traversed elsewhere.[10] The decision to purchase the laptop was of course considered an unusual one at the time. The Library owned a number of famous typewriters used by writers like novelists Henry Handel Richardson, Dale Collins and journalist Hugh Buggy. It had never, however, considered acquiring a computer as collection material. Thus, on a whim, and with a laptop missing a particular key, the library embarked on its digital literary future![11]

In hindsight, the acquisition of the complete digital carrier (the laptop) was fortuitous. It pre-dated the development of sophisticated digital forensic tools with their mirror-imaging and back-end capabilities (for example, write blockers, bit-stream or disk imaging, email scrapers), tools that as an institution we have begun to more vigorously investigate and workshop over the last four years.[12] It enabled the Library to engage, over time, with the issues of born-digital content and to think more seriously about digital carriers – laptops, hard drives, floppy disks, different file formats, and their short or long-term utility and durability. It challenged us to think more seriously about digital preservation above and beyond content, the 'management of records, as well as the information context of the preservation environment'.[13] And, in a changing literary archival landscape, the collection was the catalyst for the discussion on how born-digital literary content should be stored, processed, accessed, and what mechanisms or technologies need to be in place for the best delivery of digital content to the researcher. These are issues that have been addressed by separate institutions in quite distinct ways,[14] and are now the focus of such work as the recent Digital Processing Framework.[15]

At the time of the acquisition of Carey's laptop we had no definite answers to some of the questions posed by born-digital content. Further, we had little understanding as to how writers were currently using the digital space and to what ends. This will become increasingly important, as Devin Becker and Collier Nogues have shown from their 2011 survey of 110 poets, essayists and fiction writers, the results of which revealed a distinct lack of digital knowledge and an undervaluing of digital archives prevalent within the creative literary community.[16] However, the Carey collection did give us a key to understanding structure in the digital world and some of the future possibilities for textual scholars and researchers interrogating literary data. Carey, a seemingly early adopter of technology,[17] did provide a definite example as to how one writer tackled creation in the digital space. In the case of the Carey archive, the born-digital content maintains a rigorous file structure with the capture of multiple draft and chapter iterations displaying consistent file-naming protocols. For the

archivists initially handling this collection this became a *de facto* template for measuring and assessing similar born-digital literary collections. More recent acquisitions for related material from the mid-1990s, from theatre director and editor Alison Summers, has confirmed Carey's long-standing practice, from the beginning of his career, of maintaining multiple files in complex arrangements with quite defined naming formulas and a rigorous backing-up regime on 3.5-inch floppy disks.[18]

Since 2001 the Library has built an impressive collection of Carey manuscripts, largely born-digital, documenting the writing and reception of all of his major novels. Further digital manuscripts were acquired in 2008 when multiple drafts of the novels *My Life as a Fake, Theft, a Love Story, Wrong about Japan* and *His Illegal Self* were acquired with the acquisition of a further laptop; in correspondence with the Library Peter Carey noted that there was far more material in digital form for the works *My Life as a Fake* and *Wrong about Japan* (2004), than existed in paper form. In 2012 the Library purchased Carey's writings on his two novels *Parrot and Olivier in America* (2009), shortlisted for the American National Book Award, and *Chemistry of Tears* (2012) together with a large cache of other laptop writings.

In effect, for a writer like Carey, the majority of his work is produced only in the digital space. For some literary scholars and textual critics such digital literary collections present considerable challenges, principally technological accessibility and a manageable methodology that enables access and understanding across a range of perhaps thousands of files.[19] However, what is apparent is that in the case of a writer like Carey the thoroughness of the manuscript composition in the digital space is a potential goldmine for textual critics and textual studies in general. With the right tools the ability to plot every change in composition, across multiple drafts and chapter iterations, enables the complete textual mapping of a major literary novel. In terms of content, having to read and compare thousands of files, per novel, to understand the authorial editing process on the surface appears to be something of a considerable challenge. However, it is a process that, with the right algorithms and use of forensic and emulation tools, can be managed, and applied to different operating systems, as the work on the Salman Rushdie digital literary collections at Emory University has shown.[20] Technology adds value to the digital literary space, on a range of levels and to multiple user groups – archivists, students, professional researchers, and of course valuers.

