



# Information Overload

Issue 42, February 2006

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## Welcome:

I must apologise for the lateness of the February edition of Information Overload. We have been rather busy getting IEA's first seminar off the ground, but we hope the results are worth it. The good news is that the provisional programme for **IEA's Electronic Document and Records Management Systems seminar – EDRMS: Local People, Local Knowledge** is now in place and available from our web site – <http://www.iea.com.au>. The registration brochure is with our designers and we are hoping to receive copies very shortly, and thank you to those people who have expressed an interest – we will send you a copy as soon as we have them.

Choosing a topic for this edition of Information Overload, and the Registrant Resources edition is always difficult as we don't want to repeat information that has been circling the list serves and reported in recent journals. A case in point is the Jan/Feb edition of Image and Data Manager which looks at a number of topics we have considered – namely open software and open access. However, we have decided to have a look at Link Failure Syndrome and its impact on the information community, especially when looking at archiving electronic information.

We would like to thank you in advance for forwarding this onto friends, colleagues and other interested readers. Please note that all back issues of this edition, as well as our registrant resources edition can be read and/or downloaded from our web site – <http://www.iea.com.au> should any of the topics be of interest and use. If you have any suggestions or would like to see us cover any other topics, we would love to hear from you. Just send an e-mail to [training@iea.com.au](mailto:training@iea.com.au):

Lorraine Bradshaw  
Marketing & Training Coordinator

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## In this Issue we will be looking at:

- Electronic Archiving: Where are we now?
- Link Failure Syndrome
- A Thought to ponder.

## Electronic Archiving: Where are we now?

Back in March 2004 Information Enterprises Australia issued a white paper on electronic archiving. It has been interesting to note the various discussion threads through the many list serves serving the Information Communities around the world, not to mention the many journal articles that have been written all concerned with the same things we wrote then.

- How do we archive our documents and records so that we can access them now and into the future;
- What formats do we use?
- Does anyone have a truly viable solution?

We asked the question - So what of the future?

- More money will be spent on digitising paper-based records, with little or no thought as to the long term consequences;

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- Emulation software will play a huge part in giving access to previously unreadable material;
- Technology will continue to change at an alarming rate, migration and technology refreshing will become a normal part of an archivists and records managers archiving strategy;
- Information will continue to be lost, altered, deleted or damaged through ignorance, malicious intent and disasters; *Microsoft Office 2003 has an expiration date that can be added to emails and documents, allowing them to "self destruct" once that date has been passed. Finlayson, Stuart: This message will self-destruct. Image and Data Manager, January/February 2004p 12-15*
- There will be lots of changes, but everything will stay the same.

Since that time, Adobe has issued its PDF/A standard. As we reported in the 2005 edition of the Australian Record Retention Manual (ARRM), PDF/A is now widely available as ISO 19005. "ISO 19005, Document management – electronic document file format for long-term preservation – Part 1, Use of PDF 1.4 (PDF/A). The Association for Suppliers of Printing, Publishing and Converting Technologies (NPES) and The Enterprise Content Management Association (AIIM International) have joined together, along with industry representatives and government departments to develop an international standard that defines the use of the Portable Document Format (PDF) for archiving and preserving documents. "[it] enables organisations to archive documents electronically in a way that will ensure the preservation of content and visual appearance over an extended period of time. It also allows documents to be retrieved and rendered with a consistent and predictable result in the future, independent of the tools and systems used for creating, storing and rendering the files." [http://www.aiim.org/documents/standards/press\\_release-pdf-a-aug02-2.pdf](http://www.aiim.org/documents/standards/press_release-pdf-a-aug02-2.pdf) accessed 03.03.2006. *The Australian Record Retention Manual, 5<sup>th</sup> edition, 2005. p24. Published by Information Enterprises Australia Pty Ltd.*

However, this still does not take into consideration what you do with the documents once in this particular format.

- Do you keep the document "Live" so that you can migrate the information through the various software and hardware upgrades that are required in this electronic era?
- Do you move the documents to a backup server and thus migrate the information?
- Do you backup the documents to another format and hope you still have the technology to read it as and when you need to?
- Do you print out a copy of the documents that you need and manage it in the same way as the rest of your paper based documents?
- Do you carry on creating the documents that you need with little or no thought to the long-term consequence of where the organisation will store it?
- Do you hope that someone else will solve the problem of electronic archiving and you no longer have to worry about it?

To answer the question of "Does anyone have a truly viable solution", the answer has to be a Yes and No. Given the speed in which technology changes and the rate in which electronic records are created, it is unlikely that any organisation would be able to say they have been able to capture every record their organisation has ever created. And as Morgan Stanley has found to their cost, when you are unable to produce (without doubt) every record (and yes emails are records too) that are created and received as part of ongoing business transaction, on request in a court of law, you are going to be penalised for the fact. And in Morgan Stanley's case, to the tune of several million dollars! <http://www.nysscpa.org/home/2005/905/1week/article9.htm> accessed 03.03.06

However, there has been considerable work done over the years across the world with regards to the management of electronic records, and the following is a representative sample:

Public Records Office of Victoria: PROS 99/007: Standard for the Management of Electronic Records – Version 2 July 2003. Whilst this is not published by Standards Australia, it has become a "standard" for the management of electronic records.

