Are Our Users Being Served?: A Report on Online Archival Databases

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The analysis of a dozen websites offering online access to archival finding aids shows that many applications currently do not take their users' needs sufficiently into account. The Internet is a new medium with larger and more diverse groups of users than archives have so far been concerned with. Before archives start to share their resources to make their holdings more accessible, they should find out who the potential users of archival resources on the Internet are, what they are looking for and which navigational features and contextual information they need to make sense of their findings.[1]

Introduction

The original aim of this project was to conduct a feasibility study for a national web-based search facility. At the centre stood the resolution of the National Scholarly Communications Forum Round Table on Archives of 1999 to endorse 'the vision for the creation of a web-based distributed search/access infrastructure for archives based on common descriptive and technical standards'.[2] In the process of preparing this report, the emphasis has shifted from the descriptive and technical standards to the users' interests, expectations and satisfaction. It seems that, so far, the development of online archival resources has been almost exclusively supply-side driven, and

thinking about linking distributed resources seems to be a good time to take the demand side into account. There are several arguments for this:

- the Internet produces a market situation with institutions competing for popularity – and funding;

- re-engineering archival practices according to new standards is a time-consuming and costly affair which might put off potential participants; and

- the ephemeral character of the Internet gives the opportunity of applying interactive and recursive processes.

Also, what users seem to need most in the web environment is context to assess trustworthiness of information. The future of archival description might therefore lie more in the development of best practices than in the development and application of strict standards.

After a brief overview of initiatives to make archival holdings available on the Internet, twelve examples are evaluated in a non-representative way. The web is changing at an enormous speed, so many details will not be up-to-date at the time of publication. Nevertheless, many of the questions raised and issues identified will still need to be addressed.

A lopsided relationship: Archival resources online

The supply side

The last couple of years have seen a huge surge of online access to archival holdings. In many countries, archives are being encouraged to make their contact details and at least a guide to their holdings available through common gateways (eg the Australian Society of Archivists' *Directory of Archives in Australia* or the *Scottish Archival Network SCAN*[3] and in a more extensive way the National Archival Database of Sweden[4]); other projects draw significant funding by linking them to major government initiatives, such as the British *Access to Archives* (*A2A*, adhering to the National Grid for Learning, focusing on creating cultural identity and funded by the Heritage Lottery Fund); the *Australian Museums Online (AMOL),* sponsored by the Cultural Ministers Council; and the *Australian Government Locator Service (AGLS)* project, supported by several government agencies in different Australian jurisdictions. Many of these projects provide incentives to participants, eg the free creation of a website (*Archives of Australia*, the Commonwealth's entry point) or assistance for grant applications (*A2A*). This shows that institutions expect to receive returns by participating in joint projects, especially if it requires them to carry out additional work.

A slightly different approach is sharing decentralised resources by agreeing on the smallest common denominator. Examples are the Research Libraries Group's *Archival Resources*, using Encoded Archival Description (EAD), MARC AMC as well as HTML, and *PictureAustralia* (Dublin Core metadata set). While both projects do add some work for the providing institutions, it does not influence their workflow or their descriptive standards. Moreover, the advantages of participating in the joint project seem to offset the effort: because their holdings are more accessible and they remain visible in the network, the institutions profit from a significant public relations effect. The competitive situation – at least in the example of *PictureAustralia* – also seems to have a positive influence on institutions' willingness to improve the quality of the data provided on the web.

The demand side

Up to now, very little research on users' satisfaction with archival information provided on the web (or in general, one might add) has been conducted.[5] In any event, access has become easier – but do people really find what they are looking for? The web creates spaces completely different from those archivists are used to dealing with, it may attract new audiences, and it follows its own rules. This report recommends that we find out more about the users. The evaluation of existing applications, the needs of current users (of archives in general as well as their online databases) and behaviour on the web in general might help in giving direction. We have set out to do the first: to find out more about the role of users and to identify similarities and differences of the current systems and their advantages and disadvantages. A dozen archival online resources from five countries were reviewed to this end. The results are an analysis of shared resources and the way levels of description are used, leading to the recommendation to link descriptive data in a network of networks and individual data; a complex of questions about users and their behaviour; and some more detailed information on these applications, especially on their user interfaces, in the Appendix.