Carey's mode of digital composition highlights the autonomy that is available to the writer in the digital age. For example, he has noted in comments to valuers that he does not send his drafts to friends or other readers during the composition of a novel. Thus, unlike the novelist Alex Miller for example, the researcher will not find critiques of work in progress or other reader comments. His creative process involves drafts and re-drafting in the digital space only, until he has a substantially completed work, or major component of a work. It is at that point a draft is printed out or a digital draft submitted to an editor or reader. Finally, Carey has noted that he does not keep physical diaries or journals during the composition of a work. In short, there is nothing reflecting on or illuminating the creative process except the digital files themselves.[21] As Carey pointed out in 2012,

> I have always thought that these electronic files would give a very clear notion of the fluid nature of creation, but of course you cannot afford the years it might take to read and log the changes. Probably no-one ever will. However, there is far more process contained in these files than could ever be hoped for with manual annotations.[22]

While the methodology of a writer in the digital space like Peter Carey is illuminating and seemingly transparent, there are of course omissions from the literary work acquired since 2001, namely emails. Coy to the point of silence, Carey has not been willing to transfer his email correspondence since the technological separation and transfer of inbuilt email systems to external providers. With the technology now more freely available to collect and transfer bulk email, this is a space to be more keenly watched.

Carey stands in stark contrast to writers like Alex Miller (1936–). Miller, whose first work was published in 1988, has garnered a string of literary awards for his twelve novels and numerous short stories, including Australia's most prestigeous literary prize, the Miles Franklin Award, for the novels *Ancestor Game* (1993) and *Journey to the Stone Country* (2003). He was the winner of the 1993 Commonwealth Writers Prize for *Ancestor Game*, and in 2012 he was awarded the Melbourne Prize for Literature for the novel *Autumn Laing*. The Library has been acquiring literary archives from Miller since early 2007, including drafts of the novels *Love Song, Landscape of Farewell, Prochownik's Dream*, early versions of *Tivington Nott*, and substantial drafts for the novel *Autumn Lang*, based loosely on the life of Sunday Reed and her relationship with Australian artist Sidney Nolan. While Miller composes on a fixed PC, his literary work, as it evolves, constitutes a series of near complete literary drafts that are printed out as computer-generated typescripts, and which he then heavily annotates and corrects.[23] As he noted in 2010,

> I usually do at least three full drafts of all my novels, sometimes more. By draft I mean a full version of the novel from beginning to end. But not always! Sometimes I have abandoned what is usually a first draft and returned to the beginnings and begun it again. Later drafts are usually complete in terms of the story. I'm not systematic. I doubt if many novelists are, and sometimes parts of earlier drafts that have been discarded are reclaimed and find their way into the final version … the novel is a complex and unfolding process for me that takes place over a period of years … The thickening processes that the text undergoes are complex and often confused – until clarity is finally achieved.[24]

What is perhaps most unusual about Miller is his dedication to a sustained and rich correspondence technique, via email, something that writer John Thompson has described as lacking in most contemporary Australian literary collections.[25] Miller is the inveterate writer of long, literary emails, all of which he prints out, keeping both sides of the correspondence. Thus one finds sustained exchanges over many years with his close friend Hazel Rowley, and equally sustained correspondence with Beverley Farmer, American academic and critic Ronald Sharp, and Indian-born British writer Lee Langley; also correspondence with John Banville, Raimond Gaita, Anita Heiss and many others. Miller's use of the digital medium as a convenient vehicle for both his fiction and 'letter writing', but one he finally subverts by returning his output to the printed form for both editing purposes and the maintaining of a durable 'written correspondence', does call for some explanation.

The lack of interest in, or commitment to the digital medium as a secure format with a sustained archival future is not unusual amongst writers. Such issues were addressed in Australia by the National and State Libraries of Australasia (NSLA) 2011 document *Guidelines for library staff assisting donors to prepare their personal digital archives for transfer to NSLA libraries*.[26] The very real issue of the creators of personal archives not considering digital content to be part of their long-term personal records, combined with creators' limited knowledge of how to actually curate and manage their own digital files, were seen as major issues. Like the work of Becker and Nogues in their survey of emerging writers' archiving practices, this all pointed to the importance of early intervention in the life-cycle of these records and the need to work with creators from an early stage of contact. Not that Miller totally eschewed keeping digital files; State Library Victoria did acquire several hard drives from Miller with a small amount of digital content.

Not all writers are prolific producers of physical literary archives, though some who have embraced the digital space are on a physically decreasing trajectory. One such writer is Sonya Hartnett (1968–). Winner of the international Astrid Lindgren Memorial Award for children's and young adult literature (2008), Hartnett has been writing in the adult and Young Adult field since she was a teenager. She has a strong following in Australia, Britain and America, and she has been the recipient of numerous literary awards for her works, including for the novels *Sleeping Dogs* (1995), *Thursday's Child* (2000), *Surrender* (2005) and *Of a Boy* (2002).

