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We are archivists, but are we ok?

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I'm a lumberjack
And I'm ok.
I sleeps all night
And I works all day.

I cut down trees
I eat my lunch
I go to the lavatory
On Wednesdays I go shopping
And have buttered scones for tea.

Monty Python: The Lumberjack Song.

Abstract

The digital environment of the early twenty-first century is forcing the information sciences to revisit practices and precepts built around paper and physical objects over centuries. The training of archivists, records managers, librarians and museum curators has had to accommodate this new reality. Often the response has been to superimpose a digital overlay on existing curricula. A few have taken a radical approach by scrutinising the fundamentals of the professions and the ontologies of the materials they handle. Our purpose is to explore a wide range of the issues exposed by this critique and challenge the archive and records management educators to align their curricula with contemporary need and to recognise that partnership with other professionals, particularly in the area of technology, is essential.

Introduction

The information landscape in which archives and records management sit is being transformed by the impact of information and communications technologies (ICT) that not only seeks to dominate it, but also challenges many of the old certainties from the creation of information objects to their curation, privileging and access. The question for archivists and records managers is to what extent ICT represents an epistemological shift or is simply an extension of existing practices in a new order. Whatever the response, the relationship of archivists, librarians and museum curators with the ICT community cannot be avoided. In a digital environment where there are no physical strong rooms

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information professionals can no longer claim a monopoly of custodianship. If physical custody of objects ceases to be a core purpose, where does that lead the information professions? For records managers and archivists operating within an audit and compliance culture, there is an accompanying post-custodial issue of whether there can be an 'archival imperative', as was often the case by happenstance in the analogue world. If there is, then what are the drivers and what is the purpose?

The Societal Dimension

The record life-cycle and continuum models are built unquestioningly on the premise that managing and archiving information are two sides of the same coin.² This stems from a pre-occupation with process and technology and a lack of consideration of the function of the two activities within an organisation. The management of information, as the term implies, must be integral to overall strategic goals within a framework of risk and competitive advantage.³ This activity when it migrates into a digital environment inevitably becomes more expensive and complex,⁴ particularly when efforts are made to leverage the so-called knowledge base.⁵ To compensate for higher costs the risk of loss or competitive advantage to be gained through retention must be greater. No purpose is served by preserving information, even for the length of retention periods mandated by external agencies, if the cost of preservation far outweighs any projected costs associated with the risk of not doing so.⁶ There is no point in retaining information from which no identifiable benefit can be expected or which can be sourced elsewhere. Gone are the days when information can be laid down like wine in the hope that it will improve on keeping or someone some day will find a use for it. In the majority of private sector organisations there is no longer, if there ever was, any archival imperative, because the risk and costs associated with long-term retention are too great.⁷ Organisations may need to keep a little

² For discussion of the less familiar continuum model, see <http://www.sims.monash.edu.au/research/rcrg/>. Cited April, 2006. Michael Moss 'Archivist: friend or foe?' *Records Management Journal*, 2005, 15 (2) draws a sharp distinction between records management and archiving.

³ Anthony Willis Corporate governance and management of information and records, *Records Management Journal*, 2005, 15 (2) sets records management in just such a context. There are also useful references on the Gartner website <http://www.gartner.com/> (April, 2006), see for example Mark R Gilbert and Deborah Logan, Records Management Essential for Risk Management, 21 March 2003. Many records management texts define risk as the downstream activity of security, failure of systems and business recovery, see for example *MoReq Model Requirements For The Management Of Electronic Records* (Luxembourg, 2003) <http://www.cornwell.co.uk/moreq.html>. Cited April, 2006. The University of Washington advises its staff, 'Completing a Risk Assessment involves determining the probability of a particular disaster occurring in your office and the effects that disaster may have on the operations of your office or your records. A Risk Assessment also helps you determine which protection method is best for your records', <http://www.washington.edu/admin/recmgt/risk.assessment.html>. Cited April, 2006.

⁴ See for example the CENDI Cost Study prepared by Robert Ubell (1997), <http://cendi.gov/publications/ubell-97-3.html>. Cited July 2006.

⁵ see for example *Inside Knowledge*, <http://www.kmmagazine.com/about.asp>. Cited July 2006. and *The Knowledge Board*, <http://www.knowledgeboard.com/item/2738/23/5/3>. Cited July 2006.

⁶ Brien Brothman discusses this in his thought provoking essay, 'Afterglow; Conceptions of Record and Evidence in Archival Discourse', *Archival Science*, 2002, 2, 311-42. T D Wilson, 'The nonsense of knowledge management', *Information Research*, 8 (1), October 2002, provides a trenchant criticism of the subject, condemning it as a bandwagon that 'lacks wheels', available at <http://informationr.net/ir/8-1/paper144.html>. Cited April, 2006.

⁷ This view is contentious. The Business Archives Section of the Society of American Archivists declares: 'The corporate archivist selects and preserves the key documents that reconstruct a company's history, products or services, and development. The result is a unique corporate asset--information and documentation that can be used for important legal, marketing, communications and financial decisions. A business archives can give

information for long periods, but certainly not ‘for ever’ or within a public domain, although there is always a risk of legal discovery. There are records that enter the public domain as an outcome of governance and there is no necessity for a private sector organisation to retain any additional information in the long term to be deemed to be accountable and to have acted responsibly. There is a responsibility on those to whom such reports are made to retain them in a publicly assessable form for long periods that may faute de mieux become for ever.⁸

This is not the case in the public sector or, arguably, with NGOs where accountability and responsibility are not as straightforward.⁹ The public expects government to accept a much greater degree of risk than the private sector. However transparent government and NGOs try to be, there are many areas where full disclosure is not possible until long after the event. The archive holds records fiducially as public guarantor that government can be called to account and deemed to have acted responsibly. In Hilary Jenkinson’s words ‘to provide, without prejudice or afterthought, for all who wish to know the Means of Knowledge’.¹⁰ This is an essential safeguard of our democratic freedom. Although there is undeniably a link with the management of current information, there are dangers in conflating the two roles in the same way as there would be in conflating internal and external audit. Increasingly public sector organisations operate within a similar risk aware environment as the private sector, where the objective is to contain costs and mitigate risk.¹¹ It is not difficult to envisage that such an approach will result in either the failure to retain or the destruction of information that would prevent the archive from doing due diligence to the public to whom it is accountable in democratic societies.¹²

This is not to say that government liability cannot be constrained, of course it can and must, but the checks on government are not as robust as in the private sector. There are no institutional shareholders and there is no price mechanism to reflect value. Consequently the boundary at which ‘closure’ is deemed to occur will correctly be contested through the courts, particularly where personal rights and

managers perspective and the ability to make decisions today confident that they understand the historical context’, http://www.archivists.org/saagroups/bas/Intro_bus_arch.asp. Cited April, 2006. This may be true, but there is no requirement for any organisation to create and maintain an archive.

⁸ A good example in the United Kingdom are the annual returns made by companies to Companies House, <http://www.companieshouse.gov.uk/>. Cited April, 2006.

