

Book Reviews

The Long-term Preservation of Authentic Electronic Records: findings of the InterPARES project

<<http://www.interpares.org/book/index.htm>>, last accessed 23 May 2003

The InterPARES project

The international InterPARES project published its final report in Summer 2002. It was a mammoth project, and describing it in a brief review is a task of correspondingly mammoth difficulty. Running from 1999 to 2001, the work follows on from the seminal, if little-published, 'UBC Project' at the University of British Columbia which led directly to US Department of Defense 5015.2 Standard.

InterPARES sought to 'address a broad range of questions'. There were, in fact, too many research topics to list, let alone discuss, here. However, to summarise greatly, the questions cover four areas of electronic records management:

- Authenticity.
- Appraisal.
- Preservation.
- Policies and strategies for long-term preservation.

The project attracted funding at a stellar level, and with it a veritable galaxy of contributors—many of them well known and highly respected academics and practitioners—from North America, Europe, the People's Republic of China and Australia. Over 120 contributors are acknowledged.

An important perspective to bear in mind is that the effort was founded in part on the principles of contemporary archival diplomatics. Note that the project did not set out to discover the applicability of diplomatics to electronic records management; rather, it accepted diplomatics unquestioningly as a starting point, and sought to apply its techniques and precepts to electronic records systems—an approach which turned out to be problematic.

The report

The InterPARES project team was organised into

four task forces, one for each of the four question areas listed above; plus national and industry-focused teams. The report mirrors this structure. This review follows the same divisions, without scrupulously reporting on all the numerous appendices and so on; it concentrates on the reports of the four task forces. This reflects the reality that the report is made up of several different 'stories' which are unlikely all to be of interest to many readers.

The project 'findings' report is accurately named. It reports, in some detail, what each team found. What it does not contain is any sort of readily assimilated summary. This is unfortunate, as the report covers some 280 pages (or roughly 1.7 kg of paper); it is organised as no less than 27 assorted PDF files, which are connected only by one HTML table of contents. The presentation makes it difficult to absorb online, impossible to download as a whole for local use (without editing) and is unhelpful if printed out (navigation without proper page numbering or tables of contents is a real chore); and, as a final irritant, some of the diagrams are poorly rendered and difficult to read. In short, this is a complex report which cannot be read, used or referred to quickly.

Happily, although made up of distinct sections, the report does appear to form one intellectual whole. With very few exceptions, the publication appears internally consistent and rigorous.

Authenticity

The subject of authenticity is the most complex and contentious treated here; perhaps for this reason it is reported at the greatest length. In a way it is unfortunate that this subject is presented first, as the demanding description and the intricate account of the work done risks putting off some readers—but it is not typical of the entire work.

The Authenticity Task Force set out to 'identify conceptual requirements for assessing and maintaining the authenticity of electronic records'. It chose to achieve this aim by rounds of interviews, case studies and analysis. This process is described

in considerable detail. In particular, some of the methodological difficulties encountered—such as the impractical 73-page case study questionnaire—are exposed with disarming honesty.

An early conclusion was reached that ‘most of the systems under examination did not contain records, or at least did not contain “good” records’. The project team’s reaction to this was not to reconsider the appropriateness of their methodologies and approaches, but instead to narrow the research focus to records which comply with diplomatic theory, thus skirting the question of the applicability of the research to most modern systems. It is difficult indeed to understand the findings, or to relate them to the methodology. It is even more difficult to apply them directly to real-world scenarios.

This section of the report contains findings of the task force. These principally describe various aspects of authenticity and integrity in various ways. In this, the task force achieved most of its objectives. It admits to a failure in one aim, namely to develop a single comprehensive typology of authenticity requirements. This apparent failure should be treated as a finding in its own right; a likely hypothesis is that if such a typology cannot be developed with so much effort, it cannot usefully be developed at all.

The section is accompanied by two appendices, which cover a model (or ‘template’) for describing electronic records systems; and a formal statement of ‘Requirements for Assessing and Maintaining the Authenticity of Electronic Records’. Of these, the latter is likely to be the more useful; it contains a lengthy series of tests which can be applied either to the design of a new system, or to audit an existing system.

Appraisal

The Appraisal Task Force conducted a literature review followed by development of a function model. It points out that this work was in principle dependent on the production of a typology from the Authenticity Task Force—a typology which was never created—but the effect of the omission is not clear.

The literature review found that ‘electronic records must be appraised from the same theoretical and methodological standpoint as traditional records’. I suppose we should be relieved. Interestingly, it also concluded that few institutions have anything like extensive experience of appraising electronic records. This, while not directly helpful, may be a relief to many. A final point, which has direct practical application, is the importance of conducting appraisal activities early.

