Ranking Web of Repositories
Metrics, results and a plea for a change

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CCHS - CSIC
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Agenda

00:00  A complex scenario: Open Access Initiatives and Research Evaluation

00:04  Ranking Web of Repositories
        Justification and objectives
        Methodology
        Results

00:12  Enlarging the scenario: More Metrics for Repositories
        Bibliometrics+Webometrics+”Usagemetrics”
        Some examples

00:19  Bad practices; Are we forgetting the end user?
        Proposals for a change

00:24  Questions – Open debate ...
The OAI scenario

- Two faces
  - Poor performance regarding Gold/Green journals
  - Repositories improving (slowly)

- Repositories
  - More institutional mandates, although still not well populated
  - Success stories regarding certain disciplinary repositories
  - Limited added value of current models
    - More focused in interoperability standards
    - Not enough attention to user’ statistics

- No role yet in Research Evaluation
  - No link/citation control
  - No use of download statistics
From “Publish or Perish” to “Web Publish or Perish”

- A “stick and carrot” strategy that worked
- The aim is to promote the electronic publication …
- … in open access websites
- Providing opportunities to institutions in developing countries

Requirements

- Quantitative (~objective) approach
- (Commercial) search engines as intermediaries
  - Limited role of the “harvesters”
- Good web practices
  - Independent domain or subdomain
- Excluding (at the moment):
  - Portal of and individual journals
  - Data-only repositories
Published since 2008, based on our previous work on cybermetric indicators in the 90s

Based on a Directory of Repositories with independent web domain or subdomain consisting of close to 700 entries worldwide

Top 400 repositories are ranked, with a separate classification for the Top institutional repositories

Two editions per year (January & July) are published jointly with the Rankings of Universities, Research centers, Hospitals and Business Schools

The composite indicator is built on a model that maintains a ratio 1:1 between activity (web size) and visibility (web impact)
Academic Model

Web pages

Papers

InLinks

Visits

Virtual Referendum

Metrics, repositories and the SSH, Madrid, November 20, 2009
590 institutional repositories from 55 countries (July 2009)

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Going beyond: Proposals by Example

- **From bibliometrics**
  - Citation databases (internal use)
    - ISI ResearcherID
    - Scopus AU-ID
  - Portal of journals: Scielo
  - Repositories: E-LIS, CiteSeerX, CiteBASE

- **From webometrics**
  - Google Scholar: Publish or Perish

- **From usagemetrics**
  - Alexa
  - Google Analytics
Citation Report  
Author=(aguillo, l*)
Timespan=All Years. Databases=SCI-EXPANDED, SSCI, A&HCI, IC, CCR-EXPANDED.

Published Items in Each Year

Citations in Each Year

Results found: 24
Sum of the Times Cited [?] : 64
Average Citations per Item [?]: 2.67
h-index [?]: 4

Title: Visibility of collaboration on the Web
Author(s): Kretschmer H, Aguillo IF
Source: SCIENTOMETRICS  Volume: 61  Issue: 3  Pages: 405-426  Published: 2004

2005 2006 2007 2008 2009 Total Average Citations per Year
2 9 14 21 11 64 2.46

Title: Scientific research activity and communication measured with cybermetrics indicators
Author(s): Aguillo IF, Granadino B, Ortega JL, et al.
Source: JOURNAL OF THE AMERICAN SOCIETY FOR INFORMATION SCIENCE AND TECHNOLOGY  Volume: 57  Issue: 10  Pages: 1296-1302  Published: AUG 2006

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Title: ...

Metrics, repositories and the SSH, Madrid, November 20, 2009
### Metrics, repositories and the SSH, Madrid, November 20, 2009

#### 25 Cited Documents

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**Document h index**

- **h-graph**: Of the 25 documents considered for the h index, 5 have been cited at least 5 times.
- Scopus does not have complete citation information for articles published before 1996.

---

**Metrics**

- **Relevance**
- **Source Title**
- **Cited By**

**Authors**

- Ortega, J.L., Aguillo, I.F.
- Utrilla Ramírez, A.M., Fernández, M., Aguillo, I.F.
- Ortega, J.L., Aguillo, I.F.
- Ortega, J.L., Aguillo, I.F.
- Ortega, J.L., Aguillo, I.F.

**Source Title**

- Information Processing and Management 45 (2), pp. 272-279
- Medicina Clinica 132 (4), pp. 144-153
- Profesional de la Informacion 17 (5), pp. 603-610
- Journal of Information Science 34 (5), pp. 705-714
- Information Processing and Management 44 (4), pp. 1624-1633
**The number of visited Articles per month (log scale)**

All article's visits, grouped by month, since 1998, for the following titles:

- Acta ortop. bras.

![Graph of visited articles per month](image)

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*(measured by access to table of contents, abstracts, html articles and PDF articles)*

* Count started in: February, 1998.*
Calidad formal, impacto y visibilidad de las revistas electrónicas universitarias españolas


### Item Type
Journal Article (Print/Paginated)

### Keywords
Revistas electrónicas, Universidades españolas, Evaluación de revistas, Indicadores cibernéticos,

### Subjects
B. Information use and sociology of information. > BA. Use and impact of information. H. Information sources, supports, channels. > HN. e-journals.