⁹ There is a considerable literature on the nuances of concepts of accountability and responsibility, particularly within the audit framework, and there are cultural differences. O’Neill, Onora, in her 2002 BBC Reith Lectures ‘A Question of Trust’ brilliantly explored this theme, <http://www.bbc.co.uk/radio4/reith2002/>. Cited April, 2006. The concept of the audit society was coined by Power, Michael, (1997) Audit Society: Rituals and Verification, Oxford University Press, Oxford. Marilyn Strathern (2000) has penetratingly observed the audit society from an anthropological perspective in a number of studies, particularly relevant here is ‘Abstraction and decontextualisation: an anthropological comment or: e for ethnography’, <http://virtualsociety.sbs.ox.ac.uk/GRpapers/strathern.htm>. Cited April, 2006, and Strathern, Marilyn (ed) (2000), Audit cultures: Anthropological studies in accountability, ethics and the academy. Routledge, London & New York.

¹⁰ Jenkinson, Sir Hilary, (1980) ‘The English Archivist: A New Profession’, Ellis, Roger H. and Walne, Peter (eds.) Selected Writings of Sir Hilary Jenkinson, Alan Sutton, Gloucester, 258.

¹¹ See for example for the United Kingdom, HM Treasury (2004) The Orange Book Management of Risk: Principles and Concepts London, http://www.ogc.gov.uk/sdtoolkit/reference/ogc_library/related/orange-book.pdf. Cited April, 2006.

¹² This tension was highlighted by the Heiner affair in Australia. In 1990 the Queensland Government ordered the destruction of the records of an investigation, still in progress, by Noel Heiner into allegations of abuse at a young offenders institute. The permission of the state archivist was sought and given, leading to a decade of soul searching by the Australian archival profession, McKemmish, Sue, Pigott, Michael, Reed Barbara, and Upward, Frank (2005) Archives: Recordkeeping in Society. Centre for Information Studies, Wagga Wagga, 245.

liberties may have been infringed.¹³ Although there is an increasing coercive audit culture in the public sector, the measures adopted to impose it are questionable and inhibit the very reflection that the archive permits.¹⁴ The public archive with the protection of the courts should have the powers to insist on a standard of record keeping that will allow it to discharge its responsibilities in much the same way as any external regulator in the private sector.¹⁵ At times archivists may find themselves aligned with political opposition in seeking to curb the power of the executive to limit liability.¹⁶ Managing such exposure, just as in the private sector, is an executive responsibility with appropriate internal control mechanisms.¹⁷ In the digital environment the archive will need to liaise with information managers about technical specifications and standards, but arguably these should be seamless across government and cannot be mandated by the archive alone.¹⁸ The pre-occupation of the archive should be with the adequacy of the captured content (the constant) as a 'true and fair' record, not with technical niceties.

Records of organisations in both private and public sectors have always been amplified by private papers. The extent to which archivists should seek their control has been the subject of debate.¹⁹ What has been overlooked is how far individuals within a culture of audit can legitimately create or hold records that concern organisations with which they are involved or for which they work. In the private sector multi-nationals often insist that 'all information' belongs to them, and even in the public sector there is a tendency towards control, particularly where the 'national interest' is involved.²⁰ Although it is the case that the very act of depositing records in an archive robs them of context, individuals must have the confidence that when they entrust papers to the safe keeping of an archive

¹³ Truth and reconciliation initiatives neatly encapsulate this inherent tension between redressing wrongs and the need for closure, see for example Harris, Verne, (2002), 'Truth and Reconciliation an exercise in forgetting?', <http://www.zmag.org/content/showarticle.cfm?ItemID=2576>. Cited April, 2006. Du Pisani, Jacobus A. and Kim, Kwang-Su (Fall 2004), 'Establishing the Truth about the Apartheid Past: Historians and the South African Truth and Reconciliation Commission', *African Studies Quarterly*, 8 (1). 'It is almost as if forgiveness and reconciliation, derived from Christian ideas about confession and absolution propagated forcefully by Archbishop Tutu, were more important to the TRC than truth'. 8.

¹⁴ See Shore, Cris, and Wright, Susan (2000) 'Coercive accountability', in Strathern (ed.) (2000) 57-89, and for examples of measures in the UK see the government sponsored Public Sector Benchmarking Service (PSBS), <http://www.benchmarking.gov.uk/site/risksiteinfo.asp>. Cited April, 2006.

¹⁵ Chris Hurley rightly criticises the lack of fiduciary independence of most archive authorities in western democracies and he argues 'are neither fit nor capable of acting independently as agents of democratic accountability in the manner of courts, accountants, auditors, and ombudsmen', Hurley, Chris (2005) 'Recordkeeping and accountability', in McKemmish et al. (eds.) 247-8.

¹⁶ See for example Harris, Verne, Hatang, Sello, (2002) 'Reviewing South Africa's access act after one year', http://www.wits.ac.za/saha/publications/FOIP_1_2_HarrisHatang.pdf. Cited June 2006.

¹⁷ 'The management of risk is a fundamental purpose of government. Whether risks arise from the physical environment, the economic environment, or even from changes in voter preferences, public institutions have a broad responsibility to assess and address the risks that impact the community they serve and their organisation', Fone, Martin, and Young, Peter (2000) *Public Sector Risk Management*, London.

¹⁸ Currall, James, McKinney, Pete, and Johnson, Claire (2006) 'Digital Preservation as an Albatross', pre-publication draft at <https://dspace.gla.ac.uk/handle/1905/535>. Cited April, 2006.

¹⁹ McKemmish, Sue (1996) 'Evidence of Me . . .', *Archives and Manuscripts*, 24:(1), Harris, Verne (2001) 'On the Back of a Tiger: Deconstructive Possibilities in 'Evidence of Me'', *Archives and Manuscripts*, 29:1, Upward Frank, McKemmish, Sue (2001) 'In Search of the Lost Tiger, by Way of Sainte-Beuve: Re-constructing the Possibilities in 'Evidence of Me...'' *Archives and Manuscripts*, the journal of the Australian Society of Archivists, 29:1.

²⁰ See for example *Ford Standards of Corporate Conduct*, 5 and 19, available at www.ford.com/.../corporateConductStandards.pdf. Cited November 2005.

their integrity cannot be jeopardised by executive interference. Archival involvement in the creation of information, however well intentioned, will give this impression, as will claims for authority over final appraisal.²¹ The concept of a ‘trusted repository’ becomes more difficult to sustain in the digital environment where strong rooms are replaced by filestore that has no such visible security. Ironically, probably more people today hoard personal papers than ever before, albeit in a digital environment, because destroying them is not as simple as throwing pieces of paper in the bin. Unlike bits of paper that we keep, it may not be possible to access them for very long unless steps are taken to migrate them to new platforms.²²

RM/Archives/Libraries relationship

Government is held to account by testing how far its record corroborates its public statements at the time in support of an action when the underlying documentation is eventually released into the public domain. This is, as it were, a form of retrospective audit that we chose to call history. The custody of public statements, both from private and public sectors, is certainly not confined to the archives. National and local newspapers are to be found in libraries, along with printed reports and circulars.²³ In the United Kingdom, as in many other jurisdictions, government published papers have traditionally been preserved in the British Library and not the National Archives.²⁴ As such proceedings are migrated with supporting evidence into the digital environment, this custodial chain becomes less certain.²⁵ The reports of the Hutton and Butler inquiries into events surrounding the war in Iraq in 2003 were published in a conventional sense, but the large body of evidence accumulated by Hutton was only made publicly available on the inquiry website. There is no information as to how this will be preserved in the way, for example, the evidence of nineteenth century inquiries was published and deposited in libraries and have become a rich store for historians.²⁶ Such contemporary opinion often provides the context for the interpretation of the underlying documentation.

