



Archives & Records
Association
UK & Ireland

ARC magazine

archives • records management • conservation

June 2011

No: 262

ISSN: 1745-2120

Data Standards Special Issue



7

CPD: Cut and Polished Diamonds!

8

In Search of Co-operative Organisation Records in Tanzania

13

More Hidden Lives Revealed

26

The Digital Preservation Awards

The fine art of digital preservation

Making Historical Collections Come To Life

Over 30 years experience, highly trained staff and a proven track record in the archive and preservation industry make us the first choice for key institutions and businesses wishing to digitally preserve their collections. Benefits include:

- Highest quality scanning technology
- Quality assurance throughout the process
- Temperature & humidity controlled archive rooms
- Highly secure collect and return
- Vast experience in on-site scanning



contents



EDITORIAL

Welcome to June's issue of *ARC*. In this month's issue we focus on data standards, with a wide range of articles from ARA's Data Standards Group. The Museum Librarians and Archivists Group highlighted the importance of collaboration in May's issue, and this theme returns among the data standards articles, perhaps reflecting an approach that will help us through difficult times. A read through the articles also makes it clear how much can be obtained with no or little cost: we hear about digital preservation training accessed via bursary, and open-source software for archival description being developed by ICA. Our thanks go to James Peters for co-ordinating the articles.

Among this month's features, we take a look at the latest developments that The Children's Society has been working on, with their award-winning resource, the Hidden Lives Revealed website. Margaret Crockett treats us to a fascinating insight into the efforts being made in Tanzania to establish a repository for archives of the co-operative movement, which will preserve the chequered history of the movement in this region.

Closer to home, the CPD Working Group asks us to take a look at our own careers and to identify the training and support we need to help us progress in our work.

We hope you enjoy reading, and welcome any comment and articles for future publication.

Rachel Freeman, Gary Collins, Ceri Foster, Rose Roberto and Richard Wragg.

DISCLAIMER

The Archives & Records Association (UK and Ireland) cannot accept responsibility for views expressed by individual contributors to *ARC* Magazine. It is a medium for informing members of news, information and ideas relevant to the profession, including archive conservation. It is not an official guide to procedures, concepts, materials or products.

ASSOCIATION NEWS

- 4 A word from John Chambers
- 6 Collecting Matters
- 6 Registration Scheme News
- 7 CPD: Cut and Polished Diamonds!

FEATURES

- 8 In Search of Co-operative Organisation Records in Tanzania
- 11 What do we need to know?
- 13 More Hidden Lives Revealed
- 15 Cloud Computing Toolkit: Information Risk, Governance and Assurance
- 17 Publicity For Your Collections

GROUP FOR DATA STANDARDS

- 18 Welcome to the Data Standards Group special edition of *ARC*!
- 18 UK Archives Discovery Forum 2011
- 19 Genesis Re-launch
- 21 ICA-AtoM
- 24 Arrangement and Description of born-digital Archives
- 25 Introducing the Open Planets Foundation
- 26 The Digital Preservation Awards
- 27 Educating the future digital archivist
- 28 Digital Preservation Coalition Roundup

- 28 A Guide to Archival and Related Standards
- 30 The Case for Nationalisation

Women from the Auxiliary Territorial Service playing with babies in a nursery dormitory during a visit before the official opening of the Rudolf Memorial Home For Babies, Dulwich in 1939. Ref. I606, © The Children's Society.

Archives and records management training. Courtesy of the Co-operative College Manchester; © Margaret Crockett

A little 'waif' girl in Bristol, c1890. Ref. XX14, © The Children's Society.
Workshop run by the CPD Working Group

ARC Magazine is the monthly publication which is published by the Archives & Records Association (UK and Ireland)

Prioryfield House
20 Canon Street
Taunton
Somerset
TA1 1SW

Tel: 01823 327030

Registered Company No: 2969472

Registered Charity No: 1041063

Advertising enquiries to:

anu@cabbell.co.uk

or phone Anu Kaplish on

020 8971 8457

Send articles/comments to:

arceditors@archives.org.uk.

Association News



A word from **John Chambers**, Chief Executive of the Association

This year's conference programme is confirmed and can be viewed at www.archives.org.uk. The ICA strand has been finalised. Conference will be at the Edinburgh Hilton Grosvenor Hotel between 31st August and 2nd September 2011.

Following the announcement of the move of MLA's archive functions to TNA, I'm pleased that Arts Council England (ACE) and TNA are planning a strategy to keep up the liaison that has developed across museums, libraries and archives.

We have met with ACE to lobby for the archives sector to have equal access to the Renaissance funding stream which is currently being reviewed by ACE. We have been offered access to ACE Trustees in order to put our case. A decision will be announced in summer and if you hear a huge scream from the museum sector you'll know we had some success.

We have met with George MacKenzie, Keeper of the Records

of Scotland. The newly formed National Records of Scotland is a successful way of taking control, reducing costs and avoid having cuts imposed from above.

In Northern Ireland PRONI is moving from strength to strength. Aileen McClintock has led a well organised move to new premises whilst maintaining a hugely impressive array of projects. However the situation in the Republic of Ireland is grim. Many of our colleagues have had two consecutive years of pay cuts and some now face a reduction in their working hours as well. The National Archives of Ireland has avoided a merger with the National Library for now but further cost reductions are likely. One glimmer of hope is the re-establishment of the National Archives Advisory Council after several years.

The ARA Council had a first ever "awayday" recently to look at the way it operates and to review governance. The ARA is now one year old and it has become

obvious that the procedures inherited from the Society of Archivists are not satisfactory for a larger and much busier organisation. Proposals to amend the governance procedures will be put to members in due course.

The future of the Libraries, Archives and Information Services part of the former LLUK are now guaranteed by LSIS, the body which has taken on short term responsibility. This will protect the National Occupation Standards. Finally the All Party Parliamentary Group on Archives and History has had a busy programme of events in May and June. Both the Guardian and the Times have sent journalists to cover events.

One omission from the recent list of ARA representatives to other bodies published in ARC is that I am our representative to the British Records Association.

.....
John Chambers
.....



Archives & Records
Association
UK & Ireland



Advocating for Archives and Records: The Impact of the Profession in the 21st Century

International Conference 2011
Edinburgh

For the Conference Programme and
Booking details go to
www.archives.org.uk

Hilton Grosvenor Hotel
Edinburgh

31st August - 2nd September 2011

Collecting Matters

Have you ever wondered how to deal with red rotted bindings or publish a command paper? Perhaps you're not sure about planning a new record repository or the best way to store and care for books, photographs, film or video?

The National Archives has an A-Z of standards and guidance to answer those questions and many more:

<http://www.nationalarchives.gov.uk/information-management/guidance/a.htm>

And it's constantly updated.

Our most recent guidance covers digital preservation and NHS records, web archiving and records management.

But who is it all for, how is it useful? And what's missing?

We develop guidance in consultation but the archive sector is wide and diverse – so are we reflecting your needs?

You might have responsibility for archive collections but have no professional archive skills or training, or perhaps you're a volunteer.

We're developing guidance to support you too: a step-by-step approach to collection building and management including storage, cataloguing, access and preservation to get you started.

There are other areas we know we want to target but we need you to help us prioritise them. Standards, guidance and advice are there to help – so together let's make sure that they do.

.....
Cathy Williams

Senior Manager: Strategic Collection Development,
The National Archives
.....

asd@nationalarchives.gsi.gov.uk
nationalarchives.gov.uk/information-management/policies/collection-strategies.htm

Registration Scheme News

This month we answer some frequently asked questions about the Registration Scheme

● **What is the benefit of the scheme?**

There are many benefits from new networking opportunities to demonstrating to employers a commitment to your professional status. In many cases, credits can be gained for undertaking activities you would do anyway as a professional. The registration scheme will provide an opportunity to reflect on the training you receive, the events you attend and the work you do, ensuring you get the most out of all opportunities for professional development.

● **Will it improve my job prospects?**

Yes, some job adverts will ask that you are registered or working towards registration. Furthermore, all employers will recognise a commitment to continuing professional development.

● **Do I need to go to a workshop before enrolling?**

No, but it is a good idea to attend one as soon as possible. Workshops offer an opportunity for candidates to meet other professionals working towards registration. Workshops also provide a chance to ask questions, pick up ideas and look at successful portfolios.

● **What does it cost?**

There is no enrolment fee to join the scheme. An assessment fee of £50 is payable when you submit your portfolio.

● **I've been working for a few years since qualification but haven't enrolled yet, do my previous work achievements count for the scheme?**

Yes, as long as the activity was undertaken post-qualification and is not more than 10 years old it can be submitted as part of your portfolio.

Please contact us if there are other questions you have about the scheme. Also, don't forget to have a look on the ARA website where you will find a lot more information. On the website there are details of the scheme useful for anybody thinking about enrolling as well as for those currently working towards registration.

www.archives.org.uk/training/registration-scheme.html

Contacts

General Registration Scheme Enquiries:

registrar@archives.org.uk

Registration Scheme Events Enquiries:

regschemeevents@archives.org.uk

Registration Scheme Admin and Bursaries:

regschemeadmin@archives.org.uk

Registration Scheme Communications Officer:

regschemecomms@archives.org.uk

Registration Scheme Mentor Queries and Advice:

regschemementors@archives.org.uk

.....
Richard Wragg

Communications Officer,

Registration Sub-committee
.....

CPD: Cut and Polished Diamonds!

A quick Google will reveal that the acronym CPD can mean anything from 'cut and polished diamond' to 'cut and paste detector'! Of course the most universal meaning you will find in the search engine is that CPD means Continuing Professional Development. It is embedded as an ethos for many of us, but how does that translate into planning, practice and reflection?

The Archives and Records Association is an established provider of conservation training, an awarder and assessor of registered membership and an accreditor of archives courses. But ARA does not have a comprehensive framework, network or mechanism linked to CPD activity. The new CPD working group wants to change that – with your help.

Have your say at <http://www.surveymonkey.com/s/SX2RJ8G>. It should only take a few minutes of your time and will really help the group steer the project forward in the right direction for members. Whatever your career stage, your opinions and needs are important.

In addition, the Association's AGM in Edinburgh on Wednesday 31 August will feature a discussion or workshop based on your CPD comments and responses, so any members able to come along, even if not attending the conference, would be extremely welcome.

CPD is a topic that has been visited before by the Society of Archivists, but this current initiative stems from a report the Professional Development Committee commissioned last year from Elizabeth Oxborrow-Cowan to review comparable sectors' CPD schemes.

