Archivists can participate in the recordkeeping processes by documenting complex relationships between records and context … [The record] must be interpreted not by reference to our observation of it in the circumstances obtaining when we access it, but by understanding the circumstances which existed at its creation and changes since … The two fundamental issues for … archival description are therefore what the descriptive entities should be and what are the relationships we need to show between them.¹

Proposed actions: Explore partnerships to establish a single entry point information portal for access to heritage information at all levels (world, national, state and territory and local)….

More than forty years ago, I began my career as a base-grade librarian on the 3rd floor of the National Library in Canberra. The entrance foyer and exhibition areas were there along with the main reading room and the principal catalogues. It was where most of the staff worked. At the very centre was a large windowless area full of card cabinets which the public did not see and through which I passed several times a day. This was the National Union Catalogue (NUC) into which libraries throughout the country, participants in the inter-library loan scheme, sent duplicates of their catalogue cards. Despite a near-universal implementation of the Anglo-American Cataloguing Rules and the Library of Congress Subject Headings, no two libraries could be relied upon to describe the same monograph in the same way. A team of library assistants spent their days writing standardised headings on the tops of the cards so that they would inter-file correctly.

The NUC was subsequently computerised and then became web enabled. Contributors now edit and manage their own entries in what (if I understand the system correctly) is now called the Australian National Bibliographic Database. The Database contains what we would call contextual data and standardised bibliographical descriptions. We can guess that, at some stage, they must have had to decide whether to continue with the old business model, in which entries were duplicated and held in a central store, or to turn it into a bridge or gateway, which puts users directly in touch with the native descriptions held by the contributors themselves. A third possibility would be to provide cataloguing in the Cloud (comprising bibliographical descriptions, contributions from participants, or a combination of both) against which each participating library could report on its holdings. Any of these approaches could be used to federate access to archives and other records.

² Australia, Department of the Environment. A Strategy for Australia’s Heritage (Consultation Draft) April 2014.
There are already many examples of federated searching in the world of archives (Figure Two). Most of these come from North America and Europe. For now, the international approach to descriptive standards appears largely settled. The likelihood of unwinding some unfortunate choices already made is remote and some overseas examples of federation are avowedly linked to them. In Australasia, federated access is still largely undeveloped territory. We have an opportunity (probably a brief one) to get it right. To do that we must begin with an analysis of what we want, identifying our requirements before we develop the methods for implementing them.

Figure Two – Federated Access to Archives

Here (Figure Three) we see what is perhaps the best known federated access tool in Australasia. TROVE delivers access to descriptions of archival resources and to the digital versions of those resources where possible. This slide shows a portion of the description of one of the several deposits of the archives of Charles Joseph La Trobe in the State Library of Victoria (SLV). La Trobe’s papers are also held in several other repositories, illustrating as well as anything the need for federated access. The TROVE description is a rendition; for the native description you must go to the SLV website (Figure Four).

Figure Three – Access via TROVE

Figure Four – SLV Website (impressionistic)

This is a typical manuscript description. It’s not wrong, but it has limitations. Statements of provenance are compacted together with a description of the documentary artefact. There are links to other information but these are mostly authority files in which the standardised form of the content is stipulated (e.g. Charles Joseph La Trobe not C J La Trobe4) or else embedded search terms. The description the user sees is laid out pretty much the same way that it was formulated; it can be looked at from different angles but the template for data capture and data display are essentially the same. Manuscripts arrive in lots that are accessioned, put on shelves, and described

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3 This is a representation of the SLV website, not a screen shot.
4 Those who developed the ICA standards were sufficiently mischievous or ill-informed to name their standard for describing separated entities for corporations, persons, and families the International Standard Archival Authority Record (Corporations, Persons, and Families). There is, of course, all the difference in the world between a bibliographical authority record and an entity for separately describing contextuality.
in the finding aids. After that nothing much happens. If you come back six months or a year later, the description will probably be unchanged because nothing has happened to change it.

