Bring a region and its cultures closer together with

"ARCHIVAL GLUE"

Darren Ingram October 2015

Introduction



Ongoing Questions?

Shout them out!

Source: Wikipedia



Terms such as "library" and "archive" have the same core meaning:

CONTEXT IS KING!

It is time to get sticky!

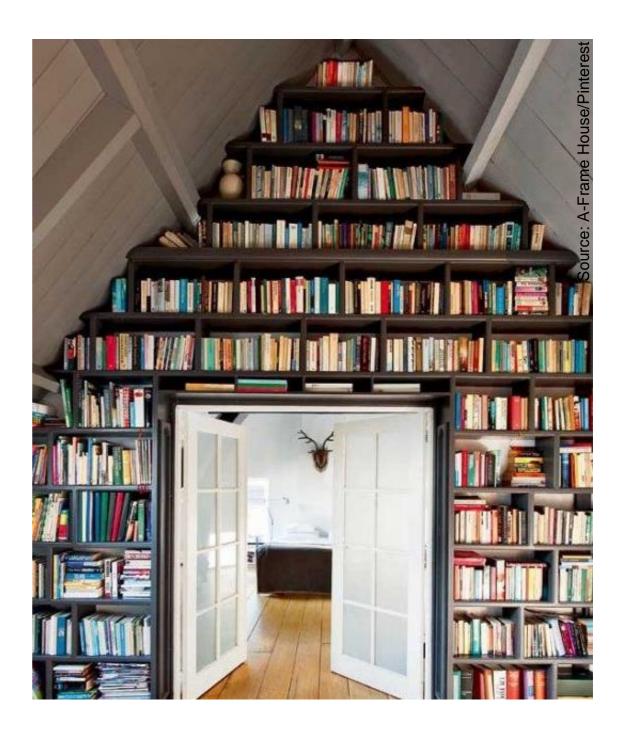


Everything In Order

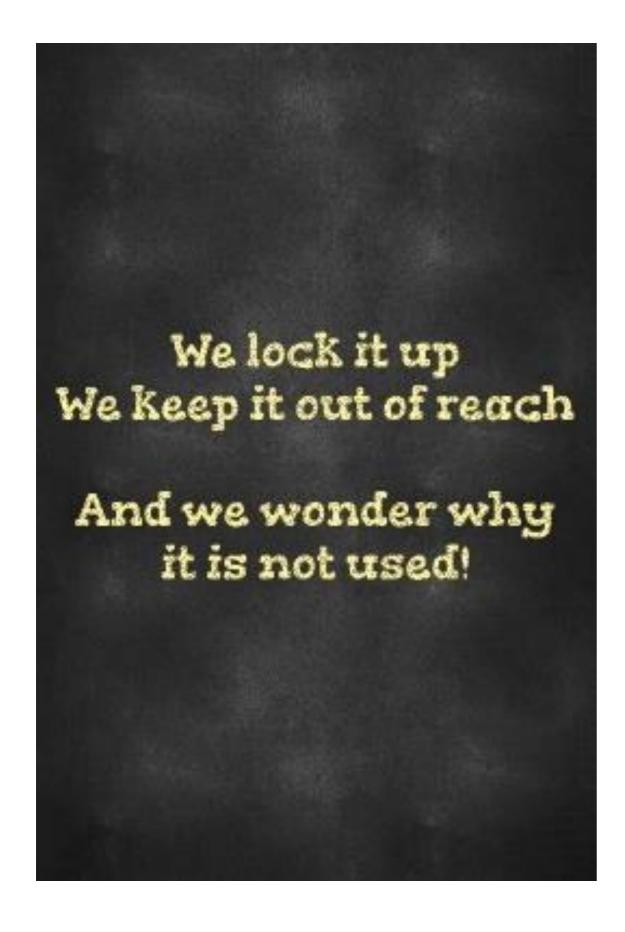
If we are lucky, an individual library may have order within its collections: even if there is a growing pile of "uncatalogued" or "poorly catalogued" items.

There may even be an online catalogue.

Some items *even* exist in a digital format and can be accessed by users!