Here are just some of the thoughts the resulting CPD working group had at their meeting in March at the Wellcome Institute, hopefully these will stimulate your own ideas.

- the need to keep skills current is increasingly important
- a competency framework, or set of core criteria should be at the centre of a scheme
- the need for structured support for para-professionals
- all schemes reviewed relied on at least one paid post to undertake advocacy
- the highly competitive job market increases importance of demonstrating CPD
- compulsory and/or optional aspects of a scheme would need careful consultation
- the scheme could enable recognition for volunteer placements
- mentoring could be in itself a CPD mechanism for more senior professionals
- mainstreaming reflective practice is key
- portfolios are a popular CPD mechanism
- more imaginative ways of supporting CPD include: buddying, action learning, online support, informal facilitation and 'matchmaking'.

The CPD working group aims to facilitate a CPD framework to help all members who wish, to become Cut and Polished Diamonds! Contact Shirley Jones for further information: sjones@wyjs.org.uk

Shirley Jones

West Yorkshire Archives Services



Training session; courtesy of Heather Romaine



Archives and records management training
 Courtesy of the Co-operative College Manchester; © Margaret Crockett

In Search of Co-operative Organisation Records in Tanzania

In mid-January I flew to Tanzania to advise the Preserving East African Co-operative Heritage project which aimed to locate and survey records suitable for transfer to the planned archive repository at the Moshi University College of Co-operative and Business Studies (MUCCoBS)⁽¹⁾. The Endangered Archives Programme (EAP)⁽²⁾, which funds projects to create digital images of archives for deposit at The British Library, had given a grant. The third project partner is the Co-operative College in Manchester, home of the National Co-operative Archives⁽³⁾, which inspired MUCCoBS to set up a Tanzanian national co-operative archive. My role was to advise the survey and digitisation team in the field and to provide some training and professional input to staff and stakeholders at the College, based in Moshi.

Tanzania has a strong co-operative movement which was established before it gained independence from Britain in 1964. This takes the form of primary co-operatives (made up of farmers) and co-operative unions, groups of co-operatives farming and marketing the same crop. There is also an apex body, based in Dar es Salaam and MUCCoBS itself. In the 1970s the co-operative movement in Tanzania became the victim of its own success and the unions were abolished by the Government

under the leadership of Tanzania's founding father Joseph Nyerere. This had such a negative effect on the Tanzanian economy that the unions were re-established in the 1980s, but the movement has not regained its former strength in numbers or production levels. However, co-operation has had a major impact on Tanzania and its archives are a crucial resource for the history of the co-operative movement itself and also for the social, political and economic history of the whole country.

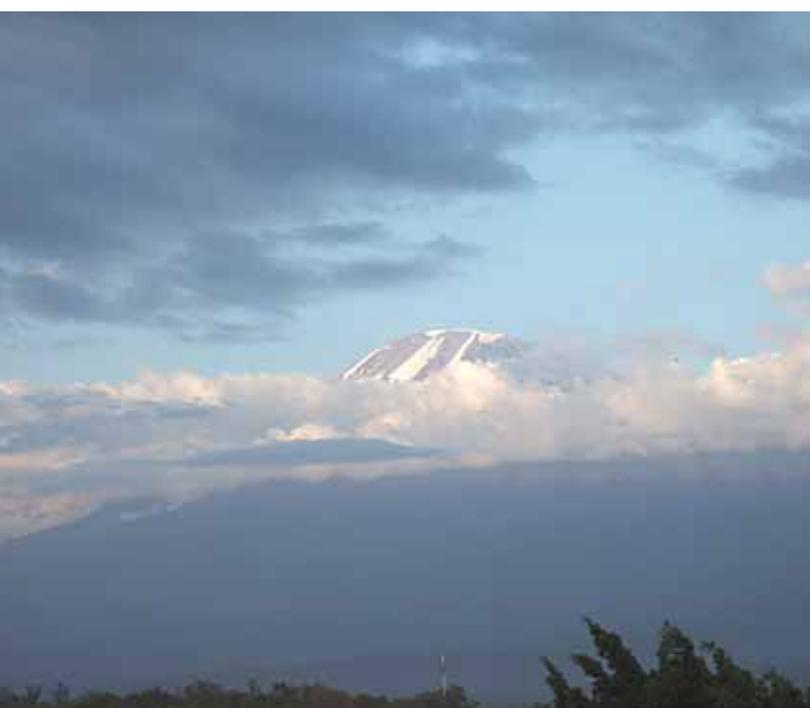
I was arriving in the middle of the field trip, which started at the beginning of January. Becky Forecast, Research Assistant in the Research Department of the Co-operative College in Manchester, had been surveying the more out-of-the-way co-operatives in the north-west of Tanzania, including coffee, cotton and transport co-operatives. For the past two weeks, she had been working and travelling with the rest

“ I accompanied the team on site visits to many primary co-operatives and a few co-operative unions. ”

of our team from MUCCoBS: Mruma (lecturer), Matefu (librarian) and Masheka (driver).

I accompanied the team on site visits to many primary co-operatives and a few co-operative unions. We would usually meet the secretary and/or president and, with a little prompting, they showed us their records. Mostly the records were not being kept well both in terms of organisation and physical environment. I would say that the organisational challenge was due to no proper guidance on records management. Records preservation is particularly challenging because of the poor quality of the paper on which records have been created as well as because of the heat and dirt which blows in along with the air from open doors and windows which is the only source of ventilation and cooling. There were often signs of insect and rodent depredation on the records. One storeroom, presumably a rich source of rodent life, was inaccessible because snakes had taken up residence.

Because the records were unorganised, we aimed to film representative samples and there were a few kinds of document types, such as registration certificates, guest books and photographs. We created descriptions of the items we photographed and made notes on what we found. The EAP specifies how to photograph so images are in a format and of a quality to go to the British Library's digital repository. It is challenging to get the zoom and focus right for the item to take up most of the image space, to include the colour checker, to get the requisite 90° angle.



Mount Kilimanjaro.© Margaret Crockett



Unlock the true potential of your collections

Adlib Archive is the professional solution for the management of archival collections. Adlib Archive supports multi-level archival descriptions with on-screen hierarchical display, and includes comprehensive indexing capability to build a solid base for successful data retrieval. Multimedia and document files link easily to catalogue records, meaning Adlib Archive is equally at home in digital archives.



Adlib Archive

Comprehensive Conservation module Easy printing Management Information Research/Use module Retention schedules Accessions Secure ISAD(G) ISAAR(CPF) EAD Can be integrated with Adlib Library and/or Adlib Museum Secure Choice of MS-SQL Server Oracle Adlib DBMS Flexible Finding aids Multiple search options Extensive thesaurus management Scalable API interface Open System Suitable for all archive types

adlib
The easy way to knowledge

Adlib Information Systems
0845 658 9482
sales@uk.adlibsoft.com
www.adlibsoft.com



Co-operative history day.
Courtesy of the Co-operative College Manchester; © Margaret Crockett



Margaret and Mruma surveying
Courtesy of the Co-operative College Manchester; © Margaret Crockett

During my first week we also organised a Co-operative History Day at MUCCoBS. This was designed to raise awareness of the value of the archives and to encourage the primary co-operative officers to manage their records better with a view to identifying and transferring the archives to MUCCoBS. We gathered information on the history of the primaries by giving the participants a simple form to complete. I also conducted my first ever oral history interview with the representative of the first co-operative society in Tanzania in front of all the participants. Before leaving I delivered training in records and archives management to the College’s departmental heads and some of the library staff, who are responsible for passing on what they have learned to their colleagues.

There is a valuable archival resource locked away in cupboards in the grass-root societies of the Tanzanian co-operative movement, as well as in the unions and government departments, including the National Archives. With the help of some resources, there is the will to establish a proper archive repository dedicated the history of the Tanzanian Co-operative movement.

Margaret Crockett

Consultant Archivist and Records Manager

- (1) <http://www.muccobs.ac.tz/>
- (2) <http://www.bl.uk/about/policies/endangeredarch/homepage.html>
- (3) <http://www.co-op.ac.uk/our-heritage/national-co-operative-archive/>



MicroFormat

...preserving the past for the future

- *digitising and microfilming to the highest standards for all historic paper-based records*
- *established for nearly forty years*
- *all supporting services*

**MicroFormat UK Ltd
Image House
344 High Street
Rochester
Kent ME1 1JE**

**Tel: 01634 813751
Fax: 01634 831557**



**archiving@microformat.co.uk
www.microformat.co.uk**

What do we need to know?

Kirsten Ferguson-Boucher highlights how Aberystwyth University is addressing the changing role of Records and Information Management professionals

The increasing transfer of electronic information among organisations and between organisations and individuals, has highlighted the need for a different skills set among those who have responsibility for managing such information. Public and private sector organisations are equally driven by the demands of compliance, risk management, accountability and governance issues in the particular contexts in which they operate. Terminology such as authenticity, reliability, integrity and usability is the cornerstone of the Records and Information Management (RIM) discipline (ISO 15489), and yet achieving these has become increasingly difficult due to the cross disciplinary nature of the task and the rapid advance in technologies seeking to achieve interoperability, access across enterprises and ongoing preservation.

To address the changing information landscape the Department of Information Studies at Aberystwyth University has revised the existing programme in Records and Information Management and also created a new MScEcon in Information Governance and Assurance (IGA). The aim of the IGA programme is to equip individuals who may have business experience, IT or legal expertise, or records management experience with the interdisciplinary knowledge that is required for comprehensive information governance. The underlying basis for the programme is that a more holistic approach to developing systems for information governance and assurance is inevitable and that individuals will require a specific skills set, enabling them to:

- Demonstrate the different controls which can be employed to protect the information assets of an organisation and to assist in positioning that organisation to address challenges in this area
- Illustrate the conceptual models of organisations and their functions and processes, and the points at which information/data/records of value are created

- Apply the rules for good recordkeeping in varied organisational contexts and demonstrate the theoretical basis for those rules
- Demonstrate the value of risk management in mitigation and management of the impact that damage, loss or disposal of records can have on the organisation and beyond
- Employ retention schedules and disposal authorities to organisational information to ensure that volume and value are equally addressed, in line with the appropriate legislative and regulatory regimes

Technological skills are key to forming answers to critical questions relating to the digital information assets of any organisation:

- How should information be protected and how can we say that it is assured for current and future use?
- How are we organising it now and are there better methods of doing this?
- How can we best enable access and yet maintain security in the rapidly changing technological environment?
- What could we do better in terms of risk management and what do new developments in this field mean in my organisational context?