In non-collecting and in-house archives programmes, however, a more typical process might see an accession arrive, the series registered, the linked contextual entities established or updated, and the records then accessioned into the series. This description is not a settled one. Changes occur and the descriptive system is set up in the expectation that they will. After six months or a year, new accessions (or estrays) may arrive and the descriptions are updated. The series may be closed, absorb other series, or be split. The provenance may have altered as a result of administrative change. The functions supported may have altered. Because the object of description keeps changing, putting a “complete” description in the finding aids or in a federated repository in advance of an access request is not such a good idea.

All records (manuscripts included) belong to a complex network of relationships (Figure Five). The object of description is not simply a documentary artefact but rather a compound of instances of the three entity-types5 (Documents, Deeds, and Doers) brought together by a particular event or circumstance - and this is what we call the record. Our view of it is scaleable: we can scrutinise it close-up and explore its contents or zoom out and view it broadly within its enfoldings, super-sequences, or recordkeeping system(s) like an interactive map. It does not stand alone. It exists within a network of relationships with other entities: above, below, before, and beyond. It belongs to a structure. It has a past and a future. We can see it from multiple changing perspectives. The record may be immutable but not its relationships with other entities and with contextualising knowledge. From this, we can identify two requirements for federated access: the requirement for depth and the protean requirement.

5 Document Types are letters, memoranda, folders, dockets, files, items, consignments, series, funds, etc. Doer Types are actors, agents, people, business units, agencies, corporations, organisations, families, etc. Deed Types are acts, activities, actions, mandates, services, functions, etc.
Digitisation mania has led some archives into the mistaken belief that their holdings are their most valuable assets. They end up doing what other heritage collections do, pushing digitised resources out, supposing that this is now their main responsibility. They overlook what is truly their most valuable asset - viz. the unique, richly empowering contextual knowledge they have about their holdings (and, if they are true to the Maclean/Scott vision of documenting recordkeeping systems and not just “collections”, about much else besides). They should spend more time figuring out how to maximise their most valuable assets in federated space before too many blunders are made.

All description conforms, in one way or another, to standards – which are just another way of expressing requirements. The great thing about standards, so they say, is that there are so many to choose from. In the archival world, the best known standards (Figure Eight) are the ICA Suite\(^6\) and the Encoding Suite\(^7\). ICA is now engaged on a project to develop a “conceptual model” called EGAD. You might suppose that developing a conceptual model for your standards after twenty-five years spent on writing them runs the risk that your standards won’t satisfy the requirements of your new model when you find it at last and then you’ll have to throw them out and start all over again. Conceptual modelling ordinarily comes before implementation. Better late than never, I suppose, but it appears that there is no danger here because EGAD seems to be about harmonising ISAD and EAD, not about actually thinking back to first principles. If the standards are flawed, simply harmonising them won’t fix that.

<table>
<thead>
<tr>
<th>Content</th>
<th>Format</th>
</tr>
</thead>
<tbody>
<tr>
<td>ISAD</td>
<td>EAD</td>
</tr>
<tr>
<td>ICA</td>
<td>EAC</td>
</tr>
<tr>
<td>etc</td>
<td>etc</td>
</tr>
</tbody>
</table>

![Figure Eight: Standards][8]

The standards are being implemented in a number of ways. There is much to like in the AtoM software (Figure Nine) despite the fact that it was commissioned to implement ISAD with its blemishes\(^8\) but if you can’t get butter, dripping will have to do. Moreover, the developers of AtoM have left a lot of room for users to vary their use of ISAD and even to ignore the descriptive rules altogether. In any case, ISAD itself is now more accommodating to variant practice than it once was\(^9\). AtoM also has the virtue of being open source and supported. Other initiatives that avowedly apply the international standards deploy contextual knowledge in the service of federated access (Figure Ten). These are still baby steps, providing “authority” data in the CPF space (corporations, persons, and families) for shared use. What makes these tools significant is the release of contextual knowledge for shared use outside of Flatland. Those developing these applications assume that they will be used in conjunction with the standards but, like AtoM, there’s no reason why they can’t be utilised to support a different conceptualisation.