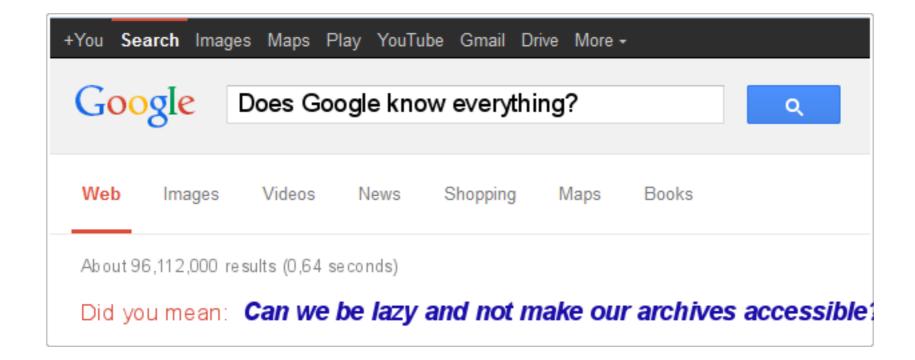












We NEED to change!

We NEED to communicate

We NEED to cooperate

We NEED to know what we really have....

... and we NEED to TELL other people

Plus we MUST let them access our material!

We need...



So close...?

- Already lots of pieces of the puzzle exist
- No need to reinvent everything; just cooperate
- Pick best practice and "multiple practice" solutions
- Let expert speak unto expert



So, Archival Glue...?

A standards-based mechanism that lets archive (database) talk to archive.

An opportunity to link to or share catalogue information and other metadata.

Opportunity to better structure and give authority to holdings and supporting information.

Provides for a greater metasearch functionality - archives save time cataloguing their own holdings or identify that somebody has already conserved/digitised something (priority triage).

Offers greater external use of holdings worldwide?

Commercial utilisation/partnerships and more!

No?

System should co-exist with existing (and planned) cataloguing/database systems: export data records/use middleware.

Map your system's datasets to the common standard as much as possible: not everything may be possible but the core data should be.

At the worst case, it provides a stub record!

Archive "in the cloud" is an understatement.

Even if, one day, artificial intelligence can take over, "Archival Glue" will make the connections easier.

Standards and elements of the technology already exist: they are just not connected together.

Development is not a one-hour job: but neither it is a lifetime's work.

Opportunities

Start small: naturally it is better to get global acceptance and support and get it right.

Cooperation agreements between relevant trade bodies and interest associations.

Utilise higher education to develop a pilot project, to show that the "glue" can be sticky.

Develop and refine the "product".

With Standards...

Existing vendors can implement their solutions as part of any upgrade cycle.

Third-parties can also develop solutions that may be better than the vendor's own.

Middleware and connectivity modules boost exploitation, built on top of the standards (not all cars are Rolls-Royces, but all Rolls-Royces function as cars).

Commercial & Free

On many levels, both commercial offerings and freeof-charge offerings can co-exist.

National or regional projects can be developed, using local resources (universities, research funding or donations) and baseline offerings gifted.

A new ecosystem can be developed, all on top of existing offerings and best practice through a "common standard".