Information Assurance in this context is not purely a security remit but forms part of the strategic and operational frameworks for maintaining appropriate and reliable business evidence in global and complex corporate environments. Addressing the convergences between the many related functions within organisations which impact on their ability to establish business evidence; risk management, data governance and content architecture, all require specific IT skills. These includes the ability to assess trends and developments in ICT and

their potential impact on recordkeeping practices; discuss the concept of information architecture and identify key components and approaches to a more cohesive structure; identify the significant elements within documents and databases in terms of their functionality and recordkeeping uses; evaluate electronic communication and collaborative tools in recordkeeping terms; analyse the strengths and weaknesses of information systems and RIM tools.

Returning to the five points highlighted at the beginning, RIMs need to be able to:

- Evaluate the best technological methodologies for achieving control and protection of an organisation's informational evidence and achieving information assurance, both now and in the future
- Appraise the various approaches to arranging information/data/records and put forward proposals for increased interoperability utilising the most recent IT innovations across all fields
- Assess current recordkeeping practices and measure their effectiveness in the complex contexts in which they operate
- Formulate risk strategies which address all risks to an organisation's information assets in a holistic way and synthesise business, legal, IT and information management objectives
- Create effective appraisal systems for the volume of information held by organisations, which enable the assessment of value for the wider stakeholder community.

The role that RIM professionals are now developing requires a high level understanding of these and related areas and how they function and interact within organisations. The ability to digest and communicate record keeping needs to the various professions, business units and communities of practice responsible for enterprise wide initiatives is greatly enhanced by study of these convergences. The evolving role for the recordkeeping professional, reflected in the variety of job titles advertised and locations of posts within organisational structures, requires cross disciplinary and collaborative approaches and this is a significant and ongoing challenge for educational institutions.

Kirsten Ferguson-Boucher

Aberystwyth University

ELSEC ENVIRONMENTAL MONITOR and LOGGER



The ELSEC type 764 enables the measurement of all the conditions that damage valuable objects.

Optional data logging allows over 10,000 readings to be automatically taken at selectable intervals and then transferred to computer by wireless infrared link.

Humidity as %RH

Temperature in °C or °F

Light levels in Lux or Foot-candles

UV as mW/M² or μW/Lumen

Dew Point

Tiny, sized like a small mobile phone

Easy one handed operation

Large, clear display

Littlemore Scientific Engineering

Gutchpool Farm, Gillingham, Dorset SP8 5QP
Tel: 01747 835550 Fax: 01747 835552
Email: elsec@elsec.co.uk www.elsec.co.uk

Public & Production Book Digitisation

Archives, Museums, Universities and Libraries across the UK have installed and benefited from the latest unique one-shot digital capture book scanners:

- Face-up Capture
- Fragile Handling
- No Consumables
- Scan to USB
- Touch Screen Preview
- Self-service or back room production

book2net Spirit

book2net Kiosk

For more information or an on-site demonstration info@genusit.com

Genus will be exhibiting the above book scanners at the AIIM Roadshow in June and the Archives & Records Association Conference in September

aiim ROADSHOW 2007
13-16 June
Exhibitors: Bolton, Birmingham, London

HANNOVER CLIFE
HUNTINGTON
WARRICKSHIRE
CV11 6BP • UK
T: 02475 7623 4992
F: 02475 7623 2219
E: info@genusit.com
W: www.genusit.com

For all our products and services go to:
www.genusit.com

More Hidden Lives Revealed

The Children's Society opens the history of its homes to all

The award winning Hidden Lives Revealed website (www.hiddenlives.org.uk), which uses previously unseen archive material from The Children's Society, has been updated with additional information on the children's homes the Society used to run.

Hidden Lives Revealed was awarded the Phillimore Prize in 2005 for the 'best educational website', and highlights the work of The Children's Society and its forerunner The Waifs and Strays Society.

The website originally explained the work of the Waifs and Strays Society across England and Wales between 1881 and 1918. The update means that almost 130 children's homes histories have been

A view of the back of St Hilda's Nursery, Beckenham in 1960 showing prams, washing, and the pram shed. Ref.AR92_0121_026, © The Children's Society.



A little 'waif' girl in Bristol, c1890. Ref. XX14, © The Children's Society.

added and the date range extended to 1981. Relevant images of photographs and documents have also been included.

Details of over 300 children's homes are now available along with the full contents of around 150 case files of children from Victorian and Edwardian times. These files have been digitised and transcribed to give a snapshot of the children cared for by the Society. Photographs, learning materials, activities and publications like supporter magazines and annual reports are also available, and website users have the ability to send e-cards.

Ian Wakeling, Records, Archive and Data Protection Manager at The Children's Society said that the 'more complete directory of homes will be an important source of information for people formerly in care,



“
Details of over 300 children’s homes are now available along with the full contents of around 150 case files of children from Victorian and Edwardian times
 ”

as well as for groups such as community historians, schools and colleges looking at the history of child care provision’.

Future plans for the website include developing a section about the Society’s pioneering work in the Second World War and the many War Nurseries and emergency homes it set up between 1939 and 1945.

Although the website has been refreshed, The Children’s Society Archive is always on the look out for photographs of its former children’s homes or any aspect of its work. For example there are no images for over 80 homes, so extra details or images would

Women from the Auxiliary Territorial Service playing with babies in a nursery dormitory during a visit before the official opening of the Rudolf Memorial Home For Babies, Dulwich in 1939. Ref. I606, ©The Children’s Society.

be welcome. Anyone with further information that could be added to the Society’s Archive and the Hidden Lives Revealed website can email archives@childrenssociety.org.uk, or telephone 020 7232 2966.

Hidden Lives Revealed is designed and hosted by the Institute of Learning Resource Technology (www.ilrt.ac.uk) at the University of Bristol.

Hidden Lives Revealed has a Facebook page at <http://www.facebook.com/pages/Hidden-Lives-Revealed/118877011472766> and there is also a link via The Children’s Society’s Facebook pages at <http://www.facebook.com/pages/Hidden-Lives-Revealed/118877011472766#!/childrenssociety?sk=info>.

.....
Gary Collins

The Children’s Society

Cloud Computing Toolkit: Information Risk, Governance and Assurance

Cloud Computing offers many new opportunities for storing, accessing and analysing data in the cloud but there are still issues and concerns which need to be addressed when considering cloud solutions. Little actual research has so far been undertaken to formally assess the impact of this new business model on professional information management practice. The UK Archives and Records Association commissioned Aberystwyth University, Wales, to undertake some preliminary research into the implications of storing information in the cloud.

The research project set out to identify key legal, technological, and organisational issues related to storing assets in a virtual environment. By gathering initial requirements for cloud storage that satisfy Information Governance and Assurance criteria, it aimed to form a basis for the ongoing development of good practice guidelines. It sought also to assist in the preliminary stages of evaluating required services by defining a set of criteria to use when selecting cloud services for the use and storage of digital assets.

The research focused on the recordkeeping issues in the cloud and a thorough literature review revealed that few studies are available that focus on organisational or information management aspects of cloud computing. Even fewer sources concerned themselves with the more specific relationship between cloud computing and records and information management, exploring life-cycle management, compliance or risk management.

An online questionnaire was conducted in March 2010 and distributed on a range of JISC lists including archives-nra, records-management-uk and lis-ukeig. Interviews were conducted with representatives from two private sector organisations who have successfully implemented cloud computing services. A representative from the Cabinet Office was also interviewed about the G-Cloud, the government's private cloud initiative. The project team organised

an unconference on 21 May 2010 at which 30 people from a wide range of professional backgrounds, including archivists, records managers, and IT managers participated.

Guidance in the form of technical standards and best practice were at the top of the top of professionals' information needs with regards to cloud computing. Some examples of cloud-specific guidance for records and information managers were located, as well as relevant initiatives:

Guidance

- National Archives and Records Administration (NARA) who produced Guidance on Managing Records in Cloud Computing Environments (<http://www.archives.gov/records-mgmt/bulletins/2010/2010-05.html>)
- Association of Records Managers & Administrators (ARMA) who produced many articles on cloud computing and security risks (<http://www.arma.org/press/ARMAnews/Infosecurity.pdf>)
- Archives and Records Association (ARA) who commissioned this report and the accompanying toolkit.

Initiatives

- Cloud Security Alliance (<http://www.cloudsecurityalliance.org/>) is promoting best practice for providing security assurance in cloud computing. The Alliance has published studies on the top threats to cloud computing and security guidance on critical areas of focus in cloud computing
- Cloud Audit (<http://www.cloudaudit.org/>) is working on the provision of a common interface that allows cloud providers and customers to automate audit, assertion, assessment and assurance of their cloud computing environments
- Open Cloud Consortium (<http://opencloudconsortium.org>) supports the development of standards for cloud computing and frameworks for interoperating between clouds

- OASIS Identity in the Cloud Technical Committee (http://www.oasis-open.org/committees/tc_home.php?wg_abbrev=id-cloud) is developing profiles for open standards for identity deployment, provisioning and management in cloud computing.

More cloud computing research or working groups can be found on the Cloud Standards Wiki (http://cloud-standards.org/wiki/index.php?title=Main_Page#The_Open_Group). Many of these initiatives have by the nature of cloud computing a very technical focus but it is obvious that there is a drive for the establishment of common frameworks and much needed technical and operational guidance for establishing reliable and secure cloud services.