We often hear the phrase: “good conception, flawed execution”. But a good result can also come from a flawed conception. Columbus was looking for China but that doesn’t diminish the

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\(^6\) ISAD(G), etc

\(^7\) EAD, etc.

\(^8\) Above all, the dreadful Multi-Level Rule that fixes the kind of relationships that are possible in a world where the art of description lies in crafting them from the observation of contingent circumstance.

\(^9\) When I critique the remaining flaws, I am sometimes told: “Oh no, we don’t do that, we do as you do”. Perhaps the AtoM developers heard the same thing and adapted their design accordingly – another instance where flawed conception did not get in the way of good practice.
significance of his discovery. Karl Paul Link went looking for the ingredient in hay that was causing cattle to haemorrhage and die. After it was isolated, they sought practical applications. Because they had gone looking for something that killed things, it was initially used as rat poison. Then someone figured out that if it caused haemorrhaging in cows it might be used as a blood thinner - and thus Warfarin was born, a drug now used daily by millions. In looking at what is being done to implement the international standards, we need to focus on what they are doing rather than how they are doing it. They are producing tools in the belief that they are implementing standards but those tools can be cut loose and made use of without taking any notice of the purposes for which the developers think they are being created. The ultimate usefulness of something is not always to be found in its original conception. We should regard these applications of ISAAR and EAC as the rat poison stage in the evolution of federated access to archives (and other records).

![Figure Ten: Sharing the Load](image)

![Figure Eleven: The Inclusive Requirement](image)

Should conformity to international descriptive standards be made compulsory or should we also include those who may be unwilling or unable to conform to those standards (Figure Eleven) – those with resources or descriptions to offer who may not have the wherewithal, the time, or the capability to do so? The barefoot archivist – the one who works on an earthen floor under a tin roof, who has an uncertain electricity supply and access to the Internet only on Fridays – may not be able to meet the gold-plated standard. Small to middling local and community archives with scant funding and amateur/voluntary bodies with small holdings may be unable to conform. Why should we not be able accommodate hybrid bodies whose holdings of records may only be a small part of their work and who simply may not choose to be shackled by archival descriptive practices?

![Figure Twelve: The Wholistic Requirement](image)

![Figure Thirteen: More Requirements](image)

And why must we limit ourselves to archival “collections”? We should aspire to admit into federated access all archives or records worth accessing (Figure Twelve) regardless of whether or not they have passed into the hands of an archivist. That includes bits of series yet to be transferred.

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10 There are two words I was taught to abhor in connection to recordkeeping: “collection” and “reader”. Archives do not have collections, they have holdings; and they have searchers, not readers.
and records that may never be transferred (except possibly virtually by federated means) because the continued requirement for re-use demands a different management regime or because technical requirements for keeping them are beyond the capacity of the generalised archives programme – such as land data, life data, geospatial data, statistical data, meteorological data, research data sets.

Here are some more requirements (Figure Thirteen) for federating access to archives (and other records).

- **Collaboration**: Contributors shouldn’t have to work alone, replicating in many cases the descriptive labours of others. Each contributor should be able to pool at least some of their endeavour with that of others, saving everyone time and effort. It should be possible to incorporate, in some way, existing descriptive data already prepared by someone else. I have always found the website of the Australian Bureau of Statistics to be an invaluable source of taxonomical and other descriptive tools. We need to be able to employ the talents of “citizen archivists” who can supply knowledge that most of us will never have the time and resource to uncover and to incorporate that.

- **Authenticity**: Because our view of the record is not immutable and needs to be protean, we don’t want to access renditions, we want to be taken to the source, to the native description. At the very least, it is necessary to make sure that what the user sees is the latest up-to-date version.

- **Differentiated description**: It is necessary to provide for multiple points of view (like looking at the same geophysical space from more than one datum). This satisfies our need for multiple, simultaneous multiple, and parallel provenance. It permits alternative and contested views of archives (and other records) in context.