Current archival online databases: An analysis

The twelve applications studied were:

- Archival Resources (Research Libraries Group, USA) (subject to subscription[6])

- Archives de la Ville de Genève, *www.ville-ge.ch/excite/AT-archivesquery.html*

- Archives Investigator (State Records New South Wales), *www.records.nsw.gov.au/investigator/investigator.htm*

- ArchivesSearch (Queensland State Archives),
  www.archivessearch.qld.gov.au/Production/QsaMain.Asp

- Bright Sparcs (Australian Science and Technology Heritage Centre),
  www.asap.unimelb.edu.au/bsparcs

- Informationssystem der Archive in Nordrhein-Westfalen,
  www.archive.nrw.de

- OASIS (Online Archival Search Information System, archival and
  manuscript collections at Harvard University), *oasis.harvard.edu*

- Online catalogue, Public Record Office, UK, *catalogue.pro.gov.uk/
  ListInt/Default.asp*

- PictureAustralia, *www.pictureaustralia.org/servlet/pa*

- RAAM (Register of Australian Archives and Manuscripts),
  www.nla.gov.au/raam/raam.html

- RecordSearch (National Archives of Australia), *www.naa.gov.au/
  The_Collection/recordsearch.html*

- Staatsarchiv Luzern, *www.staluzern.ch/suchen.html*

Shared resources

Of the applications under review, six are shared resources. The
Informationssystem der Archive in Nordrhein-Westfalen links archives in the
German state of Nordrhein-Westfalen (ie on a geographical/political base).
A similar case is the Swedish *Nationell Arkivdatabas,* not further discussed in
this paper because it is not available online. *PictureAustralia* is a network on
the basis of a records format, images in this instance. *Archival Resources, RAAM*
and *OASIS* link archives and manuscripts holdings of libraries, ie a special
type of records (personal papers). The key description of these is the name of
the creator, which also holds true for *Bright Sparcs,* which focuses on scientists.
This application is a special case, because while it does link resources it does
not describe archival holdings of its own. It is more like a thematic guide,
compiled by carrying out extensive research over the boundaries of one
institution.

Even though the choice of common criteria in the above mentioned databases
seems to reflect institutional requirements rather than users' interests, it does
raise the issue on which common grounds archival databases should be linked
to each other. The question arises whether the range and diversity provided
by a very broad approach or the specificity of a selection serves users best.
Which users they serve most is probably even more of an issue in this case.

The cooperation in Nordrhein-Westfalen addresses people who are interested in their local or regional history. *RAAM* and especially *Archival Resources* (which is not freely available) cater mainly to scholars who are ready to travel in order to investigate the full range of records available. *Bright Sparcs* and *PictureAustralia* are the systems which are most independent of the location of archival holdings (*Bright Sparcs* because it places people's biographies at its centre; *PictureAustralia* because it provides the primary resources online) – and at the same time, they are the most specific resources.

All of the shared resources are linked by a central database, but these have very different preliminaries. *Archival Resources* does not make any requirements on which metadata must be present; the only common denominator is that the finding aids are encoded in EAD. Though EAD does support use of intellectual standards such as ISAD(G), it is not in itself a standard for metadata. *RAAM* has three mandatory (creator, title, location) and several optional fields. *PictureAustralia* requires a Dublin Core metadata set to each image. *Bright Sparcs* enters descriptions of its own on records held elsewhere. The minimum requirements for the *Informationssystem der Archive in Nordrhein-Westfalen* are not quite clear but seem to be something like repository, title, relation of the fonds to the tectonics of the archives, and the date range of the records. The minimal common metadata sets on the one hand reflect the lack of standardisation in the tradition of archival description. On the other hand, it shows on what small common grounds the databases can be quite successfully linked to each other. The most important question considering metadata standards seems to be which fields are most important to users and must therefore be mandatory to ensure a reasonable level of retrieval.[7]