Outputs and related events form the ARA/ Aberystwyth research

- A list of cloud computing resources relevant to the records and information management community has been made available on Google Docs and can be accessed at <https://docs.google.com/Doc?docid=0AUMD4SCCg7uaZGRxczNybnfMTZjODM4bXhmNw&hl=en>
- Everyone can contribute further relevant resources to the Google document. Online resources have been bookmarked in Delicious and are available at <http://www.delicious.com/nicoleschu/soacloud>
- Outcomes of the unconference in the form of participants’ concerns and suggestions widely inform the findings and recommendations of this report. Speaker sessions and participant feedback have been recorded and are available at <http://vimeo.com/disaberystwyth>
- Recent presentation at the Ischool conference in Seattle specifically contributed to a panel considering the privacy issues of the cloud. Link to You Tube: <http://www.youtube.com/user/UWISchool#grid/user/734F5749DCB1DBB5>
- Recent presentation at the University of British Columbia (SLAIS) was followed by a panel discussion with Jean–François Blanchette, Assistant Professor, Department of Information Studies, University of California, Los Angeles, and sparked a lengthy and lively debate about cloud and record keeping issues, issues which significantly impact on wider society not just the

archival, information and information specialists. <http://www.slais.ubc.ca/people/students/student-groups/aca/symposium2011/symposium.html>

- The toolkit: http://www.archives.org.uk/images/documents/Cloud_Computing_Toolkit-2.pdf

The aim of the ARA/Aberystwyth research was to develop a toolkit that could assist information professionals in assessing the risks and benefits of outsourcing information storage and processing to the cloud. The toolkit covers four main areas and each of the sections proposes questions that should be taken into consideration by the organisation or that should be addressed to the prospective cloud service provider:

- Overview of cloud computing: Cloud Computing definition, benefits and challenges
- Preparation: Cloud service models, cloud deployment model, information classification, risk analysis and assessment
- Managing: information management, legal and regulatory compliance, contract, cost, monitoring, auditing and reporting, exit strategy
- Operating: security, availability management and resource provisioning, incident response, identity and access management, business continuity.

The Toolkit was launched in March 2011 on the ARA website at www.archives.org.uk and its aim is to provide a starting point for:

- a thorough risk assessment exercise to determine the risks and benefits associated with outsourcing services and thus information storage to the cloud, and
- the development of a cloud strategy, specification or requirements for storing information in the cloud.

Any questions/comments about the research both current and future, please contact nis@aber.ac.uk or knb@aber.ac.uk

.....
Kirsten Ferguson-Boucher

Aberystwyth University

Publicity For Your Collections

The Art Researchers' Guides bring archives related to art and design to a wider audience

Do your collections contain material on art or design? Do any focus on the lives of artists or designers? Do they contain rare gems on these topics that more people should know about? If so, the Art Researchers' Guide series will provide a fantastic opportunity to market this material and bring the institutions that house them to a wider audience.

Published by the Art Libraries Society of the UK and Ireland, each portable handbook from this series focuses on a particular city. Researchers interested in primary art and design material will read short descriptions, be drawn in by colour images, and be directed with maps and icons to the most appropriate repositories and libraries relevant to their needs. Please see the publications link at <http://www.arlis.org.uk/resources.php> for more details.

With contributors from 10 different institutions covering such different topics as textiles, sculpture, armour, artists, and the English country house, the first book in the series will be the *Art Researchers Guide to Leeds*, coming in July 2011, and available at a discounted pre-order rate of £4.95. For a pre-order copy, contact Lorraine Blackman by emailing: arlis@vam.ac.uk. The second book in the series, the *Art Researchers Guide to Edinburgh*, will focus on the capital city of Scotland, with contributors from the national archives, libraries, and galleries, as well as the major universities in the area, is expected to be out in 2012.

	Leeds Central Library Art Library Collections	Leeds Central Library Main Collections	Henry Moore Institute	Leeds College of Art	The Leeds Library	Leeds Metropolitan Main Collections	Leeds Metropolitan Special Collections	The Royal Armouries	Trinity Society	University of Leeds Main Collections	University of Leeds Special Collections	University of Leeds Tiedle Archives - ULTA	West Yorkshire Archive Service	Yorkshire Archaeological Society
Art, Ancient / Antiquities														
Architectural History														
Artifacts														
Aesthetics														
Architecture														
Archives														
Art History														
Art, Modern 19th - 20th centuries														
Art of 16th - 18th centuries														
Art, Renaissance														
Artists Files or Artists Biographies														
Artists Books														
Auction catalogues														
Buildings - Construction/planning														
Buildings - country house														
Buildings - civic / public														
Buildings - military														
Buildings - religious / ecclesiastical														
Cartoons														

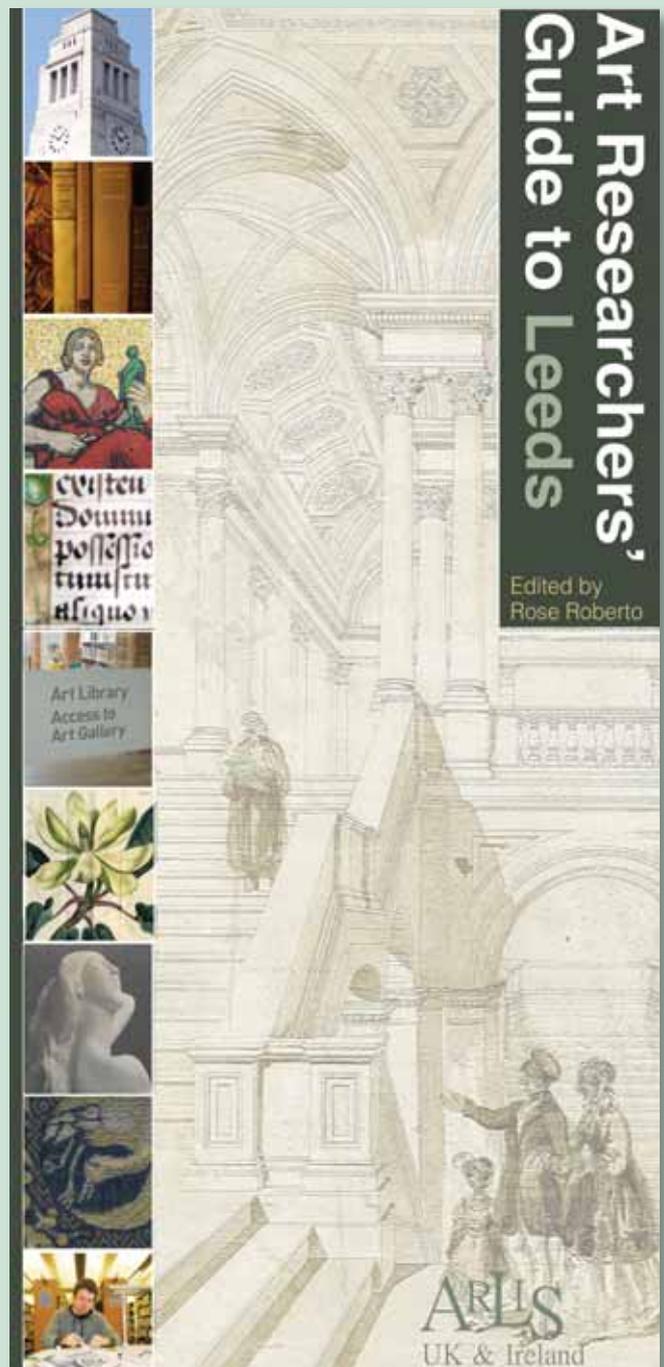
Excerpt of Guide to Leeds showing subject index

What about your city? We are interested in hearing from all archives and libraries, small as well as large institutions. If you are interested in contributing, please contact Rose Roberto, the Art Researchers' Guide series editor at r.v.roberto@leeds.ac.uk.

Rose Roberto

Publications Committee

ARLIS, UK & Ireland



Cover of Art Researchers' Guide to Leeds. All images © Rose Roberto & ARLIS UK/Ireland

Welcome to the Data Standards Group special edition of ARC!

As in previous years, we have a great spread of articles reflecting the variety of groundbreaking work being done by many ARA members in the areas of digital preservation and description, discovery and interoperability of archival information. This year, however, it is particularly interesting, and perhaps not surprising given the current climate, to see a common theme emerging from the articles – the importance of collaboration. As Teresa Doherty notes in her article on the re-launch of the Genesis project, which is a great example of what can be achieved through collaboration and reuse of data, collaboration may just be our ‘fairy godmother’. It is central, too, to the remit of the UK Archival Discovery Network, whose first ever forum, designed to bring together like minded archivists and to promote collaboration in order to open up archival data, is reported on here by Jane Stevenson. Collaboration is also very much at the heart of ICA-AtoM, the new open source, web-based archival description software, also covered here. And EAD and EAC continue to be two other great examples of collaborative work benefitting the whole community. Bill Stocking and myself report on the latest developments in both of these.

Collaboration is no stranger to the field of digital preservation either. Simon Wilson explains how the international collaboration of the AIMS project is proving vital in creating a framework for managing born-digital archives that will be relevant for all institutions, and Bram Van Der Werf describes the work of the Open Planets Foundation, a community of practitioners sharing solutions and expertise in digital preservation. The Digital Preservation Coalition (DPC), through its association and collaboration with ARA and other stakeholders is also of real, practical benefit to anyone newly facing the challenges of digital preservation. Sarah Higgins reminds us of the benefits ARA’s membership of DPC brings to ARA members and tells us about this year’s very best examples of digital preservation projects, as recognized by the DPC’s digital preservation awards. And finally, James Peters, a recipient of one of the prestigious DPC Digital Preservation Training Programme scholarships, tells us of his experience of the programme.

Enjoy!

.....
Victoria Peters

Chair, Data Standards Group

UK Archives Discovery Forum 2011

The UK Archives Discovery network (UKAD) aims to open up archival data in order to promote the use of archives. We want to provide a sustainable online network to facilitate cross searching of archival resources across the UK. We believe that by encouraging archivists to collaborate, share ideas and best practice, we can more easily move towards this shared vision.

UKAD held its first major event on 2 March 2011 at The National Archives. The ‘UKAD Forum 2011’ gave us the chance to bring together an exciting mix of speakers, and at the same time we wanted to put a strong emphasis on networking opportunities, so we had a ‘busking’ space where we encouraged people to share what they were working on, and we asked delegates to give us their thoughts about UKAD and promoting the UKAD aims. We even had a snakes and ladders game of resource discovery!

We had a plenary session to open the day, focusing on open and linked data, and then a number of parallel sessions, enabling delegates to pick from a range of presentations on themes ranging from retro-conversion to user participation, from federated searching to mobile technologies. The day ended with the launch of the new Genesis website for research into women’s history (<http://www.londonmet.ac.uk/genesis/>); the Genesis search is itself a product of a successful collaboration, the sort of technical innovation that UKAD exists to facilitate.

We received very positive feedback about the Forum. If you would like to get a flavour of the day, you may like to take a look at a few blogs:

Archives and Auteurs:

(<http://archivesandauteurs.blogspot.com> - My Thoughts On the UK Archives Discovery Network)

the Archives Hub Blog:

(<http://archiveshub.ac.uk/blog> - UKAD Forum)

VocabControl:

(<http://www.vocabcontrol.com> - UK Archives Discovery Forum)

Around the World in 80 Gigabytes:

(<http://80gb.wordpress.com> - Discovering UK Archives).