²¹ Brothman (2002) 326, observed: ‘It remains moot, therefore, whether archivists are in the business of taking measures to preserve records as vessels reliably carrying intended meaning or in the business of evoking and then proficiently capturing incontestable organizational truthfulness of fact as expressed by injecting “recordness” in “information” systems’. He concludes that the resulting ‘significant drift from a concern about the faithful recording of human or corporate expressions, to specifying when such recording should take place, and, then, to developing specifications for truth-telling when recorded expression does take place – these are huge philosophical jumps’.

²² There are many initiatives that are seeking to address this problem, for example in the United Kingdom, the Digital Curation Centre, <http://www.dpconline.org/graphics/index.html>, cited April, 2006, the National Preservation Office in the British Library <http://www.bl.uk/services/npo/npo.html>, cited April, 2006), The National Archive at Kew, <http://www.nationalarchives.gov.uk/preservation/digital.htm> cited April, 2006, and Jill Hurst-Wahl’s Digitisation 101 site http://hurstassociates.blogspot.com/2005_09_01_hurstassociates_archive.html. Cited April, 2006.

²³ For an interesting discussion of newspapers see McKitterick, David (ed.) (2002), Do we want to keep our newspapers? London.

²⁴ The recent announcement that The National Archives and The Office of Public Sector Information (OPSI) are to merge suggests that this may no longer be the case, <http://www.egovmonitor.com/node/6422>. Cited July 2006.

²⁵ Although the British Library supports UK Government Electronic Document Store on the Web (<http://www.bl.uk/collections/social/eresources/egovsupp/egovsuppindex.html>. Cited April 2006), this facility can only be accessed for copyright reasons at the British Library.

²⁶ <http://www.the-hutton-inquiry.org.uk/index.htm>. Cited June 2006. Howard Ripley of the Department of Constitutional Affairs replied to a query from Michael Moss on 5 April 2006, ‘To answer your question, there are currently no plans to take the Hutton Inquiry web-site off line. Because the web-site is still live, no plans have yet been finalised for the archive or future proofing of the content’.

This ambiguity touches on much wider issues about the nature of custodianship in the digital environment that has concerned library and information sciences for some time. Some commentators have postulated the death of the library as a physical entity, but not of the privileging skills of librarianship and other information professionals, because they see no need to capture digital data in the same way as they purchased content in the analogue world.²⁷ This is a useful distinction that mirrors archival post-custodial thinking.²⁸ In both domains it is argued that users will still need resource discovery tools that go beyond those provided by propriety search engines. Such a beguiling notion needs to be approached with caution. Across the information domains cataloguing is dominated by supply side considerations that trade the simplicity and cheapness of free-text searching for the expensive handicrafts of mark-up and elaborate schemas for metadata and controlled vocabularies that are of unproven and even dubious utility.²⁹ There is place for such techniques, just as there is a place for critical editions of texts in the analogue world, but cost and technical constraints suggest that they cannot be easily generalised.³⁰

Commentators, who see a continuing role for information professionals in supply, seem to be getting at something much more subtle and profound than the Byzantine complexity of such ‘fool’s errands’.³¹ Their concern centres on the much-discussed lack of intermediation of a great deal of web-based information, which cannot be resolved, however much editors and publishers familiar with print would like, by trying to impose an analogue culture on the digital environment.³² Sociologists and anthropologists have demonstrated convincingly that the web enables multiple sites of production that work with the grain of societal expectations.³³ We all can, and many of us do, ‘publish’ our thoughts and ideas on the web, and few can hinder us even if what we say is scandalous, subversive or offensive. Although print-culture publishers do distribute materials electronically, much of the content can only be accessed through portals on receipt of payment. This means that the majority of freely available content discovered by search engines lacks any form of explicit mediation except for the

²⁷ See for example Atkinson, R (1990) ‘Text mutability and collection administration’, Library Acquisitions: Practice and Theory, 14, 355-8, Miksa, Francis (1996) The Cultural Legacy of the “Modern Library” for the Future - an expanded form of an address to the annual meeting of the Association for Library and Information Science Education (AKLISE) in San Antonio, Texas, 17th January 1996, <http://www.ischool.utexas.edu/~miksa/intro1.html>. Cited June 2006. Cited April, 2006. Buckland, Michael (2005) A monk, library science and the information age. <http://www.sims.berkeley.edu/~buckland/huminfo.pdf>. Cited April, 2006.

²⁸ Tough, Alistair G (2004) The Post-custodial/Pro-custodial Argument from a records Management Perspective. Journal of the Society of Archivists, 25, (1).

²⁹ Many digital library programmes adopt such strategies, see for example those listed at <http://bubl.ac.uk/link/d/digitallibraryprogrammes.htm>. Cited April, 2006.

³⁰ Pitti, Daniel (2004) Designing Sustainable Projects and Publications, in Schreibman, Susan, Unsworth, John A Companion to Digital Humanities, , (eds.) Blackwell Publishing, Oxford.

³¹ Francis Miksa expresses such a perspective well when he writes: ‘To me the chief issue is not to devise strategies which the modern library and LIS education can use to preserve itself against such change, as if they were some sort of sacred cows which must continue in their original forms at all costs. Rather, it is to identify the significant aspects of the new environment which give the most promise for assisting in the creation of a new library era, for assisting in the transformation of the modern library into a new expression of the library in society’, Miksa (1996) ., chapter ‘The Challenge of a New Environment’.

³² See for example Lee, H.-L (2000) What is a Collection?. Journal of the American Society for Information Science 51 (12).