The only example out of the applications under review which can really be considered to be a network is *PictureAustralia*. Currently, it consists of the image databases of five participating Australian libraries, the Australian War Memorial and the National Archives of Australia. To find out more about an image, the user leaves the shared area of the network and views the image and its original metadata in the database of the contributing institution. The RLG's *Archival Resources* is similar in that the user views the original finding aid (produced according to the descriptive standards of the originating institution), but unlike *PictureAustralia*, all data are stored centrally and there are no systematic links to the databases of the originating institutions.[8] Some, but by far not all institutions, have links to their own websites from the finding aids. In *PictureAustralia* the descriptions as seen in the shared area often seem to be imprecise, but they become much more reliable when interpreted in the context of the original databases. However, it would be interesting to find out how non-professional users value the context of information given, ie the

level of information, related information and the trustworthiness of the source itself. Are they interested in this information (or how do they judge the reliability or preciseness of the answers if they are not?), do they know how to get it if it is not provided easily, and how much patience do they have to browse around (in one system or over system boundaries)?

Levels of description

Of the twelve archival databases, six provide information on different levels of description,[9] five exclusively on series/fonds level[10] and one on document level only.[11] In a web environment where information abounds, restricting queries to the series/fonds level on the one hand greatly reduces the number of hits, but on the other hand might exclude useful results. One of the central ideas of multi-level description according to ISAD(G) is to record full and accurate descriptive information at the highest possible level. The aim is to enable users to identify fonds or even whole collections which have the highest relevancy to them. All of the non Anglo-Saxon examples reviewed (Geneva, Lucerne and Nordrhein-Westfalen) search only fonds-level descriptions including the descriptive notes. The PRO's online catalogue has the most consequential top-down approach: it first searches through the class (series) level; after those results have been displayed, the user has the opportunity to continue searching the document level. *RecordSearch* does not influence the user's itinerary but instead structures the results according to levels and categories (items; series; agencies/persons/organisations; and information summaries).

Other applications determine relevancy by ranking results according to the number of times the search term was found in the descriptive units – a concept which also relies on multi-level description or at least relatively detailed description on one level. While *Archival Resources* ranks hits according to this concept of relevancy, the results in this application and even more so in *OASIS* are displayed in the context of the entire finding aid (eg showing the hit was found in the scope note or the container list). Basically, this is a similar concept to that in *RecordSearch* because it differentiates the fields in which the term was found, but while *RecordSearch* expects the user to be familiar with archival terms, *Archival Resources* and *OASIS* choose a much more visual and therefore intuitive approach. Several combinations or further developments of the concepts presented are conceivable.

In any case, users must always judge themselves whether the results found are relevant to their questions, but it is important to give them the maximum assistance to be able to do that. The above examples show some means to achieve this. The display of records in context is not limited to items and

series; it can be applied to collections[12] or to networks as a whole. An entry point might guide users to the archives or to subject-, place-, format- etc related networks from where they can continue to more specialised and therefore more adequate information resources.

Applications based on the Australian series system

Of the twelve applications evaluated, three (*ArchivesSearch, Investigator* and *RecordSearch*)[13] display their data according to the series system, ie records, agencies and functions/activities are shown in separate entities. This is an excellent method for archival control, but the three applications are the least user-friendly ones of all tested systems. The navigation is time-consuming and the display presupposes users either have a sound knowledge of the series system and the terminology used or are prepared to acquire it. More important than the question of display, however, is the significance the Australian system assigns to creators by controlling them separately. The relevance of provenance as the main access point to records is becoming questionable in the face of the increasing adoption and implementation of the concept that records reflect functions and activities. Provenance no doubt plays a key role in providing context to records, but it is neither the only nor necessarily the most adequate constant to manage and understand records. While some research is being conducted (eg the SPIRT project at Monash[14]), the first implementation in the above mentioned applications based on the series system might also show how its user-friendliness may be enhanced.