- **Differential access**: Materials that are published, released for general distribution, or open source are subject restrictions and rights management regimes that operate generally (e.g. copyright, privacy). Access to archives and other records is more limited and more complex. It must be possible to deal with redacted records and records under the control (legal, moral, intellectual, cultural, etc.) where access is withheld, privileged, or selective.

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11 differentiated ... 2: to mark or show a difference in: constitute a difference that distinguishes; 3: to develop differential characteristics in...5: to express the specific distinguishing quality of (Merriam-Webster Online Dictionary).

12 Refer to my earlier writings on these matters such as “Documenting Archives and Other Records – A Guide for Dummies” (2008) available on my website at http://www.descriptionguy.com/description.html.

13 differential ... 1b: making a distinction between individuals or classes (Merriam-Webster Online Dictionary)
contextual data is not being federated and the un-digitised resources are only available singly from each site. Descriptive practices vary and the resulting descriptions, like the cards coming into the old NUC, don’t interfile well. The citizen archivist can participate (if allowed) only by visiting each site separately but can engage with the barefoot archivists who have an online presence, even if they don’t have a search engine or a user interface.

**METHOD 2 Blending Descriptions**

We can approach federation by Blending (Figure Sixteen) where most of the heavy lifting is done up front. The object is to get descriptions standardised to begin with so that they all come out of the federating engine in identical packages - looking and behaving the same. This can be done by leaving them un-standardised and using a mark-up language and a Document Type Definition to fool the computer into thinking they are alike when they are really different (Figure Seventeen). Alternatively, descriptions can be normalised by having everyone conform to a common set of rules so that they really are identical (Figure Eighteen).

**METHOD 2b : “THE STANDARDISER”**

**METHOD 3 : Harvesting**

Another approach is Harvesting (Figure Nineteen). It doesn’t matter if the object of our search is variously described, we snap up everything – new growth, old growth, undergrowth - and find the good stuff that we want using a search engine (Figure Twenty). In this federated space, even barefoot descriptions can be found if online to begin with. Access to native descriptions can be had through links back to source14 but the richness of contextual relationships is not replicated federally and is available only by visiting each native site separately. So far, there is not much to suggest that this method will be capable of moving very far beyond Flatland description.

In Wonderland (Figure Twenty One) many more of our requirements can be satisfied, but since our conceptual model for federated access is not yet complete we cannot yet say that it will meet all

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14 This fails, however, if the description was lodged without a connection to the native online version being made and/or preserved – as with some legacy data in TROVE from the superseded National Register.
our needs. What Alice sees in the Looking Glass is her own reflection but not a reflection of the world around her. She sees herself inside another world, a different reality with its own rules and connections. This is where the descriptions are born and in which they live – not a reflection of them and not one in which they are flattened into one-dimensional images.

Method 3a: “The Collector”

Method 4: Wonderland (through the Looking Glass)

Figure Twenty: “The Collector”

Figure Twenty One: Wonderland

Parts of Wonderland are already under construction:
- the EAC-CPF national authority files in France (Figure Twenty Two)\textsuperscript{16}, and
- the Social Networks and Archival Context site (Figure Twenty Three)\textsuperscript{17},

have already been referred to. They provide for depth and have the potential for providing protean description and for transporting users to native descriptions.

Method 4a: Implement EAC-CPF (Fr.)
(Claire Sibille: ICA, Brisbane 2012)

Method 4b: SNAC
(social networks & archival context)

They are, however, avowedly collection focused (although there is no reason why they need to be) and they deal only with Doers (corporations, persons, and families). Other parts are being built by people who are not responsible for archives (or other records) and who are indifferent to our descriptive concerns. The aim of the Modest Proposal for Improving Access to Archives and Other Records is to consider how to leverage these and other sources of shared contextual knowledge using the functionality of a Wiki.

