An important question, and one not touched upon at the conference, is where should the boundaries of alignment be?

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http://dx.doi.org/10.1080/01576895.2014.888028

Adrian Brown, *Practical Digital Preservation: A How-to Guide for Organizations of Any Size,* London, Facet, 2013. 352 pp. ISBN 978 1 856047 55 5. UK£49.95.

Reading this book in the open air on a beautiful spring morning close to a beach, I lift my eyes to see gnarled banksias, fat-trunked palms, mellow brick walls, modest but impressive Georgian buildings. It is a perfect spot to sit and read about preservation and things that last.

But the setting also tells another story. The day is hazy with smoke: 40 kilometres away the bush has been burning for days and yesterday I drove through stands of naked, charred trees, ash-white ground and blistered road signs. The air around me is also filled with the noise of demolition and construction, as the Georgian buildings are one by one being replaced by 10-storey towers of steel, concrete, glass and balcony furniture.

It is indeed an appropriate setting for reading and thinking about preservation. As a former conservator and digital preservation manager, I am instantly reminded of two things: deterioration processes are often natural and may involve sudden, cataclysmic losses; while 'loss' phenomena are also often the result of changes in human expectations and preferences.

And so it is with digital preservation, that loose-limbed body of concepts, precautions, policy and actions aimed at maintaining the accessibility and utility of digital information resources despite the ravages of media deterioration, data corruption and the changing availability of technologies for presenting them.

Adrian Brown's book on digital preservation is comprehensive, insightful and useful. I was responsible for preparing a guide on this subject for UNESCO more than a decade ago, and declare my envy that this book achieves much more of those virtues than we managed back in 2002. The author has long experience with digital information management. Through his work with the National Archives of the United Kingdom, as well as his involvement in a number of collaborations, he has been a key player and leader in digital preservation in the UK and Europe since the 1990s. In recent years he has served as Head of Preservation and Access for the UK Parliamentary Archives. His experience in both places has gone far beyond 'end of life' preservation salvaging. For example, he has published previously on the subject of archiving websites. In his current role, as well as preservation he is responsible for digitisation programs which produce much of the digital content needing to be managed, and the intellectual control systems that allow each straw of archival record to be distinguished in the vast haystacks that will, and already do, exist. Such processes are critical parts of digital preservation management for both policy and practice, and Brown's breadth and depth of expertise are evident throughout this guide.

Brown's book explicitly assumes widespread awareness of the need for digital preservation action. The book's main purpose is to help those responsible for preservation and motivated to act, particularly in the context of small- and medium-sized organisations. Brown challenges a widely held assumption that digital preservation is too complex and expensive for anyone other than national institutions. His fundamental proposition is that it is very realistic for organisations of almost any size, including very small ones, to put credible and practical digital preservation arrangements in place even with limited time, financial resources, knowledge and infrastructure.

In terms of structure, the book contains 10 chapters as well as a glossary of terms; appendices with detailed descriptions of some components; and an extensive bibliography. Key point summaries at the end of each chapter reinforce the important message that the book is about understandable processes. Many chapters also include very useful case studies with particular, but not exclusive, relevance to the experience of smaller organisations.

The premise that the time is ripe for action is informed by a brief historical narrative: the development of theoretical concepts and standards; the emergence of a diverse and active pool of practitioners; and the progressive availability of open source repositories, commercial products, cloud-based services, and tools to enable some key processes supporting preservation outcomes.

The book includes very accessible guidance on laying the foundations of a preservation program in an organisation including getting organisational buy-in. While this is presented as a one-off process (as to some extent it must be), many of the steps involve complex understandings and decisions that improve with growing experience and expertise. As Brown puts it: 'Trying to develop a complete and perfected solution in one step can only lead to disappointment, and practical experience is essential for learning' (p. 9).

Some of these foundational activities can be daunting. This is, however, mitigated by many of the useful aids and tools that are described to varying levels of detail in the appendices.

The book provides very wise counsel on the need to understand requirements before trying to specify and implement any kind of solution. This includes profoundly important concepts of articulating requirements at the right level of detail and with the right focus.

For the intended audience, I expect the most useful parts of the book to be the chapter, case studies and appendix on models for a digital preservation service. The chapter looks at eight broad approaches, from doing nothing, to various forms of in-house repositories, to outsourced, collaborative or hybrid models. Generic pros and cons are offered for each approach, and a number of implementation case studies flesh out the principles. While some readers will probably feel the need for more information on which to base real decisions, the case studies really help in understanding the respective options and some people's experience with them.

This chapter also includes guidance on implementing chosen solutions, such as procurement approaches and what is involved in setting up and operating a trustworthy digital repository. Brown proposes and details what he calls a 'maturity model' for mapping various levels of preservation response (based on an organisation's needs, decisions, approaches and actions) against the characteristics of a fully mature and reliable preservation program.

In a few places, I was concerned that real complexity had not been fully acknowledged. For example, the step described as 'detailed design' of a repository is covered in a single paragraph dot point, whereas the experience of many large organisations has

been that designing and setting up a repository suitable to their needs can take very significant time and other resources, as well as challenging their understanding of their requirements or raising questions about the suitability of the approach they have chosen.