Conclusions

The many questions raised about who might prefer what shows that designing a common entry point for all needs is a difficult enterprise. The most promising path seems to be to assist people to look in the right place. Individual applications or smaller networks can cater better to the needs of their users and offer more sophisticated search facilities than a single gateway. Moreover, if institutions open up to the Internet by making not only their systems accessible via the web, but each of the entries of this system as well, singular entries can be found by search engines, and people and organisations from outside can establish links between entries from different sources. The resulting multiple entry points will enormously increase accessibility as well as access. However, if data from different provenances are to be made retrievable by common search engines, a consensus is necessary on which descriptive information and how much context about records and the custodial institutions should be given (eg their location, collection strategies, descriptive standards and access rules). The solution of a network with several 'knots' should be examined more closely for several reasons:

- On the demand side, it takes into account that most users will begin with a simple search and learn from the results they receive on where and how to refine their search. Those who wish to do this have the full range of possibilities in the databases of the originating institutions.

- On the supply side, agreeing on a simple set of common metadata should be easier than agreeing on a more complex set.

- The procedure of mapping an institution's metadata to a simple common set is not very costly and does not influence the institution's practices.

- For all, a network is much more flexible than a common database. It is much faster to put into effect and to change, it is less costly (which may assure the service can be free of charge) and it might be an incentive to institutions to put more effort into enhancing the quality and range of their descriptions.

This report recommends that archives which have already mounted online finding aids or are in the process of doing so, first analyse their users' structure and needs, including those of patrons not using the reference services, eg visitors to exhibitions or readers of archives' publications. On the one hand, this should enable archives to improve their services. On the other hand, the knowledge of the current user structure and assumptions about potential users are an important point of departure for the creation of shared resources which are of considerable use to our clients. The following list, which is by no means complete, raises some questions to identify current archival users and their needs in respect to shared resources. For the discussion of further questions about potential users in cyberspace – their behaviour and needs – expertise from beyond the archival profession will have to be sought.

Identifying our users

- Are there different groups of users? How can they be categorised? By subjects, the amount of material they are looking for (a single document or a complex of records) etc?

- How do users behave? What kind of search methods do they use (eg degree of independence, amount of time spent on a query)? What is the situation onsite and online? Is there a correlation between the groups identified above and their search strategies?

- Are the users regulars? How large is the ratio of new users? What does this mean in respect to the services they seek?

- How did users find the archives or select the resources they are using? What are the best means to direct users to the right place (archives and

databases)? Also, how many and what kind of inquiries come to the archives where the questioner needs to be referred to another institution?

•   What do users expect from online resources? An online experience (information, entertainment, communication and interactivity with people of similar interests), preparation for a visit or a research project, or something else?

Improving current online databases

•   Do users consider the results of their queries as adequate answers to their questions? (eg do they consider results relevant, reliable, complete, meaningful etc and how high do they rank these criteria?)

•   How easy or sophisticated do users consider the operation of the applications? Are they satisfied with systems' performance? Does the design of the application conform to their needs?

•   How do different products compare to each other? Are there any features which are especially (un)popular?

•   How do users rate the relationship between online availability of descriptive data and physical access?

As suggested above, archives should reassess the direction they are taking and try to better consider their users' needs. They will also have to solve more technical questions concerning the sharing of archival data over the web, eg metadata and syntactical standards and online communication protocols. (There is also the problem of the diversity of languages spoken in the world.) However, we believe one of the largest challenges will be to determine where it really is of high value to users to have access to shared resources. Also, the consequences of a more holistic approach on archival work are not yet known: will there be more emphasis on description, will the nature of description change, or will it be technology which will solve the problem of making vast masses of information understandable to the individual?

ENDNOTES

2 National Scholarly Communications Forum, Round Table No. 10, November 1999, Archives in the National Research Infrastructure, Communiqué and Resolutions, resolution no. 6, *www.asap.unimelb.edu.au/nscf/roundtables/r10/r10_resolutions.html*.