The Wiki (Figure Twenty Four) escapes Flatland by establishing a federated structure within which searching becomes possible in ways more faithful to recordkeeping requirements. But establishing a repository within which renditions are searchable does not satisfy our need for access to native descriptions. By bridging the user and the source (Figure Twenty Five), possibly by live streaming the data upon demand, we get closer to doing so. The difference with other approaches is

\textsuperscript{15} The Wonderland approach through a Wiki is more fully explained on my website. It is an old idea going back to my first attempt to interest my community in this matter in 1986. The Modest Proposal... is, in fact, just a dusting off of that earlier proposal using technical capabilities that weren’t even thought of at that time.

\textsuperscript{16} See Claire Sibille, Implementation of EAC-CPF (Encoded Archival Context – Corporate bodies, Persons, Families) in France: towards the development of national authority files ICA Congress, Brisbane, July 2012

\textsuperscript{17} See http://socialarchive.iath.virginia.edu/
that here the structure is a common one available in federated space, not disjointed ones on each native site. Contributors can extend the common structure to enrich it and to better accommodate their individual needs. The citizen archivist, while still being able to engage with each native site, can also contribute to enriching shared structure in federated space. Barefoot descriptions, from Contributors who lack their own computerised systems, search engines, and user interface could even use the Wiki as a kind of Cloud, replacing the need to house and manage their data anywhere else. The Wiki would obviously include descriptions of each Contributor as an instance of the Doer type and this data could be used to generate a Register of Archival Repositories.

Figure Twenty Four : Wiki Repository

Figure Twenty Five : Wiki Gateway

It must not be supposed that the Modest Proposal is to develop a tool or a project. It is a concept, using the familiar Wiki functionality to illustrate an idea. How to assemble and implement it remains an open question. Much of what is needed is available in what others are already doing and we should explore how we can re-use that work in a web based environment instead of redoing it ourselves (Figure Twenty Six). TROVE, for example, is very good in its way at handling item level descriptions and digitised item-level resources and there seems no reason why (for that part of TROVE that deals with archives) some kind of integration with the Wiki concept could not be looked at. Similarly, the SNAC project aims to provide CPF data that is international, not just focussed on North America. It would be foolish to replicate that work unnecessarily.

Figure Twenty Six : Assembling the Wiki

Assembling the Wiki

• ABS for roles, functions, mandates
• Australian Pictorial Thesaurus for materials re Aborigines & Torres Strait Islanders
• Geoscience Australia for places
• CAARA for jurisdictions?
• TROVE for Items
• EAC-CPF, SNAC, Ancestry etc for CPF
• and so on ....

Figure Twenty Seven : Input to the Wiki

Contextualising data available from the Bureau of Statistics (e.g. for roles, functions, and mandates) has already been referred to above. Other examples might include:

• Geoscience Australia\(^{18}\) for places;
• Australian Pictorial Thesaurus\(^{19}\) for data specific to Aborigines and Torres Strait Islanders;
• EAC-CPF, SNAC or Ancestry for CPF data (corporations, persons, families);
• TROVE for items.

Indeed, the only part of the Wiki superstructure in which I could find no-one already doing the work for us is in what I have called “Jurisdiction”: the politico-legal concept roughly akin to government. Perhaps this space has been left free for the archivists of CAARA to work in.

I have used the familiar Wiki template to illustrate how data might be prepared for input (Figure Twenty Seven). This does not mean redoing all descriptive work to date. From the point of view of the native system this is output, not input. All that would be required is for each native system to be modified to enable it to give this additional view of the data from that system—the Wiki view becomes just one more report capability built into each native system. The contribution will need at least one field that links with a component of the structure of the Wiki. More than one would be better, but that would be the minimum requirement and citizen archivists could do the rest.

I am no expert at designing a user interface, as a glance at the accompanying slides will show. As a template for displaying the search results (Figure Twenty Eight) I have borrowed from the Australian War Memorial site which I think is one of the better ones around. A similar approach seems to be taken by TROVE and SLV. Who is borrowing from whom I do not know but if it’s good, let’s all do it. A report of results is grouped according to categorisations within the Wiki structure. Filtering is possible at this stage by category, format, or date. What the user actually sees (Figure Twenty Nine) is the filtered results arranged in lists that enable immediate display by resource or context or further filtering using the categories provided for in the Wiki.