³³ See for example Strathern, Marilyn (2003) Redescribing Society. Minerva, 41(3), 263-276, and her (2004) Commons and Borderlands. Sean Kingston, Wantage.

underlying algorithms that identified and ranked it.³⁴ The way forward is twofold, improving the triangulation skills of the digital consumer and enhancing the concept of archives, libraries and museums as switching centres that provided pointers for consumers to resources that are held externally (we will return to these themes). The information centre then becomes a bridge between the resource the private space of the consumer – the content (archive, library or museum if you will) of the personal computer and its surrounding litter.³⁵ Many curators of information find such a vision, apparently very distant from their analogue role, threatening. They retreat into their curatorial gulags without pausing to consider if there might be any resonances from their particular professional perspectives. In some senses this vision is simply an extension of existing user behaviour, except that users no longer need physically to visit search rooms as often as they did. Personal interaction with information professionals that hones skills in discovery has to be replaced by surrogate guides and advice gleaned from informal networks of consumers. In other senses it envisages a changing world where the custodial function that differentiates physical sites of curation is removed, leading perhaps inexorably to a welcome or frightening convergence, depending on your perspective.³⁶

Such transformations have happened before, but usually in reverse. Before the invention of printing that enabled the multiple production of identical copies, manuscripts were ‘unique’ and all renditions subject to scribal error and interpolation, particularly as there was no standardised orthography. Information was privileged by very high thresholds for entry. Readers had to make long and expensive journeys, usually to royal or ecclesiastical libraries, if they wished to consult the ‘original’, gain permission for access and learn the necessary skills to comprehend what they saw. Despite the efforts of civil and religious authorities, printing pluralised information as barriers to access were reduced by broadening education and translation of content into the vernacular.³⁷ This revolution had far reaching ramifications across society. An emerging print culture encouraged inquiry and curiosity that led to the Enlightenment pre-occupation with collecting things - physical objects, manuscripts, books, and so on – that were all assembled together in what became known as ‘cabinet collections’ or wunderkamma, out of which archive, museums and libraries grew.³⁸ This is not very different to the collecting behaviour of the digital consumers, who will hold a great variety of digital objects on their personal computers; downloaded text, images and music, original documents and images they have either created or received, and pointers to external resources. Shiralee Saul, who sees the internet as ‘the Wunderkammer to end all Wunderkammer’, is enthralled by this potential, ‘As you move from

³⁴ This excites Clifford Lynch, who claims ‘in the humanities scholars are using the digital medium to circumvent the haphazard historical gerrymandering of knowledge into institutional collections belonging to communities’, Lynch, Clifford A (2001) *Colliding with the Real World: Heresies and Unexplored Questions about Audience, Economics, and Control of Digital Libraries*. Bishop, Ann, Butterfield, Barbara, Van House, Nancy, (eds) (2001). Digital Library Use: Social Practice in Design and Evaluation. MIT Press, Cambridge, MA.

³⁵ See for example Beagrie, Neil, (2005) Plenty of Room at the Bottom? Personal Digital Libraries and Collections. D-Lib Magazine, 11 (6), <http://www.dlib.org/dlib/june05/beagrie/06beagrie.html>. Cited April, 2006. Miksa, Francis, (1998) The DDC, the universe of knowledge, and the post-modern library. Albany, 84, and Derrida, Jacques (1996) Archive Fever: A Freudian Impression. (trans. by Eric Prenowitz) University of Chicago Press, Chicago, 16-7.

³⁶ For an argument for integration see Proffitt, Merrilee, Waibel, Günter (2005) Setting the Stage: Libraries, Archives, Museums – same difference?, www.rlg.org/en/downloads/2005membforum/proffitt_waibel.ppt. Cited April, 2006. Comment from an opposing perspective can be found at David Mattison, No difference between archives and libraries? <http://www.davidmattison.ca/wordpress/?p=1521>. Cited April, 2006. and from an entirely library standpoint in Garrod, Penny Public Libraries: United We Stand. <http://www.ariadne.ac.uk/issue33/public-libraries/>. Cited April, 2006.

³⁷ This process is discussed in Burke, Peter (2000) A social history of knowledge from Gutenberg to Diderot. Cambridge., Headrick, David (2000) When information came of age: technologies of knowledge in the age of reason and revolution 1700-1850. Oxford., and McKitterick, David, (2003) Print, manuscript, and the search for order, 1450-1830. Cambridge.

³⁸ Proffitt and Waibel (2005), op. cit., and Miksa (1996) chapter ‘What did the Modern Library replace?’

curio to fact to fantasy you will erase the record of your movement -- but this erasure will constitute a new record...digital footsteps on the edge of a sea of photons'.³⁹ What is interesting about much of the content assembled in this way is that it is more akin to a manuscript than a print culture. Downloaded material is not original, but nor can it be certified as a faithful holograph rendition. The original is usually held 'uniquely' elsewhere, in much the same way as an original document was before the arrival of print. Sometimes it is surrounded by process designed to assist in its use or to prevent misuse or abuse, but most of the time it is not. Original material created or received by the consumer on a personal computer is the very stuff of archives. Here then is not so much a threat to the archival world, but an enormous challenge and opportunity to interact with the wider information landscape.

Mediation

Before the days of libraries, museums and archives as public institutions (up to say the late nineteenth century), the collecting of books, artefacts and records was essentially a 'private' activity. Those responsible created assemblages according to their own criteria and made them available to a limited set of users of their own choosing. These collections were in a 'private space', usually within a very limited 'domain of accountability'. By the end of the nineteenth century many such collections were now not run as private organisations, but public ones. Access was now available to the public at large and the public purse provided much of the funding, even though philanthropic donations, notably from Andrew Carnegie, were behind the creation of many of them. Information was now available to the public in a shared public space facilitated by the mediating work of information professionals. Alongside this public information domain grew an equally impressive commercial publishing industry which provided the means by which individuals could get their ideas into print allowing their wide dissemination through private purchase and through consultation or borrowing from a public collection.

This situation remained the dominant paradigm until the internet became a major force in the early 1990s. The World Wide Web was designed by physicists to facilitate free exchange of information about their research, but in a very short period of time it had found uses across a wide range of information-based activity. This technology lowered the bar, allowing people from many walks of life to make their ideas available to others, without the intermediation of either publishers or other information professionals. Such information does not necessarily have 'stature' in the eyes of those who find it, but it is readily accessible. As we have argued, the most informative information on a particular subject may or may not be contained within the archives of an organisation, it may be contained in the private papers of an individual who was connected with the organisation or may have been discarded and subsequently recovered by an individual or organisation. Happenstance plays a key role in determining what is available to future generations of scholars or the general public.

What has this new 'wired-up' world done to information in relation to public/private spaces? We would agree with those, such as Miksa and Saul, who suggest that it is moving us from the public collections of the nineteenth and twentieth centuries to a new era of private collections.⁴⁰ Someone connected to the Internet can assemble their own private collection via their web browser, selecting material from archives, museums, libraries and the vast unmediated reaches of the World Wide Web without ever crossing the threshold of a library or archive, let alone a bookshop.⁴¹ As we have suggested, this is certainly the direction in which post-custodialism directs us.

³⁹ Saul, Shiralee (1998), Wunderkammer >the museum on the digital shoreline< . <http://www.labyrinth.net.au/~saul/wunder/wunder2.html>. Cited July 2006.

⁴⁰ A discussion of these developments can be found in: Miksa (1996).

⁴¹ Saul (1998).