3 Presented at the 'Electronic Access: Archives in the New Millennium' conference, hosted by the PRO at Kew in June 1998. The facility is not yet available.

4 *www/ra/se/nad/PRO/naddemo3.htm*.

5 Some exceptions are: Wendy Duff and Penka Stoyanova, 'Transforming the Crazy Quilt: Archival Displays from a User's Point of View', *Archivaria*, no. 45, Spring 1998, pp. 44–79; Michel Hamel, 'Enquête sur l'utilisation du web pour la diffusion des archives', *Archives*, 30/2 (1998–1999), pp. 43–82, as well as several talks given at the Annual Meetings of the American Society of Archivists, eg Tanya Marshall, 'Archives Users and the Web: Considerations for Archivists' in 1999, Wendy Duff, 'What Do Users Want and How Do They Ask for It? An Analysis of E-mail Reference Questions' and Margaret Hedstrom, 'Caught in the Web: Users' Responses to Online Finding Aids' in 2000.

6 Some examples can be viewed at *www.rlg.org/arr/index.html*.

7 It is conspicuous that most of the systems tested do not give date ranges as select fields for advanced search.

8 This of course is also due to the nature of the finding aids, which most often are not integrated into any other database because they were originally paper-based finding aids.

9 Archival Resources, ArchivesSearch, Investigator, OASIS, PRO UK, and RecordSearch.

10 Archives de la Ville de Genève, Bright Sparcs, Informationssystem der Archive in Nordrhein-Westfalen, RAAM, and Staatsarchiv Luzern.

11 PictureAustralia.

12 An example of this is *AMOL*, the Australian Museums Online gateway which can also be accessed by collection strengths. ISAD(G) also provides for archives as a whole to be described.

13 Bright Sparcs is excluded here because – as mentioned above – it is a special guide more than a database of an archives.

14 See Sue McKemmish et al., 'Describing Records in Context in the Continuum: The Australian Recordkeeping Metadata Schema', *Archivaria*, no. 48, Fall 1999, pp. 3–43.

Appendix: Evaluation of online research modules

Note: All searching was done by using the term 'theatre' (or théâtre/Theater in French and German, respectively) and reflects the resources as they were present online in February 2001.

Archival Resources, RLG	
Introduction to the system	There is some information about the resource on the RLG website, but hardly anything about its contents. On entering the service itself – which is accessible to subscribers only – there is hardly any information available at all.
Metadata standard/ data encoding syntax	EAD and MARC AMC encoded finding aids. (There are also HTML finding aids.)
Search screen	Simple and advanced search.
Search for date ranges?	No.
Display of results (overview)	Is rather cryptic to new users because of the lack of general information on the resource. The display lists the finding aids (in their context) in which the hit was found. The number of hits is displayed and the hits are ranked by relevancy, but there is no opportunity to sort results or refine research.
Detailed description	The EAD-encoded finding aids show in which part of a finding aid the hits have been found (eg descriptive summary or biography), and the search terms are highlighted. The two other types of finding aids (RLIN AMC and HTML finding aids records) do not provide this information. The finding aids may use different categories, titles etc according to the descriptive rules used in the different institutions.
Links to other descriptive units (records, agencies, functions)	Basically, context is limited to the information given in the finding aids. Only part of the finding aids guide the user to an institution's database (eg Harvard's OASIS is not accessible from the EAD-encoded finding aids on the RLG site); most institutions probably do not have their own database.
Are pages citable?	No.
Comments	The system is not very easy to use (one frequently clicks in the wrong spots in the beginning). No specific archival queries possible (eg no search for date ranges, creators etc, even though the EAD-encoding should provide the necessary data).

Archives de la Ville de Genève	
Introduction to the system	Little information on holdings in general, but a list of all fonds is available once one has found one's way.
Metadata standard/ data encoding syntax	ISAD(G).
Search screen	One screen for simple and Boolean search.
Search for date ranges?	No.
Display of results (over-view)	Sorting according to relevancy; because relevancy is expressed in relative and not absolute terms (eg 96%), there is no definite number of hits.
Detailed description	Only on fonds level; display according to order in the ISAD(G) standard.
Links to other descriptive units (records, agencies, functions)	None unless integrated in fonds description.
Are pages citable?	Yes.
Comments	The necessity of using accents and capitals is uncommon for Internet searches and quite tedious with keyboards not customised for French.