### Full Metadata
Show all fields

### ID Code
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### Deposited On
26 May 2007

### Last Modified
19 Nov 2008 12:55

### Statistics
View statistics for this eprint

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## Top 5% Authors, as of April 2009

The average rank score is determined by taking a harmonic mean of the ranks in each method, except the first one (number of works), the best and the worst rank. This ranking is based on 20040 registered authors. Customize this ranking. Same ranking by economic institutions or countries and states.

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Geometric Quantum Mechanics

The manifold of pure quantum states is a complex projective space endowed with can be represented by specific geometrical ... Comment: 27 pages. Extended with

Must a Hamiltonian be Hermitian?

A consistent physical theory of quantum mechanics can be built on a complex H ... Comment: Revised version to appear in Am.

Extension of PT-Symmetric Quantum Mechanics to Quantum Field Theory with Cubic Interaction

It has recently been shown that a non-Hermitian Hamiltonian $H$ possessing an unbroken PT symmetry $i$ has a real spectrum that is bounded below, operator C, which was originally defined as ... Comment: 28 pages, 4 figures

Scalar Quantum Field Theory with Cubic Interaction

In this paper it is shown that an $i \phi^3$ field theory is a physically acceptable field theory model (the spectrum is positive and the theory is unitary). The Hilbert space inner product. Comment: Corrected expressions in equations (20) and (21)
Author impact analysis

Perform a citation analysis for one or more authors.

Query

Author's name: agullo, i

Exclude these names:

Year of publication between: 0 and: 0

Results

Papers: 247 | Cites/paper: 1.86 | h-index: 10 | AWCR: 65.45 | Hirsch a=4.59, m=0.36 | 107 paper(s) with 1 author(s)

Citations: 459 | Cites/author: 328.76 | g-index: 15 | AW-index: 8.09 | Contemporary ac=4.09 | 49 paper(s) with 2 author(s)

Years: 28 | Papers/author: 154.01 | h-c-index: 8 | AWCRpA: 36.67 | Cites/paper 1.86/1.0/0 (mean/median/mode) | 25 paper(s) with 3 author(s)

Cites/year: 16.39 | Authors/paper: 2.40 | hi-index: 5.56 | Authors/paper 2.40/2.0/1 (mean/median/mode) | 25 paper(s) with 4 author(s)

33 paper(s) with 5 author(s)

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Usage

- Important indicator for future analysis
- Not frequently used in bibliometrics (journal circulation?)
- No open detailed reports for most of the repositories
  - Visits, visitors, downloads, referrers/referrals
- Lack of standardization
  - Google Analytics is not academic oriented
  - Lack of statistics from harvesters
A (new) proposal

- Focus on author
  - Standardised unique identification
  - Virtual Vita (institutional repositories)

- More info about usage
  - Visits, visitors
  - Downloads

- External Impact
  - Citations
    » WoS
    » Scopus
    » Scholar
  - Academic links
    » Search engines
Feasibility: PIRUS Project

Step 1: a fulltext article is downloaded

Scenario A
- Step A1: OpenURL log entries sent to external party responsible for creating and consolidating the usage statistics
- Step A2: logs filtered by COUNTER rules
- Step A3: COUNTER-compliant usage statistics collected and collated per article (DOI) in XML format
- Step A4: COUNTER compliant usage statistics available from central organization to authorized parties

Scenario B
- Step B1: OpenURL log entry sent to local server
- Step B2: OpenURL log entries harvested by external party responsible for creating and consolidating usage statistics
- Step B3: logs filtered by COUNTER rules
- Step B4: COUNTER-compliant usage statistics collected and collated per article (DOI) in XML format

Scenario C
- Step C1: OpenURL log entry sent to local server
- Step C2: logs filtered by COUNTER rules
- Step C3: COUNTER-compliant usage statistics collected and collated per article (DOI) in XML format
- Step C4: COUNTER compliant usage statistics available from IR to authorized parties

Proposed approaches to recording and reporting usage statistics for repositories
But it is not enough

- Who is the actual end-user?
  - Librarians
  - (scientific, academic) Managers
  - Scientists, scholars
  - General user

- Priority: Impact through citations

- Barriers to repository items citation
  - Institution web domain not used
  - Link to the final full text version not easy to locate
    » Sometimes without format suffix (.pdf)
  - Long and complex URLs
    » Meaningless numeric codes
    » No indication of author last name or year of publication
  - No permanent URLs
Open access provided by institutional repositories are an added value for the organization.
- Metrics are a good tool for describing the success of the repository.

But the researcher, as the main end-user, requires a different set of indicators.
- Priority is on bibliometric and webometric indicators, far more important than metadata standards.
- New set of metrics should be developed and compiled.

Library-driven approach to the repository access generates bad practices that are significantly decreasing the value of the repositories.
Humor

"Never, ever, think outside the box."