There are many in the information professions who will be quick to remind us at this point that there is a world of difference between the carefully selected and curated information resources assembled by archivist and librarians and these ad hoc digital collections of the rest of humanity, and we would agree. The ad hoc collection is personal and very much tailored to the specific needs of the individual in a way that public collections can never be. But what about the quality? In this area we would suggest that the changes in the information environment are gradually having a considerable influence on the information seeking behaviour of ordinary members of society. To suggest that individuals cannot tell the difference between good quality information and rubbish is, at the very least, patronising. Of course, it is not always easy to tell whether a piece of information is accurate, true or trustworthy, but even the most skilled experts in the worlds of art, antiquities or manuscripts have been known to be fooled. No-one is immune from 'getting it wrong' but that does not mean that most of us can not get it right a reasonable proportion of the time. In general terms, the online 'anyone-can-contribute' encyclopaedia Wikipedia⁴² proves to be a fairly reliable source of information, as there are mechanisms in place for dealing with disputes,⁴³ that does not mean however that its mechanisms are infallible, but then neither are those of its conventionally 'published' cousins.⁴⁴ Skills of discernment will develop in individuals and in society as a whole through time, as will the skills of those who wish to deceive - it has always been thus.

What the World Wide Web does open up for us is the ready means to triangulate on information on what Saul describes as 'voyages which any of us can go on (N.B. as long as Telstra doesn't introduce time-charged calls and libraries remain public -- think before you vote), and on which each of us will be Megellan, Mercator and Banks. What marvels will we bring back to add to our own (computer) cabinet of curiosities?'⁴⁵ Like such early navigators, we will be able to cross-check and cross-reference from different sources and learn to recognise which sources clearly 'borrow' from each other and are therefore not statistically independent. The more important it is that we have the information correct (in other words the greater the risk posed by having wrong or misleading information), the more sources we can cross-check. We can employ different search engines, different search strategies and terms and search starting from the web sites of different agencies or organisations in whom we trust. There is clearly a very important place for libraries, archives and museums as potential starting points for our searching, if they wake-up to the important role that they can have as pointers in addition to the custodial role that has been their traditional home.⁴⁶

⁴² <http://www.wikipedia.org>. Cited June 2006.

⁴³ For details see:- http://en.wikipedia.org/wiki/Dispute_resolution. For an example, see for instance - Seigenthaler, John (2005) A false Wikipedia 'biography'. USA Today, 29th November,- http://www.usatoday.com/news/opinion/editorials/2005-11-29-wikipedia-edit_x.htm. Cited May 2006.

⁴⁴ An interesting example in relation to independence of sources in the world of printed publication is given by Quine, W. V., Ullian, J. S. (1978) The Web of Belief. 2nd edn. Random House, London and New York. It concerns the Principality of Monaco. One of the authors had remarked after wandering about in Monaco "Just think - only eight square miles". His brother said that he didn't see how you could get that much out of it. The Encyclopaedia Britannica, the World Almanac, Scott's stamp album, various American atlases and the gazetteers in dictionaries all agreed on eight square miles. The Britannica (11th edition) indicated "Area about 8 sq.m., the length being 2¼ m. and the width varying from 165 to 1100 yds." The obvious absurdity of the two elements of this statement in juxtaposition had not prevented the reference books mentioned from replicating the error. The point here is that we cannot rely on a piece of information even though it appear in multiple sources if these sources are not independent and have simply copied from one another as would appear to be the case in this example. See also the report in Nature, 438, 900-901 (15 December 2005), Jim Giles Internet encyclopaedias go head to head, which claimed that Wikipedia is at least as accurate as the Encyclopaedia Britannica <http://www.nature.com/nature/journal/v438/n7070/full/438900a.html>. Cited June 2006.

⁴⁵ Saul (1998).

⁴⁶ Jenny Levine was one of the first librarians to recognise this, see her 'Shifted Librarian' site, <http://www.theshiftedlibrarian.com/2003/04/09.html>. Cited July, 2006.

A major problem with any information provider is they can never have what everyone wants. If I am interested in some of the more exotic board games, my local library is unlikely to give me much satisfaction. Such special interests are much better served (and probably always have been) by epistemic communities which have been greatly facilitated as a result of the growth of the Internet and its range of information exchange tools (Web, Wiki, Blog, e-mail, Instant Messaging, etc.).⁴⁷ Established information institutions may be able to provide an entry point into many areas of individual interest, but they will not be able to provide the level of detail that is required by such communities. Even family historians and genealogists, who might be expected to make straight for their local records office or any one of many archives, often find that information from 'private' sources, available via the Web, yields a wealth of detail which archives and records offices can never hope to provide. Information that they have from other sources allows them to carry out effective triangulation for credibility.⁴⁸

A major issue for a post-custodial world is one of continuity. A sizeable proportion of the information available on the Web today will no longer be available at the same address in a couple of year's time. There are two aspects to this:-

- no longer available - if the information is not available at all this is potentially serious as it will have been lost to the world-wide community,
- at the same address - if the information is still available from a different location, this is more of an inconvenience and the search mechanisms that were employed to find it in the first place may be employed to find it again.

In our experience, complete loss of information is comparatively rare as information that is of interest is generally of interest to more than one person within an epistemic community which tends to be reflected in it being available in more than one place. It will be interesting to see whether organisations that are setting up in business to keep digital information 'in perpetuity' on payment of a fee, are able to achieve a better or worse performance in this task than public institutions that make similar claims⁴⁹. We might note that libraries are concerned that they may not be able to provide continuing access to e-journals, if their publishers decide that it is not in their commercial interest to continue to make them available or if the library decides to cancel their subscription⁵⁰.

The Digital

Without doubt, the digital world presents considerable challenges to the information professions. In a world where there is no difference between a 'copy' and an 'original' (whatever these terms might mean in the digital context), where it can be very difficult indeed to detect changes to documents and where information flies around the globe at the speed of light, it would appear that many past certainties such as fixity of records are no longer part of the landscape. We would suggest that the situation is nothing like as bleak. As Duranti points out, the diplomatics that information professionals take for granted in the paper world, did not spring up over night, but developed over a period of several hundred years.⁵¹ The digital world, as we currently know it, is only about fifty years old and we need to learn new skills and techniques. Actions in the digital world do leave traces, just as they

⁴⁷ Gensollen, Michel, (2004) Biens informationnels et communautés médiatées. *Revue d'Économie Politique*, Numéro 'Marchés en ligne et communautés d'agents'. <http://egsh.enst.fr/enstcommed/workinprog.htm>. Cited February, 2006.

⁴⁸ for corroboration see the International Internet Genealogical Society, <http://www.iigs.org/>. Cited July, 2006.

⁴⁹ see for example www.perpetuity.com. Cited July 2006.

⁵⁰ see for example www.lockss.org. Cited July, 2006.

⁵¹ Duranti, Luciana (1998) *Diplomatics: New Uses for an Old Science*. Scarecrow Press, Lanham, MD.

do in the paper world, but the number of people who have the skills to interpret them currently is very small and the whole armoury can only be justified in cases where the stakes are very high.⁵²

Many of these techniques may borrow heavily from ideas that go back to the middle ages. Digital signatures, as we and others have pointed out,⁵³ are not analogous to signatures in holograph, but have characteristics of the seals still used in a variety of contexts today. The medieval strong box had several locks and required the holders of the keys to ‘get together’ to open them, such techniques can provide similar results in the digital world. Much work is still to be done in this area, but we need to be creative and innovative in solving these problems, in the way that our forefathers did in the past. What is certain is that new skills will have to be learnt and a wider variety of professional skills will have to be brought into play than those that librarians and archivists already have.