Very early on, Hartnett engaged with the State Library as a repository for her literary archives, the first material arriving in early 2005 and the most recent acquisition in 2015. Her collection is large, 10.5 linear metres or over 60 manuscript boxes of material, much from her earlier writing years, but including 3 laptops and large numbers of 3.5-inch floppy disks, both laptops and disks with considerable born-digital content, from the later 2000s. Hartnett was young enough to embrace the computer revolution in her twenties and her archive shows evidence of her use of the digital medium but not the retention of earlier born-digital content. This was partly based on the technology and the failure of early intervention. Hartnett used laptops extensively, but limited life, perhaps five years or less, and the collapse of motherboards (computer circuit boards) and other associated issues, rendered used laptops inoperable. A number were discarded because of this – why try and retrieve draft files when the books are published anyway? Those that survived (three laptops) remained operable and found their way to the manuscripts collection at the Library and are now a key part of her literary archival collection. Ultimately, Hartnett's use of the laptop was replaced by a large fixed PC, that constitutes her current working space.

While the library holds a rich collection of Hartnett's literary archives in physical form, what has survived in digital files is extremely important for the contextual positioning of her writing. Hartnett's physical archives contains many computer-generated drafts, but the computer files are largely of a different order. For example, many occasional and opinion pieces, reviews, travel writing, journalist reports, grant applications, and only occasional chapter back-ups or drafts of works-in-progress. In terms of draft novels and other pieces, there is of course some crossover, but very little that bears any resemblance to the tight file structure and multiple chapter iterations and edits of Peter Carey for example.

What then can we deduce from this? What do the surviving digital files in Hartnett's collections at State Library Victoria tell us about how, as a writer, she composes and uses the digital space? And what does it mean for collectors of digital literary manuscripts, in terms of understanding how fully-generated drafts arise and are edited in the digital space, and then find a life beyond that, largely in the analogue or physical medium? If we go back to Alex Miller's observations on the spareness of his writing methodology – a small number of complete drafts generated in digital form and then printed out; followed by continued reflection and a physical editing process; and perhaps the sending out of chapters or whole drafts to friends for comments and feedback – does Hartnett's work also reflect this process? In a long and crafted speech Hatnett gave to the Melbourne Redmond Barry Society in 2012, she provided a very intimate portrayal of her writing methodology. Hartnett describes in detail her creative process linked to spaces – houses, windows, gardens, suburbs and the inevitable cats and dogs that inhabit these places. It is telling that 'gardens' are mentioned fifteen times, 'writing' fifteen times, the word 'write' eleven times, 'laptop' only once, and 'computer' never. When describing her discovery of Merri Creek, in Northcote, Melbourne, in early 2000, she observes:

> Importantly, at Cain Avenue I'd written *Thursday's Child*, the goldfields novel which would become cornerstone, career-changing, its very source of inspiration traceable to hours spent in idle observation of the ants which dug ceaselessly at the foundations of the house: the unit's dull exposed clinker brick had not boxed-in my imagination, but rather encouraged it to fly.[27]

It is perhaps this very reflective process that accounts for near-complete draft composition, the use of non-digital spaces for mental composition before the physical commitment to the digital page. However, Hartnett is also the supreme realist when talking of the importance of physical spaces in the writing process: 'Such clean-lined starkness can't provide the cosiness in which the novels increasingly insist they should be written'. In Hartnett's creative process there are no multiple iterations or edits for chapters in individual novels; no 10,000 or more files that are found on some of Carey's digital carriers; and nor should we look for that. Her use of the digital space is one that is done sparingly, after much thought and reflection. What we could possibly read into her comments above however, is the realisation that the digital space is a seductive space for creative writers. Creation in the digital space has enabled literary production with ease, but digital inscription technologies have also changed the nature or creation of narrative. This has sometimes led to larger literary manuscripts, greater output, an expectation of more frequent publishing, and more or less rigour in the personal editing process, depending upon how a particular writer uses that digital space for their 'cultural production'. Digital literary production facilitates a different approach to writing. The digital space provides that secure environment where all things are possible, music, entertainment, contact with friends, more accessible research, the vicarious online experience – an alternative space for reflection, writing and revision. However we picture it, what Hartnett calls the 'cosiness' of the digital space has radically altered the nature of composition and its imaginative context; as such, much more is expected from the writer in terms of literary production and a literary archival footprint, from this space.