Archives Investigator, State Records of New South Wales	
Introduction to the system	There is a general note on how to access the holdings either by special guides or the online catalogue. The catalogue contains an excellent overview of the system and how to use it -- for those who take the time to read it.
Metadata standard/ data encoding syntax	Series system.
Search screen	Simple, advanced, structured search. The simple search screen has only one box to fill in. The advanced search forces the user to choose a certain category to search in (eg series, item or agency). Though queries in the advanced search can combine several search terms, it is not possible to refine a completed search.
Search for date ranges?	*Simple search*: No. *Advanced search*: Yes.
Display of results (overview)	*Simple search:* Hits in different categories are listed one after another (the categories seem to be displayed alphabetically, though there are exceptions; chronologically in one category). Only the number of pages indicates the number of hits as long as these do not supersede 10 pages. It is not possible to refine queries. *Advanced search:* The user can sort the results according to control symbols, title, or start/end dates, either ascending or descending.
Detailed description	*Generic:* The overview as well as the detailed descriptions always refer to the level/character of the unit described (eg series). *Item:* The record item detail contains (amongst others) the item title, dates and the series the item belongs to (title and control symbol). *Series:* The notes are informative and well structured. A description of the contents appear before the types of records and the systems of arrangement. *Agency:* Lengthy, but less well structured than series note.
Links to other descriptive units (records, agencies, functions)	Items, series and agencies are linked among themselves and among each other. Agencies are linked to functions and vice versa, but functions are not linked to records (or vice versa).
Special features	The system allows for a link to display images from an item and typical records from a series. The structured search following paths such as function -> agency -> record series -> record item is probably the first implementation of the typical archival search strategy on the web, but will need some more work (especially data entry; a link between a thesaurus or more intuitive search terms and the structured search would be desirable).
Are pages citable?	Yes.
Comments	The series descriptive note is well structured and user friendly. The agency notes appear to be a bit less structured, but even by using a standard such as ISAAR(CPF), this seems to be difficult to avoid. The record series detail includes two different sets of dates: Start/end date and contents start/end date. It is difficult for users to understand the difference. Also, the agency detail contains categories (eg BR) and phrases (eg 'administrative decision' for creation/abolition) which are difficult to understand.

ArchivesSearch, Queensland State Archives	
Introduction to the system	Very little information on the holdings (and hardly understandable for people not acquainted with the institution).
Metadata standard/ data encoding syntax	Series system.
Search screen	Easy, basic Boolean, advanced, super. All search screens allow to sort results (but not according to dates) and to chose number of hits to be shown. Two types would probably have been enough, as the more sophisticated searches just add features to the simpler ones. (Personally, I liked Advanced best.)
Search for date ranges?	Easy and basic Boolean: No. Advanced and super: Yes.
Display of results (overview)	States number of hits. There is no indication to which category the hit belongs, neither on the overview display nor on the detailed screen.
Detailed description	*Generic:* The search term is highlighted. *Item:* Much irrelevant information to the user and layout not helpful, very little context provided. Only the control numbers of the series items belong to are given. *Series and agencies:* It is confusing that the results look different depending on the way a description is accessed (eg when a series is accessed directly or via an item or creating agency). Not only the layout, also the fields provided differ.
Links to other descriptive units (records, agencies, functions)	The links between items and series work well, other links are included in the design but are often not working due to lacking data.
Special features	ArchivesSearch provides standard searches, guiding the user to popular information.
Are pages citable?	No.
Comments	Data are still very much incomplete (especially agencies), the display of date ranges in full descriptions is not very prominent. The layout of the information is not conducive to its understanding and the many inconsistencies do not make the reliability of the information convincing. The system contains further options which the author has not yet tried out – it might be considered whether the system doesn't offer too many possibilities, making it difficult to find the one which suits the user's needs most.