Please sign up to the email list for UKAD if you would like to get involved: Archives-Discovery-Network@jiscmail.ac.uk. Our Website can be found at <http://www.ukad.org>.

.....
Jane Stevenson

Archives Hub

Genesis Re-launch

The Women's Library and Archives Hub unite to secure the future of a valuable gateway to women's history

Genesis, a website to support women's history resources, was recently re-launched at the UK Archival Discovery Forum. First launched in 2002, Genesis is one of several similar ventures launched at that time. Some initiatives, such as AIM25 and the Archives Hub, have gone from strength to strength whilst others, such as A2A and CASBAH, are available on the web but no longer actively collecting data. A decade on, the challenge for The Women's Library at London Metropolitan University was how we could create a sustainable model to realistically maintain Genesis in the future.

The Women's Library, as a subject advocate for 'women', uses Genesis to explore hidden histories across the archive, library and museum sector and make them more obvious, both through independent user-searching and through active partnerships such as Women's History Month.

Genesis comprises two sections: A Guide to Sources, a series of web pages which hold or point to subject specific resources such as discussion lists, journals and digitised collections; and the Dataset, containing catalogue descriptions relating to collections by or about women.

The Women's Library has a small team, so simple and effective measures were required. The solution had to be maintained in-house without the need for external funding. In 2007 the Guide had been refreshed by staff in collaboration with London Met's IT department, with ongoing updates easy and quick to internally administer. The Dataset was another story...

Managing a dataset of other institutions' data means being able to add new entries, delete obsolete entries and edit existing entries. It means having

GENESIS Home page | Contact Us

Search Dataset | Guide to Sources | About Partners | Project Information

Developing Access to Women's History Sources in the British Isles

THE WOMEN'S LIBRARY
advancing and creating access to

LONDON metropolitan university

Welcome to GENESIS

Genesis supports research into women's history. It consists of:

- A dataset with descriptions of women's history collections from museums, libraries and archives in the United Kingdom and
- A Guide to sources that provides access to a wide range of international web resources on women's history.

Genesis is currently maintained by the staff of The Women's Library at London Metropolitan University. From Spring 2011 the dataset is being developed in collaboration with the Archives Hub. Genesis was originally developed in 2002 with funding from the Research Support Libraries Programme (RSLP).

Search Genesis dataset

To search the Genesis dataset please use the box below or follow the link to [Search Archives Hub](#) for advanced searching.

Genesis sources

This extensive list of web resources on women's history will enable you to discover where in the world you can access information to aid your research.

The Guide to sources has been divided into a number of categories.

News: As at March 2011 an article on 'new' Genesis is available [here](#)

Welcome to Genesis, screenshot of the gateway

server space to hold the data, and updated software to search the data. It is a substantial investment of time for both the host and the partners.

We were looking for a solution at little or no cost, to make Genesis more sustainable and to improve the quantity and quality of descriptions. It was a tall order, but along came our fairy godmother: ‘collaboration’.

Collaboration

Originally comprising 46 partners, Genesis now has 180 partners. Wow! How? The Women’s Library re-launched the Dataset in collaboration with the Archives Hub.

Our solution is for Genesis to remotely search the Hub using a protocol called SRU, ‘Search and Retrieve via URL’. The user conducts a search on the Genesis website and all results and navigation are shown via Genesis. But unbeknownst to them, the user is really searching seamlessly across the Hub.

Hub descriptions are first identified as being relevant for women’s studies. If a collection is indexed in the subject field with ‘women’ or ‘women*’ - e.g. ‘women’s suffrage’, ‘women artists’ - then it will be retrieved from the Hub via Genesis (a subject indexing guide is available from the Hub or Genesis).

This solution has many advantages:

- It is a user-focused solution; the user doesn’t leave the comfort of their own ‘subject area’ or ‘Genesis brand’ but they benefit from the increased quantity and quality of the descriptions
- The Hub has benefitted greatly from gaining new contributors and new descriptions via The Women’s Library subject network
- The Women’s Library benefits as we no longer have to host or edit data, but can contribute to the Hub

Another benefit is that Genesis contains collection level descriptions from libraries, museums and archives. So we will see non-archival collection level descriptions creeping into the Hub, part of an increasing move towards cross-domain discovery.

The collaborative work between the Hub and Genesis is a great example of what our sector is looking to achieve. We need to avoid duplication of effort,

“
We were looking for a solution at little or no cost, to make Genesis more sustainable and to improve the quantity and quality of descriptions.
 ”

provide seamless access to descriptions, achieve a greater profile for hidden collections, and open up data through appropriate use of technology. Re-using data is a practical solution.

The defining feature of this re-launch is the lack of work for individual archivists and repositories. Genesis partners have not had to do any! We are in the process of contacting partners to review their descriptions and ensure our indexing has been correct. This has given rise to additional descriptions being offered by institutions, but at a timetable that suits them.

The Genesis re-launch also throws up the question, ‘What other subject gateways could be created and maintained?’ LGBT, BAME, business records, military history, art – if there’s a subject term available and descriptions already in the Hub then the potential is there for us to harness.

Contact t.doherty@londonmet.ac.uk for Genesis or jane.stevenson@manchester.ac.uk at the Hub for further information.

.....
Teresa Doherty
 The Women’s Library, London Metropolitan University

www.genesis.ac.uk

ICA-AtoM

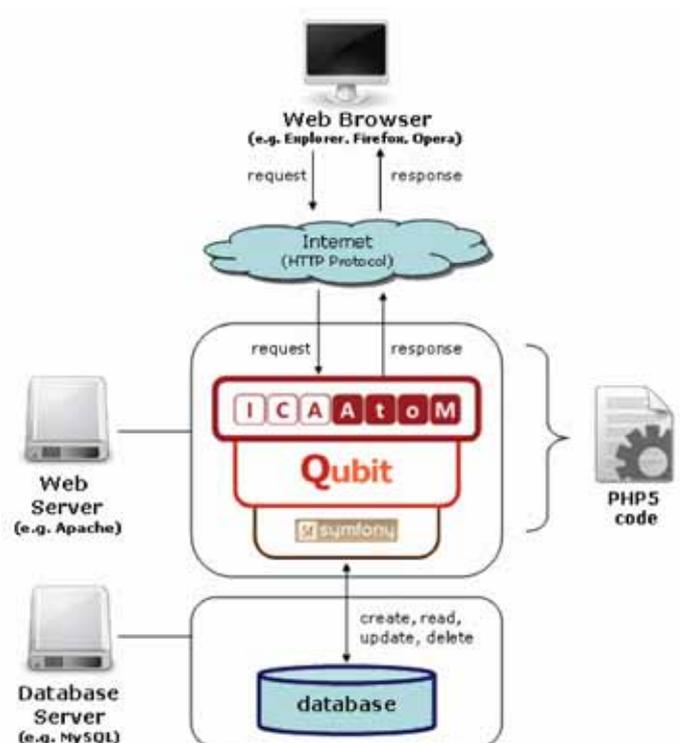
Victoria Peters introduces us to new, free, open source software for archival description.

ICA-AtoM is a brand new, free, open source, web-based archival description software. It was commissioned by the International Council on Archives (ICA) in order to enable any institution anywhere in the world, particularly small institutions with limited financial or technical resources, to make descriptions and images of their archival holdings available online. It was also designed to support both single and multi-repository implementations.

The lead developer is a Canadian company called Artefactual Systems, set up by Peter Van Garderen, a qualified archivist. However, the software has been deliberately made open source, which means that it is completely free to download and use and anyone is free to revise or improve it in any way they want as long as they then make their revisions freely available to everyone else. This way the whole community benefits, particularly those without the skills or resources to develop the software themselves. It is this culture of open source collaboration and communication which is very much at the heart of the development of ICA-AtoM.

ICA-AtoM – an acronym for Access to Memory – is a database-backed web application and is built entirely with open source tools rather than proprietary software. Basically, it consists of a database on a database server, html pages served to a web browser from a web server, a PHP software code and Symfony, which is a web application framework enabling the creation of web applications. All user interactions with the system (whether viewing, searching or editing) take place through the user's web browser. So, users access HTML pages on the web server and when they click a button or link, it triggers a

PHP script that sends a command to the database and returns the output as HTML back to the user's browser.



Courtesy of Artefactual Systems.

As you would expect with an ICA commissioned product, the software is fully compatible with the four ICA descriptive standards, namely the General International Standard Archival Description (ISAD(G)), the International Standard Archival Authority Record for Corporate Bodies, Persons and Families (ISAAR(CPF)), the International Standard for Describing Functions (ISDF) and the International Standard for Describing Institutions with Archival Holdings (ISDIAH). Descriptions of archives, corporate bodies, persons, families, functions and repositories

can all be created in accordance with the appropriate standard and then linked together to form an easily navigable and flexible whole. Indeed, this flexibility is one of the strengths of ICA-AtoM and means that it can support different approaches to archival description, including both fonds based and series based description. Digital objects such as scanned images, sound and moving image files, and other scanned or born-digital items can also be uploaded to sit with the appropriate description. ICA-AtoM also imports and exports Encoded Archival Description, Encoded Archival Context and Dublin Core and is Open Archives Initiative compliant, meaning that it can expose metadata to OAI harvesters using the Open Archives Initiative Protocol for Metadata Harvesting.

Version 1.1 of the software was only released at the end of last year but already there are a fair few implementations in different parts of the world. Here in the UK, the University of Strathclyde Archives' catalogue (<http://www.strath.ac.uk/archives/>) is an example of a single repository implementation and in Canada, MemoryBC (<http://www.memorybc.ca/>) is an example of a portal to archive descriptions in some 200 different repositories. In a multi repository setting like this, user accounts are set up which give archivists from each repository the power to edit only

the descriptions from their own repository, ensuring that security is maintained. In addition, it will soon be possible for individual repositories in a multi-repository implementation to customise their own repository page.

At present, ICA-AtoM is simply a tool for archival description. It does not yet have any management functions, although an accession module is planned for release this summer. As for the direction of any future development, this will very much depend on the uptake of ICA-AtoM by the archive community. For any open source product to take off, it is vital that the community adopts it. We need an active community of users and developers around the world all working on ICA-AtoM and sharing their work for the software to achieve its full potential. It is still early days but numbers of users are growing and there are already a few developers working on various improvements/additions to the software. If this momentum continues, then ICA-AtoM has a very positive future.