The final writer I want to examine is the Chinese-Australian novelist, poet and translator Ouyang Yu. Born in 1955 in Huangzhou, China, Yu arrived in Australia in 1991, and currently works between these two countries.[28] The translator of a number of Australian authors, including Germaine Greer and Christina Stead, he first came to prominence with his translation of Alex Miller's award winning novel *The Ancestor Game* (1993). Since the late 1990s, Yu has published five novels in English, four novels in Chinese, and has added a considerable body of poetry and criticism to his name. Several Chinese academics expressed interest in translating *The Ancestor Game*, a work considered by Sydney academic and critic Elizabeth Webby as a novel that broke new ground in terms of questioning issues of belonging and place, and in its dealings with ethnicity and the representation of China in Australian fiction. However, Miller asked Ouyang Yu to begin this work, and Miller and Yu worked closely on the translation which was completed in 1996 and initially published in Taiwan (there is considerable correspondence in the Miller Collection at State Library Victoria [MS 13963] between Ouyang Yu and Miller). The resulting archives from the work included a 700-page Chinese working translation, the heavily annotated English volume from which Yu worked, notes from conversations with Miller, a detailed preface and working drafts for the preface, plus additional notes and related material concerning the publication. There were no digital files related to this work and Yu has noted that he has now transitioned completely from physical composition to the digital space in all his translations, novels and poetry. It was in this context that the State Library acquired his working digital files for his very fine 2017 World War One novel titled *Billy Sing*, on the Australian-Chinese Gallipoli sniper of that name. Yu is well-known for his literary craftsmanship and work in a physical format, a medium on which he creates his own artbooks and related, repurposed art objects.[29] However, his transition from hand-written and computer-generated drafts to a purely digital means of composition was complete by the time of the publication of *Billy Sing*.

As a digital literary archive, *Billy Sing* and its contextual documentation is spare, though the library had hoped to have the complete MacPro laptop unaltered, for valuation. Ouyang Yu had used this laptop for four years before acquiring a new model.[30] However, before parting with the laptop on which it was written, Yu removed any unrelated content, including other Australian and Chinese translations, original poetry compositions, plus saved emails and correspondence. In conversation he described such content as too personal and not for lodging with an institution as part of his literary archives. The main digital component of the *Billy Sing* archive was the edited version of the manuscript with extensive track-changes annotations by his editor, Penelope Goodes. In addition there were further edits, undertaken by Yu in response to Goodes's suggestions, and some related correspondence between the author and the editor. There was no physical component to this collection. By and large, the contexts of the writing, editing and publication were well represented – contracts, agent fees, cover designs, editing, log book jottings, parallel texts, photos, proposals, rejections, sales and reviews, and PDF proof versions. In this respect, Ouyang Yu's digital footprint is not dissimiliar to that of Sonya Hartnett. And like Hartnett with her Redmond Barry speech, Yu has recorded his approach to writing this novel in perhaps one of the most interesting documents in the collection, simply titled 'Log Book', kept from February 2014 to October 2016 while writing *Billy Sing*. Many of the entries are

short – the whole document not more than three-thousand-four-hundred words – but personally revealing, covering the genesis and writing of the novel, personal friends and frustrations, his contact with Alex Miller and other writers, and giving insight that is lacking from much of the other compositional data.

Our dealings with Ouyang Yu's born-digital records have been salutary. As an archivist, upon purchasing or acquiring by gift a laptop from a writer, you hope that you are acquiring a complex, multivalent workspace, with its varied and multifaceted connections, contextual data, links and networks, providing a more complete picture of the full life of a writer. That is what a complex digital carrier like a laptop enables collectors of literary digital manuscripts to acquire. However, deletions and gaps in the record are also valuable, telling us much. Professional and ethical issues surrounding deleted and related forensic digital content is something more and more collecting institutions are dealing with. This is a topic that must be handled carefully, and on a case-by-case basis.[31] It is something that State Library Victoria will engage with when it comes to work on its digital carriers. For a variety of social, cultural, political and personal reasons, archival attrition is a inherent feature of historical and literary archival collections.[32] Silences in recorded discources are inevitable, and intentional digital attrition, the editing out by discarding or deleting, is the prerogative of the writer. However, more sustained contact between writers and collecting institutions are seen as necessary for both in the born-digital world. There is a need to cement a more complex understanding not only of the writer's craft in the digital space, but the world of the institutional digital collector as the agent for posterity.