Bright Sparcs	
Introduction to the system	Short and simple description of the resource. Use of search screens is made understandable by layout and very few comments.
Metadata standard/ data encoding syntax	Series system.
Search screen	Both structured search (fields for surname, first name, field [occupation], date range, sex) and free-text search are accessible from the same page.
Search for date ranges?	Yes.
Display of results (overview)	Search order and number of hits to be displayed can be determined on search screen for the structured search (total number of hits is specified); freetext search is ranked by relevancy; results can be further refined by scientific field (pull-down menu).
Detailed description	Description of creators according to ISAAR(CPF).
Links to other descriptive units (records, agencies, functions)	Hyperlinks to career highlights, online sources, online images (gallery), archival/heritage sources and published sources.
Special features	From the homepage, there is a very playful introduction to exploring the resource. Examples make users curious and at the same time show how to use the functionalities of the system. The site also contains a quiz and puzzles. Exemplary!
Are pages citable?	Yes.

Informationssystem der Archive in Nordrhein-Westfalen	
Introduction to the system	There is no introduction to the holdings, only to the system.
Metadata standard/ data encoding syntax	The set seems to include repository, title, relation of the fonds to the tectonics of the archives, and the date ranges of the records.
Search screen	Simple search allows for combination of up to four terms. In the 'extended search', it is possible to restrict the search to certain archives or to get a preview of the amount of hits.
Search for date ranges?	No.
Display of results (overview)	The display is arranged according to archives, but it is not clear in which order these are. The number of hits is not indicated, but it is possible to retrieve this figure in the extended search option.
Detailed description	Shows full descriptive note on fonds.
Links to other descriptive units (records, agencies, functions)	None unless integrated in fonds description.
Are pages citable?	No.
Comments	As in Staatsarchiv Luzern: How important are the archives' tectonics to the users?

OASIS	
Introduction to the system	OASIS is a common system covering different collections; therefore, there is a very general note, and the repositories are listed in an overview.
Metadata standard/ data encoding syntax	For metadata, there are 'Harvard minimal-level' and 'Harvard recommended level' guidelines in place. Encoding is in EAD (viewed in SGML or HTML).
Search screen	One screen for simple and advanced search.
Search for date ranges?	Yes.
Display of results (overview)	Display of finding aids (in alphabetical order of fonds title) with number of hits for search term displayed.
Detailed description	The hits are highlighted and embedded in the structure of the finding aid (ie all parts of the finding aid are displayed in an overview, and the parts where hits were found are shown in more detail).
Links to other descriptive units (records, agencies, functions)	None unless integrated in fonds description.
Are pages citable?	Yes.
Comments	I very much like the layout of the detailed description.

Online Catalogue, Public Record Office, UK	
Introduction to the system	The introduction to the holdings of the PRO is very general and not linked to the online finding aids. However, once one enters the 'Finding Aids' section, one is guided to leaflets on popular subjects and there are explanations of the online catalogue, hints on search strategies and a glossary. *Note:* The PRO is currently thoroughly redesigning its website and improving access to the catalogue from its home page. At the time of submission of this paper it was not yet publicly available.
Metadata standard/ data encoding syntax	ISAD(G), encoded in EAD.
Search screen	Search for up to three terms combined by 'and', plus restriction to a certain lettercode (fonds) or class (series).
Search for date ranges?	No.
Display of results (overview)	List in alphabetical order (presumably of reference codes). The number of hits is given; no sorting possible.
Detailed description	*Class:* Short, but covering all relevant information. *Document:* Full context is given (creator, class etc as well as details relevant to access). However, terminology is rather confusing (see 'Comments' below).
Links to other descriptive units (records, agencies, functions)	There are links from classes to documents, but not the other way around. Navigation is quite difficult.
Are pages citable?	Yes.
Comments	The browsing function lists groups of finding aids in alphabetical order according to their lettercodes (reference codes of fonds). In view of the amount of data held in the catalogue, this is not very helpful. The glossary is useful, however it does not explain all terms which are used in the catalogue. The use of the resource would be easier if the number of archival terms were reduced.