Likewise, the staff roles described for operating a repository are accurate but surely raise the prospect that very small organisations will experience severe internal resource competition in pursuing digital preservation solutions.

This is not to suggest the book takes a superficial view of what is needed. Brown's maturity model helps here, by suggesting that appropriate solutions will reflect an organisation's progress towards full preservation capability. It is also true that the book's primary intended audience is the motivated team or individual that understands they need to do something and are looking for guidance on what they can do and how.

Most of the second half of the book (chapters 5–9) looks in much more detail at what is involved in operating preservation-related functions: getting content; accessioning and ingesting it into a repository; describing it; preserving it; and providing access. The chapter entitled 'Preserving' covers the essentials of objectives, threats and strategies for preserving data at bit stream level, strategies for maintaining access at the level of information content, and how all of these are combined in real action plans and operations.

In discussing strategy options, Brown emphasises that preservation strategies must be geared towards, and judged in, their context. 'No single preservation strategy offers a panacea ... all have advantages and disadvantages ... Any repository should ... expect to implement different strategies over time and for different types of digital resource' (pp. 213–214). Such statements are particularly important in a book such as this, which may otherwise appear to be offering simplified solutions. The book also presents good guidance on priorities so all is not put at risk by waiting for the complete, perfect and entirely appropriate solution to be available. This chapter on strategies also includes an insightful discussion of some of the potential benefits and risks of cloud storage and cloud services for preservation.

Brown's final chapter, 'Future Trends', highlights the ubiquity of digital content in all our lives as well as the changing paradigms and expectations regarding information.

The book presents a core message that you can do something. It may not be perfect, or even sufficient. In fact, almost nothing by itself is going to be sufficient – but if done thoughtfully, using the kind of information and advice found in this book, it should be a positive step towards preserving digital information resources that need to remain accessible. Big or small, implemented solutions are necessarily partial, and require ongoing or at least recurrent monitoring and adaptation.

This book is informative, well structured, very readable, based on a commendable aim and credible premises, and consistently true to its purpose. It does not provide the answer to every question, and some practitioners will want much more detail, but the more I have engaged with the book, the more evident are its good sense and good advice. I believe it is a significant milestone in a field of great ongoing importance.

Parts of the book will date reasonably quickly because they describe tools and case studies that will become superseded and even irrelevant, but it also contains such a core of sound principles and wise advice that it will remain relevant, accessible and useful through many transformations of the technical environment in which digital preservation programs exist.

Finally, I have to ask myself whether I have been convinced that digital preservation is within the grasp of organisations of all sizes. Many of the tools described are not

fully developed, and the processes of deciding what approach and tools, and how to use them appropriately, all involve significant investments of time and other resources. There is also some risk of either real or perceived 'lock-in' that may complicate future options. So preservation programs may still be potentially large and uncertain undertakings, regardless of an organisation's size and existing infrastructure.

Nevertheless, there are tools available; there are services available; there are options. For the motivated information or collection manager concerned about the preservation of digital assets, this book will be an essential guide to taking the next steps, before the bushfire of deterioration or the urban in-fill of technological change sweep all before them.

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http://dx.doi.org/10.1080/01576895.2014.888126

Thomas Lidman, *Libraries and Archives, a Comparative Study,* Oxford, Chandos Information Professional Series, 2012. xv + 123 pp. ISBN 978 1 843346 42 5. USD\$70.00.

Thomas Lidman has produced an informative, easy to read history of libraries and archives. As the title suggests, the work is a comparative study with the purpose being to establish some fundamental truths that will inform and protect libraries and archives as distinct institutions in the twenty-first-century world dominated by mergers and efficiency gains. With extensive experience as both a librarian (University Librarian, Stockholm) and an archivist (National Archivist, Sweden), Lidman has the credentials to investigate the differences and similarities between libraries and archives.

The book is well written and informative. While passionate in his argument and diligent in his historical research and descriptions, the work is not conclusive for Lidman's central thesis. Lidman fails in the second part of his stated aim, 'to show the differences and raise the debate from another standpoint' (p. 2). He is concerned to debunk the opinion that 'archives, libraries and museums are very similar institutions' (p. 2). He does demonstrate significant differences in purpose, function and status, but this exposure does not raise the debate. Lidman also fails to clearly establish the 'other standpoint'.

The majority of the book (chapters 3–5) is solid scholarly reporting on the divergent developments of libraries and archives from the sixteenth and seventeenth centuries, when larger central government required dedicated recordkeeping to manage increasingly complex administration. It can be argued that Lidman's historical narrative from prehistoric times to the twentieth-century archives (chapters 1–5) convincingly outlines the shared beginnings and interchangeable nature of information-gathering activities by both libraries and archives without establishing the necessity to maintain unique independent institutions.

Lidman records the key differences as being: libraries developed as 'collecting bodies', archives as receiving bodies (p. 87); archives deal with 'unique records and documents that could not be standardised in the same way as a multiplied book'