

Exploiting and improving institutional repositories for bibliometrics

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Objectives

Institutional repositories have a dual role, being both open archives, disseminating without barriers research results financed by public funds, and institutional scientific publications directory. Today, a **new kind of functionality** may be added to these: repositories as main source to **evaluate University's scientific production through bibliometric analysis.**

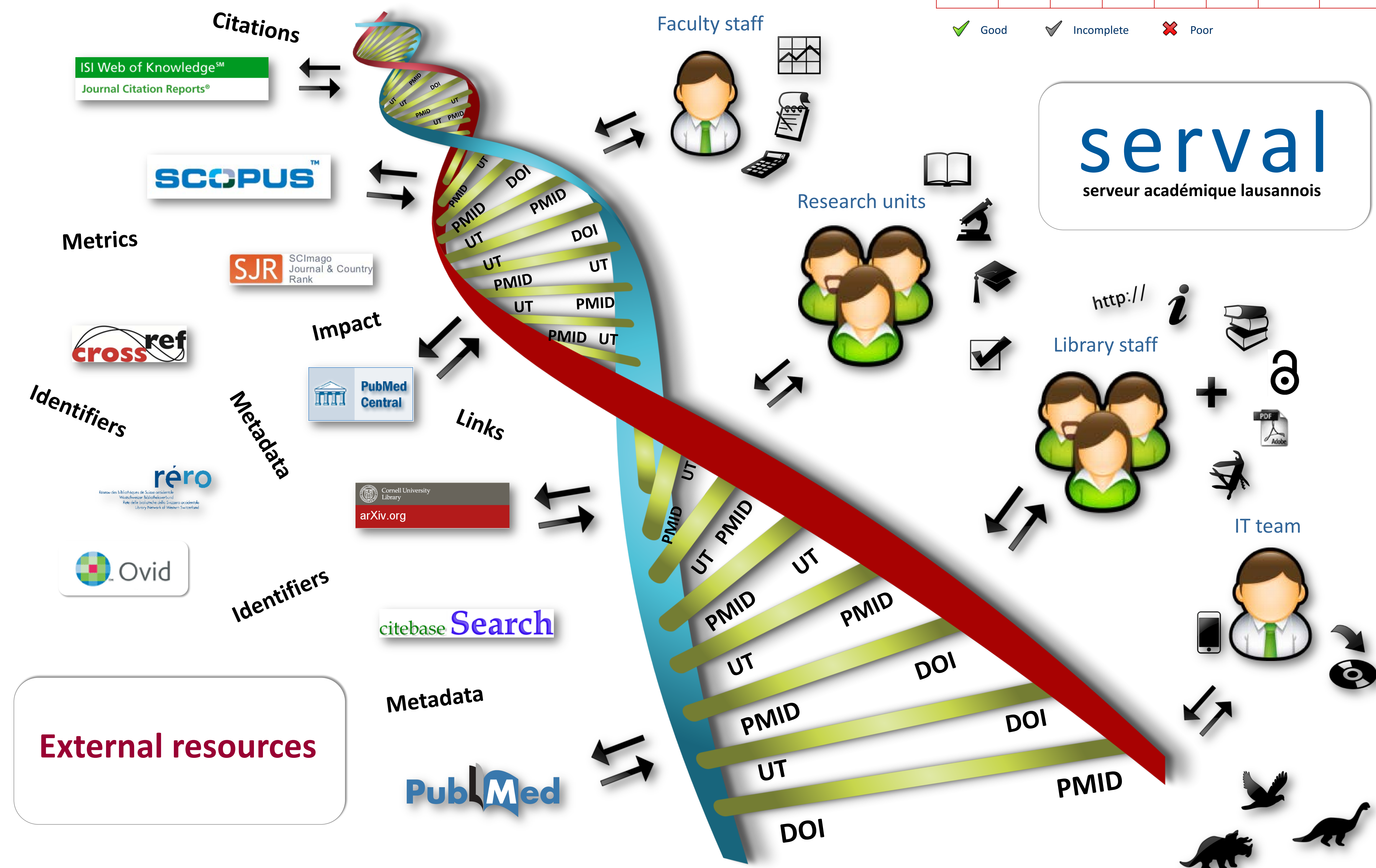
Connecting with external resources

Bibliographic **metadata** is **systematically enriched with unique identifiers** that connect the archive with external databases **allowing metadata import and update.** In bibliometrics, identifiers also play a major role : the ISSN makes the inclusion of journal impact indicators easier. Other **unique identifiers can be used to import the citations count** received for a publication, calculated by different databases and open archives: **UT for the Web of Science, PMID for PubMed Central and DOI for Web of Science, SCOPUS and others.**

Bibliometric resources explored in Lausanne

	Size of database	Accuracy	Confidence	Up-to-date	Web service	Bibliographic metadata	Bibliometric indicators
Web of Science + JCR	✓	✓	✓	✓	✓	✓	✓
Scopus + Scimago	✓	✓	✓	✓	✓	✓	✓
PubMed Central	✓	✓	✓	✓	✓	✓	✓
Citebase	✓	✓	✓	✗	✓	✓	✓
Google Scholar	✓	✗	✗	?	✗	✓	✓

✓ Good ✓ Incomplete ✗ Poor



Improving the archive together

The use of data from an institutional repository as a source of bibliometrics analysis has two advantages. On the one hand, this **requires researchers, librarians and different units of the university to agree and work together to improve the archive's metadata and keep it up to date.** On the other hand, **the effort invested in sorting, selecting and assigning publications to authors and research units may be exploited by the university evaluation services.**

Results

Currently, the **data from SERVAL is used to calculate bibliometric indicators for faculty of life sciences researchers and units :**

- **IF and RPU of journals** in which researchers publish
- **Total number of citation counts**
- **h-index**

Those indicators are weighted by publication type and author position and calculated for the complete publication list and also for the temporal window of the last 6 years.

Conclusion

Managing this new kind of information requires to improve the current system and to make modifications at two levels: upstream, **completing and correcting metadata from the archive;** and downstream, **processing and enriching data with citations information.** Indeed, bibliometric indicators are changing rapidly, particularly the number of citations that needs to be updated frequently.

The aim of this project is to create a new flexible system that can be integrated with other institutional repositories. We believe that **the use of these data as a source for bibliometrics is an opportunity to combine forces around the archive and fulfill even more important functions within the institution.**

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Links

- Demo : <http://www.bium.ch/bibliometrics/>
- SERVAL (SERVeur Académique Lausannois) : <http://serval.unil.ch>
- PubMed e-utilities : http://eutils.ncbi.nlm.nih.gov/corehtml/query/static/eutils_help.html
- PMC Utilities : http://www.ncbi.nlm.nih.gov/pmc/about/PMC_Utility.html
- CrossRef : <http://www.crossref.org>
- Citebase Search : <http://www.citebase.org/>
- Elsevier B.V. Scopus API : <http://info.scopus.com/scopus-services/integration/solutions/api/>
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- Thomson Reuters. ISI Web of Knowledge : <http://isiknowledge.com>
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