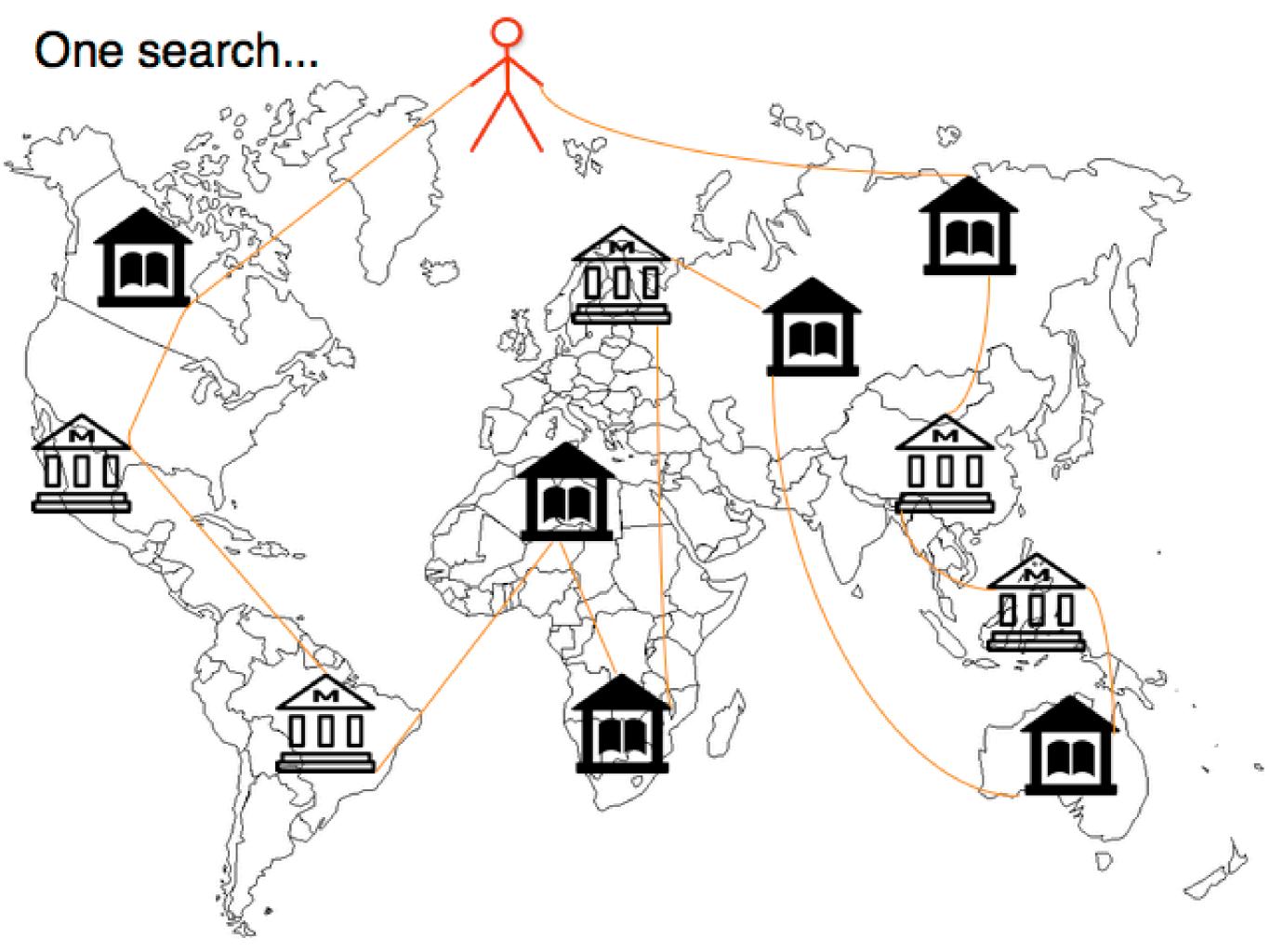
Technical-Free Zone

I am not going to get too technical with you!

Ultimate Goal?

With "Archival Glue" linking archives, you could:

- Discover missing items in collections/knowledge
- Create distribution maps of resources (the nearest source with this kind of object is at...)
- Provide link-through/link-related access to objects
- Provide a global, virtual curated exhibition



Access Control

- Common URL structure will provide viewer access
- Server/gateway provides passthrough or access control based on local policy
- API key can control access (IP/geolock, time limit, sponsored access, subscription/federated access)
- Elegant fallover on error or rejection
- Diverse routing/load balancing/load sharing

- Persistent URL for collection data
 - includes routing codes (merge, closed, reroute, reclassify)
- If a duplication of holdings exist, the database will know of alternative sources to offer
 - worst case scenario, it brings up an "intelligent" error message
 - best case scenario, the visitor is none-the-wiser

User Journey

- Curated mode: multiple resources on one page (e.g. Wikipedia page)
- Exhibition mode: route-based access of resources (e.g. "Darren's Tour of English Bars")
- Direct search: simple/expert/metasearch (e.g. Google/Worldcat)

Data Structures/Sources

- Nothing is set (yet) in stone
- Participants to identify best-in-class solutions for categorisation, data format, metadata, etc...
- Try to use existing formats or standards, e.g.
 Dewey Decimal, ISO country codes, Z39.50/XML,
 DOI-style URLs...
- Everything new should be open standard, extensible, controlled, patent-free but certified!