Picture Australia	
Introduction to the system	Very basic: 'Find images from Australian collections'.
Metadata standard/ data encoding syntax	Dublin Core (DC).
Search screen	Simple search and advanced search (for each DC field, combinations and further options); the way DC is applied by each participating institution is explained by using examples.
Search for date ranges?	Dates: Yes (under 'coverage', if available and if correct). Date ranges: No.
Display of results (overview)	The number of hits and thumbnails of the first 6-8 images are shown. There are no sorting possibilities.
Detailed description	Two possiblities to view information: Metadata from common PictureAustralia database or view in original database.
Links to other descriptive units (records, agencies, functions)	Links to original databases, where further searches are possible.
Special features	There are so-called 'trails' for those who want to browse selected pictures to certain topics instead of doing an actual search.
Are pages citable?	Depends on original application.
Comments	Even though the database is designed for very generic searches, it delivers considerable context: on the one hand, the images themselves contain metadata (technique, approximate age etc and the users themselves can judge the quality of the titling at a glance if they know the subject of their inquiries), on the other hand, they link the images to their originating databases (where additional metadata can be found).

RAAM	
Introduction to the system	Description of scope and purpose of the resource.
Metadata standard/ data encoding syntax	Minimum mandatory set: creator, title, location.
Search screen	Simple and advanced search. Simple search allows to specify fields to be searched (eg creator, all indexed words etc); advanced search allows the user to combine these and to search in additional fields.
Search for date ranges?	No.
Display of results (overview)	First thirty hits displayed (no sorting options), total number of hits indicated. Information given: creator and type of records (usually records, but more specific in some cases), location and date range (if provided).
Detailed description	Amount of information given depends on institution creating data.
Links to other descriptive units (records, agencies, functions)	Hyperlinks to online finding aids and/or the Directory of Archives in Australia are often provided.
Comments	Simple, but efficient!

RecordSearch	
Introduction to the system	General description of the collection with links to guide for new users, fact sheets, and RecordSearch. RecordSearch can also be accessed directly. There, the user is instructed in using the database, but there is no information on its contents or on archival search strategies.
Metadata standard/ data encoding syntax	Series system
Search screen	One search screen with several options (combine, exclude, specify fields etc)
Search for date ranges?	Yes.
Display of results (overview)	Number of hits for each of the following categories: items, series, agencies/persons/organisations, information summaries. Options to continue: display, refine or transfer to input. In the next step, results can be sorted according to control symbols, title or start dates. The information given in that particular overview is minimal and therefore clear, however, there is quite a lot of superfluous information for users and not very much context.
Detailed description	Context is not provided at a glance; users have to click their way through.
Links to other descriptive units (records, agencies, functions)	All entities are linked to each other.
Are pages citable?	Yes.
Comments	Only the title words of series are searched; searches for words in the series notes are accessible to archives staff only.

Staatsarchiv Luzern	
Introduction to the system	There are some general remarks on the holdings of the archives as well as a detailed overview of the tectonics of the archives in textual and graphical form. The stress however is on the custodial history, not the scope and contents. The online catalogue contains some useful hints on search strategies.
Metadata standard/ data encoding syntax	(?)
Search screen	Simple search with some options (and/or, including or excluding scope notes, number of results to be shown).
Search for date ranges?	No.
Display of results (overview)	By relevance; search terms are displayed in italics in the sentences they appear in. Number of hits to be displayed can be specified, however, no total is given (due to ranking by relevancy).
Detailed description	The user is directed to the relevant chapter in the guide to the archives, not the fonds itself.
Links to other descriptive units (records, agencies, functions)	None unless integrated in fonds description.
Are pages citable?	Yes.
Comments	As in the Informationssystem der Archive in Nordrhein-Westfalen: How important are the archives' tectonics to the users?