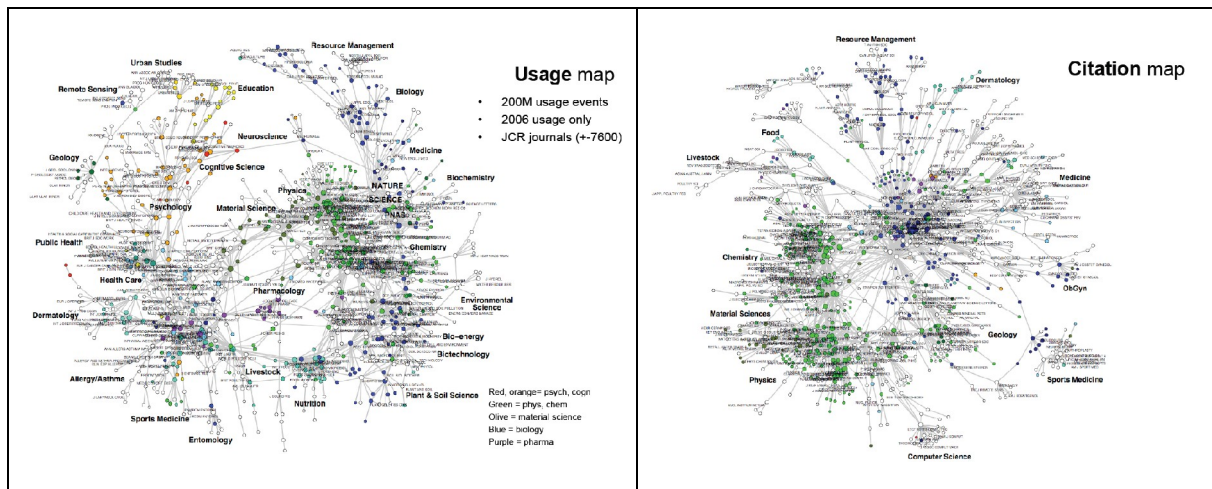


Appendix 7. Usage and citation metrics

The measurement of value is basically based on actions of interest. It is a social process where the actions of people involved in a system determine all together the value of a thing. That can be a physical object, the value of a company or even knowledge. In scholarly communication, like in economics, the value of a contribution to the knowledge community is measured by citations and usage. Usage is an act of interest and is therefore a social statement that can be accounted for as much as a citation. In the illustrations below is shown that there is a distinct difference between the usage and citation of journals, thanks to the contributions of Johan Bollen from the MESUR project.



Source: http://pubs.or08.ecs.soton.ac.uk/31/2/jbollen_OR08.pdf

To quantify these citations and usage on the article level, several projects have started. The most important ones for the IReL Open project are PRIUS, funded by JISC, and OA-Statistik that is coordinated by DINI.

MESUR gets its data mainly from commercial publishers and tries to calculate hybrid impact factors not only based on citation information, but also based on usage.

PIRUS and OA-Statistik are projects who want to harvest usage statistics from repositories. On an aggregated level these statistics are provided for the use of other services. All three projects use the [COUNTER format](#) to wrap usage statistics in a valid manner. The [SUSHI protocol](#) is used as a transport mechanism to transport COUNTER reports, like OAI-PMH is transporting metadata. COUNTER

reports are created basically from web server log files. For the IReL Open project it could be an important opportunity, in a second phase, to provide usage (download) statistics to the researchers in Expertise Ireland.

Below short summaries are provided of the three projects.

PIRUS: Publisher and Institutional Repository Usage Statistics

“The aim of this project is to develop COUNTER-compliant usage reports at the individual article level that can be implemented by any entity (publisher, aggregator, IR, etc.,) that hosts online journal articles and will enable the usage of research outputs to be recorded, reported and consolidated at a global level in a standard way.”

Cited from <http://www.jisc.ac.uk/whatwedo/programmes/pals3/pirus.aspx>

Project contact: Peter Sheperd pshepherd@projectcounter.org

OA-Statistik

“The ease of access experienced with Open Access publications – lacking any need for authentication, financial transactions or personal identification makes it much easier to achieve a satisfying level of reception in a scientific community. This and similar hypotheses can be investigated by empirical analysis.

...

1. What data needs to be gathered?
2. How can it be transferred to the statistics provider?

Open-Access-Statistics (OA-S) is a joint project addressing these questions. Starting in July 2008 an infrastructure for the standardised accumulation of heterogeneous web log data with an emphasis on institutional repositories will be built. In tight cooperation with the Network of Open Access Repositories (OA-N) various added value services will be made available to users.”

Cited from <http://www.dini.de/projekte/oa-statistik/>

Project contact: Nils K. Windisch windisch@sub.uni-goettingen.de

MESUR: MEtrics from Scholarly Usage of Resources

“The project's major objective is enriching the toolkit used for the assessment of the impact of scholarly communication items, and hence of scholars, with metrics that derive from usage data. The project has created a semantic model of the scholarly communication process, and an associated large-scale semantic store that relates a range of bibliographic, citation and usage data obtained from a variety of sources. After mapping the structure of the scholarly community on the basis of the established reference data set, MESUR will conduct an investigation into the definition and validation of a range of usage-based metrics. ”

Cited from <http://www.mesur.org/MESUR.html>

Project contact: Johan Bollen jbollen@lanl.gov