A second issue is concerned with finding information. In the carefully managed world of libraries and archives, cataloguing, metadata and a variety of finding aids are to be found. On the World Wide Web, the search engine is king. Search engines, such as Google,⁵⁴ employ ‘free-text’ searching, building complex indices and using algorithms that capture some of the cross-referencing of the Web to help judge the ‘relevance’ of items to the searcher’s query. Computing scientists have a tendency to see bigger, faster, free-text search engines as the route to finding information, whilst other information professions see elaborate metadata mark-up as essential. It is worth noting that the former may not be sustainable as the technology of storage is doubling storage densities at a faster rate than the technology of processors is doubling processing capability.⁵⁵ Even if search speeds rise linearly with volume (as they often do not), it is likely that the processing power, for index creation, and to search, will not keep up with data volumes. The latter approach, however, suffers from a problem of cost, as we pointed out earlier, and as volumes grow it will only be tractable if it can be done automatically, something that is not within easy reach⁵⁶.

Technology does not stay still and so benign neglect of digital resources is much less likely to be successful than it would be in the paper world. Digital media are not as stable as paper and the programs needed to interpret the bit-patterns and render them accessible to a human reader are developed through time and this results in subtle (or less so) changes in format which eventually make

⁵² see for example Digital Forensic Research Workshop (DFRWS), <http://www.dfrws.org/>. Cited July, 2006.

⁵³ Currall, James, Johnson, Claire E., Johnston, Pete. Moss, Michael S., and Richmond, Lesley M., (2001) Going Back, the final report of the Effective Records Management Project. University of Glasgow, 51-5, <http://www.gla.ac.uk/infostrat/ERM/Docs/ERM-Final.pdf>. Cited June 2006. For more detail, see Currall, James (2002) Digital signatures: not a solution, but simply a link in the process chain. Proceedings of the DLM Forum <https://dspace.gla.ac.uk/handle/1905/53>. Cited June 2006.

⁵⁴ <http://www.google.com/>. Cited July, 2006. Battelle, John (2005), The Search: How Google and Its Rivals Rewrote the Rules of Business and Transformed Our Culture, Nicholas Brealey, Boston and London.

⁵⁵ There is considerable debate about the exact doubling times of both these (the former being described by Kryder’s Law and the latter by Moore’s Law) as the answer depends on exactly how one defines either, but under most assumptions storage is growing faster than processing. See Walter, Chip (2005) “Kryder’s Law”, Scientific American, August, <http://www.sciam.com/article.cfm?chanID=sa006&colID=30&articleID=000B0C22-0805-12D8-BDFD83414B7F0000>, cited June 2006.. It is also worth noting that searching for multiple terms (cross searching) results in non-linear increases in search times which compounds this problem. Good summaries of these issues can be found on Wikipedia (<http://en.wikipedia.org>) and an extended discussion of processing capacity increase can be found in Ilkka Tuomi’s paper The Lives and Death of Moore’s Law. http://www.firstmonday.org/issues/issue7_11/tuomi/. Cited June 2006.

⁵⁶ There are many research projects around the world attempting to find solutions, including in the United States Dill, Stephen, et al (2003) at the IBM Almaden Research Center, SemTag and Seeker: Bootstrapping the Semantic Web via Automated Semantic Annotation. <http://www2003.org/cdrom/papers/refereed/p831/p831-dill.html>. or in the United Kingdom at the Digital Curation Centre, Ross, Seamus, Kim, Yunhyong, Automatic metadata extraction. <http://www.dcc.ac.uk/research/topics/>. Cited July, 2006.

earlier files unreadable using the current version. Things would be fairly straight forward if we could simply keep the old equipment, or install the old operating system on new equipment, but current digital computing equipment has a fairly short (less than 10 years) life and as new models appear they are not able to support all instruction sets in the same way as earlier equipment. Worse still, even in quite short timescales operating system security upgrades can and do stop apparently unrelated functions from operating. This potential for any code imported onto a machine (including new content files) to destroy or render unusable existing content is perhaps equivalent to bringing an incendiary device into an archive or library. We still have a lot to learn about long-term preservation of digital materials and our skills in this area will develop through time and as technologies change.⁵⁷

What and how to teach?

It is simplistic to claim that the advent of the digital destroys the old certainties in the information order. What it does is to throw them into a sharper focus that demands explanation and justification in the classroom. Paradoxically this has led archivists, librarians and museum curators both to revisit the development of their disciplines and to embrace theory to counter the exaggerated claims of the ICT community. At best this has transformed the literature and at worst it has reinforced the prejudices of those who wish to retreat into their curatorial gulags in schools of archives, librarianship and museum studies. In the United Kingdom our utilitarian tendency has not served us well, allowing scholars of information in north America, Australasia, sub-Saharan Africa and other parts of Europe to dominate debates. This is a reflection in part of the societal experience and expectations that information curators have addressed through theoretical constructs, multi-culturalism in Canada, the post-apartheid regime in South Africa, and corruption scandals in Australasia. This has yielded a growing body of scholarly literature that is readily accessible to students.⁵⁸ By default in the United Kingdom scholars with different disciplinary perspectives, such as anthropology, ethnography, philosophy and sociology, have made perceptive contributions to the debate about the use of information and the facilities provided by ICT in contemporary society.⁵⁹ It would be naïve to characterise this development as encroachment, rather it should be welcomed in the recognition that curators do not have a monopoly over content, a claim that in any event is negated by the digital. These two streams of research and writings are converging in learning in schools of archives and records and information management.⁶⁰

Engagement with such literature challenges long held assumptions about the information order in which much provision is grounded. Dis-intermediated multiple sites of production with none of the checks and balances embodied in print culture, which has been explored and systematised by sociologists and anthropologists, alters the role of the library and librarians as privileging agents.⁶¹ The concept of the audit culture enabled by ICT casts considerable doubt on the relationship of records management, embedded as it is in organizational structures, and archives with fiduciary

⁵⁷ For guides to the large body of work on these issue see the PADI (<http://www.nla.gov.au/padi/about.html>) and DPC (<http://www.dpconline.org/>). Cited July 2006.

⁵⁸ see for example the Australian journal *Archives & Manuscripts*, the Canadian journal *Archivaria* and the East and Southern Africa Regional Branch of the International Council on Archives *ESARBICA journal*.

⁵⁹ See for example Strathern (ed.), 2000, Floridi, Luciano (2004) *The Blackwell Guide to the Philosophy of Computing and Information*. Blackwell, Oxford, Miller, Daniel, Slater, Don (2000) *The Internet: An Ethnographic Approach*. Berg, Oxford, and Hansen, Mark B. N. (2004) *New Philosophy for New Media*, MIT Press, Cambridge MA.

⁶⁰ This approach is fundamental to the MSc in Information Management and Preservation in HATII at the University of Glasgow, <http://www.hatii.arts.gla.ac.uk/imp/index.htm>. Cited July, 2006.