Challenges and accessibility of digital literary collections

The writers discussed above have handled their creativity and recordkeeping in the digital space in quite distinct ways. Each writer has positioned themselves at different points on the digital literary spectrum according to their needs and creative styles. Peter Carey fully engaged with the digital space from the outset of his writing career; writers like Sonya Hartnett and Alex Miller moved, and continue to move, in and out of that space as their needs require; while Ouyang Yu transitioned completely to the digital space at a certain point in his career. As such the physical and digital components of a writer's output require some thought and preparation before access can be facilitated, and certainly before their digital component, the digital files, are fully ingested into an institution's digital repository and ready to be securely and fully accessible by users. As Leigh Rosin has perceptively noted, 'principles that are well-established and work well for traditional, non-digital collections may be challenging to apply' in the digital space.[33] Very little born-digital literary content arrives in a structured and easily identifiable fashion, or with a standard single file-type. In our experience at State Library Victoria, writer Peter Carey has been the only writer whose work is fully immersed in the digital space, out of which emerge logical and systematic file structures that are the key to his writing. More often than not legacy digital components of literary collections reflect how a writer has used this space and at what point in their creative process for a particular work. As such many literary collections present multiple technical and ingest challenges, as well as issues in enabling full emulation.

For State Library Victoria, decisions concerning access to these collections rests upon a host of curatorial challenges that will be tackled with the full implementation of a digital forensics programme combined with utilisation of our digital preservation system Rosetta. Decisions here will rest upon establishing workflows for forensics, arrangement and description, and ingest. Fixity and checksums for digital content, that is establishing the stability of the contents of a migrated file (the finger-print zeros and ones) is something Rosetta will allow us to undertake and to monitor over time. This is a primary requirement of a digital preservation system.

Secondly, prior to ingest, it will be necessary to make decisions about what constitutes original format, how we identify significance, and what the function of the born digital items may be, that is 'where they sit along … [the digital] spectrum'.[34] In the content-versus-context debate decisions centre upon both preservation and access, which emulation and migration address.[35] However, it is not a given that every digital file should be emulated with all its behaviours. Consequently, identifying the significance of files within collections will be crucial. For some digital files content will be primary, and the carrier, and possibly the operating system, will not ultimately need to be retained. In such instances creating derivatives is all that is necessary. For others the content plus the context of creation – the operating system – will be primary. This is a decision we have already made for the acquisition of Peter Carey's laptop on which 'True History of the Kelly Gang', was written for example. The operating systems will be less imporant for the other writers examined, though this will not be fully known until files are surveyed in detail.

However, whether or not a further level of conservation complexity needs to be introduced by keeping the carriers, for example the laptops, is a question that needs to be considered only in select cases. Our current position is that not all carriers are significant. Carriers degrade and invariably require intermediary devices for full functionality. It is therefore important to pull data off carriers when they arrive, especially if they hold no enduring context to records creation, or possibly display significance. Long-term, it will not be necessary to retain floppy disks, flash drives and other disks and inject devices; ultimately degradation will catch up with all digital carriers.

Conclusion

State Library Victoria has acquired writers' laptops and related digital carriers as a matter of course, as the examples of Peter Carey, Alex Miller, Sonya Hartnett and Ouyang Yu have shown. As a collecting institution, we will continue to collect other writers' carriers, as the sole means of acquiring, for posterity, their unique contents and complex digital working space. However, as these case studies have shown, digital engagement and the nature of imaginative creation in the digital space, and how it is being used, is rapidly evolving. As archival anthropologists should we be intervening in records creation, in what Yeo calls the 'shaping of collections over time',[36] or should we be observing the organic growth and development of new phases of personal and public literary recordkeeping and documenting that if, and when, it becomes available?[37] In considering the title of this paper, 'issues and encounters with Australian writers', there are a number of lessons we have learned, especially with the writers discussed above, since we begun collecting born-digital literary content nearly twenty years ago.