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20 I should probably forebear from saying that, if the archives community had taken up my 1986 proposal, we would now be nearly thirty years along the track of having this nailed. I should probably forebear— but I won’t.

21 I heard this argument used, in a muddle-headed way, by one of the EAD folk at a conference some years ago (in Edmonton if I recall correctly, or possibly Winnipeg). Having extolled the virtues of EAD, he was challenged from the audience with a self-evident comment (at least, I thought it was self-evident) that EAD could not be used to manage archival data because it did not provide the functionality of a database. The questioner didn’t put it quite like that, but that was the essence of his remark. Instead of conceding the point, the EAD chap blathered on about how he could use mark-up on any product of a database to produce the same result. The point was that he wouldn’t have a product of a database to mark up in that way without having a database in the first place.

22 It’s like indexing. Put an index in a book and title it “Index” and few readers will ask: “Index to what?” They will just look to see if they can find what they want. Is it an index of names, or of places, or of subjects, or all of the above? Most readers don’t know and only care if they aren’t finding what they are looking for.
be different and maybe one in a hundred will spot it. After using it for a while, it may even be that more will appreciate the difference but not until then.

We care about that difference because we know the correct way to describe archives (and other records) and because we know that if it is done correctly it preserves the evidential value of the material we are describing and provides our users (whether or not they fully appreciate it or comprehend how we do it) with a better outcome within a regime that also respects the rights of owners. Providing access to archives (and other records), like other information and cultural resources, involves some functionalities that are common to all materials that are on open display and some that reflect the differences between the kinds of material involved. Our particular concern is with those things that differentiate archives and records from the rest. If generic tools (such as TROVE) can accommodate those differences and meet the functional requirements particular to the kinds of resources we manage, that will be great. When I am asked why we should go looking for something else, I reply that we should begin with a question, not with an answer (viz. if TROVE is the answer, what was the question?).

The beguilements of digitisation and generic access tools have seduced some away from the complexities and nuance of managing access to archives (and other records). There is a belief that the management of access and the design of ways to deliver it can be considered separately. We cannot yet know which approach or approaches will satisfy our requirements because we have not yet properly articulated them in the context of a debate over online access regimes. I have developed the idea of the Wiki as a way of articulating some (not yet all) of what I believe our requirements to be but imagining that (re)purposing cannot be the work of just one person. If you think developing or recapitulating (and recommitting to) those requirements and building ways of satisfying them (or evaluating ways that already exist to test if they do) then join me.

**Consequences**

[archives-and-records-australia:1348] Project to re-describe the purpose of archives with the aim of developing decentralised federated archives

Luke Bacon Sep 15

At the event at Monash tonight, in response to Chris Hurley’s Modest Proposal, we decided to initiate an open-source project to discuss (through collective documentation) what a federated, decentralised archive system should do.

https://github.com/equivalentideas/archives/blob/master/README.md

I’ve just made the first commit on that project, to pose the key question. You can answer it by editing the document.

You can this project by whatever means you like. Document principles, functional requirements, develop new small technologies and specs towards a new archive approach. You don’t need permission.

Enjoy.

**Figure Thirty : What Comes Next?**

Following delivery of these ideas at the recent Monash COSI re-staging of the Recordkeeping Roundtable session on the Modest Proposal in Sydney earlier this year, I am delighted to be able to say: “… come and join us”\(^{23}\). Otherwise, go and live in Flatland (with my blessing) and be happy.

Sydney, 2014

\(^{23}\) The Modest Proposal is based on my 1986 Report to the (now defunct) Australian Council of Archives. In those days, collaborative ventures of this kind could not be contemplated without the support and participation of the majors. With the kind of tools that are now available to us, this is no longer true. Ideas can be discussed, prototypes developed, and projects launched without them. Indeed, in the longer version of the Modest Proposal, I suggest that it might be beneficial to get off the ground without them and let them in later.