⁶¹ See for example Strathern (2004),

responsibilities, particularly in the public sector.⁶² The most often quoted theoretical literature is post-structuralism and post-modernism that by drawing attention to the 'other' highlights the inadequacies of many archival collections in recording the experiences outside a dominant discourse. To ignore this growing body of theory would be to condemn information curators to the servility of 'box wallas', who like the lumberjack sleeps all night and works all day, rather than asking why, what and for whom? Such interrogation immediately leads to deep water that plumb the depths of some of the most important issues in contemporary society. The events leading to the war in Iraq were dominated by the misuse of information that is grounded in the theoretical constructs of neo-conservatives and neo-liberals alike and problematise what it means to live in a democratic society.⁶³ The Blair government in the United Kingdom is the embodiment of an ICT enabled audit culture where the answer is known in advance, something that anthropologists characterise as 'entanglement'.⁶⁴

ICT increasingly enables compliance that records managers and archivists need to understand is an expression of the audit culture that is not as neutral as it might appear and has consequences that reach far beyond narrow professional concerns. As Sir George Mathewson, until recently chairman of the Royal Bank of Scotland, remarked 'We don't have a problem with regulators telling us that we should tie our shoe laces, but we don't want them to tell us how to do it'.⁶⁵ Within a framework of risk an organisation can choose not to tie its shoelaces, if the chances of tripping up are slight and the danger of being hurt in a tumble are in any event scant. No organisation can afford to be fully compliant if value is to be returned to stakeholders. We can see such an approach to risk at work in the choices we can now make in the allocation of our pension funds between treasury bonds with good security and little return and equities with the possibility of high yields but also of losses. Such an attitude to the curation of information is hard to convey because it is at odds with much archival and records management discourse that has responded to the culture of audit and compliance with non-negotiable 'thou shalt' commandments, rather than seeking to embed their roles and responsibilities in wider processes.⁶⁶ As a result there is a failure to recognise that compliance is not an absolute, but will change over time and between sectors reflecting the perception of risk.

The audit culture is ironically the enemy of reflection, the very thing that it is supposed to support.⁶⁷ This has important ramifications for the resulting record that will tend to document the results required, hospital waiting times are reducing, more students are passing exams, fewer criminals are re-offending and so on. The whole record-keeping environment that supports rewards paid for such results will be tailored to this end, even if everyone is in little doubt that the reality is very different.⁶⁸ This raises serious ethical questions that trouble moral philosophers and should concern record keepers who are in danger of confusing compliance with compliant, and the functions of information management and archiving. They must be careful, certainly in the public sector, of not becoming the

⁶² This has been explored by Moss (2005) RMJ.

⁶³ See Moss, Michael (2005) 'The Hutton inquiry, the President of Nigeria and what the Butler hoped to see', English Historical Review, CXX no. 487, 577-92,

⁶⁴ Strathern (2000).

⁶⁵ Bolger, Andrew (2002) Excessive banking regulation 'bad for business' Financial Times, 24 September, http://www.scorex.com/global/solutions/basel/article_excessive_banking.html. Cited May, 2006.

⁶⁶ In the United Kingdom, the Joint Information Systems Committee (JISC) records management toolkit is couched in such terms. In the context of the Data Protection and Freedom of Information Acts, it comments: 'These are just the latest and most stringent demands being made on record keeping practices in FE and HE institutions in the UK. The link between records management and this legislation is now explicit. Both FOI Acts contain Codes of Practice which although not mandatory will become the standards by which all public sector record keeping practices will be judged.' <http://www.jiscinfonet.ac.uk/InfoKits/records-management>. Cited June 2006.

⁶⁷ Shore and Wright (2000).

⁶⁸ Strathern (2000).

'fall guys' by claiming too much responsibility for actions for which others should ultimately carry the can. Trust that must underpin audit, however flawed its concept, in a digital environment must be a shared responsibility between all the players. Information managers who control content cannot vouch for the ICT professional who implements the enabling technologies. As the technologies of information storage (broadly defined) expand, the chances of an archivist being able to understand the technical details of all of them diminishes. Any attempt to do this simply takes the archivists 'eye off the ball' of the real purpose of their endeavour and could only be accomplished by specialist sub-division of the profession in the way that ICT has a great many specialisms. In a profession where many practitioners work either singly or in small groups, such specialisation would simply not be practical and courses that took such an approach would not be doing their graduates any favours when it came to them getting work.

Taken together this mix of concepts, societal expectations, technologies and philosophical constructs is a powerful cocktail that takes learning and research in the archival sciences if not into new territory at least into territory that has been left to other disciplines to explore for a long time. It would be irresponsible to construct programmes of study and research simply centred around palaeography and the detail of legal and administrative history when the tide appears to be running fast in other directions. This is not to say that such approaches to texts do not have their place, even in the digital order, but this needs to be made more explicit in the way which InterPares 2 is doing.⁶⁹ If the profession is to retain the able students who enrol in our master's programmes then we must provide intellectual excitement by showing that what appears dull and repetitive can offer unexpected insights.⁷⁰

Are we OK?

There is a stereotypical view of archivists that are content 'to sleep all night and work all day' with little thought of much else, a plight often reinforced by the pressures in a busy under-resourced record office full of demanding family historians. Against the backdrop of an encroaching digital environment and an audit and compliance culture, it is hard to claim that even such sheltered members of the profession can be OK, and if they are, they run the risk of flightless extinction.

Many archivists and records managers feel that their skills are undervalued and that their senior management does not understand what it is they do and what they can contribute to their organisation.⁷¹ From where we sit, the fundamental reason for this is that they have not realised that in order to engage with senior management, it is essential to speak their language rather than archive-speak. This can be extended to a general principle that if as a profession, we are to engage with ICT folk, business analysts, senior management and users, it is not necessary to learn to be all of these things, what is essential is to learn to speak the language of these other groups rather than expecting them to understand our language.⁷² This observation has important implications for curriculum design, as taking the wrong approach will just lead to ever more bloated courses in which students will find difficulty in seeing coherence and be left no time for reflection.

⁶⁹ http://www.interpares.org/ip2/ip2_index.cfm . Cited June 2006.

⁷⁰ For a shining example to the contrary see Levy, David (2001) Scrolling Forward: Making Sense of Documents in the Digital Age, Arcade Publishing, New York.

⁷¹ See for example Piggott, Michael (2006) 'The dustbin or the archives, Australian business attitudes to the[ir] past', <http://www.uow.edu.au/commerce/seis/ehsanz/pdfs/Piggott.pdf>. Cited June 2006.

⁷² David Ellis (1992) explored this issue from the perspective of information science in 'The Physical and Cognitive Paradigm in Information Retrieval Research', Journal of Documentation, 48 (1): 45-64, Anne Gilliland and Sue McKemmish (2004) touch on it in 'Building an Infrastructure for Archival Research', Archival Science, 4: 149-97, 164-5.