Specification 1: System requirements for preserving electronic records;

Specification 2: VERS Metadata Scheme;

Specification 3: VERS Standard Electronic record format;

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Specification 4: VERS Long term preservation formations;  
Specification 5: Export of Electronic records to PROV;  
These are available from: <http://www.prov.vic.gov.au/vers/standard/default.htm>

Design and Implement Recordkeeping Systems (DIRKS) -  
<http://www.naa.gov.au/recordkeeping/dirks/dirksman/dirks.html>

Dublin Core Metadata Initiative: ANSI/NISO Z39.85 – 2001: The Dublin Core Metadata Element Set -  
<http://dublincore.org/>.

E-government Policy Framework for Electronic Records Management -  
<http://www.nationalarchives.gov.uk/electronicrecords/default.htm>

Electronic Resource Preservation and Access Network (ERPANET) – <http://www.erpanet.org>

International Research on Permanent Authentic Records in Electronic Systems (INTERPARES) -  
<http://www.interpares.org>.

National Archives of Australia Open Source Initiative - National Archives Green Paper: An Approach to the Preservation of Digital Records -  
[http://www.naa.gov.au/recordkeeping/er/digital\\_preservation/summary.html](http://www.naa.gov.au/recordkeeping/er/digital_preservation/summary.html)

National Library of Australia, Preserving Access to Digital Information - <http://www.nla.gov.au/padi/>

The Preservation of the Integrity of Electronic Records. The UBC Project -  
<http://www.interpares.org/UBCProject/intro.htm>

Preserving and Accessing Networked Documentary Resources of Australia (PANDORA) -  
<http://pandora.nla.gov.au/about.html>.

Records Continuum Research Group - <http://www.sims.monash.edu.au/research/rcrg/>

Cornwell Affiliates for the European Commission's Interchange of Data Between Administrations Initiative: Model Requirements for the Management of Electronic Records (MOREQ) -  
<http://www.cornwell.co.uk/moreq>. A revised model is currently underway (MOREQ2), and further information will be made available as we receive it.

The Electronic Recordkeeping Systems Standard (ERKSS) has been issued as a discretionary best practice standard for managing electronic records. It applies to all New Zealand public offices and local authorities, and will assist them to meet their recordkeeping obligations under the Public Records Act. <http://www.archives.govt.nz/continuum/rkpublications.php>

Public Record Office: E-Government Policy Framework for Electronic Records Management – 2001 (UK) - <http://www.pro.gov.uk/recordsmanagement/erecords/e-gov-framework.pdf>

US Department of Defence: Design Criteria Standard for Electronic Records Management Software Applications – November 1997 - <http://www.dtic.mil/whs/directives/corres/html/50152std.htm>

**However, it is perhaps the last one on the list that is perhaps the most interesting if ironic.**

The University of Pittsburgh Electronic Records Project - Due to a technical glitch the Web site with the working files of this project was destroyed. To view the project, go to the Internet Archive site (<http://www.archive.org/>) and use the "Wayback Machine" by entering the URL of the Pittsburgh Project ([www.sis.pitt.edu/~nhprc](http://www.sis.pitt.edu/~nhprc)).

How many times have you read an interesting article or visited a favourites link on your own computer only to find that the link that is listed, is no longer available. How can you guarantee the integrity of the document(s) listed on your system if "you" suffer from what has been dubbed "Link Failure Syndrome"

## Link Failure Syndrome

Most people who have ever used the Internet will be aware of the term "Link Failure Syndrome" whereby pages that used to be available on a particular web site are no longer available. The reasons why are as long as the list of "missing" pages themselves. However, that is just the tip of the electronic archiving problem. If you remove a document from its space on the originating server, in order to archive the item, can you guarantee the integrity of the document and the information contained within it? How will this affect your ability to produce a document in its entirety should you need to, especially in the face of litigation, patent challenges and so on?

Take for example the Sarbanes Oxley Act 2002, the act states "Whoever corruptly –

(1) alters, destroys, mutilates, or conceals a record, document, or other object, or attempts to do so, with the intent to impair the object's integrity or availability for use in an official proceeding; or

(2) otherwise obstructs, influences, or impedes any official proceeding, or attempts to do so, shall be fined under this title or imprisoned not more than 20 years, or both." The Act can be viewed in its entirety at:

<http://news.findlaw.com/hdocs/docs/gwbush/sarbanesoxley072302.pdf>

Whilst this Act is US based, it is also interesting to note that any Australian company that is an SEC (the United States Government's Securities and Exchange Commission) registrant, as well as those Australian subsidiaries of US or European parent companies that are SEC registrants MUST comply in full with Sarbanes Oxley.

If you take those documents that contain embedded objects and hypertext links and remove them, can you re-create the "experience" for the end user in the same way that you viewed the document if the document has been isolated from the originating software? For example, a PDF is a snapshot of how a document "looked" at a particular point in time. Like its other electronic counterparts, a PDF document may also be overwritten or deleted (accidentally or otherwise). Even with security measures in place, the person who attaches the security to the record can remove it. Throwing into doubt the records reliability, authenticity and accuracy. Whilst PDF/A has been presented to the community to solve some of these issues, does anyone actually use it?

As always we hope we have given you some food for thought. Comments can be sent to me at [training@iea.com.au](mailto:training@iea.com.au) and any discussions arising from these comments will be posted in later editions.

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### A T hought to Ponder:

"A Library is thought in cold storage"

**Herbert Samuel, 1870 - 1963**

British Statesman

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Your comments and suggestions on the subject of this newsletter are most welcome. Or if you would like to see other issues covered in future editions, please email me at [training@iea.com.au](mailto:training@iea.com.au). Please feel free to pass on this newsletter to your colleagues' friends and associates. To subscribe they should send an e-mail to [training@iea.com.au](mailto:training@iea.com.au) with "subscribe newsletter" in the subject line.

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