The task force then presents a series of formal

analytic diagrams, using IDEF(0) techniques (IDEF, short for ‘Integrated Definition,’ is a family of modelling techniques; IDEF(0) is the first of these, see <www.idef.com>), as did the earlier UBC project. IDEF(0) is often used to analyse and communicate business processes early in a system development effort. Use of this approach is helpful to articulate some of the aspects of the analysis, but in the absence of the desire to undertake a development, some of the diagrams—and many of the details in them—leave a sense of ‘so what?’ (eg a ‘control’ labelled ‘societal needs’ is not likely to be helpful). This said, the diagrams could be used to inform the design of a system expressly intended to support appraisal. Clearly most public sector institutions, currently moving towards electronic record-keeping are a long way short of needing such functionality, at least according to current orthodoxy; but there will come a time when this will be required. And if, as indicated by the report, it turns out that appraisal should be carried out early in the life of a record, then this time will come sooner than many expect. In a similar vein, professionals who are seeking to devise processes for the appraisal of electronic records could use the textual description of the model as a prompt; however, in many circumstances they would be well advised to temper the report’s enthusiasm for treating the records’ authenticity as a key determinant.

Preservation

For many, this will potentially be the most interesting section; so it is surprising to find it is so short, at only 13 pages (plus appendices). Thankfully, the brevity is not a problem, as the section is a model of clarity and succinctness.

Importantly, this section presents a textual description of a preservation model. This model is presented in an appendix as 10 well-documented IDEF(0) diagrams. The model will be a useful resource to anyone seeking to design a preservation function. It describes to a reasonable degree of detail a set of processes, or ‘activities’, with their interrelationship. The activities start with receipt of the records (ie after they have been appraised), and end with output of ‘preserved’ records. There are some good insights into some of the management issues and controls which a complete preservation environment needs. However, the model does not address the question of how preservation should be performed—anyone wanting to solve that problem will need to look elsewhere. So, as a typical example, under the activity ‘Take Action Needed to Preserve Record’ the model simply states ‘If [the] existing Technological Infrastructure and one or more current Preservation Methods are applicable and adequate for preserving the records, they

should be used. Otherwise, acquire Information and Communications Technology which will provide the necessary Preservation Methods and/or Technological Infrastructure'. Attentive readers may find this unsurprising.

I was confused by the relationship between the InterPARES model and the influential OAIS model (Reference Model for an Open Archival Information System, a draft ISO standard for digital preservation, see <www.ccsds.org/documents/650x0b1.pdf>). At one point this section claims that 'the basis for the content of the preservation process is the OAIS Reference Model'. This would be highly desirable. However, the language used by the two models does not seem to correlate, with some key concepts of OAIS—eg packages, representation network—not explicit in InterPARES. Although the report quite rightly points out that the two models have differing scope and depth of detail, this is difficult to accept; it is as if the OAIS conformance statement has been added belatedly.

This section also reports on the task force's survey of 13 'archives, projects and programs'. This was conducted using a formal survey questionnaire. Strangely, the findings are summarised in only one short and pithy paragraph. It is not clear why so little information is reported on a significant survey; but the survey instrument, responses and analysis are available in more detail elsewhere on the project website. Equally strangely, some of the text in this section is repeated in an appendix, which includes also material from the preservation model section.

Strategies

This section, the Strategy Task Force report, is even briefer. It sets out 'to define the principles that should guide the development of international strategies and standards for the long-term preservation of authentic electronic records, and the criteria for developing from them national and organizational policies and strategies'. The proposed principles—14 of them—are presented in a handful of pages. All the principles appear sound—for example 'Any records preservation policy, strategy, or standard should explicitly state that the entire process of preservation must be thoroughly documented as a primary means for protecting and assessing authenticity over the long term'. It is claimed that the principles were developed 'through analysis and synthesis of results of work in the first three InterPARES domains', though there is no explicit linkage.

The framework of principles is followed by a series of 'contextualisation' reports, one from each of Australia, Canada, China, Italy, USA and a Global Research Team. These reports comment on the 14 principles in the respective legal frameworks;

little of their content will be applicable to practitioners based in the UK.

In conclusion

This long report is impressive in its scope and ambition, but depressing in its presentation. It contains much which will be useful to some practitioners, and much which will be opaque to others. Most will find it useful as a resource for specific undertakings rather than as a primer or reference resource.

I was struck by the emphasis in the report on electronic versions of 'flat' records—fonts, PDF and so on are mentioned more than the tricky issues of, for example, dynamic websites or rendition. The 'new digital environment' records which give rise to these issues are due to be considered in a follow-on international project, InterPARES 2. Perhaps, as with some movies, the sequel will be even better than the original story...

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Managing Records: a handbook of principles and practice

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Managing Records: A Handbook of Principles and Practice is an important book, drawing together much of the recent scholarship, standards and practices concerning the administration of records in a handy, clearly written textbook. Aiming at an international audience, an admirable goal and one appearing to be achieved, this volume defines basic terminology, describes the objectives of records management, integrates sound management principles into developing and administering records management programmes, and covers every basic function of records work (classification, creation and capture, appraisal and scheduling, storage, access, and planning and starting records management programmes). Appendices of basic publications, journals, websites, national and international standards, and professional organisations add considerable value to an already valuable book. The suggested readings are selective, but they range over the full spectrum of an increasingly diverse and fragmented literature.

One of the chief attributes of this book is the authors' success in bringing together disparate