In any business activity there is an important trade-off between doing the business and leaving a record of what has been done in the name of the business. It is difficult to imagine any business activity leaving no trace, but leaving a trace that will satisfy all purposes for which it might be required is quite another thing. Leaving a good and reliable record of activity requires deliberate action and not inconsiderable effort, but how do we decide what action and how much effort? In short, how do we make this trade-off and decide where to draw the line in action and effort, so as not to consume more resources than are necessary? Most people employed in any business activity will create (and probably manage) records and must be adding value in some other way than simply creating and looking after records. We would suggest that if the discipline of records management is about anything, helping to guide decision-makers as to where to draw the line and make an appropriate trade-off must at least be an important part of it, otherwise it would look suspiciously like simply another overhead and perhaps even a drag on progress.⁷³

There are two ends of a continuum of risk. At the one end there is regulation based on known risks, which is a constraint on business, and at the other there is development based on new risks that is an enabler of innovation and change.⁷⁴ If records management hitches its wagon to risk management at the negative end of this continuum and aligns itself with auditors, it is doomed to obscurity, unwanted and unloved by those leading business as well as those trying to do their jobs as effectively as possible on whom records management simply imposes burdens. If records management can take risk management onto a level where it is more concerned with operational and strategic success, helping their organisations to succeed, then they could be riding high. This is all about strategic advancement and moving the organisation forward. It requires an alignment with strategic objectives - where the organisation is going. It is enabling and a driver of change and would not leave the records manager feeling unlistened-to and unloved. With many organisations driven by information, enabling changes in the way that information is collected used and managed has tremendous potential. The risk management to ensure success of such developments requires great skill. The risk trade-off here is all about bold initiatives that have the potential to deliver big benefits, but which need to have the risks of failure to deliver carefully managed.⁷⁵

Record-keeping has never been the sole preserve of archivists and records managers, however much they may argue to the contrary. Many other professions are involved in the curation of records, most obviously accountants, actuaries, lawyers and statisticians who produce, manage and depend on trustworthy and reliable information to do their work. This information rarely finds its way into an archival repository and its authenticity and veracity derives from established process that can be monitored. Although the offices of lawyers and accountants have been a rich source of historical records, these professions have not been naturally thought of as analogous to that of archivists. The drivers of contemporary record-keeping pull them together as an increasing volume of records is required to satisfy external criteria.⁷⁶ From a user perspective in a digital order, there is little distinction between objects held in archives, libraries and museums. They have differing ontological status, but they all represent evidence of past experience and need to be interpreted through their conjunction, which ICT facilitates. Those who resist such convergence will be marginalized as much

⁷³ This point is made obliquely by Stephen Wagner and Lee Dittmar (2006) in 'The Unexpected Benefits of Sarbanes-Oxley', *Harvard Business Review* (April) 84 (4), 133-40, when they comment 'CFOs haven't collaborated to identify areas where gains in value could be used to offset the cost of compliance'. The authors are grateful to their colleague Seamus Ross for this reference.

⁷⁴ see for example *Report of the Auditor General of Canada* (2003), <http://www.oag-bvg.gc.ca/domino/reports.nsf/html/20030401xe01.html>. Cited June 2006.

⁷⁵ Egbuji, Angel (1999) 'Risk management of organisational records' *Records Management Journal* (Aug) 9 (2): 93 – 116.

⁷⁶ Wendy Duff (1990) made this point forcefully in 'Harnessing the Power of Warrant', *The American Archivist* 61 (Spring) 105, when she wrote 'If archivists are to take their rightful place as regulators of an organisation's documentary requirements, they will have to reach beyond their own professional literature, and understand the requirements of recordkeeping imposed by other professions and society in general'.

as those who do not ‘talk the talk’, particularly by the ICT community that has been keen to colonise record keeping entirely from a technical perspective. Such engagement must be predicated on shared risks and responsibilities within an evolving intellectual framework and business process.

Traditionally archivists have looked to historiography to supply the theoretical framework for their discipline, but approaches to the past are themselves grounded on broad foundations in other disciplines, particularly philosophy. Historians, at least in the United Kingdom, are often ambivalent about theoretical constructs, preferring to base their arguments on sources without pausing to consider the factors that may have led them to survive.⁷⁷ Post-modernism, often misunderstood, has served to increase this distrust and by so doing diverting attention from important issues and questions confronting contemporary society.⁷⁸ The direct assault on the concept of the archive by philosophers, such as Foucault and Derrida, has both broken archival dependency on history, but at the same time reinforced the connection between the two by posing such questions as ‘whose history?’ This has led in turn to the revisiting of earlier philosophers with an interest in the nature of history and information and knowledge systems, and to the concern of sociologists with epistemic communities and multiple sites of production that are enabled by ICT and fostered to a fault by family historians the majority archival users.⁷⁹ Anthropologists and ethnographers are interested in these phenomena and bring new perspectives to bear on the use and abuse of information, particularly the way in which the audit culture can become coercive.⁸⁰ Within this mix are to be found cultural theorists who have crafted a discipline that has much to say about the transmission and garnering of information and enabling technologies.⁸¹ This in a sense is a bridge into ICT that often comes with hyperbole derived from such thinking and without any deep understanding of the evolution of information systems and their underlying philosophies.⁸² They cannot be ignored, but they do not help themselves by trying to occupy imperial high ground with overstated claims that are expensive to deliver.

Conclusion

We are poised at an exciting and challenging point in the development of the information world. If we do what professions under pressure often do – we sleep all night and work all day, adding little obvious value - then the opportunity will pass and others will steal our buttered scones. On the other hand if we seize the opportunity and go shopping more often to develop what is at the core of our profession, build bridges with a wide range of other professions and engage with the businesses of which we are part, the future is bright. Equally we owe it to future generations of archivist and records managers to ensure that the education that they get to prepare them for professional life is forward-looking in the same way so they will be okay.

⁷⁷ This was memorably expressed by Sir Geoffrey Elton when he wrote ‘Ideological theory threatens the work of the historian by subjecting him to pre-determined explanatory schemes and thus forcing him to tailor his evidence so that it fits the so-called paradigm imposed from outside’, Elton, G. R. (1991) Return to Essentials. Some Reflections on the Present State of Historical Study, Cambridge University Press, Cambridge, 27.

⁷⁸ see for example Evans, Richard J. (1997), In Defence of History, Granta Publications, London.

⁷⁹ for multiple sites of production see Gibbons, M., Limoges, C., Nowotny, H., Schwartzman, S., Scott, P., Trow, M. (1994) The New Production of Knowledge. The Dynamics of Science and Research in Contemporary Societies, SAGE, London.

⁸⁰ Strathern (ed) (2000).

⁸¹ see for example Hall, Stuart (2005) “Strolling spectators” and “practical Londoners”. Remembering the imperial past. Littler, Jo, Naidoo, Roshi (eds), The Politics of Heritage: the legacies of race, Routledge, London.

⁸² Levy, David M (2003) ‘Documents and Libraries, A Sociotechnical perspective’, in Bishop et. al. (eds.) (2003).

The Archivist's Song

I'm a archivist
And I'm ok
I appraises all night
And I shreds all day.

I throw out stuff
I drink red wine
I digitise the repository
On Wednesdays its networking
And there's no time for tea.

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