- Primary Questions: Most writers we have worked with are often surprised that a manuscript department acquires digital content. Peter Carey, for example, places considerable importance on his digital content as his primary literary output. Other writers are not necessarily aware of the long-term importance of digital literary content, and are still firmly wedded to physical files, the materiality of their output, despite using digital technology in the creation of that literary output. Therefore, always ask about digital files and the transfer of these as part of the literary archive.
- Let writers know you collect carriers – USBs, hard drives, laptops, floppy discs – any device on which a writer has created literary and related content is important. Acquiring carriers enables the seamless transfer of digital records, and removes the stress of transfer process for the writer.
- Advise a writer to never delete or clean-up. Writers are more inclined to 'throw out' digital content than physical records, drafts, letters and related physical documents. Again, a writer can be daunted by the sheer labour of retrospective digital reordkeeping, or panic at the thought of privacy issues, and their immediate tendency is to delete, to wipe, or just transfer selected content to an external drive for deposit in an archive.
- Privacy can always be managed. It is something that as a manuscripts department we deal with on a regular basis. Private digital content can be managed, over time, in a secure and safe environment with various access conditions and arrangements for the lifetime of the writer or other people concerned. Providing examples of how as an institution we securely deal with private and confidential information can often enable the transfer of sensitive collection material by a hesitant creator.
- If a writer wishes to curate, delete, or bring in a digital specialist to selectively wipe and transfer content from one carrier to another as part of their personal recordkeeping, or before transfer to an institution, acccept this with good grace. Gaps and archival spaces in recordkeeping are a part of the literary and historical record. Consider silence, gaps in the record, a literary legacy and meaningful category.
- In the acquisition process always explain how digital content will be managed over time. For many writers this can be a revelation. While the future life of their books has been considered, the future life of literary digital archives rarely has the same gravitas. The relationship between writer and institutions, the consultation process, does not necessarily end with the passing over of the content. Donor relationships in archival collecting are often enduring, potentially more so with digital content where legacy carriers are yet to be fully processed, described, and made publicly accessible.
- Realise that writers need to be talked through a process like the acquisition or transfer of digital content. It is often not enough to send a letter or guide. Face-to-face contact is, in our experience, much more necessary when dealing with digital literary archives and explaining how these will be managed and made accessible in the future.
- Always document what the writer tells you about legacy carriers and files, how they were used, when, and in what circumstances, including what has been lost, discarded, or changed. Encourage professional valuers, as experts and third party

players, to document in detail their observations and accounts of literary production in their relevant reports for your institution.[38]

These lessons from the collecting of digital content by State Library Victoria are deliberately end-of-life-cycle lessons. In most instances digital carriers are viewed as additional though lesser components of a writer's literary archives, an afterthought. For example, the most recent high-profile writer to approach the Library has offered only physical drafts of completed works although these were undertaken on a digital inscription platform. While early intervention with users of the digital space is a desired and realistic approach for business organisations, societies, independent agencies, and some personal digital collections, it is perhaps not always welcome or philosophically appropriate with literary archives. End-of-life-cycle collecting of digital content seems likely to continue for many institutions, including our own, the inevitable result being the acquisition of digital content in different stages of organisational complexity. In these circumstances user availability for our digital literary collections is likely to be progressive, with 'availability staged, freeing content first before other born-digital functionality relating to the original operating system'.[39]

As an institution dealing with workflows for digital literary collections we are favouring a balance between progressive user access and long-term preservation. Emulation, as some institutions have found, can be expensive, technically demanding, and sometimes not completely successful.[40] Ultimately it needs to be made clear to users just what it is they are looking at and what interventions have been made. For the Rushdie collection, Emory University made important decisions in terms of data enhancement to original digital files, to make clear what researchers were seeing in an original 'operating system' in an emulated environment.[41] Other institutions, like North Carolina State University Library, have taken a different approach, leaving digital files as they are but running a selection of programs over these objects, extracting metadata from disk structures and displaying in a virtual filesystem browser. In effect, 'leveraging … metadata for description and resources discovery', without intervention. This allows the user to both contextualise and determine the usefulness of the files for their particular needs.[42] The nature of file formats is central in any debate on the long-term fixity of all digital collections, not just digital literary collections. State Library Victoria through the National and State Libraries of Australasia (NSLA) has been involved in supporting projects on the creation of a file format registry.[43] Currently, the Library is not restricting the type of files it will be acquiring, and there are a wide variety in our digital literary collections and other born-digital manuscript archives. The thinking here centres upon our current understanding of file types and file degradation. However, local and international research on file types and degradation is still at an early stage and our knowledge of what we lose in migration is quite limited. Once further research on digital formats becomes available, this decision on what file types we collect could be reviewed.

Finally, it is clear from the work at State Library Victoria and experiences of other collecting institutions that one of the primary curatorial challenges of professionally managing digital literary content is the harnessing of a range of expertise within an institution for a successful outcome. Establishing meaningful workflows for digital literary works – covering acquisition, forensic analysis, arrangement and description,

preservation ingest, through to access for users through customised viewers or virtual spaces – requires careful consideration and institutional commitment to be fully successful. It is a position that State Library Victoria is currently working towards.