To download ICA-AtoM or to try out an online demo, go to <http://ica-atom.org/>

.....
Victoria Peters

University of Strathclyde Archives

The screenshot shows the 'View archival description' page for 'Item 1 - Design for a memorial fountain in a public place'. The page features a search bar at the top, navigation links for 'archives', 'names', 'subjects', 'places', and 'images', and a search icon. The main content area includes a drawing of a fountain design, a metadata table, and a collection list.

View archival description

Item 1 - Design for a memorial fountain in a public place

Creator

- Mackintosh, Charles Rennie, 1868-1928, architect and painter

Collection

- Collection T-GED - Patrick Geddes papers
 - Section 22 - Maps, plans, photographs, prints a...
 - Series 1 - Topography
 - File 1413 - Three designs (elevation drawings a...

Identity area

Reference code	GB 249 T-GED/22/1/1413/1
Title	Design for a memorial fountain in a public place
Date(s)	No date [c 1918] (Creation)
Level of description	Item
Extent and medium	1 drawing: colour, water colour, ink and pencil on paper;

.....

University of Strathclyde Archives' catalogue using ICA-AtoM. Courtesy of the University of Strathclyde

News from the world of EAD and EAC

Encoded Archival Description (EAD)

The first meeting of the new successor to the EAD Working Group, the Society of American Archivists' (SAA) Technical Subcommittee on Encoded Archival Description (TS-EAD), took place at the Society's Annual Meeting in August last year. Regular readers of this column will remember that this new group has been charged with the revision of EAD within a five year period and so the purpose of the meeting was to discuss the context for the revision and plan the way ahead.

It was felt that the main drivers for the revision are the many changes in the environment that EAD has to work in over the last decade with advances in:

- Standards for description: the International Council on Archives' framework of standards for archival description has been greatly extended, most significantly perhaps with the 2nd revised edition of International Standard ISAAR(CPF) and the related development of EAC-CPF. The US has of course seen the development and publication of *Describing Archives*, its new content standard.
- Concepts of Open Data, Linked Data, the Semantic Web and related technologies
- Database and mark-up technologies, particularly XML
- User contribution to catalogues and creation of online resources

The meeting also developed a timetable for the process which is currently timetabled as follows:

- October 2010 - February 2011: call for comments
- August 2011: discussion forum at SAA Annual Meeting and TS-EAD meeting
- Spring 2012: working meeting of TS-EAD (subject to funding)
- Summer 2012: working meeting of SAA's Schema Development Group
- December 2012: release of draft schema for testing and comment
- August 2013: publish revised version.

We have now completed the first of these activities and had responses to the call for comments from around the world including an official UK submission from the ARA's Data Standards Group which was

thrashed out at an extraordinary meeting at the British Library in January. While early days yet, the comments do suggest perhaps what the new version of EAD might look like. Hopefully, it will be:

- less complex and easier to teach and use
- work better with databases: there may for example be less opportunities for formatting and mixed content (tagging within tagging)
- allow the expression of relationships with other resources (not only archival) and corporate body, person, and family entities with definable roles including but not limited to creator
- allow the inclusion of data from other XML namespaces
- able to deal better with spatial data and allow the capture of geographic coordinates
- conformant to latest XML practice

We will be discussing the comments at this year's SAA Annual Meeting publicly and as a group, and are working hard at the moment to secure the funding to allow the face to face meetings necessary to complete the revision.

.....
Bill Stocking,
 Co-Chair TS-EAD

Encoded Archival Context (EAC)

After the excitement of the release of Encoded Archival Context - Corporate Bodies, Persons, and Families (EAC-CPF) last year, this year has necessarily been much quieter. Welcome news is that, in January, the Council of the Society of American Archivists voted to adopt EAC-CPF as an SAA standard. It also agreed to create a Technical Subcommittee on EAC-CPF to oversee its maintenance and ongoing development. This Subcommittee will parallel the Technical Subcommittee on Encoded Archival Description. The composition of the Subcommittee is currently not decided but will include international representatives, including one or two from the UK, as well as SAA members.

.....
Victoria Peters

Former member of EAC Working Group

Arrangement and Description of born-digital Archives

Simon Wilson offers an insight into the challenges posed by born-digital records and a solution offered by the AIMS project

The AIMS project (An inter-Institutional Model of Stewardship for born-digital archives) is a two year project, funded by the Andrew W. Mellon Foundation, led by the University of Virginia alongside the Universities of Hull, Stanford and Yale.

The project, which finishes at the end of September, is looking to create a framework, the AIMS 'model', for managing born-digital archives using the Fedora digital repository. With each project partner having a different approach to born-digital archives, this variation has been critical to our collaborative efforts to identify common functional areas, tasks and processes. It is hoped that the model will be relevant to any institution, irrespective of local policies, procedures and the collection management software used.

Although the University of Hull had installed and implemented a Fedora repository, the University Archives had no previous experience with born-digital archives. The innovative nature of the project was recognised last September when it was awarded *Archive Pace Setter* status. Although the learning curve can appear daunting, we have tried to stand back from the specific details of how we actually undertake a task to consider the core archival principles and practices involved. This makes it easier to identify if changes are required to accommodate the particular issues surrounding born-digital archives.

The project's software developer, based at the University of Virginia, has created *Rubymatica* - a tool that will create appropriate technical metadata and place the files into a BAG-IT format for importing into Fedora. It also runs each file through the DROID tool to identify and classify the file types into a number of broad categories to provide a snapshot of the archives.

The digital archivists at each institution have been working together to define the requirements for a tool that would enable archivists to view, arrange and describe born-digital archives that are stored in a digital repository. Through a series of user stories and scenarios we have sought to clearly explain the requirement and how this might relate to other functionality. The bulk of this work has been undertaken using *GoogleDocs* as a simple but effective mechanism to allow a single document to be worked-on by multiple authors simultaneously. It has allowed us to

add comments, seek clarification, create diagrams and include screenshots as necessary.

In the remaining months of the project we will be working with developers to produce a proof of concept that we hope to demonstrate at the Society of American Archivists' Conference in Chicago. We have identified the need for an intuitive graphical interface that will allow an archivist to drag and drop a file, or group of files, from one pane to another; with the left-side (the drag) representing the structure of the files as created by the depositor and the right-hand side (the drop) representing the intellectual arrangement of the material. With the material being held in a digital repository we are not actually moving the digital assets around but changing its relationship with other digital assets.

One of the most obvious differences with born-digital archives is the sheer volume of material. Attitudes to archival description have changed over time and the University is likely to move away from describing each 'file' to a policy of describing material at series level, which seems more manageable. Working with born-digital material also changes the nature of the relationship with your depositors. An archive not only needs to be more proactive in collecting and processing the material but also needs to demonstrate consistency of stewardship, including access rights and permissions, irrespective of format.

We don't have all of the answers; with each question addressed new questions occur to us. Initially unsettling, we have accepted this as a part of the born-digital archives learning curve. The integration of paper and born-digital material into a single catalogue and how to provide authenticated access to born-digital material across the web are just a few un-answered questions on our list. We have been greatly assisted by colleagues across the world and the project will publish a white paper highlighting the lessons we have learnt so that others can follow us on this journey.

Simon Wilson

Digital Archivist (AIMS Project),
Hull History Centre

Email s.wilson@hull.ac.uk

Project blog: <http://born-digital-archives.blogspot.com/>

Introducing the Open Planets Foundation

Bram Van Der Werf explains how we can access the latest thinking on digital preservation issues

The Digital Preservation challenge in the past 15 years

This challenge has been addressed with varying success. At first, much of the dialogue and research focused on the difficult technical problems involved in managing digital material such that it can survive changing computational platforms. Later on, in the past decade or so, more effort has been invested in preservation policies and strategies, planning tools, risk management methods, audit and certification checklists. Results, funded by substantial project subsidies, have difficulty enduring. Project managers and project staff come and go with the tide of project money. Individual organisations investing structural resources in digital preservation seem to achieve more durable results, but they are struggling in a lonely battle against the dangers of technological obsolescence. The Open Planets Foundation (OPF) was established in 2010 to build a sustainable community of practitioners in the field and to share solutions and expertise in digital preservation. OPF aims to ensure that its members around the world are able to meet their digital preservation challenges with solutions that are widely adopted and actively practiced. In order to achieve its purpose, OPF is keen to work closely with memory institutions around the world.

Deployment of tools and empowering the practitioners

Part of OPF's strategy is to sustain and maintain tools and practices resulting from R&D initiatives. Most R&D projects produce software prototypes that are suitable for experimental purposes and evaluation. From an R&D perspective perfectly legitimate, as long as there is no expectation that these tools can be used in production. Only by involving the practitioner's community can the full deployment and usage of such tools be guaranteed.

Back to the technical challenge: usage is at the core of the solution

OPF's focus lies in managing the technical challenge of digital preservation. Whereas in the analogue world usage leads ultimately to destruction, in the digital world usage means survival. We all know how archivists and curators of rare books do their utmost to control access conditions for their collections. They do this for very good reasons: paper is best preserved if it is not touched by human fingers and not exposed to light or variations in climate conditions. Digital information however is best preserved if it is used regularly. If digital master files are stored in dark archives and never used, the risks of bit rot and damage to file integrity are higher than if the files are used on a daily basis. With usage, signs of technological obsolescence are more immediate and can be acted upon at once. In other words, a paradigm shift is needed in the preservation community in order to be able to address the digital preservation challenge.

How to keep up with the speed of technology change and innovation

The life cycle of hardware, software and formats will only become shorter due to innovation in industry. Our sector itself has very limited impact on industry's legacy decisions. Being on the receiving end of innovation and change, we need to act swiftly in order to fulfil our longevity mission. Traditional academic dissemination channels such as publications and seminars are still a good vehicle to align and create wide and global consensus, but lack speed and responsiveness. Blogging, twittering and pushing discussions and issues around the digital preservation community will stimulate an almost real-time global discussion and a forum of experts. It takes an open community approach to make this type of knowledge exchange work. The OPF user and practitioner site (www.openplanetsfoundation.org),

is actually setup as a blogging site, where relevant blogging and comments will be collated in the OPF wiki (<http://wiki.opf-labs.org/display/KB/Home>) for more structured sharing of experiences. Both sites are moderated by OPF but are open to any professional contribution from both practitioners and technologists.