- So many of the components are already there (or are being refined): linked data environment, classification, authority, metadata...
- Add in technology elements such as semantic web, machine learning...
- This can co-exist with any standard whilst being specific for archives and libraries - it is the "leading the horse to water" moment
- Share and share-alike opportunities!

Commercial Archives

- Even commercial archives and other paid-for data sources can utilise "Archival Glue"
- Use of an API that will allow use according to policy and charging agreement (unlimited, time restricted, X thousand views "sponsored by XYZ Corp")
- Link into "Federation" schema as applicable

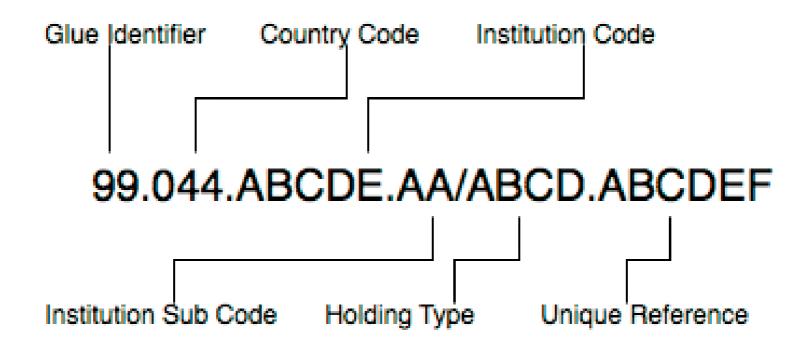
Digital Object Identifier

- No length to the address, as long as it is logical
- Leave plenty of space for expansion
- Core address retrieval result= data stub
- Extended address retrieval result= served data (subject to policy; if denied reverts to data stub)

DOI-like Glue

- Inspired by DOI syntax
- Can be linked in a database or mapped to web accessible address as DOIs are today
- Extendable/extensible format provides for parameters being added to the retrieval query

Glue Format



1000 countries, each with 60.4m institutions (and 1296 sub-units), 1.67m holding types and 2.17bn unique records).

Scope for expansion! Up to 56.8bn records for example...

Glue Call (With Syntax)

99.044.012AA.00/1A00.0055AA?DISPLAY=FULL&DI

SPLAYSIZE=M1&FALLOVER=

YES&AUTOMATCH=YES&LANG=FI&

AUTOTRANSLATE=NO&APIKEY=1234567890&

SECURITYBACKREF=YES&

MAKETHECOFFEEATTHESAMETIME=YES

https://dx.doi.org/... (to use the DOI/HTTPS method)

Note: Formatting of the Glue address is for ease of readability.

The last syntax call may not be implemented in version one, but with the "Internet of Things" taking speed...

- Syntax would be standardised according to needs
- Revisions can be easily added
- The end-user would not see this!
- Regular search/metasearch would route to the institution and their own system provides access/functionality
- Glue syntax is for consolidation/curation by "magic"

Summary

Archival Glue

- Technical solution to work with existing systems that maximises user access to archived materials
- Encourages use of multi-modal/media types
- Provides ability to improve existing cataloguing, information and knowledge of a subject
- Once implemented, relative low cost and good future investment

- Offers a base to encourage greater use of archive holdings, both locally and internationally
- Potential to boost knowledge and understanding
- Opportunity to "open up the archive"

Does It Exist?

 "Hopefully" not... if it does exist, many seem not to know about it and that is a bigger shame!

Should It Exist?

Yes! Next Question...

How Could It Exist?

- Demand and people sharing "my vision"
- A group of people (stakeholders) who know best practice in their niche, e.g. cataloguers, information scientists, taxonomists - to get a first standard draft
- Some programmers to help make the standard a reality and show how it can connect to existing systems in a trial
- Genuine, not-for-profit vision, shared by the world

Needs

- A bit of funding to help bring this together
- An institution to act as a coordinating body (possibly even Centria, if I am involved, and they have IT/R&D expertise)
- Eventually some commercial supporters to build it into their programs
- Institutions to encourage multi-location exhibitions and use by everybody!

That's It!

Get Thinking!

Get Talking!

Get Involved!

It needs many people to agree a need and it needs many more people to make it a reality.

Let's Do It!



Questions? Disagreements?

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