Notes

1. Sue McKemmish, 'Evidence of Me . . . ', *Archives and Manuscripts*, vol. 24, no. 1, 1996, p. 42.
2. ibid.
3. Note should be made of the Australian novelist and inveterate journal writer Morris Lurie, who adhered strictly to his typewriter as a mode of composition, and to his fountain-pen to write his journals, something he considered an enduring literary art form. Lurie is an interesting counterpoint in the digital literary age because of his refusal to compose anything in digital form; see *The Australian Magazine*, April 2008; and obituary article, *The Australian*, 9 October 2014.
4. Sarah Slade [Manager, Project Office, State Library Victoria], 'Accessible, Intuitive, Powerful, Digital', Australian Society of Archivists, Victorian Branch Newsletter, November 2017.
5. ExLibris, 'Upgrading to ExLibris Rosetta', <*https://www.proquest.com/documents/Upgrading-to-Ex-Libris-Rosetta.html*>, accessed December 2018.
6. This approach is a standard institutional strategy as noted in the British Library's Digital Lives Project, see Jeremy Leighton John, *Digital Lives, Personal Digital Archives for the 21st Century: An Initial Synthesis, British Library*, 2009, pp. x–xi, <*http://britishlibrary.typepad.co.uk/files/digital-lives-synthesis02-1.pdf*>, accessed May 2019.
7. In 2018 the State Library began an internal restructure; the outcomes of this will be finalised by mid-2019.
8. Lachlan Glanville, 'Hexed – Discoveries and Challenges in Archiving Born-digital Records', <*https://blogs.unimelb.edu.au/archives/hexed-discoveries-and-challenges-in-archiving-born-digital-records*>, accessed September 2018.
9. Interview, Sarah Slade with Kevin Molloy, 15 December 2018; and Slade, 'Accessible, intuitive, powerful digital', <*https://blogs.slv.vic.gov.au/our-stories/accessible-intuitive-powerful-digital/*>, accessed November 2018.
10. Rowan Wilkin, 'Peter Carey's Laptop', *Cultural Studies Review*, vol. 20, no. 1, 2014, pp. 100–120; Steve Meacham, 'A Writer's Craft is Now a Ghost on the Machine', *Sydney Morning Herald*, 7 January 2012; and Rachel Buchanan, 'Sweeping up the ashes', *Australian Book Review*, no. 337, December 2011–January 2012.
11. It is interesting to note Salman Rushdie's comment on considering his first use of the computer as a 'sophisticated typewriter', see Laura Carroll, Erika Farr, Peter Hornsby and Ben Ranker, 'A Comprehensive Approach to born-Digital Archives', *Archivaria* 72, Fall 2011, p. 65.
12. For example, in 2016 National and State Libraries of Australasia (NSLA) hosted a number of digital forensic workshops at SLV for practitioners in collecting institutions in Australia, taught by Christopher 'Cal' Lee, forensics expert on the BitCurator and Access project at the University of North Carolina, <*https://sils.unc.edu/news/2016/lee-nsla*>, accessed December 2018; for details on BitCurator and Access see Christopher A Lee, Kam Woods, Matthew Kirschenbaum and Alexandra Chassanoff, 'From Bitstreams to Heritage: Putting Digital Forensics into Practice in Collecting Institutions', *BitCurator Consortium*, 20 September 2013, <*https://bitcuratorconsortium.org/publications-and-presentations*>, accessed November 2018.
13. Reagan Moore, 'Towards a Theory of Digital Preservation', *The International Journal of Digital Curation*, vol. 3, no. 1, 2008, pp. 70–71.
14. See Carroll et al., pp. 61–92, a case study on the Salman Rushdie collection at Emory University; and Leigh Rosin, 'Applying Theoretical Archival Principles and Policies to Actual Born Digital Collections', *Archive Journal*, November 2014, <*http://www.archivejournal.net/notes/applying-theoretical-archival-principles-and-policies-to-actual-born-digital-collections*>, her case study on theatre company records at the National Library of New Zealand.