The knowledge and human resources challenge

Memory institutions increasingly need to have immediate access to in-depth knowledge relevant to the longevity of digital objects. Developing and managing this knowledge requires technical, competent staff with daily exposure to longevity challenges within archives and libraries. OPF seeks to work with archivists, digital preservation experts, technical staff, software developers and systems administrators in memory institutions. Involving the workplace employees is the only way to ensure that expertise will be developed where needed and that the tools that are needed will be developed and used. The investment in human resources goes way beyond what each individual institution, including major national organisations, can afford. This is where web 2.0 approaches, with moderated wikis for knowledge sharing and collaborative software development and maintenance of tools, can be a valid alternative. OPF believes that the sum of knowledge contributions of empowered experts in the community will exceed the capacity of each individual organization. An online digital preservation community sharing its problems, motivated to solve these together is probably the best feasible options under current financial constraints.

Bram Van Der Werf

Executive Director of the Open Planets Foundation

The Digital Preservation Awards

The 2010 Digital Preservation Award was presented at the Royal Society in London on 1 December 2010 and is one of five awards collectively known as the Conservation Awards.

Established and sponsored by the Digital Preservation Coalition (DPC), the award 'celebrates the excellence and innovation that will help to ensure our digital memory is available tomorrow'⁽¹⁾. It is presented to projects demonstrating leadership in digital preservation, and attracts a strong international field representing some of the most ground-breaking developments.

Since its inception in 2003, the Digital Preservation Award has been made four times. The UK's National Archives (TNA) won in 2004 for the Digital Archive Project. This designed and delivered, in support of the Modernising Government Agenda, storage and access for UK government records in different digital formats. The 2007 award, also won by TNA, recognised two tools developed to ensure that the technical requirements of digital material can be identified and the best arrangements for their continuing access made. PRONOM provides information regarding file formats and the software which renders these. Used in conjunction with PRONOM, the DROID tool automatically identifies file formats.

In 2005 the international PREMIS (Preservation Metadata: Implementation Strategies) Working Group won the award for the development of the PREMIS Data Dictionary and accompanying Data Model. These established a set of core metadata elements, applicable across the digital preservation community, to support the long-term management and accessibility of digital material.

Reflecting the continuing maturing of digital preservation techniques, the 2010 award attracted a larger number, and higher standard, of entries than previous years. The judges' short-list was open to votes and comments from the DPC's membership bodies with the ARA vote for *Plato 3* (see below) being agreed by members of the Data Standards Group Committee.

The 2010 award was presented to Old Dominion University and the Los Alamos National Lab, USA, for the *Memento Project*⁽²⁾. Subtitled 'Adding Time to the Web', the Memento architecture enables a time dimension to web browsing, allowing seamless navigation to previous versions of websites which have been officially archived or retained. This is achieved through an implementation of the HTTP protocol which allows the addition of a time dimension. There were four runners-up for the 2010 award, which also

showed innovative and practical solutions to real digital preservation problems.

1. *Web Continuity: Ensuring Access to Online Government Information - The UK National Archives (TNA)*⁽³⁾

Responding to concerns expressed in 2007, regarding broken links in Hansard (the House of Commons Daily Debates), the Web Continuity Project comprehensively archives UK Government websites 3 times a year and automatically redirects people to this archive should they click on a broken link. Websites include all those from government departments, agencies and non-departmental government bodies. Guidance for webmasters ensures that best practice is followed, while a database tracks administrative and technical details.

2. *The Blue Ribbon Task Force on Sustainable Digital Preservation and Access*⁽⁴⁾

The Blue Ribbon Task Force's trans-Atlantic team researched the economic sustainability of digital preservation, publishing their final report in 2010⁽⁵⁾. They identified organisational, technical, public policy, educational and outreach activities required to ensure the digital continuity of materials relating to: scholarly discourse, research data, commercially owned cultural content and collectively produced Web content. Problems with demand and supply of digital preservation activities were highlighted and recommendations for future action made.

3. *Plato 3: Preservation Planning Made Simple - Vienna University of Technology and the PLANETS Project*⁽⁶⁾

PLATO offers a publically available web-based decision support tool which automates the development of a preservation plan which includes all the activities and support services required for successful digital preservation. These include: file format identification, preservation actions such as migration and emulation, and digital object characterisation and comparison. Plato 3 extends the capability of the tool to provide additional support for particular software and toolsets.

4. *Preserving Virtual Worlds - University of Illinois at Urbana Champaign, Rochester Institute of Technology, University of Maryland, Stanford University and Linden Lab*⁽⁷⁾

Case studies of a number of video games and interactive fiction games were created with the aim of developing metadata standards and content representation, to aid long-term curation and preservation. Preservation problems identified included: obsolescence of hardware

Educating the future digital archivist

James Peters expounds the benefits of the Digital Preservation Training Programme

Last October, I was the lucky beneficiary of a scholarship from the Digital Preservation Coalition to attend the Digital Preservation Training Programme. A number of archivists have now been able to attend the Programme thanks to the generosity of the DPC, of which the Archives and Records Association is an associate member, and hence eligible for the scholarships.

The Digital Preservation Training Programme (DPTP) has been running for several years, and enjoys a considerable reputation for providing intensive and comprehensive training in digital preservation. The Programme is run by the University of London Computer Centre, in association with the DPC. I attended the course held at the School of Oriental and African Studies between 4-6 October 2010.

The Programme is designed to be relevant to information management sector as a whole, although it has been particularly attractive to archivists, who seem to have recognised digital preservation as a key activity of the near future. The reputation of the Programme was also borne out by the international make-up of those attending.

The Programme was held over three days, in an intensive teaching and learning environment of lectures and group/individual projects. The aim is not to provide hands-on training in various preservation techniques and software, but rather to provide a comprehensive intellectual grounding in the key concepts and activities of digital preservation. This approach is however far from being just theoretical; students are expected to critically assess and apply concepts and tools to 'real world' scenarios of digital preservation.

The course is carefully designed to ensure that students can absorb a great deal of information incrementally, and ultimately holistically. This is facilitated by structuring the course around the Open Archival information System (OAIS) reference model; OAIS applies the archival concepts needed for long term digital information preservation and access into a coherent theoretical model. It was originally designed for preservation of space science data, and as one of our tutors reminded

us, if digital preservation often seemed like rocket science, that's because it is! I had previously considered OAIS to be rather abstruse, but the course tutors successfully presented it as the essential, accessible framework with which to tackle digital preservation.

The course modules were wide-ranging and included: the OAIS model, file formats, preservation strategies and methods, institutional repositories, software tools, access metadata and the AIDA toolkit. One of the strengths of the course is that it does not treat digital preservation as simply a matter of technologies, but gives equal consideration to the organizational environment in which preservation is justified and accomplished. Thus there were modules on risk management, legal issues and building a business case for digital preservation. The ability to present an effective case to employers and colleagues for a digital preservation programme was emphasised as an integral part of the process, particularly when it can appear to be an expensive and complex activity.

These messages were backed up by a range of group exercises, where participants were able to critically assess and apply the theories, concepts and tools. The exercises were also a useful opportunity to share our experiences of digital preservation activity within our own organizations, and how it matched with what we were taught.

Overall, the DPTP was an excellent introduction to digital preservation. Previously I had only the most rudimentary understanding of the main issues, but I left confident that, although not an expert, I could tackle the main issues. It helped that the tutors, Patricia Sleeman, Ed Pinsent and William Kilbride, tackled their subject with enthusiasm and knowledge, and I would recommend the Programme to any archivist tentatively wishing to take the plunge into digital preservation. For further information on the Programme: <http://www.dptp.org/>

James Peters

The University of Manchester

and software; identification of the boundaries of the digital material to be preserved; identification of intellectual property rights; the collection of representation information and the development of effective preservation strategies.

The Digital Preservation Awards ensure that the best innovations in the field are rewarded, not only through the winner's trophy and cash prize, but also through professional recognition that short-listed projects fulfil the aim of preserving our digital memory. The 2010 awards demonstrated the progress and growth of the discipline since their inception.

Sarah Higgins

Aberystwyth University

(1) <http://www.dpconline.org/newsroom/latest-news/655-memento-project-wins-digital-preservation-award-2010>

(2) *Memento: Adding Time to the Web* <<http://mementoweb.org>>

(3) *Web continuity* <<http://www.nationalarchives.gov.uk/information-management/policies/web-continuity.htm>>

(4) *The Blue Ribbon Task Force on Sustainable Digital Preservation and Access* <The Blue Ribbon Task Force on Sustainable Digital Preservation and Access>

(5) *Sustainable Economics for a Digital Planet: Ensuring Long-Term Access to Digital Information* <http://brtf.sdsc.edu/biblio/BRTF_Final_Report.pdf>

(6) *Plato, the Planets Preservation Planning Tool* <<http://www.ifs.tuwien.ac.at/dp/plato/intro.html>>

(7) *Preserving Virtual Worlds Final Report* <<https://www.ideals.illinois.edu/handle/2142/17097>>

Digital Preservation Coalition Roundup

The Archives and Records Association (ARA) is an associate member of the Digital Preservation Coalition (DPC), a not-for-profit membership organisation which aims to make 'our digital memory accessible tomorrow'⁽¹⁾. To this end the DPC raises awareness of the need for digital assets to be preserved, and strategies and technologies to enable this. It collaborates with preservation stakeholders, as a neutral body, to: share best practice; support the development of standards and generic approaches; and embrace a consultative, innovative and open approach⁽²⁾. The Data Standards Group (DSG) co-ordinates ARA liaison with the DPC.

A number of benefits to both individuals and the Association accrue from our membership of the DPC. Places are reserved for ARA members at all training events, with one reserved place being offered free. Over the last year ARA members have attended a number of training events including: the 'Getting Started in Digital Preservation Roadshow', and 'Decoding the Digital: a Common Language for Preservation'. Two members have benefitted from the DPC Leadership Programme, obtaining competitive scholarships worth nearly £800.00, to attend the Digital Preservation Training Programme. This is a three day course for those 'grappling with the fundamental issues of digital preservation'⁽³⁾. Members of the Data Standards Group have also participated in a number of DPC focus groups including their Membership Review Working Group, the Future Planning Meeting and the AGM. Discussions are taking place regarding ways of supporting participation in digital preservation activities amongst Archives and Records Management students. The DSG submitted a vote for the Digital Preservation Award 2010, with a few ARA members attending the awards ceremony in London in December 2010.