15. Suzanne Annand, Sally DeBauch, Erin Faulder et al., 'Digital Processing Framework', August 2018, <*https://ecommons.cornell.edu/handle/1813/57659*>, accessed September 2018.
16. Devin Becker and Collier Nogues, 'Saving-Over, Over-Saving, and the Future Mess of Writers' Digital Archives: A Survey Report on the Personal Digital Archiving Practices of Emerging Writers', *The American Archivist*, vol. 75, no. 2, Fall/Winter 2012, p. 484.
17. Early terms for this generation included 'digital natives' and 'digital immigrants'; see Mark Prensky, 'Digital Natives, Digital Immigrants Part 1′, *On the Horizon*, vol. 9, no. 5, Septermber/October 2001, pp. 1–6.
18. Alison Summers, pers. com., 'File Notes', Provenance File MS 16237, Manuscripts Collection, State Library Victoria.
19. Personal Communication, Paul Eggert, FAHA to Kevin Molloy October 2010; Email, Eggert to Kevin Molloy, 30 December 2018.
20. Carroll et al., pp. 83–84.
21. See Kevin Molloy, 'Reflections on the Appraisal and the Valuation of Born-digital collections: Looking for Dollar Values', NSLA Heritage Collections Forum, Queensland, Australia, May 2015, <*https://www.nsla.org.au/resources/heritage-collections-forum-2015*>, accessed November 2018.
22. Email, Peter Carey to John Thompson, 27 September 2012, Manuscripts Collection Provenance File, SLV, MS 14783.
23. See, for example the draft chapters of Autumn Lang, MS 13963 SLV Manuscripts Collection, Boxes 27–30.
24. Email, Alex Miller to John Thompson, 14 April 2010, Manuscripts Collection Provenance File, SLV, MS 13963.
25. John Thompson to Kevin Molloy, Valuation Report, 23 April 2007, Manuscripts Collection Provenance File, SLV, MS 13963.
26. Susan Thomas, *Guidelines for Library Staff Assisting Donors to Prepare their Personal Digital Archives for Transfer to NSLA Libraries*, NSLA, 2011, <*https://www.nsla.org.au/index.php/resources/assisting-donors-prepare-their-digital-archives*>, accessed December 2018.
27. Sonya Hartnett, 'Backup of Redmond Barry Speech', 09.08.2012, digital file, Manuscripts Collection, State Library Victoria, RA.2013.51, n.p.
28. For details on Yu's literary output see his current website: <*http://www.otherlandpublishing.com*>. For related background, see also Dan Huang, 'Chinese Culture Cures: Ouyang Yu's Representation and Resolution of the Immigrant Syndrome in the Eastern Slope Chronicle', *Antipodes: A North American Journal of Australian Literature*, vol. 23. no. 2, 2009, pp. 179–84.
29. Email, Ouyang Yu to Kevin Molloy, 6 April 2018. See also Amelia Dale and Ouyang Yu, interview, *Cordite: Poetry Review*, 1 February 2018, <*http://cordite.org.au/interviews/dale-yu*>, accessed April 2018.
30. Email, Ouyang Yu to Kevin Molloy, 14 March 2018.
31. For Emory University's handling of these issues in relation to the Rushdie Collection see Carroll et al., pp. 67–68.
32. David Thomas, Simn Fowler and Valerie Johnson, *The Silence of the Archive*, Neal-Schuman, Chicago, 2017, pp. 57, 175.
33. Leigh Rosin, 'Applying Theoretical Archival Principles and Policies to Actual Born-digital Collections', *Archive Journal*, November 2014, <*https://www.archivejournal.net/notes/applying-theoretical-archival-principles-and-policies-to-actual-born-digital-collections/*>, accessed January 2019.n.p.
34. Sarah Slade [Manager Project Office, State Library Victoria], 'Accessible, Intuitive, Powerful Digital', 29 November 2017.
35. Consider the approach taken with the Salman Rushdie papers, Carroll et al., pp. 76–78.
36. Thomas et al., p. 57.

37. Digital anthropology, sometimes referred to as digital ethnography is a new and evolving discipline; for background see Heather A Horst and Daniel Miller (eds), *Digital Anthropology*, Bloomsbury, London, 2013.
38. In Australia collection valuations for purchase, or gift under the Federal Governments Tax Incentive Cultural Gift Scheme requires detailed valuations to be undertaken by registered independent valuers. This independent engagement by a third party often requires some contact with writers whose collections are being valued. Often this contact elicits valuable contextual information on the writer's craft and creative methodologies that are crucial for understanding digital literary content.
39. Interview, Sarah Slade with Kevin Molloy, 15 December 2018.
40. Carroll et al., pp. 78–79.
41. ibid., p. 86.
42. Brian Dietz, 'Let the Bits Describe Themselves', <*https://saaers.wordpress.com/2016/01/07/let-the-bits-describe-themselves/*>, accessed May 2019; Jason Evans Groth, 'Let the Bits Describe Themselves: Arrangement and Description of Born Digital Objects', <*https://www.lib.ncsu.edu/news/special-collections/let-the-bits-describe-themselves%3A-arrangement-and-description-of-born-digital-objects*>, accessed May 2019.
43. Peter McKinney, Steve Knight, Jay Gattuso, David Pearson, Libor Coufal, David Anderson, Janet Delve, Kevin De Vorsey, Ross Spencer and Jan Hutař, 'Reimagining the Format Model. Introducing the Work of the NSLA Digital Preservation Technical Registry', 2014, <*https://digitalpreservation.natlib.govt.nz/assets/NDHA/Publications/2014/NSLA-Format-Model-NRIN-redraft.pdf*>, accessed December 2018.

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