Forthcoming events and training opportunities are listed on the DPC's website⁽⁴⁾. ARA members are advised to keep their eye on these and contact Sarah Higgins <sjh@aber.ac.uk> in the first instance if you'd like to take advantage of a free place, or discuss opportunities for further involvement with the DPC.

Sarah Higgins

Aberystwyth University

(1) *Digital Preservation Coalition* (2011) <<http://www.dpconline.org/>>

(2) *Our Values*. (2009). Digital Preservation Coalition <<http://www.dpconline.org/about>>

(3) Digital Preservation Training Programme <<http://www.dptp.org/>>

(4) DPC Events <<http://www.dpconline.org/events>>; DPC Training <<http://www.dpconline.org/training>>

A Guide to Archival and Related Standards

Standards applicable to archives; for the digital delivery of repository guides, finding-aids, and images of material from collections.

Title: Open Document Format for Office Applications (Open Document) - ODF

Name of Standards Developing Organisation

OASIS (Organization for the Advancement of Structured Information Standards)

Current versions

Open Document Format for Office Applications (OpenDocument) Version 1.2, March 2011

The current version of ODF is 1.2, which was approved as an 'OASIS Committee Specification' by the *OASIS Open Document Format for Office Applications (OpenDocument) Technical Committee* in March 2011. ODF 1.2 will soon be subject to an official OASIS vote, which will see it formally adopted as an OASIS standard. While ODF 1.2 has yet to be rubber-stamped by OASIS, it is cited here as the current version because it is already used in numerous office applications.

Replaces

- Open Document Format for Office Applications (OpenDocument) Version 1.1, 2 February 2007
- ISO/IEC 26300:2006 - Information technology -- Open Document Format for Office Applications (OpenDocument) v1.0
- Open Document Format for Office Applications (OpenDocument) Version 1.0, 1 May 2005

Abstract

ODF is a widely adopted standardised format for the storing and sharing of office productivity suite

documents. Support for ODF has been implemented in widely used word processors, spreadsheet and presentation applications.

Description

Open Document Format describes an XML format for office documents as well as the characteristics of software applications which read, write and process such documents. The ODF standard is therefore applicable to document authoring, editing, viewing, exchange and archiving, including text documents, spreadsheets, presentation graphics, drawings, charts and similar documents commonly used by personal productivity software applications.

The origins of the ODF format lie with a company called StarDivision, which began to develop an XML format for office documents for use with its StarOffice software in 1999. The goal was to create an open interoperable file format that could be easily implemented by others. StarDivision was acquired by Sun Microsystems later that same year, and in 2000 Sun released the StarOffice codebase creating the openoffice.org productivity suite. The first draft ODF specifications were made available to users through this release.

Although ODF's genesis is linked with the openoffice.org community, responsibility for development and maintenance of the standard has long been transferred to a higher-level body, a requirement for the ODF standard to be considered a vendor-neutral format suitable for use in any office application. Since 2002, the *OASIS Open Document Format for Office Applications (OpenDocument) Technical Committee* has overseen development of ODF. The Committee includes representatives from IBM, Microsoft Corporation, Nokia Corporation, Novell, Oracle Corporation and The Boeing Company. OASIS is also the designated maintenance body for ISO/IEC 26300:2006 liaising with ISO/IEC JTC1 SC34, which is the international standardisation subcommittee for document description and processing languages standards and technical reports related to structured mark-up languages (specifically the Standard Generalized Mark-up Language (SGML) and the Extensible Mark-up Language (XML)) in the areas of information description, processing and association.

Important characteristics of the ODF standard, from a record-keeper's perspective, include the following:

- ODF is XML-based
- ODF is an open standard

- ODF is application-independent
- ODF is platform-independent
- ODF is vendor-neutral
- ODF makes use of existing standards (e.g. HTML, SVG, XSL, SMIL, XLink, XForms, MathML, and the Dublin Core)
- Software components for processing ODF are freely and widely available.

Improvements to ODF in version 1.2 include: support for Resource Description Format (RDF) metadata, advanced digital signatures and enhancements to key areas of ODF such as formulae.

Documentation

Specifications for each of the ODF versions are published on the OASIS web site in a number of formats. The ISO/IEC standard document for ODF 1.0 may also be downloaded freely.

Adoption

A number of public sector organisations worldwide are encouraging the use of open format solutions to avoid vendor lock-in of data. For example, the Danish parliament have decreed that from April 2011 governmental authorities in Denmark must be able to send and receive documents in formats included in a reference list of open standard formats, including ODF.

Implementations

A number of office applications provide native support for Open Document; these include: Corel WordPerfect Office X4, IBM Lotus Symphony, KOffice, LibreOffice, Microsoft Office 2007 Service Pack 2 (Windows only), Microsoft Office 2010, NeoOffice, Okular, Oracle Office and StarOffice. Additionally, a number of plug-ins are available to provide ODF support for office software, such as earlier versions of Microsoft Office. As web-based office applications increase in importance it is also worth noting that ODF support is widespread in this environment, for example: Adobe Buzzword, Google Docs and WebODF.

Next month

Next month we will look at UKAT (The UK Archival Thesaurus) a subject thesaurus created specifically for UK Archivists.

.....
Susan Thomas

Bodleian Library, University of Oxford

The Case for Nationalisation

This month, our Anonymous Correspondent turns his eye to business archives

The recent alarms and excursions regarding bankers' activities and bonuses may not seem to have much relevance to the archive profession but I suggest that it has quite a lot. It is symptomatic of the attitude of business towards its public responsibilities: 'Keep off our bonuses' is the same as 'keep off our archives'.

All organisations operate in the last resort because the laws of the nation and the indulgence of the citizens allow them to do so. Cricket clubs absorb large quantities of the national resources – think of the space, equipment and housing needs, administrative and playing effort (at least 100 man-hours per game) and the carbon footprint of 22 players cavorting over the countryside. This simple analogy applied to business demonstrates overwhelmingly that there is no such thing as the 'private' sector. The proposed extension of Freedom of Information to a wider range of organisations may indicate a reluctant official acknowledgement of the fact.

The consequence for business archives seems to me to be immense. Any activity which depends so obviously on public acceptability in order to function must accept that its archives are of national relevance. No doubt this is revolutionary in British archive thinking. Archivists know well the possessive syndrome. Many employees think that archives are their personal property, to move even further and assert that the employer should not have total dispensary power requires a conceptual leap of some magnitude.

Moreover while businesses may be prepared to accept that products and artefacts are of legitimate public interest, archives are viewed as either junk or dangerous material which can damage the health or wealth of their creators. Public perceptions strengthen this. The money lavished on the preservation of *Flying Scotsman* would have given us the finest National Business Archive in the world. But if, instead of a piece of metal, the appeal had been to preserve archives relating to its construction and

running would anything have been done at all? Obsession with the product rather than the narrative is a besetting sin of the English. Sir Terence Leahy, recently retired head of Tesco, announced that companies with good archives are doomed to fail (*Director Magazine*, February 2011); an attitude all too prevalent among the arrogant, self-opinionated world of British senior business managers.

But there are exceptions. Several large companies do run archives and records management services and are successful, despite Sir Terry. Even some local record offices have accepted, reluctantly perhaps, that the archives of businesses are a legitimate field of activity. The problem in England, especially, is the basing of archive services on local authorities, often anti-business in their outlook, and the pusillanimous attitude of The National Archives which has always ducked out of campaigning for a national archive patrimony act. How exceedingly British is the so-called National Strategy for Business Archives; high on good intentions and low on resources. As a cynical ex-member of the business community, I recall that any project regarded as likely to come a cropper was always labelled 'strategic'.

Business archives are a resource of the nation, not a liability to the business. They are an essential part of the national archival patrimony and as such should be monitored under a national, comprehensive, and consistent system. They need deployable resources in terms of manpower, expertise, and accommodation and a statutory regime which will provide the framework and set out retention rules within flexible parameters. Companies funding their own archive services should be rewarded through the tax system - a method not possible for other forms of archive.

Never mind bankers' bonuses, what we want is their archives.



PAPER CONSERVATION

Graham Bignell Paper Conservation & Restoration

Tel: 020 7729 3161

Founded in 1981, Graham Bignell Paper

Conservation is an accredited member of the

Institute of Paper Conservation, specialising in

the conservation of all works of art & archives, on paper & parchment.

Welcome to the ARC Directory - your one-stop-shop for all things related to archives. If you would like to advertise, please contact: Email: anu@cabbell.co.uk and Tel: 020 8971 8457

Calling All Colleagues!

ARC is always seeking articles reflecting the issues that matter to you most. We would love to make ARC more provocative and publish pieces that reveal the sector's opinion.

If you would like to send something for inclusion in the magazine, or write and let us know what you'd like to read about, please send articles to arceditors@archives.org.uk. Guidelines for articles for ARC can be found on the Association's website: www.archives.org.uk.





Over 10,000 items ready for dispatch.

As the leading specialist, we have Europe's largest choice of conservation and archival supplies ready for dispatch, ensuring a prompt and efficient delivery service; backed by 25 years' experience and unbeatable customer care.

Browse our full range of products and latest developments online.

pel
giving history a future

T **+44 (0)1379 647400**

W **www.pel.eu**

E **info@pel.eu**

F **+44 (0)1379 650582**

Preservation Equipment Ltd, Vincennes Road, Diss, Norfolk, IP22 4HQ, UK



BY APPOINTMENT
TO HER MAJESTY QUEEN ELIZABETH II
SUPPLIERS OF CONSERVATION STORAGE,
EQUIPMENT AND DISPLAY PRODUCTS
CONSERVATION BY DESIGN LIMITED
BEDFORD

planorama®

aluminium storage and display systems
designed to solve problems....



Big drawers | Slim drawers | Display drawers | Framed drawers | Showcase tops

- Bespoke modular drawer and display system
- Conservation quality inert materials
- Combines simplicity and durability
- Lightweight, stylish and space efficient
- Intelligently designed
- Hand built by craftsmen



CONSERVATION BY DESIGN LIMITED

Timecare Works, 5 Singer Way, Kempston, Bedford, Bedfordshire, MK42 7AW, Great Britain
tel + 44 (0) 1234 846 300 fax +44 (0) 1234 852 334 email info@conservation-by-design.co.uk

www.conservation-by-design.co.uk